

QUERY	1	10	20	30	40
UniRef90_V3TW68	D A A S D	L K S R L	D K V S S F H	A S F T Q K V	T D V Q E G Q G D L W V K R P N
UniRef90_W0LE06	D A A S D L	Q H R L	S K V N S F H	H A S F T Q R V	T T G Q E G E G E L W V K R P N
UniRef90_UPI000471851E	D A A Q D L	Q K R L	A K V N S F H	A S F S Q S V T	T S G Q R G E G E G E L W V K R P N
UniRef90_C5BE92	D D S A S L	Q A R L	D K V N S F H	H A Q F S Q K V	T D V Q N G E G E G E L W V Q R P S
UniRef90_Q47G13	A V D Q L	H D F L	K N T R T	L K A E F S Q A V	T P V Q Q G S S G T I A I S R P P
UniRef90_C6C7V2		Q S R L	S K V N S F H	A G F T T Q K V	S G V Q E G Q G E L W V K R P N
UniRef90_B2VC57		L Q Q R L	D K V K S F H	H A T F S Q K V	T D G Q D G E G E M W V Q R P P
UniRef90_B4EV91	D A R Q D L	Q Q R L	N K V N S F H	Q A N F S Q T V	T S I Q K G E G H L K V Q R P D
UniRef90_M1SEK3	D T R S D L	Q S R L	G K V N S F H	H A N F A Q T V	T D V Q E G T G D L W V K R P N
UniRef90_C7BQF6	N A S R N L	Q D R L	G K V V S S F H	H A S F T Q T V	T S I Q E G E G Q L W V K R P N
UniRef90_UPI0004749311	Q E L N T R L	G K L N N F T	T A S F E Q R V	T S P E E G E G K L A M K R P N	
UniRef90_R8AUI1	D A R S D L	Q S R L	G K I N S F S A S F E Q T V	T G P Q Q G E G K L A V T R P N	
UniRef90_A0A011NHH3	A I D K L	H Q F L	D S T R T V	R A D F S Q T V	R Q G Q V S S G V M I I S R P G
UniRef90_G8QFL3	K L K A F L	D N T R S L	R A E F V Q S V	R K P Q N S A G L M M F Q R P G	
UniRef90_UPI000366EBE8	G V E R L	Q A F I	A G A R T A E A D F S	V R K P Q N S A G L M M F Q R P G	
UniRef90_C7RQ01	A I D K L	H Q F L	E S T R T M R A E F A Q S V	R K P Q L S S G V M M F A R P P	
UniRef90_W9AU07	Q A L S S R L	D K V N A F S A N F T	Q S V T S P D N G T G D L S I K R P N		
UniRef90_UPI00046ABFDB	A I N S L	K N F I	Q N T R T V R S V F S Q T V	L D V Q K G G G T M Q F E R P P	
UniRef90_K2FVJ5	A T E D L	V S R L	A G V R T R S M S C	V S R P R	
UniRef90_UPI00036241D5	D A T D D L	S K Q L	Q P L A A L S G N F N K Q T L	V A D T Q K Q A S G K M A F A R P P	
UniRef90_A1K578	D G V D Q L	R Q F V	T A T R S A E G S G N F E	V V V T K P Q Q S E G S F A F S R P G	
UniRef90_UPI000374F52C	D A A T D L	Q Q K L	S A L G R F S A D F T Q Q V Y D M Q T A E	E G S M Q L A R P D	
UniRef90_S6ABU4	L D S L	K T F L	S E V K S A R A Q F K Q I V L D	V Q E T S G T M M F S R P G	
UniRef90_A0A011NIT3	A I D R L	Q H F L	D T T R T L R A D F A Q T V	V A P Q K S S G V M M F S R P G	
UniRef90_UPI000255B78B	D A S D E L	S R L	L Q P L G A I S G N F R Q T L	V D L Q K S S G N F S V Q R P G	
UniRef90_Q7NXL2	A V A Q L	K A F V	S G S K T L S A D F N Q T V	T N K E E A S S G R L E I A R P P	
UniRef90_UPI00031881D7	E E L N T R L	N H N E G F S A D F T Q K V	T S P E D G K G S A Q I S R P S		
UniRef90_U3APP0	A K E E L S S R L	A K N D G F R A N F S Q V I	V S P M E G E G T V E I A R P P		
UniRef90_UPI00037997DE	D A A E R L	T E R L E P L E N Y Q A T F D Q K I	L D G Q N A R G E M W S R P G		
UniRef90_C4L939	D D S A A L	K K K L	A S F R Q F S A H F E Q E V	V L D L Q K G G S G E M V L Q R P D	
UniRef90_P57835	E E L Q Q R L	S K V N V L S A D Y A Q T V	S N V Q Q G S G T L K I K R P N		
UniRef90_B8F3N7	A V A E L Q Q R L	D K A M Q Y S A D F E Q T V	R S I S Q K G Q G K F Q V K R P P		
UniRef90_UPI00047620A0	A I E K L	K H F I	A A T R G A Q A N F S Q V V L D L	Q S A A G V M Q F Q R P G	
UniRef90_UPI00047553BD	G I A Q L	R Q F V	D T A R S A Q G E F E Q T V	F K P Q R A S G S F I F A R P P	
UniRef90_UPI000375674F	Q L Q R A F I	E S T Q S G R A S F D Q V T	P T K P Q N A S G T M A F S R P G		
UniRef90_T1Q9X3	A A K R L	N K L	T N T K S M T A N F S Q T T K G A N S G S G T M S V Q R P N		
UniRef90_Q013Q2	N A V N E L	Q N R I L	N K I D V L S A D Y T Q Q V T D I Q Q G S G K I Q L K R P N		
UniRef90_H0PWE3	Q L K Q F V	E S A R T V Q G E F D Q V V R K P Q R A N G T L V F S R P G			
UniRef90_E8LZ1	D E L S S Q R L	M N D G F S A D F S Q Q L T S P M E G Q G N V E I A R P P			
UniRef90_J2UEV3	D G L D S	E A F V	K T V S S G R A E F T Q V V T A P K T S T G T F E F S R P P		
UniRef90_F7YPB3	E E L S Q R L	A L N A G F S A T F A Q Q V I S P M E G Q G K V D I V R P S			
UniRef90_F5SN09	A A K R L	N T L L	S N T K S M T A N F T Q T T K G A N T F S G N V S L Q R P N		
UniRef90_J3YS06	D D A D V L	K S R L	D Q I N S F Y A S F T Q R V T S V Q D S A G K L W V K R P N		
UniRef90_F3KHR4	D A S Q R L	H D L K	N M Q S F Q A D F L Q N V L N T Q S T Q G E M A V K R P P		
UniRef90_C9P5C7	E T L S Q R L	A L T E G F S A Q F D Q Q V L S P M E G K G T V E V A R P P			
UniRef90_A4VLV0	K R L	T G L L	N Q A E T L T G R F S Q S G T Q L Q E T S G E L A L V K R P P		
UniRef90_D2ABB2			V V Q E G Q G D L W V K R P P		
UniRef90_E5AN10	G T A Q L	K A F V A Q V R S A D G E F V Q R Q T S M A T S S G T F R F A R P P			
UniRef90_UPI00039460B7	D P K D E L	S T R L	L A L N D G F S A H F Q Q Q V L S P D Q G E G K V D I A R P P		
UniRef90_N9P041	A T A S L	V K Q L	N H V R S M T A N F E Q K V T N P Q T F K G V V M K I V A R P P		
UniRef90_D5C196	A R L	E T F L	E R V H S L R A E F H Q I L L D L E E S R G I F F L Q R P G		
UniRef90_UPI0002DF051D	Q E L V Q R L	D K T D G F T A Q F S Q T V V S P M E G T G S V E I A R P P			
UniRef90_TOAW12	D G I A Q L	R Q F V	V A A T P S A E G E F E Q T V R K P Q A S G H F A Y A R P P		
UniRef90_K0CCN4	A T E T L	L A K L	G G L R S M S G H F E Q S M V D S Q S A S G T M D V A R G N		
UniRef90_W6M7M3	A P S Q V	Q R Y F	Q E L L R S L R A D F S Q S V Y D M Q S A S G R M L M Q K P G		
UniRef90_B2T1A1	G T E Q L	K A F V A Q V H S A R G T F V Q Q A G K T G T S S G T F T F A R P P			
UniRef90_W0BGE4	A S D V L	Q E K L	N S I R T R M S A D F S Q V I K Q V S N S S G T M A L E R P G		
UniRef90_12NFQ4	N A V S E L	Q S R L	E K V T Q Y S A D F D Q T V K Q I Q S G K G K F M V K R P N		
UniRef90_N6ZGT2	D G V A Q L	R S F V A E V	R S A E G E F E Q V V V S R P Q Q A A G S F A Y A R P P		
UniRef90_E3BHW0	D E L S N R L	K L S D G F N A N F S Q K V I S P M E G K G S V D I A R P S			
UniRef90_UPI00040BA30D	Q R L	R D F L	A R A N T L Q A E F S Q V I I D G Q R T S G V F Y L Q R P P		
UniRef90_Q82VM2	A V K S L	K T F V	N K A L T F Q A N F S Q T L L D I R K A S G S M M F E R P P		
UniRef90_UPI0003B6ED8B	G R E Q L	T A F T	K G L S A H F S Q Q V T D P E K S A G T V Q L S A P P		
UniRef90_UPI000479953C	D A R T Q L	K A F V A E I K T A G S F T Q S T T G P Q G Q S G T F A F Q R P G			
UniRef90_UPI000475F64C	D A A R L	T A L L E P L	R T Y S A D F T Q Q V V D G Q N A S G H M W L S R P P		
UniRef90_UPI0002892242	E G A D R L	T S L E P L	E P L E A R F E Q L I L D G Q Q A N G Q M W L S R P P		
UniRef90_UPI0002D97276	D E L S S R L	A L N S G F S A D F S Q Q V I I S P M E G E G T V E I A R P P			
UniRef90_M7NWH7	A T E Q L	H R F V E E V T T L Q A N F E Q I V V D S Q E A S G K F Y L Q R P G			
UniRef90_UPI0002D260FF	D E L S T R L	S L N D G F T A T F S Q Q V I I S P M E G E G L V E I A R P P			
UniRef90_G0A1W4	I K Q L	K T F L	K S N A S L S A D F K Q V S F N K Q A S F G E F Y L S R P G		
UniRef90_Q607H7	S R L L	K S F L	D S A R T L L Q A D F T Q V R L D E Q E S G G S F Y L Q R P P		
UniRef90_K2C7R4	A D D L	S T L	N S V R T M R A S F T Q T V Y D A Q I S K G Q M A L Q R P P		
UniRef90_U7G3J7	A T D E L	L S R L	Q K L Q S L K G D F E Q T V L D M Q Q A E G R F Q V A R G N		
UniRef90_UPI00037C6B22	V E Q L	K T F L	A N T R S L T A D F K Q I L L N A Q T S Y G L L Y L Q R P P		
UniRef90_UPI00046A6B6D	A V Q R L	T Q L L	S Q A Q T I I S A R F S Q L T L D G Q E T A G Q L V L K R P P		
UniRef90_V8R7V9	D V A R L	T Q L L	E T S K T L S A N F S Q T G Q L Q E T T G N M T L Q R P G		
UniRef90_S7XV67	A T S N L	V K Q L	S G I Q S F T A N F E Q T V T N P Q T F H G T M K V A R P P		
UniRef90_UPI0003B48667	E L	E R F F L	A S V T T L S A D F E Q Q V I D T Q S N R G R F Y L Q R P G		
UniRef90_V2JCP2	A T D Q L	K T F V	T T V K S A R G E F T Q R Q V K G T T S S G T F V F S R P P		
UniRef90_A4BDQ5	A R A A L	I E Q L	E A L E E T L S A D F E Q R T Y Q E T S S G T F Q L S K P P		
UniRef90_UPI0003B78669	D A S A A L	A Q R L	K S L N T F Q A D F T Q T S Q T G K A T G S L S K P P		
UniRef90_A4UXU7	A T K R L	T E L L	S Q A Q T I S A R F S Q L T T Q L Q E T A G Q L V L K R P P		
UniRef90_C8PVU2	A V E N L	L N N L	K N V K S M T A N F S Q T T S G A R N F S G T M A V Q R P P		
UniRef90_R4YMH9	A V E N L	Q K Q L	G L I N S F S A N F V Q L T D Q G Q R V E G F M Q V E K P G		
UniRef90_I4WXA7	A R A R L	D A F A S G L H S L T G H F S Q T L T D I K A S S G T L A Q A P R			
UniRef90_C5CRK5	G L E S L	E A F V K T V K S G R A E F T Q T V T R T K T S T G T F E F Q R P G			
UniRef90_F9ZD45	A I N S L	K T F L H E T R T V	R A K F S Q T L Y D I Q E S T G T M Q F E R P E		
UniRef90_UPI00046359B2	R D T L	Q A F T R D	R G L D G Q F T Q R V F D G E T S S G R V A L A A P R		
UniRef90_UPI00036BB835	A D D A L	R R F V D G A Q T L S A R F E Q T Q K D L A Q R S G S F D L S R P G			
UniRef90_UPI0003A459BA	A R A R L	D A F A H D L H S L T G R F T Q T L T D P K T S S G T L A L E A P R			
UniRef90_Q1H294	D G V E S L	K A F F K S T S A M R A H F R Q V V T D V Q E V G H M Q L Q R P G			

QUERY  
UniRef90\_V3TW68  
UniRef90\_W0LE06  
UniRef90\_UPI000471851E  
UniRef90\_C5BE92  
UniRef90\_Q47G13  
UniRef90\_C6C7V2  
UniRef90\_B2VC57  
UniRef90\_B4EV91  
UniRef90\_M1SEK3  
UniRef90\_C7BQF6  
UniRef90\_UPI0004749311  
UniRef90\_R8AUI1  
UniRef90\_A0A011NHH3  
UniRef90\_G8QFL3  
UniRef90\_UPI000366EBE8  
UniRef90\_C7RQ01  
UniRef90\_W9AU07  
UniRef90\_UPI00046ABFDB  
UniRef90\_K2FVJ5  
UniRef90\_UPI00036241D5  
UniRef90\_A1K578  
UniRef90\_UPI000374F52C  
UniRef90\_S6ABU4  
UniRef90\_A0A011NIT3  
UniRef90\_UPI000255B78B  
UniRef90\_Q7NXL2  
UniRef90\_UPI00031881D7  
UniRef90\_U3APP0  
UniRef90\_UPI00037997DE  
UniRef90\_C4L939  
UniRef90\_P57835  
UniRef90\_B8F3N7  
UniRef90\_UPI00047620A0  
UniRef90\_UPI00047553BD  
UniRef90\_UPI000375674F  
UniRef90\_Q1Q9X3  
UniRef90\_Q013Q2  
UniRef90\_H0PWE3  
UniRef90\_E8LZ1  
UniRef90\_J2UEV3  
UniRef90\_F7YPB3  
UniRef90\_F5SN09  
UniRef90\_J3YS06  
UniRef90\_F3KHR4  
UniRef90\_C9P5C7  
UniRef90\_A4VLV0  
UniRef90\_D2ABB2  
UniRef90\_E5AN10  
UniRef90\_UPI00039460B7  
UniRef90\_N9P041  
UniRef90\_D5C196  
UniRef90\_UPI0002DF051D  
UniRef90\_T0AW12  
UniRef90\_K0CCN4  
UniRef90\_W6M7M3  
UniRef90\_B2T1A1  
UniRef90\_W0BGE4  
UniRef90\_I2NFQ4  
UniRef90\_N6ZGT2  
UniRef90\_E3BHW0  
UniRef90\_UPI00040BA30D  
UniRef90\_Q82VM2  
UniRef90\_UPI0003B6ED8B  
UniRef90\_UPI000479953C  
UniRef90\_UPI000475F64C  
UniRef90\_UPI0002892242  
UniRef90\_UPI0002D97276  
UniRef90\_M7NWH7  
UniRef90\_UPI0002D260FF  
UniRef90\_G0A1W4  
UniRef90\_Q607H7  
UniRef90\_K2C7R4  
UniRef90\_U7G3J7  
UniRef90\_UPI00037C6B22  
UniRef90\_UPI00046A6B6D  
UniRef90\_V8R7V9  
UniRef90\_S7XV67  
UniRef90\_UPI0003B48667  
UniRef90\_V2JCP2  
UniRef90\_A4BDQ5  
UniRef90\_UPI0003B78669  
UniRef90\_A4XUX7  
UniRef90\_C8PVU2  
UniRef90\_R4YMH9  
UniRef90\_I4WXA7  
UniRef90\_C5CRK5  
UniRef90\_F9ZD45  
UniRef90\_UPI00046359B2  
UniRef90\_UPI00036BB835  
UniRef90\_UPI00034A59BA  
UniRef90\_Q1H294

L F N W H M T Q P D E S I L V S D G K T L W F Y N P F V E Q A T A T W L K D A T  
L F N W E T T S P D K S V L V S D G K T L W F Y N P F V E Q V T A T W L K D A T  
L F N W H M T S P D E S V L V S D G E T L L W F Y N P F V E Q V T A T W L K N A T  
L F N W H M T A P D E S T I I S D G K T L L W F Y N P F V E Q V T A T W L V K N A T  
L F N W H M I S P D E S V L V S D G K T L L W F Y N P F V E Q V T A T W L N R A T  
K L R W E I V K P F P Q L V V G D G E K I W I H D P E L Q Q V T V R K A G Q A I  
L F N W H M I T P D E S S L L V S D G K T L L W F Y N P F V E Q A S A S L L K D A T  
L F N W Q M T A P D E S T L I S D G K T L L W F Y N P F V E Q V T A T W L K D A T  
L F N W H M T S P D E S V L V S D G K T L L W F Y N P F V E Q V T A T W L K D A T  
L F N W E T V R P D E N I S D G K T L L W Y Y S P F I E Q V T A M W L E D A T  
L F R W E A K T P D E S L L V T D G K T L L W F F N P F V E Q V T I S N L K D A T  
K F R W Q I D K P Y A Q L L V G D G E K I W I H D P D L R Q V T V R K A G P A L  
K F R W Q V E K P Y P Q L [M] V G D G E K F W I Y D P E L L K Q V T V K K M G K T L  
K F R W D Y S T P Y P Q V I V G D G V K L W L Y D A D L E Q V T V K S L G D V I  
K F R W E I E K P Y A Q L L V G D G E R V W I H D P D L R Q V T V R K V G S A L  
L F R W K T A T P D E S L L V S D G K T V W Y Y S P F V E Q V T A M W L K D A T  
K F R W I Y E K P Y E Q L I V G D G S R I W F Y D R D L L N Q V T V R K L D V A I  
Q F R W H A D S P Y E Q L V V S N G D V W I Y D V D L L D Q V I E R A L G D Q V  
K L R W K T G E P Y A Q L L V T N N K K L W L Y D P D L L E Q V T V R P V D T R I L  
K F R W Q Y E I P Y Q Q L L V G D G E K L W S W D K D L L N Q V A V K R L G D A L  
R F R W H T T S P D E S L I V S D G D T D V W M Y D P F V E Q V S I V P L E Q A V  
K F R W A Y E K P Y E Q L I V G D G A K L W M Y D V D L L Q Q V T V K Q M D S A L  
K F R W Q I D R P Y S Q L V V G D G E K I S I H D P R Q V T V R K T G I A L  
R L R W Q T G E P F P Q L L V T T N N K K L W L Y D P D L L E Q V T I R P V D K R M  
K F R W E Y T K P Y A Q L I V G D G K T L W I Y D P Q D L A Q V T R K A Q G A A L  
K F R W K T S A P D E T L L V S D G K S V W Y Y S P F V E Q V T I L N Q E Q A T  
Q F R W S T T F P D E T L L V S D G Q T L W Y Y S P F I E Q V T S I Y K Q E Q A T  
M L R W E V E A P Y S Q V V V S D G N D V Y L Y D P D L L E Q V T V Q P M D D R V  
H F R W E A K Q P D D N I L L S D G K A V W L Y D P F V E Q V T V M S L S K A V  
L F R M D N K T P Q E N Q I I S S D G K T L W F Y D P F V E Q V T A N W V K D A V  
L F R M D T Q S P Q E N Q I I S S D G K T L W F Y D P F V S Q V T A N W V K D A V  
K F R W T Y D K P Y A Q V L V S D G D K L W S W D R D L L N Q V T V V K R L G D A L  
K F R W T Y D K P Y A Q V L V S D G D K L W V H D R D L L N Q V T V K T L G D A L  
N F R W E T K S P S E Q L I V A N G S S M W V Y D K D L L E Q Q A T K Q N V D S Q V  
L F R M D N E T P Q E S Q I I A D G K T L W F Y D P F V E Q V T A N W V E D T L L  
K F R W S Y E K P Y Q Q V L V S S D G Q K L W S W D R D L L N Q V T V K R I G D A L  
L F R W T T T A P D E N V L V S D G K T L W Y Y S P F I E Q V T S I Y W Q E Q A T  
R F R F I Y K P F E Q S I V A D G Q T L W L H D V D L L N Q V T S R K Q S S V L  
L F R W Q T T A P D E N I L L V S D G K T L W Y Y S P F I E Q V S I Y N Q E Q A T  
N F R W N I T S P S E Q L I V T D G S A L W V Y D K D L L E Q Q V T R Q S T D Q Q V  
L F R H F I T F P D E I V L V S D G K T L W F Y N P F I A Q A T A T W L K N T T  
L F Y W Q T F F A P E Q T L V A D G E Q L W S Y D P D L L E Q V T V Q A V G Q R L  
L F R W E T F E P D E N I L L V S D G Q T L W Y Y S P F I E Q V S I Y N Q Q Q A T  
Q F R W H T D A P M E Q L L V S N G K K V W L Y D P D L L E Q Q V T I Q E L D Q R L  
UniRef90\_D2ABB2  
L F N W H M T Q P D E S I L L V S D G K T L W F Y N P F V E Q A T A T W L K D A T  
R F V W A Y Q K P Y E Q L L Q S D G D K L V Y W D K D L N Q V T V A R A L N G V L  
L F R W E T V S P D E N I L L V S D G D T T V W Y Y N P F V E Q V S I Y N Q S Q A T  
K F Y W E T T A P S K Q V I A T T G K T V W I Y D P D L L Q Q A V R Q S D E Q V  
K F R W D Y H E P F T Q A I V A D G E R I W F Y D P D L L E Q Q V T V K N Q K L A L  
L F R W T T N T P D E N V L V S D G E T L W Y Y S P F I E Q V S I Y W Q E Q A T  
R F N W E Y E R P Y R Q I I L I G D G V N L W T W D P D L L N Q V T V R A M G D A L  
R F Y W K T E V P F E Q L I A V S D G K T V W V Y D V D L L E Q Q V T V V R P L T P D L  
K F R W D Y R A P A E Q I I V A D G A R L W A Y D V G L L A Q V T T V R K L D K A L  
K F I W Q Y E K P Y A Q L L Q A D G D K L L Y V Y D K D L N Q V T T V R S L G G A L  
R F R W Q T K S P M P Q L V I A D G E R L W I Y D V D L L E Q Q V T V K K Q E K G I V  
L F R M D T Q Q P Q E N Q I I S D G K N L W F Y D P F V S S Q V T V V N T V E D A V  
UniRef90\_N6ZGT2  
K F H W E Y V Q P Y R Q V L V G D G S A L W T W D P D L L N Q V T V R A I I G D A L  
L F R W H T S A P D E N I L L V S S D G K T V W Y Y S P F I E Q V S I Y S Q D Q A T  
K F R W D Y K P Y Q S E I V S S G Q K V W F Y D V D L L E Q Q V T T A K R L D E A I  
K F R W T Y D Q P Y Q Q L I V G D G K Q V W F Y D Q D L L A Q V T V H R L D Q A L  
L F R W E T A T P A K Q L I V A D G D H I W I Y D P E L L E Q Q V T V R K Q S F E E  
K F K W A V S P Q Y E P Q Q V L V S S D G Q V W Y Q Y D P D L L A Q V T V R K V D Q A I  
R F N W Q V D D P W R Q T V V S S D G Q V W Y L Y D P D L L E Q Q V T V R K V D Q R V  
K F R W E V D A P Y Q Q E V I I S D G S E V Y L Y D P D L L E Q Q V T V Q A L D Q R V  
R F R W T T T L P D E N V L V S D G K S L W Y Y S P F I E Q V S I Y W Q A Q A T  
Q F R W D Y E Q P P Q A Q I I A D G K R L W F Y D I D E E Q V T T V N A Q E D A L  
K F R W E T T Y D P D E N T L I S S D G E T L W Y Y S P F I E Q V S I Y W Q K Q A V  
K F R W N Y E K P F A Q E I I V S N G G K V W F Y D A D L L E E Q V T T I K Q L D D S L  
K F R W D Y T K P Y R Q Q I I V S S G G K V W F Y D V D L L E E Q V T T A K R L G Q A V  
K F R W E V K P I P Q T V I V S N E S R L W I Y D P D L L Q Q R S L K K A A  
Q F Y W S T T S P F S Q L A V S D G K T V W V Y D E D L L E E Q V V V R P L S Q D L  
K F R W D Y Q K P F Q Q Q I I A T G G K V W F Y D T E L L E E Q V T T I K K L D E S V  
L F R W H T D E P M E Q L L V S N G K K V W L Y D P D L L Q Q V T T I Q T L D Q R L  
L F Y W H T N P P A E T M V S D G K K V T L W D P D L L E Q Q A T I K K L D E R L  
K F F W Q T T S P A K Q T I V T S G K T V W I Y D P D L L G Q Q A V R Q S L D D Q V  
K F R W T Y E T P Y R Q E V I A D G V K V W F Y D P D L L E E Q V T V K T I I G A A L  
K F S W R Y T K P Y E Q L L Q A D G Q T L F I Y D K D L L N Q V T E R K L D A A L  
R F H W H V Q P E F E Q R V I A D G E L L W V Y D P D L L E Q Q A T Y Q S S L N Q N L  
L F R W A V H Q P Y Q Q L I V S D G K E V R V H D P D L L M Q M T I R P G K D M  
Q F R W Q I D G T A S Q L I V A N G N T L W V Y D K D L L N Q A T K Q S V S N Q V  
K L R W K T E G I Y E Q L V I S D G K S L W I Y D A D L L E Q V S I K K D M D N R L  
Q F R W D T T A P Y K Q T I V A D G S R V W M Y D P E L L E Q V T V R I Q S S E E  
K F K F D Y Q K P F A Q S I V A D G K T L W L Y D A D L L N Q V T Q R A Q S Q A L  
K F R W T Y E E P Y E Q L I V G N G T Q W F Y D P D L L N Q V T I R Q F S I A I  
L F R W E Y V E P Y P Q L I V A D G E K V W V Y D P D L L E E Q V T V R P Q G A E E  
UniRef90\_C8PVU2  
UniRef90\_R4YMH9  
UniRef90\_I4WXA7  
UniRef90\_C5CRK5  
UniRef90\_F9ZD45  
UniRef90\_UPI00046359B2  
UniRef90\_UPI00036BB835  
UniRef90\_UPI00034A59BA  
UniRef90\_Q1H294

QUERY	90	100	110	120
UniRef90_V3TW68	G N T P F M [L I]	A R N Q S S D W Q Q Y N	I K Q N G D D F [V L]	T P K A S N G N [L K]
UniRef90_W0LE06	G N T P F M L I	T R N N A G D W G K Y N	V T R K G D D F E L	T P K S V G G N [L K]
UniRef90_UPI000471851E	S N T P F M L I	T R N N A S D W K Q Y N	V K Q K G D D F E L	T P K A S S G N [L K]
UniRef90_C5BE92	G N T P F M L I	T R N D A S D W A Q Y N	V K Q Q G D N F E L	T P K S S D G N [L K]
UniRef90_Q47G13	G S S P A A L L	S G N N D [E] K N F T	L K D A G E W [V D A]	T P K A G D S G F E
UniRef90_C6C7V2	G N T P F I L I	T R N D P K D W S K Y	V T Q Q G N T F D L	V P R A A S G N [L K]
UniRef90_B2VC57	S N T P F M L I	A R N Q A S D W K Q Y	H V A Q K G D D F S L	T P K S A D G N [L K]
UniRef90_B4EV91	T N T P F M L I	A R N D S K E W Q N Y	D V K Q N G D R F E L	T P K T E N N [L K]
UniRef90_M1SEK3	Q N T P F M L I	T R N D P A D W Q Q Y	M V S Q R G D S F E L	T P K T S D G N [L K]
UniRef90_C7BQF6	G N T P F M L I	T R N D A K E W S Q Y	K V I Q K G D N F K I L	T P N N A N G N [L K]
UniRef90_UPI0004749311	S Q T P F V L L	T R N D P K D W N N Y	N V K Q D G D N F E L	T F V L S P K Q A S N [L G]
UniRef90_R8AUI1	S N T P F V L L	T R N N P S D W A K Y	N I T Q K G D Q F T L	K P I K S D G N M K
UniRef90_A0A011NHH3	G G T P A A L L	A G D S R [D] K D F S L	S E S G E W [V D A]	P K A P D S G F E E
UniRef90_G8QFL3	G A T P A A L L	A G E G S A L E K N F T	L S E A E G G E W A E	A T P R S A D S G F E E
UniRef90_UPI000366EBE8	A G T P A A L L	A G D N A I E K K N A G	V V A D G L E W L E A	T P K T R D T S F E E
UniRef90_C7RQ01	G G T P A A L L	A G E S T [E] K N F T	L R E A G D W V E A T	P R S P D S G F E E
UniRef90_W9AU07	E Q T P F V L L	T R N S A S D W S K Y	N V A Q L A D T F T L	T P K D K T S S M D
UniRef90_UPI00046ABFDB	G S T P A A L L	A G N S D I E N N F D L	T E I G E W L E A K P	K P A K E S T F E E
UniRef90_K2FVJ5	G N T P A L L	[F] S G N P E E V A N K	E F T I E E A D V T Y	R P K G E E P L F S E
UniRef90_UPI00036241D5	K E T P A L L L	G G K V E E I R G S F	N F D I V L R P K G A P F K	S K P K A P F K
UniRef90_A1K578	G A T P A A I L	F G G S D L E Q N F E L	V D I N L K D G V Y H L	T P K N P K A P F K
UniRef90_UPI000374F52C	Q N T P F L L I	S G G D K A R W Q N Y	R I L S D G G S W V E A R	P R K P E S G F E E
UniRef90_S6ABU4	G S S P A A L L	A G N N E I E K H F D L	I S E Q N D T Y V V T	S K D P A E L I Q
UniRef90_A0A011NIT3	G G T P A A L L	A G D R T I D R D F S L	R E A G E W L E A T	P K A A D S G F D
UniRef90_UPI000255B78B	K E T P A L L L	G G K V E E I R G S F	N V Q N K K G A Y Y L	T P K R A G A P F K
UniRef90_Q7NXL2	G S S P A A L L	A G N N E I E R S Y K	L V L N E A G E W L A A S	P K K Q D N T F S G
UniRef90_UPI00031881D7	A Q T P F V L L	T R N R A S D W A N Y	N V T Q S D D T F T L	I K P T A T D T T
UniRef90_U3APP0	E Q T P F V L L	T R N R A S D W D N Y	K V S Q Q G D Q F T L	L I P T A V D S T Q G
UniRef90_UPI00037997DE	T H T P A L L L	S G N V S D L T E S Y	D V E G G E D I F T L	L V P N S A D T L F E E
UniRef90_C4L939	I N T P F L L I	S S T D D K I W N N Y	L I D Q D G S A F T I	T T S K K K D Q R I T E
UniRef90_P57835	N N T P F V L L	T S D D S S H W A Q Y	N V E E Q K A D T F T L	I K P K A K Q S N I L K
UniRef90_B8F3N7	S N T P F V L L	T S N D D K S H W D Q Y	D V T Q N V D N F V L K	P K S K K S A I L K
UniRef90_UPI00047620A0	G S S P A A L L	S G N N E I E R G F S	L V K E N G T W L E A T	P K T A E S N F S E E
UniRef90_UPI00047553BD	G S T P A A I L L	S G D D A I E R N F E L	L V L A E A G E W V H A K P	R Q A D S S F F E E
UniRef90_UPI000375674F	A S T P A A L L	A G R N E I E K N F E L	V D I S E G G D W V D A K P	K A N E E G G F F E E
UniRef90_Q1Q9X3	G N T P A L L L	S G D P S K I L D K N F K	V I T Q N K N Y Y V L Y	P K S D S A S F K
UniRef90_Q013Q2	S D T P F V L L	T S N N P S H W Q Q Y	I V E E Q K S D T F I I	K P K S K K S T I F K
UniRef90_H0PWE3	G S T P A A I L	A G D E A I E R N F E L	V D A E E G G E W V N A K P	R Q A E S S S F E E
UniRef90_E8LZ1	E Q T P F V L L	T R N R A S D W D N Y	K V E E Q Q G N T F T L	P T A A D T N Q G
UniRef90_J2UEV3	G S T P A A L I	A A D I R A L Q A D F T	V D L A A A P D W V V A T	P K T K E G Q I Q
UniRef90_F7YPB3	E Q T P F V L L	T R N R A S D W D H Y	K V I T P A V D S N Q G	E
UniRef90_F5SN09	G N T P A L L L	S G D P S K I A K N F K	V I T Q T K N Y Y V L Y	P K N S G S N F N
UniRef90_J3YS06	G N T P I L I	T R N N P I D W N Q Y	H V T Q K G N R F S L E P K S Y N S N L N	E
UniRef90_F3KHR4	S D T P A L I	F S G E I D G L T D S Y	N V A I K D E S W Q F R L L P K Q P D S L F E	E
UniRef90_C9P5C7	E Q T P F I L L	T R N Q A S D W N A Y	Q V T Q G K T Y Y T L Y P K N T D G V F E E	E
UniRef90_A4VLV0	T H T P A L L L	S G D V S T I S E N F E	V I K E A G G D D F T L K P K A K D T L F D	E
UniRef90_D2AB22	G N T P F M L I	A R N Q S S D W Q Q Y	N V I K Q N G D D F V L T P K A S N G N L K	E
UniRef90_E5AN10	G A S P A A I L	F G G S N D L E K N F	V I K Q G D W L E L V P K S R D T Q F E	E
UniRef90_UPI00039460B7	E Q T P F V L L	T R N R K Q D W E H Y	R V S Q Q G N E F T L V P T T T D S R Q G	E
UniRef90_N9P041	A N T P A L L L	S G N T S Q I M Q S Y	R V T Q G K T Y Y T L Y P K N T D G V F E E	E
UniRef90_D5C196	G D T P A L L L	S G D R L P E E T F Q	V I N N L A S W V E L L P R N K E A A F E	E
UniRef90_UPI0002DF051D	U N I T P F V L L	T R N K A S D W D K Y	N V I I Q N G D R F T L T P M D E T S T Q G	E
UniRef90_T0AW12	G A T P A A I L	F G G S E L D E G F	V I L T E E G G R W V E A R P R Q A D S G F E	E
UniRef90_K0CCN4	G N T P A L L L	F G G D P Q R V G Q Q A F E I	V I I S E A N V T Y R L K P K G A D P L F D	E
UniRef90_W6M7M3	S S T P A L L L	T G E V I P L E E T F D I	V I I G E G L T W Y D L T P K Q P Q P E F R	E
UniRef90_B2T1A1	G A S P A A I L	F G S N D L D K R D A G V	V I I K A G I D W L E L T P K A K D T Q F Q	E
UniRef90_W0BGE4	G G T A A L F L	S G Y D D T V A R D F E	V I I T E N N D Y F D L H A K S N K A N F Q	E
UniRef90_I2NFQ4	N N T P F V L L	T S N N K S H W D Q Y	D V T T Q N A D T F V L K P K T K K S S I K	E
UniRef90_N6ZGT2	G A T P A A I L	F G G D S F E L G G D G G V	V I I H D G V A W V D A R P L R S D S G F E	E
UniRef90_E3BHW0	Q Q T P F I L L	T R N R A S D W E Q Y	H V I S Q K E D T F L I P V A T D T T Q G	E
UniRef90_UPI00040BA30D	G S T P A L L L	S G E V I A L E N N F K	V I I T K P K N T D G V F E E	E
UniRef90_Q82VM2	G S T P A A L L	A G G N T I E R Q E I D V	V I I Q N Q G S W I K L V P K S E D S G F K	E
UniRef90_UPI0003B6ED8B	Q G S P L T V L I	D P T E L D R Q F K	V I I Q Q E T E W L E A I P K N Q E N S F E	E
UniRef90_UPI000479953C	G T S P A A I L	F G S G E L E Q A F E V	V I I Q S D G G E W L V L T P K K P D A P F E	E
UniRef90_UPI000475F64C	T H T P A L L L	S G S R A D E L T D N Y R	V I I V S D G M E W L R A K P R N A D A G F A	E
UniRef90_UPI0002892242	T H T P A L L L	S G S A R E L T D S Y E	V I I V S R T T E I F S L S P K A K D S L F E	E
UniRef90_UPI0002D97276	E Q T P F V L L	T R S K E S D W D N Y Q	V I I V N Q N G D Q F V L T P T A V D S N Q G	E
UniRef90_M7NWH7	S D S P A S L L	S G R V P E D N Y N	V I I V E V A S D W L E L T P L E A D A G F Q	E
UniRef90_UPI0002D260FF	E Q T P F I L L	T R N E E S D W N N Y T	V I I V S Q Q N D R F T L T P K T A D S T Q G	E
UniRef90_G0A1W4	G S T P A L L L	T G Q V D I D Q K F	V I I V E E Q G N W V R L S P K N E E S G F K	E
UniRef90_Q607H7	G S T P A L L L	S G E M A L E D N F T	V I I V E D Q G T W I K L V P K S E E E G G F R	E
UniRef90_K2C7R4	G D T P A L L L	S H V G V V L D N D Y N	V I I V K N N L R W F A L L P K K S D D N M F A	E
UniRef90_U7G3J7	G Q T P A L L L	F G G Q P S Q V A E A F S	V I I V K N N L R W F A L L P K K S D D N M F A	E
UniRef90_UPI00037C6B22	G S T P A L L L	S G D I N L E D N Y T	V I I V K N Q D S S F K	E
UniRef90_UPI00046A6B6D	T H T P A L L L	S G D V V S K I S E N F D	V I I V K P K A K D T L F D	E
UniRef90_V8R7V9	T Q T P A L L L	S G D V V S K I S Q S F D I	V I I V K P K T K D T L F D	E
UniRef90_S7XV67	A N T P A L L L	S G N T A Q I M K T Y R	V I I V T Q G K T Y Y T L Y P K N K E G A F Q	E
UniRef90_UPI0003B48667	G S A P A L L L	L S G E D L E Q R F	V I I V T S E Q Q R G W V E L L R P K D E A D V F R	E
UniRef90_V2JCP2	G S S P A A I L	F G G S N D L E K S F	V I I V T K D G P T W L E L T P K P A K D T Q F E	E
UniRef90_A4BDQ5	S Q S P A M I L	T Q P R Q T L T D D Y G	V I I V T K D G P T W L E L T P K P A K D T Q F E	E
UniRef90_UPI0003B78669	G Q T P A L L L	S G D A K L L Q Q F Q R	V I I V T K E S K K T E Y Q L T P R A K D A L F A	E
UniRef90_A4XUX7	T H T P A L L L	S G D V S Q I R E N F E I	V I I V T K E G G S D F I L K P K A K D S L F D	E
UniRef90_C8PVU2	G D T P A L I L	S G D P S K I A N S F N	V I I V T Q S K N Y Y V L Y P K S G N A N F K	E
UniRef90_R4YLM9	S E T P A L L L	S G G D V I A G D D F	V I I V T T E N A I R F I L Q P K D T S Q L F D	E
UniRef90_I4WXA7	A H S P L T V L T	D L A Q M D R D F K V	V I I V T V E R G Q W L R L S S T A K D P Q F D	E
UniRef90_C5CRK5	G S T P A A L L	A A D L R A L Q A D F T	V I I V T L E A A P E W V K A T P K N K D G Q L Q	E
UniRef90_F9ZD45	G S S P A A L L	A G S S T I E D N F E L	V I I V T V E L G E W L E A I P K S K E S A F E	E
UniRef90_UPI00046359B2	Q N S P L A T L T	D P A R L D R D F D V	V I I V T V E E A H W M T L L T P K E Q E A S F Q	E
UniRef90_UPI00036BB835	K G T P A A L L	A Q R S L G D A F S V	V I I V T V K E G A D V V R L K P R E V N S D F Q	E
UniRef90_UPI0003A459BA	S H S P L T V L T	N V K R M D Q E F T	V I I V T V T E E G L W L R L T S K A K D P Q F D	E
UniRef90_Q1H294	G S S P A S L L	A G A Q D A E R N T	V I I V T V R S D G L A W Q A V P K A E D S G F D	E

130            140            150            160

QUERY	<b>Q F T I N V G R D G T I H Q F S A V E Q D D Q R S S Y Q L K S Q Q N G A V D A A</b>		
UniRef90_V3TW68	<b>Q F A I N V T D T G T I K R F I A T E R D G Q R S T F T L K N Q Q N G A I N A A</b>		
UniRef90_W0LE06	<b>Q F A I T V T N S G T I K S F T A V E Q D G Q R S A Y Q L K S Q Q N A N V D A A</b>		
UniRef90_UPI000471851E	<b>E F T I D V T P G G T I R Q F S A V E Q D G Q R S V Y T L K R Q Q N G A I S A D</b>		
UniRef90_C5BE92	<b>K F T I S V M P D G T I N G F S A V E Q D G Q R S V Y T L K R Q Q N G A V D A A</b>		
UniRef90_Q47G13	<b>K V I R L G F S G G D L R A M E L F D S F G Q T T Q I R F S I E R N P A L P A A</b>		
UniRef90_C6C7V2	<b>Q F A I S V T G D G T I K G F T A T E Q D G Q R S V Y T L K N Q Q N G D I V D S A</b>		
UniRef90_B2VC57	<b>Q F T I N V A Q N G T I N Q F S A V E Q D G Q R S N Y A L L K S Q Q S G P I S A D</b>		
UniRef90_B4EV91	<b>H F S I T V S P N G Q I Q Q F A A T E Q D G Q V S Q Y Q L T A Q K V A P I D A S</b>		
UniRef90_M1SEK3	<b>L F T I T V T P D G I I Q Q F A A V E Q D G Q K S S Y Q L K G Q Q S T D V N M S</b>		
UniRef90_C7BQF6	<b>R F F I T V T A D G T I Q K F S A V E Q D G Q K S T Y Q L K G Q Q N T Y V D A A</b>		
UniRef90_UPI0004749311	<b>E F I I V D V R T D G R I T E F A V V V E Q D G Q T S R F E L E N N K N V S P S A S</b>		
UniRef90_R8AUI1	<b>Q F D L T V T P A G V I K G F S V V E M D G Q R S Q T I L N R F S T S A V S K S</b>		
UniRef90_A0A011NHH3	<b>K V S L L G F A G D E L R A M I L L D S L G Q T S S L V F R I E R N P Q L A P S G</b>		
UniRef90_G8QFL3	<b>K V R L L G F A G D N L L R A M E L L H D S F G Q T T A L I F N V E R N P P S I A P G S</b>		
UniRef90_UPI000366EBE8	<b>R I R M G F K G D V L V Q M E L F D F F G Q R T T L K L S M V R N P S I A P G S</b>		
UniRef90_C7RQ01	<b>K V S L L G F A G S D L R A M E L L D S L G Q T T S L R F A H E R N P R L A P G S</b>		
UniRef90_W9AU07	<b>K F V V V T V S K A G A V V R N F S V I E T D G Q R S K Y V L S D F K R T T P A A S</b>		
UniRef90_UPI00046ABFDB	<b>W V R L L G F A P E G A L K S M E L H D N F G Q T T V L T F S V E Q N P R L A P E</b>		
UniRef90_K2FVJ5	<b>L L E V T F E G D T P R G M R L E D A L G Q Q T T I D F S S N V R N T A L L D S S S</b>		
UniRef90_UPI00036241D5	<b>A M E I H F A K D G L P D S M T V R D G M G Q T T T K I K F S M K A N P K L S D S S</b>		
UniRef90_A1K578	<b>N L R L L G L Y A G Q L R R M E M R D S F G Q A T V I V F T L V A N P A L D P A</b>		
UniRef90_UPI000374F52C	<b>R F T L L R F D N Q G R L A R F T V V E S G G Q R S E F T L S F N T S P E E L A A N</b>		
UniRef90_S6ABU4	<b>S M R M G F S E K G L E V M E L R D H F G Q T T M I R F S G E R N P P K L A P E</b>		
UniRef90_A0A011NIT3	<b>K V R I G F S G N E L R A M E L N D N L G Q T T M L L F S V E I N P R L A P S S</b>		
UniRef90_UPI000255B78B	<b>S M V I R F D K R G L P S A M T V R D G M G Q T T D I K F N G Q A N P S L S S S</b>		
UniRef90_Q7NXL2	<b>A I R M G F K N N N V L V E M Q L T D S F G N D T R I V F S Q Q R N A A L P P A</b>		
UniRef90_UPI00031881D7	<b>T F Q I K I N D K G V V Q A F N V E Q D G Q Q S R F A T N F K M Q K P D A S</b>		
UniRef90_U3APP0	<b>Q F Q I N I N D V K G M V K G F N V L E Q D G Q K G L F T F N N V K L G K P K A E</b>		
UniRef90_UPI00037997DE	<b>E L S L L V F D N E T L T E L W M M D S T G Q K T M I T F S D L R N G S I N R S D</b>		
UniRef90_C4L939	<b>S L R M V F D S Q N R I S R M E V N E A Q G Q R S E F T L S S F N T K P I K S D</b>		
UniRef90_P57835	<b>Q F D I R I D S E G V L R N F S T I E K D G Q T T N L Y I L R N I T N Q P L A D G S</b>		
UniRef90_B8F3N7	<b>Q F D I R I D A T G L V K G F S T I E R D G Q S N L Y V L R N I S T A H L S E S</b>		
UniRef90_UPI00047620A0	<b>A V R M G F N A Q S E L V Q M E L N D T F G H K T V L I F T M Q H N P K L S E Q</b>		
UniRef90_UPI00047553BD	<b>S M R M G F A G G T I L K R M E L L K D N F G Q T T L I E F S S L V A G A R P D P A</b>		
UniRef90_UPI000375674F	<b>A V R I G F K D G L L R G M V L R D S F G Q T T K L R F S F E R N P A I D P A</b>		
UniRef90_Q1Q9X3	<b>S L S L M S F S G G K P V M M V L N D S L G Q T T S I K F S I K M N P S I S S N</b>		
UniRef90_Q013Q2	<b>Q F N I R I E K D G V L K N F S T I E N D G Q S N L Y I L R K I T N P A L N D A</b>		
UniRef90_H0PWE3	<b>S V R L L G L S G G M L K R M E L L K D N F G Q T T L I E F R M S S N V H P D A G</b>		
UniRef90_E8LZ1	<b>Q F K L K I D S K G K V E G F S V V E Q D G Q Q S N F T F N V K L T K P S A D</b>		
UniRef90_J2UEV3	<b>S V R V G F R P G E K S S G L E I T D S F G Q R S V L S F S V E V N P N L P A D</b>		
UniRef90_F7YPB3	<b>Q F Q I A I D E K G I V K G F N V I E Q D G Q Q S L F T F S D V Q L T P A A K A</b>		
UniRef90_F5SN09	<b>S L A V S F N G G K P V M M V L N D S L G Q V T S I K F S N K T N T S I P S S</b>		
UniRef90_J3YS06	<b>Q L T I T V T A N G T I E G F T T V G Q D R Q R S V Y E L S I K K T P L E E D K</b>		
UniRef90_F3KHR4	<b>E L R L T T F A F D T L T Q M H I L D S L G N R S S L E F R N V R N G A L D D A</b>		
UniRef90_C9P5C7	<b>R F Q I V I D A Q G K V T G F T V I E Q D G Q Q S R F T F H D V T L Q K P P I S</b>		
UniRef90_A4VLV0	<b>N L R L L S F R G G V I N D M Q L I D S V G Q R T N I L F M V K M N Q P L K A D</b>		
UniRef90_D2AB22	<b>Q F T I N V G R D G T I H Q F S A V E Q D D Q R S S Y Q L K S Q Q N G A V D A A</b>		
UniRef90_E5AN10	<b>R V G I G F R D G N L E A M E L H D V F G N V T L L T F S S N I K N P A L P A N</b>		
UniRef90_UPI00039460B7	<b>E F H I R I D K K G V V K G F D V E Q D G Q Q S L F S F Q Q I K L K R P D N H</b>		
UniRef90_N9P041	<b>S L T I S F G A N K A P S L M I L Q D S L G Q T T N I K F S S N V K N S S I P A S S</b>		
UniRef90_D5C196	<b>R L L L G F D N N T I R Q M E L H D S F G Q I T R L S F S V E V N L S L D S S S</b>		
UniRef90_UPI0002DF051D	<b>Q F Q I D I D K A G A I S G F N V E Q D G Q R S K F T F N D Y R A Q A P A K S</b>		
UniRef90_T0AW12	<b>S L R I G L Q G Q Q L R F R M E R M D R N F G Q T T L I R F T L A P N Q P L A T D</b>		
UniRef90_K0CCN4	<b>T L D V T F H G D T P H S M R L R D A L G Q Q T L I R F Q D L T N R S L P P A E</b>		
UniRef90_W6M7M3	<b>L L R R V G F K G E L L V S L E M E D G F G Q R T R L D F K L L E R N P P L D P A</b>		
UniRef90_B2T1A1	<b>R V G I G F K D G N L E A M E L H D V F G N V T L L T F S S N Q K N P P L P A D</b>		
UniRef90_W0BGE4	<b>Q F D V R I D A N G V M K G F S T I E R D G Q S N L Y L L R N I A S S N L S N D</b>		
UniRef90_12NFQ4	<b>Q F D V R I D A N G V M K G F S T I E R D G Q S N L Y L L R N I A S S N L S N D</b>		
UniRef90_N6ZGT2	<b>A L R I G M A D G Q I R E M E M R D N F G Q T T S I R F T L R T N P V L A D D</b>		
UniRef90_E3BHW0	<b>Q F Q I S I D T K G V V K G F N V I E Q D G Q Q S K A L F T F D T V K L G K P A M D</b>		
UniRef90_UPI00040BA30D	<b>Y V L I G L D D N T I L A G M E L L G D N F G Q V T R I Y F S N K T G V K L D R N</b>		
UniRef90_Q82VM2	<b>L I R L G F S K T G I L R E M V L R D S F D Q V T W L I F S I E Q N P T L T P D</b>		
UniRef90_UPI0003B6ED8B	<b>Q A R L G F G A K G L V R M E F R D S L G Q R T T V I G F S G A R N P R F P A G</b>		
UniRef90_UPI000479953C	<b>Q V D I G M R G N L P A R V E L L D A F G Q T T R V E L S N Q P N A L P L P A G</b>		
UniRef90_UPI000475F64C	<b>A L E L I F H S E Q L A G I N L T D S T G Q R T E I S F D N E I N P S I S A D</b>		
UniRef90_UPI0002892242	<b>E L Q M T F R G E Q L A A L Q M I D S T G Q E T V I E F S D V R N H A I D E R</b>		
UniRef90_UPI0002D97276	<b>Q F Q I D I N S K G V V Q G F N V I E Q D G Q Q G R F E F K N V N L T T P N K A</b>		
UniRef90_M7NWH7	<b>Q L S L A F S D E G L Q Q M V M T D S F D Q R T L L V F R M Q T N P N L P A S</b>		
UniRef90_UPI0002D260FF	<b>Q F Q I D I D D K G I V K G F N V I E R D G Q R G L F S F S N V K L E L P K N D</b>		
UniRef90_G0A1W4	<b>Y I L I G L N H G E L G G M E L L S D N F G Q L T R I Y F S N I K N P V L Q D S</b>		
UniRef90_Q607H7	<b>Y V L I G L E G D K L A G M E L L S D N F G Q L T R I Y F F A N L R T G T L D P K</b>		
UniRef90_K2C7R4	<b>V I Q M G F T N N E I R E M R L Q D H L G H T T A I K F N S K M N V V L S S S S</b>		
UniRef90_U7G3J7	<b>Q D V T F R G E Q P M S M R L Q D A L G Q Q T V I D F R D K V N S G I D A S</b>		
UniRef90_UPI00037C6B22	<b>Y L V I G L E K G Q L S G M E L L S D N F G Q L T R I Y F S N I K N P P V D P K</b>		
UniRef90_UPI00046A6B6D	<b>S L R L L S F R S G V L N D M Q L I D S I G Q R T N I L F S S V K M N E K L D D G</b>		
UniRef90_V8R7V9	<b>N L R L L S F R N G L L N D M Q L I D S V G Q R T N I L F T G V K N E A V P A S</b>		
UniRef90_S7XV67	<b>S L T I S F G A K N A P T L M I Q D S L G Q T T Y V R F N N V K N P A I P A A</b>		
UniRef90_UPI0003B48667	<b>R L L R V E L R Q G V V L L S S M E L L A D N F G Q L T R I Q F E D V R N P P L Q D K</b>		
UniRef90_V2JCP2	<b>R I G I G F K G G G N L E A M E L R D A F G N T T L T F F S M Q K N P S L P A D D</b>		
UniRef90_A4BDQ5	<b>E L L M R F D P A G H I N Q L R I L D S L G Q Q T E Q V T F S N V V N S P L L A D D</b>		
UniRef90_UPI0003B78669	<b>S V S L L S Q F K G K T P T V M R L K D S L G Q Q T L I E F R N L R N T T L A P S</b>		
UniRef90_A4XUX7	<b>S L R L L S F R N R M L L N D M Q L I D S I G Q R T N I L F N V K M N E P V E D H</b>		
UniRef90_C8PVU2	<b>S L G I I A F N S G N P V M M V L L N D N L G Q T T T I R F S N K R N T S I A S N</b>		
UniRef90_R4YMH9	<b>S L E L L D F N K Q Q S L T Q M I I R D A S G Q V T N I R F T N V L N P K L N Q D</b>		
UniRef90_I4WXA7	<b>Y A D L L G F D T N G L A R M T F R D Q L G S T T E I R F S G Q R N V P I P P A</b>		
UniRef90_C5CRK5	<b>N V Q V G F Q Q G D A L A A L E I L D S F G Q Q R S V L K F S V E V N P A L P A S</b>		
UniRef90_F9ZD45	<b>F I Q M G F S P E G E L K I M A L R D S F G Q T T F L S F S E D K N P T L P T E</b>		
UniRef90_UPI00046359B2	<b>S A R L L G F D G Q Q G L A R M E V I D A L G Q R T E I A F S S G R R N P A F A A D</b>		
UniRef90_UPI00036BB835	<b>S I E L L W L K G N G V P Q R M Q F F D A L G G N T D I R F S S D R T G K L L D A A S</b>		
UniRef90_UPI0003A459BA	<b>H A E L L G F G E D G L D E M V F R D Q L G A T T Q I R F S S D K R N A N I P D S</b>		
UniRef90_Q1H294	<b>K V L L L G F K G D E L Q K M E L H D S F G H V T S I Q F S Q Q R N P A I A N S</b>		

170

QUERY	K F T F T P P Q G V T V D D Q R K
UniRef90_V3TW68	K F T F T P P K G V A V D D Q R Q
UniRef90_W0LE06	K F K F T P P K G V T L D D Q R K
UniRef90_UPI000471851E	K F R F T P P Q G V T V D D Q R Q
UniRef90_C5BE92	K F R F T P P P G V T L D D Q R Q
UniRef90_Q47G13	T F K F T P P A G A D V V D D Q R Q
UniRef90_C6C7V2	K F H F T P P K N V T V D D Q R Q
UniRef90_B2VC57	K F K F R P P K G V T V D D Q R Q
UniRef90_B4EV91	A F R F T P P A G V T V D D Q R Q
UniRef90_M1SEK3	K F T F T P P K G V T L D D Q R Q
UniRef90_C7BQF6	K F S F T L P K G V T L D D Q R Q
UniRef90_UPI0004749311	L F S F T V P E G V E L D D Q R Q
UniRef90_R8AUI1	Q F S F T V P K G V E I D D Q R
UniRef90_A0A011NHH3	L F R F T P P A N T D V I
UniRef90_G8QFL3	L F R F T P P P G A D V
UniRef90_UPI000366EBE8	R F T F T P P K G A D I I
UniRef90_C7RQ01	L F R F T P P A N S D V I
UniRef90_W9AU07	L F T F T P P K G V E L D D Q R
UniRef90_UPI00046ABFDB	L F K F T P P E G A D V I
UniRef90_K2FVJ5	L F E F E P P E G A D V V
UniRef90_UPI00036241D5	L F N F K P P A G T D I I
UniRef90_A1K578	R F R F V P P A G A D V I
UniRef90_UPI000374F52C	A F R F T P L A G V M V D D Q R
UniRef90_S6ABU4	V F K F S P P K G V D V I
UniRef90_A0A011NIT3	L F R F T P P A N T D V I
UniRef90_UPI000255B78B	I F N F K P P K G T D I I R
UniRef90_Q7NXL2	R F A F A P P K G V D V V
UniRef90_UPI00031881D7	L F T F K V P K G V E V D D Q R Q
UniRef90_U3APP0	R F T F T V P D G V E V D D Q R
UniRef90_UPI00037997DE	L F N F D I P E G T D V I R E
UniRef90_C4L939	T F N F K A P E G V T V D D Q R
UniRef90_P57835	I F K F S V P K G V E L D D Q R Q
UniRef90_B8F3N7	L F S F S V P K G A E L D D Q R
UniRef90_UPI00047620A0	Q F R F T P P A G A D V V
UniRef90_UPI00047553BD	Q F R F V P P P G A D V I
UniRef90_UPI000375674F	Q F Q F T P P A G A D V I
UniRef90_Q1Q9X3	Q F K F T P P K G V D I I N Q
UniRef90_Q0I3Q2	I F T F T L P K G V E F D D Q R K
UniRef90_H0PWE3	L F R F T P P A G A D V I
UniRef90_E8LZ1	R F T F A I P Q G V E V D D Q R
UniRef90_J2UEV3	T F R F T P P K G A D V I R Q
UniRef90_F7YPB3	R F T F Q I P Q G V E V D D Q R
UniRef90_F5SN09	Q F K F T P P K G V D V I N Q
UniRef90_J3YS06	K F Y F T L P E G V T L D D Q R
UniRef90_F3KHR4	L F Q F T P P A G V D V I A Q
UniRef90_C9P5C7	R F Q F V I P D G V D V D D Q R
UniRef90_A4VLV0	L F T F E I P E G A D V I
UniRef90_D2ABB2	K F T F T P P Q G V T V D D Q R K
UniRef90_E5ANI0	T F K F T V P K G A D V I N
UniRef90_UPI00039460B7	L F Q F K I P A G V E V D D Q R Q
UniRef90_N9P041	T F N F T P P K G T D I I D Q
UniRef90_D5C196	L F V F T P P E G V D V
UniRef90_UPI0002DF051D	R F V F E I P P N G V E V D D Q R
UniRef90_T0AW12	R F R F V P P S G A D V I
UniRef90_K0CCN4	R F S F T P P E G T D V I R Q
UniRef90_W6M7M3	L L K F T P P P G V D V V
UniRef90_B2T1A1	A F K F T V P K G A D V I N
UniRef90_W0BGE4	L F K F K V P K G V D V V K Q
UniRef90_I2NFQ4	L F K F S V P K G A E L D D Q R K
UniRef90_N6ZGT2	R F R F S V P A G A D L I
UniRef90_E3BHW0	L F T F Q V P K G V E V D D Q R
UniRef90_UPI00040BA30D	L F E F R P P P G V D V F E E R
UniRef90_Q82VM2	L F Q F T P P E G V D V I R
UniRef90_UPI0003B6ED8B	A F K F T P P K G A D V V
UniRef90_UPI000479953C	E F G F T P P A G V D V V K M
UniRef90_UPI000475F64C	R F S F D I P A G V D V I R E
UniRef90_UPI0002892242	R F A F Q I P E G A D V I R
UniRef90_UPI0002D97276	T F T F E I P D G V D V D D Q R
UniRef90_M7NWH7	T F E F V I P A G V D V V
UniRef90_UPI0002D260FF	R F V F V V P E G V E V D D Q R
UniRef90_G0A1W4	L F N F K P P K G V D V
UniRef90_Q607H7	L F Q F S P P A G V D V
UniRef90_K2C7R4	L F I F T P P A N V D V I D E T R
UniRef90_U7G3J7	L F H F T P P E G T D V I Q Q
UniRef90_UPI00037C6B22	L F N F Q A P K G A D V I Q E
UniRef90_UPI00046A6B6D	Q F S F D I P D G V D V I Q E
UniRef90_V8R7V9	K F K F D I P K G A D V I Q E
UniRef90_S7XV67	T F N F T P P K G T D I I D Q
UniRef90_UPI0003B48667	L F R F S P P P G V D V
UniRef90_V2JCP2	T F R F S V P K G A D V I R Q
UniRef90_A4BDQ5	L F V F T P P D G T D I F E Q
UniRef90_UPI0003B78669	L F R F E P P K G T D I I R E
UniRef90_A4UXU7	L F T F D I P E G A D V I Q E
UniRef90_C8PVU2	Q F S F T P P K G V D V I N Q
UniRef90_R4YMH9	L F N F N I P K G I D V I D G R Q
UniRef90_I4WXA7	T F N F V P P K G A D V I K Q
UniRef90_C5CRK5	A F E F K A P A G A D V I K Q
UniRef90_F9ZD45	L F K F T P P D N A D V I
UniRef90_UPI00046359B2	T F R Y T P P A G V D V I
UniRef90_UPI00036BB835	L F R F T P P K G T E V I D
UniRef90_UPI00034A59BA	T F N F T P P P G A D V I
UniRef90_Q1H294	S F Q F V V P A G A D V V

	1	10	20	30	40
UniRef90_Q7VLZ6	I A E L Q R R L E H V A Q Y S A D F E Q T V R S I Q S G R G K F Q V K R P N				
UniRef90_A3QEJ1	D D S A A L K D K L L A K L D N L K A N F S Q Q V T D V Q Q G T G T F A L L A V P N				
UniRef90_N2JMW8	R L S Q Y L E K A Q T M T A R F S Q L T L D G Q E T A G N L S L K R P G				
UniRef90_N9CJV4	A T T S L V K Q L S G Q L Q S I S S N F E Q T T K V T Q T F K G V M K V E R P G				
UniRef90_B6ENN3	E E L T D R L L N Q N K G F E A S F T Q K V L S P M Q G E G D V K I L R P N				
UniRef90_A3NCD1	G T E Q L K A F V A K V H A A K G E F T Q T V K P T D N S S S G S F V F S R P N				
UniRef90_R1H779	D A A S D L K Q K L L A A V N F S A Q F Q Q T V F D L Q K Q A S G D L L V S R P N				
UniRef90_Q0VQ09	D A T D D L L G R G L Q T L E S M K G G F E Q V V L D M Q E A L G K F Q V A R G N				
UniRef90UPI000477D6D0	I Q Q L K T F L A T S K S L S A N F K Q V L L N V R T S Y G V F Y L Q R P G				
UniRef90_B8GT68	D A R Q S L E R F F S E V S R F D A R F E Q Q L V I N L Q A S E G R V Q L Q R P G				
UniRef90_B2U9Y9	E Q L N A F V S N V S T A R G E F V Q R Q V K G G T S S G D F V F S R P G				
UniRef90_G8M5S0	G T E Q L K A F V S Q V R A A R G D F T T Q Q E T K G A T S S G T F M F A R P				
UniRef90_D4ZKR7	D E S S A L K A K L L E E V A T L K A N F S Q V V T D I Q R G S G V F A L A Y P				
UniRef90_J3TH02	D H A D V L K N R L N H L N N F H A I F I Q R V M N I Q E G E G K L W I K R P				
UniRef90_B8CP85	D A S E Q L K V K L A E I D N L K A N F S Q V V T D I Q R G S G V F A L A Q P				
UniRef90UPI0003F88E3B	A I D D L K Q F N N D A D G L S G S F T Q T V K K N Q T S S G S F K I L R P				
UniRef90UPI0003601085	A R E L K A F L D T T K T L T A D F K Q V L I N V Q T S Y G I F Y L Q R P G				
UniRef90UPI00037F720A	E G A E R L A R M L E P L D T Y V A D F E Q Q I L D G Q E A S G R M W L S R P G				
UniRef90_S2L478	G A E R L T R L L E P L Q T Y A A D F E Q Q I L D L Q E A H G Q M W L S R P G				
UniRef90_H5SAF3	E L D R F L L D A F S K G L V Q T L S A A V F V Q Q I V D E Q Q N Q G H F Y L K R P				
UniRef90_X1GZ63	A R S R L L D A F S K G L V N S V S A N F E Q Q I L D N D S K T S H G T L S L K A P				
UniRef90_E1V4K2	E A A E R L T H L E P V K T Y V A D F D Q E I L D L Q E A S G R M W L A R P				
UniRef90_N9RBS6	A T N S L V Q Q L S G L Q R F T A D F E Q T T K M N Q T F K G T M K V E R P				
UniRef90_A9BNU6	D G L K S L E A F M K M N S Q A G R A E F T Q A V T R T K N S S G Q F E F Q R P				
UniRef90_D7DIR5	D G V S S L K F Y D E T H A V K A D F H Q L V T D I Q E V Y G E M Q L K R P				
UniRef90UPI0002624FC	G L D M L H H F F Q S T H T I T A Q F S Q E V A N V K K A G G T L W I S R P G				
UniRef90UPI00037E9C93	G I E A L Q K F N Q D S N G L S G S F T Q T V T S T Q T S S G T F K I L R P				
UniRef90UPI00035F392F	D A R A L E R F V D G L E T F S A D F T Q T V R D L Q E S D G V M H L G L P				
UniRef90UPI000477ED58	D G L A L L Q Q W L R D T H G A Q D A F T Q S V A T P Q V I S S G S F S F E R P				
UniRef90UPI0003718494	D G V A S L S D F F F N N T N A M R A N F S Q V V T D T Q E V V Q G S M Q L Q R P				
UniRef90_R5Q302	D G S A Q L E A F L S H V S A A E G A F R Q R V V D V N E A E G I F A F R R P				
UniRef90_A6VNC0	U N I T S L Q T R L L R K V S V F S A D F T Q N V T V S S V Q Q G S G K I Q I K R P				
UniRef90_B1Y153	D G V S A L L R D F V V Q N V Q S G R A T F N Q T V T S P K T S T G S F E F L R P				
UniRef90_E1VK17	L V R D L L S M M K S F N A T F H Q W V V S D L Q E V T G T M W V Q R P				
UniRef90_J3D7I4	A L E Q F K Q F V A S T Q S A K G Q F V Q T V K V S N T S S G T F V F S R P				
UniRef90_A1TSP4	D G L A S L E S F M K G Q A G R A D F T Q T V T S P R T S S G T F E F Q R P				
UniRef90_G3IYH9	V V K Q L L R A F L K N T K S L T A D F K Q V L I N T Q T S S G T F Y L Q R P				
UniRef90_Q5FA29	A V D A L L K Q F N N D A D G I L S G S F T Q T V K K T Q T A H G T F K I L R P				
UniRef90_A4G3W4	A L D Q F K S F F V S S T Q S A R G E F T Q Q Q L V K V N K S T G T F T F A R P				
UniRef90_10HUR4	U N I T S L V Q T L L R A F V R D V K T G R A E F T Q T V T S P K T S S G R F E F S R P				
UniRef90_G4CJY1	G I E A L L Q K F N A D T D G I S G S F S Q S V Q S T Q S A R G S F S I L R P				
UniRef90_F4ATX7	D K L K T R L L E T L N Y F S A D F T Q K V T D I Q E A T G V I K L K Q P				
UniRef90_G9EUA2	Q V L Q V K L L N S I R S M T A S F K Q V V V K V V S R S S G T M A L E R P				
UniRef90_11EOF2	A E S T L L Q R K L L A T I K S F A A S F E Q R V V D L Q Q G K G E L L I K Q P				
UniRef90UPI0004710FA4	D D S A A L Q Q Q L R K Q Q L T K I D G L K A E F S Q T V T D I Q Q G K G D F A I L A Y P				
UniRef90UPI0003036CC8	A I L D Q F K S F V S A T K S A R G E F L Q R Q V K T M D G S G T F K F S R P				
UniRef90_F2BFC0	G I D A L L K K F N A D T D G I A G T F S Q T V K S T Q T S G G T F Q I L R P				
UniRef90_L1M2U5	D V A R L L S Q L L E R S T T I S A N F S Q S G T Q L Q E T T K G Q M A V K R P				
UniRef90_G2DQE8	A I L D A L K F N E D A D G L S G S F S Q T V K N T Q T S G T F Q I L R P				
UniRef90_A5ICSO	A E V L Q S K L L N A I Q T M T A N F S Q I V K E V S R S S S G S M A L Q R P				
UniRef90UPI00047A2133	R D Q L N T F T K G L K T L D G R F T Q Q V F D K E T S S G R V S L S A P				
UniRef90_Q1N4M5	L S K L Q N V L A P L K T M K A E F K Q I S E D G Q T Q A G S F V L S K P N				
UniRef90_E1STR6	Q A L Q A K L L A Q L P E F E Q A F E Q V V T D P Q Q G Q S L A M V P				
UniRef90_W2UFX4	E D I Q Q L R D L L Q P I T S L S A R F Q Q Q I A D L Q N S E G L F Q V V S Q P				
UniRef90_A0A0241H51	D G L Q A L D T F L L R E V G S A R A D F T Q V V T S P K T S S G R F E F L R P				
UniRef90UPI000427DB67	L R S F A S E V K S G K A N F T Q T V T S P K V I S S G S F E F Q R P				
UniRef90_C3JY57	V A S L K N L L D K S Q T L T A R F S Q M T T Q L Q E T A G E M A V Q R P				
UniRef90_I9W356	D Q L K T F V T T V K S A K G E F V Q R Q V K T Q G S S G T F L F A R P				
UniRef90_I3CCE6	A D E A L L D N F L L Q N F K T L H A Q F T Q T L Y A L Q E S I I G E M Y I Q R P				
UniRef90UPI000474A377	A R D E L L V R F T S G L K G L E G R F E Q Q V F D K E R S S G M V A V S A P				
UniRef90_B8EE74	D D A Q A L R D K L I G T A S L K A D F K Q T V T D V Q T S S G N V F L S R P				
UniRef90_F7NRW6	D Q A D A L Q N K L L A R L T S F Q Q A S F D Q T V V D L Q Q G E G M L S L K Q P				
UniRef90UPI00037B0B99	N A G A Q L N S L L A G F E S F S A D F N Q V S G S M E E S R G T L L L A K P				
UniRef90_W0TMG0	A R A H L D R F L L D G L E T L R A E F A Q E V I D T E T S T G V F Y L S R P				
UniRef90_I3BNY2	G R E K L D E F F T Q V T N M Q S A F T Q Q V I D D Q S S S G N V F L S R P				
UniRef90_R7IL53	G T E Q L L A A F L K G T H S A S G S F S Q V T A D G Q T S M S G V F K F Q R P				
UniRef90_A1WIQ7	D G L K S L E A F L Q H T Q T G R A E F S Q S V T D G Q T S S G G R F E F Q R P				
UniRef90_M7DCV5	A A S E L L A D I L L G G Y E S Y Q A D F I Q V V V V N V Q E T N G K L K A K R P				
UniRef90UPI00041A2EE7	D A A R L L K Q K L S G L T S F S G H F T Q R V T D I Q Q A Q G N M T L A V P				
UniRef90_B5EMC2	D F F F Q K T H I T A Q F R Q E V A N V K R T S S G K L W L S R P				
UniRef90_M1F8B0	D A A T Q L A A L L R G Y Q T Y Q A D F I Q I V V G V V Q E S H G S M K A K R P				
UniRef90_A1U0W4	A A E Q L L T S I L K G Y E T Y Q A D F I Q I V V V N V Q E T T R G S L K A K R P				
UniRef90UPI00037277C9	D R S T L L N D F F T K V N T M Q A Q F T Q E V Y D E Q K S S Q G V F L S R P				
UniRef90UPI0003791D1F	E G R A R L L N K F F T T V N T M Q A S Q F T Q V E S P K G A T Q G Q F A F E R P				
UniRef90_D5X4U9	N S V Q L L E Q W L Q Q T R G G S A Q F T Q T V S N P K G A T Q G Q F A F E R P				
UniRef90_W2DMN1	V A S L T N L L D K S K T L T A R F S Q L T L D G Q E T A G E M A V Q R P				
UniRef90_D8IS69	A L D Q F K Q F V S S T Q S A K G A F T Q R M V R T E T S S S G S F V F S R P				
UniRef90_D5MK72	E V A D K V Q A T Y Q G F S D L Q G S F S F Q R A T T Q E A S S G R L F L K W P				
UniRef90UPI000376EEE8	L R Q F V Q E V K S A R A V F T Q T V S S P E S S E G R F E F V R P				
UniRef90_A0A021W7S4	R E D L G S F T R G L K G L D G Q F A Q Q V F D T E S S S S G Q V A L S A P				
UniRef90UPI0002627F01	L Q A K L N G I R S M T A V F K Q S V K A V S S S S G T M A L Q R P				
UniRef90_D0HFS9	L D D F L Q R Q L Q S V T S I D A Q F E Q S T V D M Q T I T G Q L I V A R P				
UniRef90_V7ZC49	A R Q E L L D T F T R G L K G L D G Q F S Q Q V S D K E S S S G R V A L S A P				
UniRef90UPI000363726B	D A P Q E L L E K K L T A I D S F K A D F S Q V I T D I D K S S S G H F E L K R P				
UniRef90_A0A023Y327	R D E L L N R F T Q G Q L K G L D G Q F S Q Q V F D K E T S S G R V A L S A P				
UniRef90_Q7WCM5	E Q L L D T F V A T V K G A T F S Q K Q S T V S P Q G A S G T F A F Q R P				
UniRef90_G2DAA8	G V K Q L L R Q F L S N L I T L Q A E F V Q T L R Q P D S T S S G I L Y L Q R P				
UniRef90_A7BVX8	A N E N L L D N F L L Q G L Q T L R Q G F Y Q E L Y N L E R S S Q G K M Y M Q R P				
UniRef90_I3IC25	L R K Q L L D A M N T L Q G D F V V Q T T Y D K E S S S S G N F M L M R P				
UniRef90_W5YPU0	A A A D L L S A L L K N Y E S F Q S D F I Q I V V N V Q E S S R G S L K A K R P				
UniRef90_K1YU91	E L A Q K L L Q A R Y E E T K T M T A D F K Q S T S V P M S T R G K V V V I F K P				
UniRef90_M5DQK5	L D D F L Q R Q L Q S V T S I D A Q F E Q S T V D M Q T I T G Q L I V A R P				

	50	60	70	80
UniRef90_Q7VLZ6	L F R M D I N A P Q E N V I V S D G E N L	W F Y D P F V A Q V T V N S V Q N A V		
UniRef90_A3QEJ1	Q F Y W H L T Q P D E S L I V A D G R D V	W I Y N P F A E E E V S V L D F N Q A I		
UniRef90_N2JMW8	L F R W H T D S P M E Q L V S D G Q K V	W L Y D P D L E Q V T I Q K L D Q R L		
UniRef90_N9CJV4	K F Y W E T T S P A K Q T I V T S G K T V	W I Y D P D L E Q V A V R Q T L D E Q V		
UniRef90_B6ENN3	L F R W H T Q T P D E N L L V T D G K T L	W Y Y N P F V E Q V T L M G L D Q A T		
UniRef90_A3NCD1	K F I W T Y Q K P Y Q Q V L Q A D G D K L	Y V Y D K D L N Q V T E R K L Q D A V		
UniRef90_R1H779	R F N W H T K S P D E S L I V A D G K D V	W I Y D P F V E Q V T A L K L Q D A V		
UniRef90_Q0VQ09	R F Y W L T E T P Y E Q M A A S D G T T V	W V Y D K D L E Q V V V R P L S Q D L		
UniRef90UPI000477D6D0	K F R W N Y E K P F T Q E I V A D A G K V	W F Y D T D L E Q V T I K K L D E S L		
UniRef90_B8GT68	R F R W D Y E Q P F R Q L I I A D G Q F L	W T Y D E E L A Q A T A Q P M E R V L		
UniRef90_B2U9Y9	R F V W R Y V K P Y E Q Q L S A D G Q M L	Y I F D K D L N Q V I T E R K L D A S L		
UniRef90_G8M5S0	K F I W S Y Q K P Y S Q V L Q A D G D K V	Y V Y D K D L N Q V T V R T L G G A I		
UniRef90_D4ZKR7	Q F Y W H L T E P D E S L I V A D G T D V	W I Y N P F A E E Q V S V M D L N Q A I		
UniRef90_J3TH02	L F S C K M I K P N D S I L V C D G N T L	W Y Y N S F F E E Q V T A Y S I K D I		
UniRef90_B8CP85	Q F Y W H L T A P D E S L I V A D G T D V	W I Y N P F N E E V S V M D V I N Q A I		
UniRef90UPI0003F88E3B	L F K W D Y T K P Y R Q T I V G D G K H I	W L Y D Q D L K Q V T K S D Q D Q T I L		
UniRef90UPI003601085	K F R W D Y Q R P F Q Q Q I I A N S G K V	W F Y D T D L E Q V T I K K L D E S L		
UniRef90UPI0037F720A	R F R W E V N A P Y E Q V V V S D G D E V	T L Y D P D L Q Q A T V Q P L D D R V		
UniRef90_S2L478	K F R W E V D E P Y R Q V V V S N G E E V	F L H D P D L E Q V T V V Q P L D T R V		
UniRef90_H5SAF3	R F R W I Y E A P Y R Q E I V A D G N K V	W F Y D P D L A A Q V T V V K T M D A A L		
UniRef90_X1GZ63	Q F R W D T T A P Y K Q L I V A D G E K V	W I Y D P D L E Q V T V R A Q G T E E		
UniRef90_E1V4K2	R F R W E V D A P Y E Q I V V S N G D E V	T L Y D P D L Q Q A T I Q A L D E R V		
UniRef90_N9RBS6	K F Y W E T T S P A K Q T I V T T G K V V	W I Y D P D L Q Q A V R Q S L D D Q I L		
UniRef90_A9BNU6	K F R F V Y T K P F E Q T I V A D G K T L	W L Y D A D L L N Q V T Q R P Q A Q A L		
UniRef90_D7DIR5	K F R W D Y H K P F E Q Q I I S D G K Q V	W L Y D T D E L A A Q V S V R E L S K A L		
UniRef90UPI0002624FC	K F R W D Y S G P N G Q T I V S N G L K V	W L Y E P A L L Q Q V T V Q P L G K A L		
UniRef90UPI00037E9C93	Y F R W N Y T K P Y Q Q V I V G D S K T V	W L Y D P E L L K Q V T K K S Q A E A L		
UniRef90UPI00035F392F	R L Y W E V T E P F P Q T I V V S D G V D L	W T F D P D L A Q A T V R P L G D A F		
UniRef90UPI000477ED58	R F R W V Y L K P Y R Q D I V S S D G S T I	T Y D H D Q D V T V V S S Q S Q A L		
UniRef90UPI0003718494	K F R W D Y S K P Y E Q Q I I S D G K Q V	F L Y D T D L L Q Q V T I R E L S K T L		
UniRef90_R5Q302	A F L W N Y E K P W K Q Q V V S D G Q T L	W L Y D E D D L M Q V T V K K V S D A L		
UniRef90_A6VNC0	L F R M D N K K P Q E S Q I I A D G K T L	W F Y D P F V E Q V T A N W V S D A L		
UniRef90_B1Y153	R F R F D Y T K P Y E Q Q I V A D G V K V	W L H D V D L N Q V T V R P F D Q A L		
UniRef90_E1VK17	L F R W D T N D P Y P Q Q I I S D G E V L	W I Y D L D E Q A T K R K L D K Q V		
UniRef90_J3D7I4	K F I W T Y Q K P Y E Q V L Q A D G D K L	F I Y D K D L L N Q V T T K K L G N A L		
UniRef90_A1TSP4	R F K F T Y T K P F A Q T I V A D G K S L	W L Y D A D L L N Q V T Q R A Q A Q A L		
UniRef90_G3IYH9	K F R W D Y L K P F Q Q Q I V S T S G K V	W F Y D T D L L E Q V T V K K L D E S V		
UniRef90_Q5FA29	L F K W E Y T L P Y R Q T I V G D G Q T V	W L Y D V D L A Q V T K S S Q D Q A I L		
UniRef90_A4G3W4	K F I W T Y Q K P Y E Q Q L Q A D G E K L	Y I Y D K D L L N Q V T I K K L G D A L		
UniRef90_10HUR4	R F R F G Y E K P F Q Q T I V A D G Q K V	W I Y D P D L L N Q V S S R R L S Q A L		
UniRef90_G4CJY1	L F K W E Y N Q P Y Q K T I V G D G Q H I	W L Y D I D L A Q I T K T A Q N Q A I		
UniRef90_F4ATX7	K L Y W E L D P P N E N I L I I A D G T T L	W N V D P F V E Q V T A I N Q S Q A V		
UniRef90_G9EUA2	R F R W Q T K E P M A Q L M I A D G Q R I	W V Y D T D L L E Q V T V K K Q Q K G L V		
UniRef90_I1EOF2	R F R F T E T E P E A N L L F I G D G Q S L	W F Y N E A L E Q Q L T I Y D A A T E V		
UniRef90UPI0004710FA4	Q L Y W H L T E P D E S L I V A D G K N V	K F I W T Y Q K P Y E Q V L Q A D G E K L I Y I Y D K D L N Q V V T K K N Q E K G L		
UniRef90UPI0003036CC8	K F I W T Y Q K P Y E Q V L Q A D G E K L	W I Y D P D L Q Q V T K R P Q G A E E		
UniRef90_F2BFC0	L F R W E Y T K P Y K Q T I V G D G K I L	W V Y D E D D L E Q Q V T I Q K L D P S L		
UniRef90_L1M2U5	L F Y W H T D A P Q E Q V V V S D G K N V	R F A W H Q Q A P E E S V I L S D G E D V Y L Y D P L L E Q Q V S I Y D L Q D A T		
UniRef90_G2DQE8	L F K W E Y T K P Y K Q T I V G D G Q K T I	R F R F V Y A K P F E Q T V A D G Q R L W L H D V D L N Q V T V R A Q K D A L		
UniRef90_A5IC50	R F R W Q T K D P L E Q L I V A D G Q K M	Q F R F A Y A K P F E Q V V A D G H R K V W I Y D A D L L N Q Q A S S R K L A D A L		
UniRef90UPI00047A2133	Q F R W E Y A K P Y P Q Q I V A D G T T V	L F Y W H T E G K A E Q T V S D G Q K V T L W D P D L L E Q Q A T I N K L D P R L		
UniRef90_Q1N4M5	R F Y W K S E E P F A Q L L V S N G E T T L	R F R W E Y A A P D K H E I V A D G K N V W M Y E P D L L Q Q A T V K P Q G E E E		
UniRef90_E1STR6	R F A W H Q Q A P E E S V I L S D G E D T L	N V R W V V E M P M P Q Q I I A D G E T L W I Y D P D L L E Q Q V I I Q P F N E D I		
UniRef90_W2UXF4	R F R F V Y A K P F E Q T V A D G Q R L W L H D V D L N Q V T V R A Q K D A L	R F R F V Y A K P F E Q T V A D G Q R L W L H D V D L N Q V T V R A Q K D A L		
UniRef90_A0A024IH51	Q F R F A Y A K P F E Q V V A D G H R K V W I Y D A D L L N Q Q A S S R K L A D A L	Q F R F A Y A K P F E Q V V A D G H R K V W I Y D A D L L N Q Q A S S R K L A D A L		
UniRef90UPI000427DB67	UniRef90_C3JY57	L F Y W H T E G K A E Q T V S D G Q K V T L W D P D L L E Q Q A T I N K L D P R L		
UniRef90_I9W356	K F S W H Y T K P Y E Q Q L I I A D G E R V	K F R W H T E G K A E Q T V S D G Q K V T L W D P D L L E Q Q A T I V K A I D K A L		
UniRef90_I3CCE6	K F R W V Y Q K P Y E Q Q L I I A D G E R V	K F R W V Y Q K P Y E Q Q L I I A D G E R V W I Y D A D L L D Q I T V K A I D K A L		
UniRef90UPI000474A377	UniRef90_B8EET4	L F R W E Y Q K P F E Q Q L I V A D G Q K V W M Y E P D L L Q Q A T V K P Q G E E E		
UniRef90_B8EET4	Q F Y W H L T Q P D E S Q I V A D G K D L	Q F Y W H L T Q P D E S Q I V A D G K D L W I Y N P F A E E V V I M D F A E A I		
UniRef90_F7NRW6	L F R F E T Q T P E P N L F I G D G K T L	L F R F E T Q T P E P N L F I G D G K T L W F Y A E V L D Q V S L Y D A K E Q V		
UniRef90UPI00037B0B99	UniRef90_W0TMG0	R F S W T A L E P F P Q T L V S D G E T T L W I Y D P D L L E Q Q A T R R Q V S G K D		
UniRef90_W0TMG0	UniRef90_I3BNY2	R F R W V Y E G E Y P R Y I I A D G K T I V L W V E E D L Q Q V S Q R S Q K A V L		
UniRef90_I3BNY2	K F R W E Y A A P D K H E I V A D G K N V W V Y D V E L D Q Q V T V K P M N K A L	K F R W E Y A A P D K H E I V A D G K N V W V Y D V E L D Q Q V T V K P M N K A L		
UniRef90_R7L53	K F V W N Y E K P Y E Q Q G I Y C	K F V W N Y E K P Y E Q Q G I Y C S V W D P D L R Q V T V K A I A S S M		
UniRef90_A1WIQ7	R F K F V Y Q K P F E Q T I V A D G Q T L	R F K F V Y Q K P F E Q T I V A D G Q T L W L Y D A D L L N Q V T T R R A Q A Q A L		
UniRef90_M7DCV5	L F Y W E T S K P L S Q Y I V S D G K T V	L F Y W E T S K P L S Q Y I V S D G K T V Q V Y D P D L L E Q Q V T I Q K L D G R V		
UniRef90UPI00041A2EE7	UniRef90_B5EMC2	L M R W Q V T E P P D D T L L I I A D G D T L W H D V D P F V E Q V T A L S Q R Q A I I		
UniRef90_M1F8B0	K F Y W E S K A P M A Q Y I V S N G D E V	K F Y W E S K A P M A Q Y I V S N G D E V W L Y E P A L L E Q Q A T V Q P L G K A I		
UniRef90_A1U0W4	L F Y W E T G A P L S Q F I V S D G D K V	L F Y W E T G A P L S Q F I V S D G D K V E V Y D P D L L E Q Q V T V H S L D E R V		
UniRef90UPI0003727C9	UniRef90_D5X4U9	R F S W E Y R S P E A H R I V A D G R N V W V H D V E L D Q Q V T V K P M S Q A L		
UniRef90UPI0003791D1F	UniRef90_W2DMN1	R F R W D Y T K P Y Q G V I V S D G K Q L W T Y D H D L D Q Q V T I T P V T Q A F		
UniRef90_D8IS69	UniRef90_R7L53	L F F W K T D A P N E Q T I V S D G K K V T L W D P D L L E Q Q A T I K T L D P R L		
UniRef90_D5MK72	UniRef90_A1WIQ7	K F I W T Y Q K P Y E Q V I Q A D G E K L F I Y D K D L N Q V T T K K L G N A L		
UniRef90UPI000376EEE8	UniRef90_M7DCV5	R M R W E Y E K P E S R L F I D G K T L W S Y S P S E R Q A I A Q D V S G A L		
UniRef90_A0A021W7S4	UniRef90UPI00041A2EE7	R F R F D Y A P P M A Q T I V A D G Q K V W L Y D P D L L N Q V T V R A M S E A V		
UniRef90_A0A021W7S4	UniRef90_B5EMC2	L F R W E Y T K P Y P Q L I V A D G K K V W V Y E P D L L Q Q V S V R P Q G V E E		
UniRef90UPI00026C7F01	UniRef90_M1F8B0	R F R W Q T E Q P M A Q L M V A D G H R I W V Y D K D L V E Q Q V T V K T Q R K G L		
UniRef90_D0HFS9	UniRef90_A1U0W4	L F R W E T Q A P D E N L L V S D G T T L W H F D P D L E Q Q V T L Y R A E E A L		
UniRef90_V7ZC49	UniRef90UPI0003727C9	Q F R W E Y A K P Y Q K L I V A D G K K V W V F D P D L L E Q Q V T V R A Q G S E E		
UniRef90UPI000363726B	UniRef90_A0A023Y327	L F R W V V V E P F E Q Q I V A D G I N L W Q F D M D I E Q I N V S S D Q T L		
UniRef90_A0A023Y327	UniRef90_W7CWM5	L F R W E Y I K P H R I V A D G K K V W V Y E P D L L E Q Q A T V R A Q G A E E		
UniRef90_W7CWM5	UniRef90_G2DAA8	K F K W A V Q L P Y E Q L I V S D G K Q V F Q Y D P D L L A Q V V T R Q V D Q A I I		
UniRef90_G2DAA8	UniRef90_A7BVX8	R F R W Q Y D A P S H Q L I I A D G D N R I W L H D R E L L E Q V S H R D Q Q A A L		
UniRef90_A7BVX8	UniRef90_I3C25	Q F R W E Y E Q P Y N Q L I V A D G K N I F I Y D I D L E Q Q V T L R S D K T I		
UniRef90_I3C25	UniRef90_W5YPU0	K F Y W K T L E P P M P Q L L V S S N N K T I W L Y D P D L E T V N I R E F T D D D L		
UniRef90_W5YPU0	UniRef90_K1YU91	L F Y W E T R K P H S Q F V V S N G E T V E V Y D P D L E Q Q V T I H N L D E R V		
UniRef90_K1YU91	UniRef90_M5DQK5	R I R L W D Y Q T P D K Q V L I I S D G K K V F M Y L A D S S Q M I V Q P V S Q Y I L		
UniRef90_M5DQK5	UniRef90_W7CWM5	K M R W Q T N P P Y E Q Q L V V S D G E L V W I Y D M D L E Q Q V T I R N L D Q R L		

UniRef90\_Q7VLZ6  
 UniRef90\_A3QEJ1  
 UniRef90\_N2JMW8  
 UniRef90\_N9CXV4  
 UniRef90\_B6ENN3  
 UniRef90\_A3NCD1  
 UniRef90\_R1H779  
 UniRef90\_Q0VQ09  
 UniRef90\_UPI000477D6D0  
 UniRef90\_B8GT68  
 UniRef90\_B2U9Y9  
 UniRef90\_G8M5S0  
 UniRef90\_D4ZKR7  
 UniRef90\_J3TH02  
 UniRef90\_B8CP85  
 UniRef90\_UPI0003F88E3B  
 UniRef90\_UPI0003601085  
 UniRef90\_UPI00037F720A  
 UniRef90\_S2L478  
 UniRef90\_H5SAF3  
 UniRef90\_X1GZ63  
 UniRef90\_E1V4K2  
 UniRef90\_N9RBS6  
 UniRef90\_A9BNU6  
 UniRef90\_D7DIR5  
 UniRef90\_UPI0002624FC  
 UniRef90\_UPI00037E9C93  
 UniRef90\_UPI00035F392F  
 UniRef90\_UPI000477ED58  
 UniRef90\_UPI0003718494  
 UniRef90\_R5Q302  
 UniRef90\_A6VCN0  
 UniRef90\_B1Y153  
 UniRef90\_E1VK17  
 UniRef90\_J3D7I4  
 UniRef90\_A1TSP4  
 UniRef90\_G3IYH9  
 UniRef90\_Q5FA29  
 UniRef90\_A4G3W4  
 UniRef90\_10HUR4  
 UniRef90\_G4CJY1  
 UniRef90\_F4ATX7  
 UniRef90\_G9EUA2  
 UniRef90\_I1EOF2  
 UniRef90\_UPI0004710FA4  
 UniRef90\_UPI0003036CC8  
 UniRef90\_F2BFC0  
 UniRef90\_L1M2U5  
 UniRef90\_G2DQE8  
 UniRef90\_A5IC50  
 UniRef90\_UPI00047A2133  
 UniRef90\_Q1N4M5  
 UniRef90\_E1STR6  
 UniRef90\_W2UFX4  
 UniRef90\_A0A024IH51  
 UniRef90\_UPI000427DB67  
 UniRef90\_C3JY57  
 UniRef90\_I9W356  
 UniRef90\_I3CCE6  
 UniRef90\_UPI000474A377  
 UniRef90\_B8EET4  
 UniRef90\_F7NRW6  
 UniRef90\_UPI00037B0B99  
 UniRef90\_W0TMG0  
 UniRef90\_I3BNY2  
 UniRef90\_R7IL53  
 UniRef90\_A1WIQ7  
 UniRef90\_M7DCV5  
 UniRef90\_UPI00041A2EE7  
 UniRef90\_B5EMC2  
 UniRef90\_M1F8B0  
 UniRef90\_A1U0W4  
 UniRef90\_UPI00037277C9  
 UniRef90\_UPI0003791D1F  
 UniRef90\_D5X4U9  
 UniRef90\_W2DMN1  
 UniRef90\_D8IS69  
 UniRef90\_D5MK72  
 UniRef90\_UPI000376EEE8  
 UniRef90\_A0A021W7S4  
 UniRef90\_UPI00026C7F01  
 UniRef90\_D0HFS9  
 UniRef90\_V7ZC49  
 UniRef90\_UPI000363726B  
 UniRef90\_A0A023Y327  
 UniRef90\_Q7WCM5  
 UniRef90\_G2DAA8  
 UniRef90\_A7BVX8  
 UniRef90\_I3C25  
 UniRef90\_W5YPU0  
 UniRef90\_K1YU91  
 UniRef90\_M5DQK5

90                  100                  110                  120

N G T P F V L L T S S D K Q H W T Q Y E V	T Q N A D T F V L K P S A K N N L R
N A S P I A L L V H R D D A T W Q A Y Q V	K R Q D D C Y Q I T P K P A V D A S V T
T Q T P A L L L S G D V S K I E D S F T I	T Y N V T D F V L K P K T S D T L F D
A N T P A L L L S G N T E Q L R K S Y R I	T Q S K T Y Y T L Y P K S D D G A F Q
T Q T P F V L L T R N K A S D W D N Y S V	A Q N G D A F T V S P K S D S A I K S
G A S P A A I L F G S N D D K N Y T L R D A G D W L E M V P	P K A Q D T Q F Q
V N T P F I L I A S S D D K Y W K N Y D V	T E Q D D V F T V T S R N Q D E L I A
G Q T P A L L L F G G K P A D V A K A F T I	S E R D N T Y R L T P K G Q D P L F D
G S T P A L L L S G Q I S L E D N F I M E	D Q G Q W I K L S P K S E E S T F K
A G A P I M L L S E P R P L L E Q D F E V	S V V G N W V E L T P R D R D A D F T
G S S P A A I L F G G S N D L A K N F T L	K E G G D W V E L T P K A K D T Q F Q
G A S P A A I L F G G S N D L D K N F T L	R D A G D W L E L T P K S K D T Q F F E
T A S P I A L L V H R D K E T W A Q Y T V	T S K D G C F D I N P K S V D A G V E
E K T P F I L I T C N N T F D W D Q Y N V	D K K G D N F V L I P K K N S N K L K
S A S P I A L L V H D D A K T W A Q Y Q V	S A P I D Q C F A I S P D K D A G V S
G D S P A A I L S N K S A L E S S Y S L	T N T D Q C F A I S P D K D A G V S
G S T P A L L L S G E V I S L E D D N F I M E	K E D G D Y V L A T P K R N N A G Y Q
T H T P A L L L S G G S A D Q L T D S Y E V	M E Q Q G E W V K L L P K N E E S G F K
T H T P A L L L S G G S A S E L T E S Y D V	S S T A E T F E L V P K S P D T L F E
G S A P A A I L S G E L N L N Q R F V V A	G R Q A E T F T L T P R D P D T L F E
G S A P A A I L S G E L N L N Q R F V V A	G Q G G E W V E L R P K S E E D V F R
A H S P I L T V L T D L S Q L D R D F T T	T S E Q G E W L R L L P K S K D K E P Q F E
T H T P A L L L S G S T D E L T E S Y E V	T R T A E T F T L T P H D A D T L F E
A N T P A L L L S S G N T N Q I M Q S Y R V	T Q P D R Y Y T L Y P K Q Q D G A F Q
G S T P A A I L A S D L K A L S A D F D L	Q S A P E W V Q A S P K D K N G Q L K
G S S P A A I L A G A D D S L D K N F K L V	G K D G L D W V S T N P K D S D T G F N
G S T P A A L I A G N D D L S Q R F N I	S D L G H W L L R P K N Q D Q G F T
G D S P A A I L S D R N A L G S S Y T L	K E D G N W V K A T P K S S N A G Y Q
D T T P I A A I T R T D R L D E H F Y M D	V W P V D D L V L I P R N E Q A D F T
G G T P A A L L A G D V Q R V F R R L Q A L	P A Q G Q W V Q A T P R S A D G S F V
G S S P A A I L A G G D A V E K S F T I	K K D G L T W V L L P K E K E S G F E
G A T P A A V L F G S G T L P K D W Q T	S S E A G A V T L T P K E P Q A G F E
N N T P F V L L T S N E Q S H W N Q Y N V	N Q N A D T F V L K P K A K N S N I K
G S T P A A L I A G S R D E R D F T T	E A G L Q W V Q A L P K A R E G S I R
G N T P A L L L S G D P E K L A E S F T T	R A G E V R Y D L I P K H G A L F E
G S S P A A I L F G G S N D L E K N F T L	K E G G E W L E A T P K S K D T T F D
G T T P A A L L A S D L Q A L R K D F T L	G Q D G L Q W V L T P R T R D G Q L K
G S T P A A L L S G E I S L D E N F T M E	E Q Q G V D W I K L L P K N Q E S S F K
G G S P A A I L S N K T A L E S S S Y T L	K E D G D Y V R A T P K R N N A G Y Q
G S S P A A I L F G G S N D L E K N F T L	K E A G T W L E A T P K A K D T T F D
G A T P A A L L A G G S L E S D F V L	S N G G E W A Q A T P R T P D G P F K
G D S P A A I L S N K D A L E A S Y T L	G D G D Y V L A T P K R S N A G Y Q
A N N P L I L T Q P N S D A W G D F T T	T H T N D T F R I D A K S P D S A V H
G G T A A L F L S G Y D D T V T R D F T V	S Q S G S S F D L K S K S A K A N F Q
N R T P F V L L T S T K P E L W A Q Y E V	T Q Q A E Q F V I T A K Q A D S P V K
K A S P I A L L V H R D D K T W S Q Y V V	S K I D N C Y K V K P K A T D A G V V
G S S P A A I L F G G S N D L E K N F A L	K E A G T W L E A T P K A K D T N F D
G D S P A A I L S D K N A L D T S Y T L	K E D G D Y V L A S P K K N N G G Y Q
T Q T P A L L L S G D I S K I I G Q S Y D I	T S K E Q D F V L R P K T K D T L F D
G D S P A S I L L S N K T A L D D S Y S Y T L	K E D G D Y V L A Q P K K N N A G Y Q
G G T A A L F L S G Y D E T L T H D F D V	S E K Q T V F D L K S K S A K E N F Q
R T S P L T A L L T N P S R L D A Q F K V	Q E A G E W L T L T P K A T T S S G F R
T S T P V L L L S S G T I D E Q Q Q Y K V	T D G K T T F S L L P K E T G S L F S
G Q T P L S L L S S N D E A W E A A Y Q V	S Q N G D C F T L T P S D A D G I Q
A A T P A L L L F G S D L D Q L D Q A Y F V	T K L A E H F E L K P E R G G S L F D
G S T P A A L I A G D L S S L R A A F D F	G D P D W V E A V P K A R D G Q L Q
G A T P A A L L A G T H I E R D F A L K	G A T P A A L L A G T H I E R D F A L K
N Q T P A L L L S G D V S K I L N D S F D I	T S N V I E F T L K P K S K D T L F D
G S S P A A I L F G G S N D L E K N F T L	K E G A E W L E L T P K S K D T Q F E
G Q T P A L L L T S N D N F T V K R L S V	T N D M I V L E V R P K G E N P Q F E Q
R N S P I L V A L F E P S R L E R Q F D V	S E E A E W L T L T P K D T E A S F Q
N A S P I A L L V H R D D A T W S Q Y S V	T K Q Q D C Y E I K P K A I D S G I L
Q K T P F V L L L T S H D P K L W A Q Y D V	T G A D E Q F D I L T P K D P G N A V K
T G I P A L I L N G Q I D E L Q A E Y K I	K D N N Q L F E L L P I D E A S V F T
E G T P A G L F A K K L D L D K E F E V	K D V G Q W L R L R P R S E D S Q F E
S A A P V A M L L Q K Q P V D K Q F S V Q	A M D A D W F R L T P K K Q D S D F T
S N N P I V L L T S P D N E H W Q Q Y Q V	S V V D N D V F D V T S N N P E G Q I V
G S T P A A L I A G N D D L G R R F F R I	T D L G E W L L L H P K T T Q D Q G F T
Q A T P A A L L S G E V I D N L A L T Y D V	S D N I R E F T L T P K S P D S L F V
Q T T P A L L L S G E V I E N L D E S Y E V	S E S T R E F T L L V P R S Q D S L F T
S A A P V V G L L L N K Q P V E K Q F R V	T E L E P W F N L I P H R R D S D F T
S S A P V S L L L N K Q P V E S Q F A I	Q E M E S W F R L V P K K K D T D F T
K G T P A A I F A G T D L T R L F T L	Q A Q A D W V Q A T P K A K D S N F D
S Q T P A L L L S G D V S Q I S E S F E I	T S N V I D F T L L K P K S K D T L F D
G S S P A A I L F G G S N D L E K N F T L	K E A G D W L E A V P K S K D T T F D
T T T P I G I L F G M S N L R R D F Q V	R P S E S I L E L T P K G K G L A F K
G A T P A A L L A G G P L D R E F T L	K G L P D W V E A V P K A R D S A F Q
Q N S P L A A L I D P S K L D S M F V V	Q E G G V L I Y H L T P R D P D A L Y E Q
G G T A A L F L S G Y D N T V T R D F S V	K D N G N W L A L E P K T P D A S F R
E Q T P F V L L T R N K A S D W D A Y H	T Q K D L V F D L K S K S S K A N F Q
Q N S P L V A L I D P A R L D K Q Y D V	E E K G D V F T L T P T A L D S N Q G
A N S P A A L L S Q A Q L D V A A N Y E V	S E E A Q W L S L T P K D T E A S F Q
Q N S P L T A L I N P A L L D K Q Y D V	G E G G V L I Y H L T P R D P D A L Y E Q
G T S P A A I L F G G Q L G Q A F V A	S E E A Q W L A L S P K R E D T A F Q
K G T P A Q L L S D T G P I E R H F A I	S A L P D W L R A K P R N A D A G F S
G K T P A F L L S R S R Q L G E D F F V Q	T E L G D W L S L K P K Q K D V E I D
R E T P A L L L S A D I E Q L R K N F S V	Q E D K T R F E L I P K D A Q A Q F D
N S D V T Y A F F V G T G N I V R D F K V	A R D A E K Y T L L T P K V T E G M F Q
Q E T P A L L L S G N V A E I A Q N Y S V	S E N T R E F T L E P R S E D S L F V
Q E T P A L L L S G N V A E I A Q N Y S V	E R Q G D A L K L V P K T A H P Q V I D
Q E T P A L L L S G N V A E I A Q N Y S V	E R L D S D Y R L T P N D K S Q L F

130            140            150            160

UniRef90_Q7VLZ6	Q F D V Q □ D Q N G L L   K G F S T □ E R D G Q T N L Y R L R N □ T T A D L S A D
UniRef90_A3QEJ1	G V E C F K D E Q L E V M K L T D Q Q G N □ S V F N L S A Q P □ K D A D A S S
UniRef90_N2JMW8	S L R L S F R G N V I N D M Q L I D S V G Q R T N I L F N V K M N E P □ V N A S S
UniRef90_N9CJV4	S L T I S F G A K N A P T L M I L E D S L G Q T T Y V R F N N K V N T N I P A S S
UniRef90_B6ENN3	E F I V R I Q P S G K V T G F S V V E Q D G Q R S D F N F T T F E A K K P A Q S
UniRef90_A3NCD1	R I G I G F R N G M L A A M E L H D V F G N V T L L T F T N Q T N P P □ L K A D
UniRef90_R1H779	S F R I T F D R Q D N I S R F D V K E A Q G Q W S E F T L S G F R K P A L L K G N S
UniRef90_Q0VQ09	Q D V T F K G G Q P A S M R L Q D A L G Q Q T V I D F I G L T N D G I D S S
UniRef90_UPI000477D6D0	Y I L I G L T K G I L G G M E L S D N F G Q L T R I Y F S D V V N P P □ L K Q T
UniRef90_B8GT68	R I L I G M D G D R V G M M V L Y D Q F G Q Q T R I R F S N M R N P S I P A A
UniRef90_B2U9Y9	R I A I G F R S G E L L Q G M E L R D A F G N T T L L T F S N Q K N P Q L P A N D
UniRef90_G8M5S0	T V G I G F K D G N L Q A M E L H D V F G N V T L L T F S N Q K N P P □ L K S D S
UniRef90_D4ZKR7	S V K V C F K G K T L T Q M V L E D Q Q G N V S S F E L T G Q T A T D A E K S S
UniRef90_J3TH02	K I T I N V R N N G L V D Y F D T I E T N N Q H I S Y Q L H S Q Q I R Y □ D N S
UniRef90_B8CP85	E V E V C F N E T T L T E M V L K D Q Q G N T S S F L L S E Q T T L D K S E N G
UniRef90_UPI0003F88E3B	F I R I G F K G G Q L A A M E L K D G F G N Q T A I R F H G V T K P N L S K G
UniRef90_UPI0003601085	Y V L I G L N S G I L G G M E L S D N F G Q L T R I Y F S N V R N Q A I R P D
UniRef90_UPI00037F720A	E L K L T F Y G E R L G F L Q M T D S T G Q R T A I E F D D E Q N V S V E D S S
UniRef90_S2L478	E L K M T F Y S E R L G M L Q M T D S T G Q R T A I R F D D V Q N P S L L D D S S
UniRef90_H5SAF3	S I T V E L S G G V L S A M E I K D N F G Q L T R I V R F Q V E L N R P L Q D S S
UniRef90_X1GZ63	Y A D L G F G P A G L A N M T F K D S F G N T T Q I R F A D Q R N A K L A A D S
UniRef90_E1V4K2	S L K M T F Y G E T L G R L Q M T D S T G Q R T A I G F D D Q Q N V E V A D S
UniRef90_N9RBS6	S L T I S F G A N K A P N L M I L Q D S L G Q T T Y V R F N N K V N P S I P A P
UniRef90_A9BNU6	S V R V G F A A D G Q L S A L D I L D S F G Q R S L I R F N Q T Q A S L P A S
UniRef90_D7DIR5	K I S L A F K N D V L Q E M D M I D S F G H Q T K I F S N V V N P V I E P K
UniRef90_UPI0002624FC	A L R L G F D T A G I L K E M R M E D A F Q Q E T V L H F T V E I N H A I P S H
UniRef90_UPI00037E9C93	Y I R L G F K N N Q L N G M Q L R D S F G N N T N I T F S L L N N N P N V S A T
UniRef90_UPI00035F392F	H L E L D L T P D S D L I R M A F R D I F G Q Q T E I R F R T E R N A G V D E S
UniRef90_UPI000477ED58	W V R L G L A R G P Q L E Q M V L R D A F R R T S T I R F S A Q R N P S F P A G
UniRef90_UPI0003718494	R V L L G F S D G K R K M E L Y D S F N H I T L I T F D V E R N P T L Q N S D
UniRef90_R5Q302	S V K V V F D A S G N P D S M S L R D T F G Q T T E V K F R F K A L E Q M N P D
UniRef90_A6VNC0	Q F D I R I D G N G V L K G F S T I E K D G Q S N L Y M L R N □ N N N D I A D N
UniRef90_B1Y153	S L R V A F R G K D L A A F E I T D A F G Q R S R L D F N F E G N A A V P A A
UniRef90_E1VK17	L L R V H F R S G K I H D M F L R D N L G Q T T R I E F E T K A N K P I D A K
UniRef90_J3D714	R I G I G L K D G V P Q A M E L R D S F G Q T S S L L S F T N E K N P P L K A T
UniRef90_A1TSP4	S V R V G F Q G E Q L A A L D I L D S F G Q R S V I R F N V Q S S A S L P A S
UniRef90_G3IYH9	Y V L I G L N N D S L G G M E L S D N F G Q L T R I Y F S N V L N P P L K Q T
UniRef90_Q5FA29	Y I R I G F K G G N L A A M Q L K D S F G N Q T S I S F F G G L T N P Q L S R G
UniRef90_A4G3W4	H I G I G L R N G A P E A M E L R D S F G Q V S L L S F T F E K N P P L P A N D
UniRef90_I0HUR4	S M K V G F R G A E L A A V E I V D S F G Q R S R L D F K F E A G V A L L P A D
UniRef90_G4CJY1	Y I R I G F K G D A L A E M R L K D S F G N Q T T I R F S N L N T P N L S R N
UniRef90_F4ATX7	S L V L V F D G E Q L S S M S M Q D S Q Q Q I S D L Y F D N Q Q N K A L L S D E
UniRef90_G9EUA2	R I R L L M F R Q N L L V G E L F D Q L G Q V T T V Q L S Q K L N P K L A A A
UniRef90_I1EOF2	Q L T L R F S G D A L S A M Q V L D D V N Q K Q S E F N F T M Q L N V T L D D S
UniRef90_UPI0004710FA4	G V K L C F K D N N L T Q F S L D D N Q G N H S F T L K D Q H A L T Q A D K
UniRef90_UPI0003036CC8	R I L I G L K D G V P Q A M E L R D S F G Q V S Q L T F F S F E K N P P M A P D
UniRef90_F2BFC0	Y I R I G F K G D T I A A M E L K D G F G N Q T A I R F S N I T H P N P P R S S
UniRef90_L1M2U5	S L R L S F R G G L I N D M Q L D S V G Q R T N I M F T G V K N E S I P V A A E
UniRef90_G2DQE8	Y I R I G F K G D T L S A M Q L K D S F G N E T T I R F N N V S K P N L S R S
UniRef90_A5ICSO	R I K L I F S Q S T L I G E L Y D Q L G Q I T D V K L Q I K S N P K L P A K G
UniRef90_UPI00047A2133	S A K L G F A A G G L S K M Q V V D Q L G Q R T D I S F S D K R N A P L P A G
UniRef90_Q1N4M5	R R T L Y V D Q G S M I T G L T I K D E V G Q V T R V E F K N Q K N V E V A S E
UniRef90_E1STR6	T M A I C F D G D A E S L S L V D G Q V Q V E T R M T L S R F H T G P L E Q G
UniRef90_W2UFX4	S M I I I R F D Q A K P S S I T T D T L G Q T T H I S F S S Q E L N P S L P G D G
UniRef90_A0A024IH51	R V R V G L R A K Q L A V L D I E D G L G Q R S E L T F K G Q A N P G L A T G
UniRef90_UPI000427DB67	S L K L L G F K G K E L A A M E I V D G F G Q R S R L D F S S V Q A N V P V A A E
UniRef90_C3JY57	T L S I L S F F G N G V I N N M R L V D S V G Q R T D I L F S S G V K N Q P V P A S
UniRef90_I9W356	R I A I G F K G G G L E G M E L R D T F G N V T L L T F S I I Q K N P S L S A N D
UniRef90_I3CCE6	R L N L T L E N N T L K Q E L L D N L G Q K S L I N F S M Q K N I A V D E D
UniRef90_UPI000474A377	M A R L L G F G P Q G L A R M Q V V D L V G Q K T E L R F S S G K R N P S F A A G
UniRef90_B8EET4	S V K V C F K N A Q L A N F N V A D D K G N L S Q F D L S N Q Q A T D K D K A
UniRef90_F7NRW6	K L S K F S G L A I S Q M V V M D S N G Q N S T F E F N V Q Y N T P L A S E D
UniRef90_UPI00037B0B99	R I R L L F T D G L I K E L Q M G D S L G Q R T S I L F E N Q I N P V F S D D S
UniRef90_W0TMG0	Q I L L A F E G D K L L S R M E M A D R L L G Q V T R F D F K M Q R N L P I Q D S S
UniRef90_13BNY2	T M D L G V G N N G V E E M I L G D K F G Q Q T Y I K F Q G V R N I N I D N S S
UniRef90_R7L53	D I R I G F R D G L P A A M T L K D S F G Q T I L T H M S D K K N P S I S S S
UniRef90_A1WIQ7	S V R V G F A G E Q L A V L D I L D N F G Q R S V I R F T G Q T N V A L P A N
UniRef90_M7DCV5	S L R L S F F K G E L I Q E M R M R D S L S Q L S I L S F D H I R N D T I I D A G S
UniRef90_UPI00041A2EE7	S L R L I C F D G D A E S L S L V D G Q V Q V E T R M T L S R F H T G P L E Q G
UniRef90_B5EMC2	A L K I I S F A D N A L S R L V L I D R Q Q V S F V F S E Q R N E N L D S S
UniRef90_M1F8B0	A L R L G F D A Q G A L R E M R M E D A F Q Q Q T V L R F E H I R N H P I S A Q
UniRef90_A1U0W4	A L R R M S F F D G Q L Q E M R M R E D S L S Q I S I M S F D D V L N A D I A A S S
UniRef90_UPI00037277C9	S L R R L S F Y D G E L Q E M R M R D S L S Q M S I L L S F D I E L N Q A L D D S S
UniRef90_UPI00037727C9	A M D L G V S D R G I Q E M I L R D K F G Q Q E T K I R F N G M L N P N I P P
UniRef90_UPI0003791D1F	T M D L G L G L A N G L Q E M V L S D K F G Q Q T Y I H F Q N M K F S P I A A D
UniRef90_D5X4U9	W I R I G L A Q G P E V A E L Q L I R D A F G Q I S T M R F T I K H N P T F G P D
UniRef90_W2DMN1	S L R R L S F R N G V I N D M Q L I D S V G Q R T N I L F T G V K N E S V P A S
UniRef90_D8IS69	R I G I G L K N G T P V A M E L H D S F G Q V S L L S F S F E K N P P L K V N
UniRef90_D5MK72	R V I L G V D R A S L I R R L T V F D L Y G N T T V E L S K Q T N S N L K D E
UniRef90_UPI000376EEE8	A V R V G F R G K E L A A L E I V D G F G Q V S V L S M R F E A N V H L A P E
UniRef90_A0A021W7S4	N A K L L G F N A G G L A K M E I V D A L G Q K T E I S F S G K R N P S F P A T
UniRef90_UPI0002627F01	R I K L I F R Q D S L T G L E Y D Q L G Q V T T V K L S I K L N P K L S G N
UniRef90_D0HFS9	R F Q I T I S D K G V V Q G F K V I E Q D G Q Q S E F T F S K V K Q Q K P N A S
UniRef90_V7ZC49	M A S L L G F G K D G L A K M E V V D A V G Q R T A I S F S G K R N P A F A A D
UniRef90_UPI000363726B	V L I L L E F H G S D L V A L Q V K D N L G Q A T L V D F T N V T N P E F E D D
UniRef90_A0A023Y327	Y A A L L G F N A Q G G L A R M E V V D A V G Q R T V I T F T G K R N P G F A A G
UniRef90_Q7WCM5	Q V D I G L R D N Q P A R E L E F D A F G Q T T R V E L S N L L P G A V P A S E
UniRef90_G2DAA8	Q V K L L G L Q N Q L V Q M E M I D S F G Q I T R F R F S N R R N P A L E H E
UniRef90_A7BVX8	S I R I I N L R G N T L Q S F E L V D N L G Q T T Y I T F R Q □ R N K K L D E G
UniRef90_I3C25	U R I I L V F K S G Q L S E F A I Q D S L G Q L T R C V L S N Q R N K A L P E E
UniRef90_W5YPU0	S L R R L T F D N F M V R R L E I V D H F G S I T D L A F S N L R N E P V E D N
UniRef90_K1YU91	Y L H V W I D D N F M V R R L E I V D H F G S I T D L A F S N L R N E P V P P E
UniRef90_M5DQK5	V A L L E F D K A N T L Q T M R I F D A A G Q Q T T L I E F S K Q R N Q A L D S M

170

UniRef90_Q7VLZ6	L F K F S V P K D V E V   D D Q R R
UniRef90_A3QEJ1	L F Q F T V P E G V D I   D D Q R R
UniRef90_N2JMW8	E F V F E I P K G A D V I   Q E
UniRef90_N9CXV4	T F N F T P P K G T D I   I D Q
UniRef90_B6ENN3	N F M F T V P D G V D I   D D Q R R
UniRef90_A3NCD1	Q F K F V V P K G A D V V
UniRef90_R1H779	E F V F K M P K G V A L   D D Q R R
UniRef90_Q0VQ09	L F H F D P P E G T D V I   Q Q Q Q
UniRef90_UPI000477D6D0	L F Q F T P P K G V D V
UniRef90_B8GT68	T F R F E A P P G V D V I R
UniRef90_B2U9Y9	V F R F T P P K G A D V I K Q
UniRef90_G8M5S0	T F K F T V P K G A D V I N
UniRef90_D4ZKR7	L F K F T V P E D V D I   D D Q R R
UniRef90_J3TH02	Q F Q F V P P K G V I L   D D Q R R
UniRef90_B8CP85	L F K F V V P E D V D I   D D Q R R
UniRef90_UPI0003F88E3B	A F K F V P P K G V D V L S Q
UniRef90_UPI0003601085	L F Q F R A P K G V D I
UniRef90_UPI00037F720A	R F D M D L P E G T D V I R E S R
UniRef90_S2L478	R F T F E I P D G A D V I R E
UniRef90_H5SAF3	L F R F E P P P G V D V V
UniRef90_X1GZ63	Q F R F T P P K G V D V V
UniRef90_E1V4K2	R F Q L D L P E G T D V I R E
UniRef90_N9RBS6	V F N F T P P K G T D I I D Q
UniRef90_A9BNU6	T F D F K V P A G A D V L L K Q
UniRef90_D7DIR5	S F L F K P P P G V D V V
UniRef90_UPI0002624FC	E F Q F T T P A G V D V L S Q
UniRef90_UPI00037E9C93	D F K F T P P K G V D V L
UniRef90_UPI00035F392F	R F T F D P P S G T D I
UniRef90_UPI000477ED58	T F E F T P P P G A A V I R
UniRef90_UPI0003718494	T F L F T P P K G V D V V
UniRef90_R5Q302	R F R F V I P K G V D V L Q
UniRef90_A6VNC0	L F R F S V P K G A E F D D Q R K
UniRef90_B1Y153	R F K F V I A P A G A D V L Q Q
UniRef90_E1VK17	V F A F K P P K G V D V I E
UniRef90_J3D7I4	S F T F V V P K G A D V
UniRef90_A1TSP4	T F E F K P P Q G A D V V R Q
UniRef90_G3IYH9	L F E F K A P K G V D V L
UniRef90_Q5FA29	A F K F T P P K G V D V L
UniRef90_A4G3W4	Q F K F A V P K G A D V
UniRef90_I0HUR4	R F H F T V P A G A D V L Q Q
UniRef90_G4CJY1	H F R F T P P Q G V D V I S Q
UniRef90_F4ATX7	V F T F T L P E G Y D L   D D Q R
UniRef90_G9EUA2	L F Q F K P P K G V D V V Q Q
UniRef90_I1E0F2	L F Q F V P P E H T D I   D D Q R Q
UniRef90_UPI0004710FA4	V F N F K V P E N V D   D D Q R
UniRef90_UPI0003036CC8	Q F K F V M P K G A D V F Q Q
UniRef90_F2BFC0	A F A F T P P K G A D V L S Q
UniRef90_L1M2U5	K F E F V V P K G A D V I K E
UniRef90_G2DQE8	L F K F T P P K G V D V V
UniRef90_A5ICSO	L F Q F K P P K G V D V V K Q
UniRef90_UPI00047A2133	T F R F A V P K G V D V I
UniRef90_Q1N4M5	K F Q F N P P E G V D I   I Q N Q Q
UniRef90_E1STR6	R F T F A A P E G T L V   D D Q R
UniRef90_W2UFX4	Q F V F Q L P D G V D V I N
UniRef90_A0A024IH51	D F R F E P P A G A D V I R Q
UniRef90_UPI000427DB67	R F Q F K L P A G A D L I E Q
UniRef90_C3JY57	K F K F D I P K G A D V I I Q E
UniRef90_I9W356	Q F R F Q V P K G A D V V L K Q
UniRef90_I3CCE6	L F I F T P P A G T D I I Q
UniRef90_UPI000474A377	T F R F T P A K G V D V V
UniRef90_B8EET4	L F S F V L P D N V D   D D Q R R
UniRef90_F7NRW6	L F E F A L P T T A E V   D D Q R
UniRef90_UPI00037B0B99	A F N F E P P E G T D V I
UniRef90_W0TMG0	L F R F V A P P G Y D I L D Q
UniRef90_I3BNY2	R F S F T P P K G V D V V
UniRef90_R7IL53	A F E F R P P K G A E I I L R Q
UniRef90_A1WIQ7	T F Q F N P P A G A D V I A Q
UniRef90_M7DCV5	A F T L D Y P D G V D V I R E
UniRef90_UPI00041A2EE7	L F S F T L P D G Y S L   D D Q R
UniRef90_B5EMC2	E F Q F T P P A G V D V L S Q
UniRef90_M1F8B0	V F K L D Y P A G V D I I R
UniRef90_A1U0W4	V F R L D Y P E G V D V I R
UniRef90_UPI00037277C9	R F Q F K P P A G V D V I
UniRef90_UPI0003791D1F	R F T F T P P Q G V D V I
UniRef90_D5X4U9	S F R F T P P K G A S V I S Q
UniRef90_W2DMN1	T F K F D I P K G A D V I Q E
UniRef90_D8IS69	S F S F T I P K G A D V I
UniRef90_D5MK72	L F Q F S P P P G T E V V
UniRef90_UPI000376EEE8	R F R F T P P P G A D V L E Q
UniRef90_A0A021W7S4	T F K Y A P A K G V D V I
UniRef90_UPI00026C7F01	L F Q F K T P K G V D V V Q Q
UniRef90_D0HFS9	L F N Y K V P K G V E V   D D Q R
UniRef90_V7ZC49	T F R Y T P G K G V D V V
UniRef90_UPI000363726B	H F E F E V P E G I D V I D S R
UniRef90_A0A023Y327	T F S F A P P K G T D V I G Q
UniRef90_Q7WCM5	E F Q F T P P Q G V D V V K M
UniRef90_G2DAA8	L F V F D P P D G I D M I
UniRef90_A7BVX8	L F I F T P P A G I D I I Q
UniRef90_I3IC25	N F F F V P P E G V E I I L R
UniRef90_W5YPU0	A F T L N Y P D S V D V I R
UniRef90_K1YU91	T F V F T P P L G T E I I E Q
UniRef90_M5DQK5	T F V F D V P E G V D V I D G R

	1	10	20	30	40
UniRef90_Z9JGA7	A R G D L S A F T R G L K T L Q G H F S Q E V I D T Q H S I G T V A L S L P N				
UniRef90UPI00034DB027	A A D A L R A F V Q D A K A G R A S F T Q T V N R T K V S T G R F E F S R P N				
UniRef90_W8X3L2	R E Q L Q S F V D R V Q S A T G Q F S Q E R T D A K G A S G A F F S R P N				
UniRef90_K2DJU4	L K S L E N F V K T V K T G Q A D F T Q V V T S P K T S S G R F E F S R P N				
UniRef90_J2IB12	D A S A E L M Q Q L A R I K S Y T A S Y R Q K V Y D Q E G K G Q L A L Q Q G A				
UniRef90UPI0004652B76	D G V D D L K Q Q F Y Q G T Q A M R A N F K Q T V F D L Q E V N G T M L L Q R P N				
UniRef90UPI00030274E5	E E L Q S Q S L S A L K P F S A D F T Q T V T S A E T A Q G L M Q L R Q P N				
UniRef90_M4U486	D D S Q I L Q E K L L A K L K I N A H F S S V V S N I N E S I G T L S V L R P G				
UniRef90_Q12NE8	D D A A K L R G K L L A Q V D S L H A A F S S Q Q V T V T D I Q Q G Q G V F A L A Y P S				
UniRef90UPI0000E0EF43	A K T E L L R Q R L E A I I S S L Q S T F T Q T V T D I H S S S G N L V L Q Q P N				
UniRef90_D0L0X6	A K T E L L R Q R L E A I I S S L Q S T F T Q T V T D I H S S S G N L V L Q Q P N				
UniRef90UPI00036A67CC	D A K Q Q L L R D F V V K N I L K S A T G Q F A Q Q S G G G A Q G Q S G T F S F E R P G				
UniRef90_U1MA57	A Q S E L L K T R L T K L N N L Q A D F S S Q T V I D M Q G T G L L K I K R P E				
UniRef90_K9D7D3	D D Q F K S F F V A S T Q S A K G E F T T Q Q Q L G K S K S S G S F V F A R P G				
UniRef90UPI00047134E5	D A R L A L E R F M T G L E T F S A E F T Q T V T S V D L Q E S E G V M H L G L P D				
UniRef90UPI000372733A	A L E Q F K T F V S G T K S A K G D F T Q R A K A S A L A T G T F E F A R P G				
UniRef90UPI0004765CA9	G L E S L E N F F V R S A H S G S A D F T Q V V T A P K T S S S G T F E F Q R P N				
UniRef90_F5XXE0	L K Q K L L S G L K T F T A A F E Q K V T D G Q E S A G Q M T L K Q P N				
UniRef90_K6YFG8	A Q E Q L K S S F V T T V T S A T G S F S Q Y T V N N Q A Q T G V F S P Q R P G				
UniRef90_D4X8I3	A L E Q F K S F V A S T K A A K G E F T Q T Q K Q V N T N G S G T F V F A R P G				
UniRef90UPI000381188D	I L E S L A R L L E P Y R T F S A D F Q Q S T L D T E M T G A L A I A S E S				
UniRef90UPI000262CBC8	D G A D R V N A Y L S G L N S L Q A D F E Q Y T T Q M M E A R G T L Y L Q R P G				
UniRef90_I3YGJ4	D G S A E L L A E L T K I D S F S A R Y Q Q V F D Q G H G R L L K V A				
UniRef90UPI0003794A14					
UniRef90_K2K4U8					
UniRef90_Q2SJC1	G V D A L S G L L K N V E T F T A N F T Q T M R S L Q E V T G T L K A K R P G				
UniRef90_H3KBV2	E A L A R L E S F A R E V R A A E G A F T Q R S I V G G P D S S S G T F A F S R P G				
UniRef90_U1LRE5	A A Q S L K D K L K A L E S F R A E F E Q S V I D I Q S G K G E I V L Q Y P A				
UniRef90_U5T7C0	E A L Q R L E Q Y F E A V D T L K G E F R Q V T V R D L Q E S D G R M Q L G M P N				
UniRef90UPI00039CE95F	V Q Q L E K I L M Q Q G F S N Y S A E F E Q Y T E D G E V V S K G Q M N V Q R P N				
UniRef90_S6GH48	E K I C R C Y R V E R L V Q P N R E K Q K K T Q T S S G G T F Q I M R P G				
UniRef90_D4DMQ7	L N H D L R R I R T F E A R F T E S V T N P D H H K G K V W I E R P N				
UniRef90_T0XZQ5	G R E A L L D R F S Q G L T T L E A R F E Q A V L D T E N A H G V V L L K R P G				
UniRef90_S6BTQ1	A A E S L K K L R S L L N T F E A N F T Q K V K D L Q D G T G N I A L K Y P S				
UniRef90_V4H8F5	D G A E K L K E M L N G Y Q S F S T N H S M Q A G F I Q K V S D T K Q T E G Q M A M Q R P G				
UniRef90_Q2BNJ4	D G L D S L E N F I K T T K S G R A S F T Q V T R E A Q K T E G S L K L A K P N				
UniRef90_K1ZYQ9	D L A A V I Q Q R Y E T L N S F S A D F E Q T L T H K E S G S G S L L F Q K P L				
UniRef90_Q125U6	V A L L A D R L K P M T S L T A A F T Q T I R D M Q D A Q G Q T L V L K R P R				
UniRef90_G1UP12	D D S Q A L Q D K L S T L K S F K A Q F K Q N V T D G M Q G Q G N I A L Q Q P L				
UniRef90_A0YBU3	D A A S L K S R L D K V V S S F H A T F T Q K V T D G Q E G Q G D L W V X R P N				
UniRef90_E6RHH2	D A T K R I D D Y L A E L S S L E A S F Q Q Y T T Q M M E G H G T L L Y L Q R P G				
UniRef90_C3XA81	A A Q A L F A K I S A L D N M H A D F T Q V L R D T Q K S T Q G I W I K K P S				
UniRef90_X3X4D9	Q R L D A Y L K G L T S L E A D F A Q T F T N M M E G R G T F Y L Q R P G				
UniRef90_W9VHR6	A I A E L T Q L L N R F S T F S A Q F T Q T T M G Q T S H G T V M I A R P G				
UniRef90UPI0003636065	D L V E E L D A R A V A A T R L E A R F V Q T A R M V Q V A G G R V W F A K G G				
UniRef90UPI00037BAAB	E A K E H M T K L G K L A F F S A D F S Q K I L D L Q Q G S G T L A I S K P N				
UniRef90_K2BBK7	D D L K V K L M E I N T L K A N F N Q T V T D Q T G E V G F V A L S H P N				
UniRef90UPI0002558444	D G V Q L V T D Y L R G L N S L Q A D F R Q I T L S G D E S S S G T F Y L Q R P N				
UniRef90UPI00046D65F7	N A S Q D L Q E R L L G K V N S F H A S F T Q T V T S Q E G E G Q Q L W V K R P N				
UniRef90_Q48P9	D I A Q L R R F A T R T P A A T G T F V Q T R G G A A R S S G S F A F A R P G				
UniRef90_A4H4R5	D I Q Q R L E Q F L H E V A A F E A Q F T Q N V V N L Q V A H G Q V K V Q R P G				
UniRef90_V4LL27	D D A K E L V S K L D V M Q G I K A N F S Q K V T D Q E G S G V I A M H Q P D				
UniRef90_TOP5M1	D I A H L D A F L D S L E T Y Q A D F V Q T Q P D E S T S E G H F V L E R P G				
UniRef90_E7RW25	A L D T F M K G T K D L Q A S F T Q T V Y N K E T S K G Q M W V A K P G				
UniRef90_M1YNH3	A T E Q L N N F I V Q V Q T A K G H F V Q Q Q I K T D K S S G F F L F E R P G				
UniRef90_G4E474	D A T S S I L E S L L E L N R N I E G E F R Q V T Y D L Q V S E G V F L L A K P N				
UniRef90_A1S6H2	D V T A E L K Q A L G R F D A F S A N F E Q R V I D D Q A E G E L L L A K P A				
UniRef90UPI000373AFFE	L L D R F L A H L H T L R V F R Q T L V D L S H S A G T L I V Q R P G				
UniRef90_G9ZFA5	D L A Q V Q A H L R A V T T M T A D F T Q T D R N G A T L Q I K K P G				
UniRef90UPI00034520F8	A A E K L L A G L L D Q F T T F Q A Q F S Q T T M D V Q E S A G T V S I M R P G				
UniRef90_A6W0D2	A V V R L Q A F F V D G I T T M E A T F Q R V T E I E E R G R F F L A L P R G				
UniRef90_T1HP91	A Q D A L N N F V K N R G F A E G Q F S Q V V I S P Q R G R T G F E L T F S R P G				
UniRef90UPI000404254	E A V K E L Q Q K L L Q T L S G F S A Q F S Q V K T D V Q T T Q G Q V D I V Q P N				
UniRef90_T1AP75	D V K S A L Q S K L L D T M Q Q Y K A D F T Q T V K D M D E A S G A L T T M A R P D				
UniRef90UPI00047600DA	D M P D L I Q K R Y E T L K T F R C D F V Q E L T D V E E R R G R I W F R Q P S				
UniRef90_K2BSW7	A A E K L L A G L L D Q F T T F Q A Q F S Q T T M D V Q E S A G T V S I M R P G				
UniRef90_A0L885	A V V R L Q A F F V D G I T T M E A T F Q R V T E I E E R G R F F L A L P R G				
UniRef90_A6GU35	E A V K E L Q Q K L L Q T L S G F S A Q F S Q V K T D V Q T T Q G Q V D I V Q P N				
UniRef90UPI000312E367	D V K S A L Q S K L L D T M Q Q Y K A D F T Q T V K D M D E A S G A L T T M A R P D				
UniRef90UPI00047755CF	D M P D L I Q K R Y E T L K T F R C D F V Q E L T D V E E R R G R I W F R Q P S				
UniRef90_G4QGV6	A K D E L K M K L S K L V S Y S A N F S Q S I S D I Q R T S G T L T L K T P N				
UniRef90UPI0003B696BF	D V A Q L H I Q L S S L K T L Q A D F E Q D V F D Q S R G R E L V V E R P N				
UniRef90_Q1GPP7	A L S S V Q A H L K A S D T M T A D F V Q T D R N G Q R L S S G K L T L K R P G				
UniRef90_E6VX75	D M P D L I Q K R Y E T L K T F R C D F V Q E L T D V E E R R G R I W F R Q P S				
UniRef90UPI000248B8B1	D P A S D L I E K I K N I H S M T A N F N Q K L I D G Q T S K G N M S L K K P Q				
UniRef90_Q1IRC4	D T K E E L Q S K L L S T L N A L S S S T F S Q T V T R V S K S S G R L S L K K P D				
UniRef90_R5EWM0	D D K A D L K A K L L N A F N E F S A S F V I Q E V T D V M S S N G I I A L Q K P A				
UniRef90_E8LLA2	D P A S D L I E K I K N I H S M T A N F N Q K L I D G Q T S K G N M S L K K P Q				
UniRef90_F4BIY6	D P A S D L I E K I K N I H S M T A N F N Q K L I D G Q T S K G N M S L K K P Q				
UniRef90UPI00037092B7	D P A S D L I E K I K N I H S M T A N F N Q K L I D G Q T S K G N M S L K K P Q				
UniRef90_Q1NS79	L A Q V Q H L K G I S T M T A D F T Q D F T Q R N G R V V T G V L T L K Q P H				
UniRef90_H5T9R5	E D K A S L R S L L S Q F S T L K G T F S Q T I V D M Q S A S G E L F L Q K P Q				
UniRef90UPI0003957382	D G L Q S L E K F M T S S Q A G E A Q F T Q T V T S P K T S S S G S F A F Q R P G				
UniRef90UPI000477B96F	A E N A L T Q Y V H L K T F S A D F E Q I Q P D L N K S F G H F D L N R P G				
UniRef90UPI0003638CAB	V S G G I E A K Y A N K S F S A D F E Q T A L D V T E A K G R A W F S H P G				
UniRef90_A7H6G4	N A S D D L I N K I K N I H S M S A S F D Q K L I S D N I S S S K G Y M S L L K K P K				
UniRef90_B0UOJ9	E I A D K I Q H R Y E T V K S F E A D F T Q R L T R A T E S T G R I W F K P R P S				
UniRef90UPI0003B67C1A	U I D P O S 4 A 2 A 2 T E P S				
UniRef90_F6CTH9	N A S D D L I N K I K N I H S M S A S F D Q K L I S D N I S S S K G Y M S L L K K P K				
UniRef90_A4SWP5	E L A A R V D Q H Y N R L H S L E V A F V Q S Y T G M K R E A G A L L L K K P K				
UniRef90_C1F526	E L A A R V D Q H Y N R L H S L E V A F V Q S Y T G M K R E A G A L L L K K P K				

UniRef90\_Z9JGA7  
 UniRef90\_UPI00034DB027  
 UniRef90\_W8X3L2  
 UniRef90\_K2DJU4  
 UniRef90\_J2IB12  
 UniRef90\_UPI0004652B76  
 UniRef90\_UPI00030274E5  
 UniRef90\_M4U486  
 UniRef90\_Q12NE8  
 UniRef90\_UPI0000E0EF43  
 UniRef90\_D0L0X6  
 UniRef90\_UPI00036A67CC  
 UniRef90\_U1MA57  
 UniRef90\_K9D7D3  
 UniRef90\_UPI00047134E5  
 UniRef90\_UPI000372733A  
 UniRef90\_UPI0004765CA9  
 UniRef90\_F5XXE0  
 UniRef90\_K6YFG8  
 UniRef90\_D4X813  
 UniRef90\_UPI000381188D  
 UniRef90\_UPI000262CBC8  
 UniRef90\_I3YGJ4  
 UniRef90\_UPI0003794A14  
 UniRef90\_K2K4U8  
 UniRef90\_Q2SJC1  
 UniRef90\_H3KBV2  
 UniRef90\_U1LRE5  
 UniRef90\_U5T7C0  
 UniRef90\_UPI00039CE95F  
 UniRef90\_S6GH48  
 UniRef90\_D4DMQ7  
 UniRef90\_T0XZQ5  
 UniRef90\_S6BTQ1  
 UniRef90\_V4H8F5  
 UniRef90\_Q2BNJ4  
 UniRef90\_K1ZYQ9  
 UniRef90\_Q125U6  
 UniRef90\_G1UP12  
 UniRef90\_A0YBU3  
 UniRef90\_E6RHH2  
 UniRef90\_C3XAX1  
 UniRef90\_X3X4D9  
 UniRef90\_W9VHR6  
 UniRef90\_UPI0003636065  
 UniRef90\_UPI00037BAAB  
 UniRef90\_K2BBK7  
 UniRef90\_UPI0002558444  
 UniRef90\_UPI00046D65F7  
 UniRef90\_Q48OP9  
 UniRef90\_A8H4R5  
 UniRef90\_V4LL27  
 UniRef90\_T0P5M1  
 UniRef90\_E7RW25  
 UniRef90\_M1YNH3  
 UniRef90\_G4E474  
 UniRef90\_A1S6H2  
 UniRef90\_UPI000373AFFE  
 UniRef90\_G9ZFA5  
 UniRef90\_UPI00034520F8  
 UniRef90\_A6W0D2  
 UniRef90\_T1H9P1  
 UniRef90\_UPI0004004254  
 UniRef90\_T1AP75  
 UniRef90\_UPI00047600DA  
 UniRef90\_K2BSW7  
 UniRef90\_A0L885  
 UniRef90\_A6GU35  
 UniRef90\_UPI000312E367  
 UniRef90\_UPI00047755CF  
 UniRef90\_G4QGV6  
 UniRef90\_UPI0003B696BF  
 UniRef90\_Q1GPP7  
 UniRef90\_E6VX75  
 UniRef90\_UPI000248B8B1  
 UniRef90\_Q1IRC4  
 UniRef90\_R5EWMO  
 UniRef90\_E8LLA2  
 UniRef90\_F4BIY6  
 UniRef90\_UPI00037092B7  
 UniRef90\_Q1NS79  
 UniRef90\_H5T9R5  
 UniRef90\_UPI0003957382  
 UniRef90\_UPI000477B96F  
 UniRef90\_UPI0003638CAB  
 UniRef90\_A7H6G4  
 UniRef90\_B0UOJ9  
 UniRef90\_UPI0003B67C1A  
 UniRef90\_F6CTH9  
 UniRef90\_A4SWP5  
 UniRef90\_C1F526  
 UniRef90\_A0A017TEB5

L L R W E C N T P Y K Q L V V A D G K R V W L F D P D L N Q A S V R F Q G D E E  
 R F R F E Y Q K P Y A Q T I V S D G E K V W F H D P D L N Q V T V R K L G D A L  
 K F R W E V R A P Y E Q L I V S D G R H V Y Q Y D P D L A Q V T E R N A S Q A V  
 R F R F D Y L K P F V Q T I V A D G Q T L W L H D V D L N Q V T A R K Q S A V L  
 R F R F E S T E P E P S L L V S D G K T L W I Y N E P L E Q V S I Y D A Q S E V  
 K F R W D Y Q K P Y E Q Q I I S D G R Q V F L F D V D L Q Q V T V R T V D K V L  
 Q F R W E T T S P D E Q L I V S N G E N L W F Y N P F V E Q V S I Y S L K D A I  
 K F I W H V T A P D E Q M I V S N G L L M W I Y D P F I E Q V T I L N L D D T I  
 K F Y W H L V E P D E S L I V A D G T D L W V Y N P F A E E V S I F N Q A D M V  
 R V Y W H A Q V P D E T L V I A N G D K V F Y V D D F V E Q V S I F N Q A D M V  
 R F F W A Y E K P Y V Q K L I A N E G V L W V Y D P D L A Q V T R S P L A D N R  
 K F V W H I S K P Y E Q K L I V S D G Q K V Y Q Y D P D L A Q V T I R N V Q D S V  
 K L Y W K Q T S P D E T V L V S D G I K T F Y Y D E F A E Q V T I L D S K K L I  
 K F I W T Y Q K P Y E Q V L Q A D G E T L Y I Y D K D L N Q V T T R K L G N A L  
 K F K W M V I V R P Y E Q L I A D G R Q V F Q Y D P D L A Q V T V R N V D Q A I  
 R L Y W E V R E P F P Q V V V S D G R E L W T F E P D L A Q V T V R P L G D A L  
 K F I W T Y V K P Y E Q L I V Q A D G E Q L Y I Y D K D L N Q V T T K K L G N A L  
 R F R F H Y Q K P F E Q V I V A D G Q T L W L H D D L N Q V T A R S Q S Q V L  
 L M I W Q V N E P D E N L M V A D G T T L W Y S D P F V E Q V T A I N Q A E S S  
 K F K W A V Q K P Y E Q L I V V S D G R V L F Q F D P D L A Q V T E R K V D A A I  
 K F I W T Y V K P Y D Q L V Q A D G D Q L F I F D K D L L N Q V T V K K L G D A L  
 T F Y W K T N P P F L Q V I V A D G K V L W V F D E D L Y Q V Q V R P L D D T L  
 R F R W E Y A T P T K Q V I I I A D G K R V Y L H D D L K Q V S H Q S Q D K A L  
 Q F R F E G E E P E P V L L V S D G E N L W F Y N E L L E Q V S I Y D A K A Q V  
 K L Y W H T Q S P D E T L L V S D G N T L W L Y N P F V E Q V T L L Y S P K E A V  
 L F F W K T R A P L E Q T I V T D G Q Q V W I Y D P D L E Q V T I Q H L S Q Q L  
 R F A W V Y E K P Y R Q T I M S D G K T L W L H D E D L M Q V T V R R L E G A L  
 K I R W Q Q N E P D E T L L V S D G L R T V Y F D S F A E Q V T I L N T L G L I  
 R F V W D Y E T P W E Q L I T A D G E K L W V H D V A L D Q V V V R P L D E A L  
 R L H W E V T E P F P Q T I V S D G Q D L W M Y D P D L S Q A T V R P L G D A F  
 K F R W E T K T P F P Q L I V S D G K Y I W I Y D E D L E Q A T R K K V N P S E  
 L F R W E Y S K P Y K Q T I V G D Q G H I W L Y D V D L K Q V T K S D Q S Q A I  
 R F R W L Y T T P N R E M I T A D G R A L W I Y D V A L E Q V T V R P M A P S L  
 R F R W D Y V M P E Q R H I A D G H D L W I V E D D L N H V T K V Y Q K A A L  
 K I R W Q Q L E P D E T L L V S D G N K T F Y F D S F A E Q V T V M N T A G L I  
 L F R W E T Q Q P F P Q E I V S D G Q Y I W I H D P D L E Q V T R R S A D S S Q  
 K F R W D T K K P T A Q L I V T D G K R L W I Y D P D L E Q V T I R F L E T A A  
 R F K F I Y K K P F E Q S I V A D G Q T L W L H D V D L N Q V T S R K L A Q V L  
 L I R W Q T A K P H E E T L V V T A K E I W D Y L P D E E V A Y R Y P P G L V R  
 K F Y W L T Q Q P Y E H L V T D G I V L W Q Y D I L D E Q I T K Q A Y T A D L  
 M I R W Q T N P D D T L F V S N G D K T Y Y F D S F A E Q V T I M K T S G L I  
 K F I W T Y K K P Y E Q V L Q A D G V N L Y I Y D K D L N Q V T V K K L G N A L  
 L F N W H M T Q P D E S I L V S D G K T L W F Y N P F V E Q A T A T W L K D A T  
 R F R W E Y D A P N K Q V I I I A D G K R V Y L H D D L K Q V S H Q N Q K D A L  
 Y F K W Q I L S P N Q K L V S N G K L W N Y D E L L D Q V T V Q S V P T D V  
 R F R W Q Y E T P G Q K V I I I A D G K R V Y L H D E L L D Q V S H Q S E E K A L  
 K F R W E T N A P T H Q I V I T N G D T V W W V Y D V D L A Q A T K Q T V Q N S  
 R F R W V T E T P F M Q E I V S D G D Y I W I H D P D L E Q V T R K A A D A Q G  
 R M R W E Y G D D P Q V I V S D G Q T L W I Y Q V R D T V I R Q P L T D L N  
 L V I N W K N I T P D E T L L I D S G N T L W F Y D P F I E Q A S A Y S L A K S I  
 Q F Y W H L T A P D E S L I V A D G T D V W I Y N P F A E E V S V M D I N Q A I  
 R F R W D Y R S P E S Q L I V A D G K R I Y V Y D K E L S Q V S Q R S Q K K I L  
 L F N W H M T S P D E S V L V S D G K T L W F Y N P F V E Q V T A N W L K D A T  
 N F R W E I D K P D P Q V I V S D G K G K L Y F Y D E G L R Q V T V R E A S E A I  
 R M K W T Y N A P D P Q V I I I S N N K L L W L Y L P E E S Q V T R M K V D S I Y  
 R F R W D Y H T P Y R Q L I I S D G E H L W T Y D A D L A Q A T V Q P M E Q L W  
 A F Y W H L T A P D E S L I V A D G D N S V W V Y N P F A E E V S I L D M E D I L  
 L L K W V Y Q S P T S Q T I V V D D G Q N V W L W D Q D L D Q V T V Q N L N E L E  
 K F Y W D Y Q S P N P Q K I I S N G K K V Y H D I D L E Q I S I R G R D E L V  
 K F I W T Y E E P S R Q Q I L Q S D G T Y F Y V Y D K E L L K Q V I K R K L D G V L  
 Q F V W D S V T P F A Q R I I S D G K Y I T V W D V D L E Q A T K K P L S G A V  
 UniRef90\_T1H9P1  
 K L R W Q Q T F P E D D L I V S D G A T L W Y Y S P F I E Q V S I M D A T S A V  
 K F R W N I H P L H G Q L M V A D G R N L W F Y D R D L K Q V T V Q P S A A L  
 R V R F Q Y Q K G V P L L V V G D G K A L I M Y D V K Q V S R W P I  
 Q F R W E T D N P T H Q I V I T D G N T L W V Y D V D L K Q A T K Q S I A K S P  
 K F R W D Y E S P E V Q Q H I V C D G K T V W L H E P E L Q Q V T R I S A D R L D  
 K F R W E I K K P Y P L L L S N G S S V V S Y D E D M G H A T Q K P I G N A M  
 K F R W Q T Y E P N E N L L V S D G Q S V W F D P F V E Q V S I Y N Y I S L V  
 K I R W E T K R P D Q T L L I A D G R A V W N V D T F V E Q V T I I D Q T S A I  
 M L R W E T Q L P D E T L L I A D G T T V W N V D P F V E Q V T V M Q Q A S I T  
 K L R W E S R E P F H Y L L I S D G E T L W R Y D A D L E E Q L N T E A F S P E L  
 K I R F Q Y Q K G V P M L I V G D G S R L T V I D Y E V I R Q V Q S W P V K  
 Q V R W E T L E P E K E L L V V G P D Y A W D Y I A E Q L A L K Y G V E A L L  
 R I R F E Y Q K G V P L L V V G D G K A L T M I D Y Q V K Q V S R W P I  
 K M R W E Y Q S P R E K L F V S D G K L A W F Y V P G E K Q V R Q A Q V K K L D  
 K F M L H T T S P D E Q V L F T K G N T V Y F Y D P F V N Q V S I F D K Q E L L  
 K F M L H T L N P D E Q V L F C A G N D I Y F Y D P F V N Q V S I F S R S E L  
 Y F K W I T T S P N N Q V I V S N G T N L W I Y D G D L D Q L I I K K V S N D I  
 K I R F Q Y E K G V P Q L I V A D G K S L Y F I D Y Q V R Q V Q R W P T  
 L M R W E Y K P E R Q V L V G D G E Q V R M Y F A R S N Q M M I Q Q V E D Y L  
 K L R W S V Q A P D E S L I I A D G K S V Y N L D P F L E Q V T I V D Q A A F T  
 K F K F I Y Q K P F D Q T I V A D G T V L T V Y D A D L L N Q V T Q R Q Q S K A L  
 M M R W D Y E T P A P K T V A V K G S R L V Q F E P E E N Q A Y V D E R F D A T  
 F F R W I T T T P N N Q V I I S N G S K L W I Y D G D L E Q V I L K K V S N N I  
 L V R W E T L A P E E E T I V V G K D A V W D Y L H E L N T A N K M P V Q D L L  
 Q F V W D S I K P F A Q R I I S D G H I T I W D V D L E Q A T Q R P L S G E L  
 R F V W D T Q K P Y E Q K L I T N G T Q L I L W D K D L N Q V A T F R P A G Q A L  
 R M R W T Y T Q P D G K L Y V L D G K F G Y F Y T P G Q T E A Q K V P A K K L D  
 K M S W T Y D A P N G N R V V S D G T T I K V Y E K E N E Q M Y E T S V K G S

	90	100	110	120
UniRef90_Z9JGA7	R N S P L I A L I D P T Q L D R K Y D V S E E V T W L S L T P R A T E A S F Q			
UniRef90_UPI00034DB027	G S T P A A I L A G Q S I E R D F D L K D Q P D W V L A T P K G K D G T I Q			
UniRef90_W8X3L2	G A S P A A L L F G S G S L D L Q T R P D R D G L Q W L R A V P R T P D A G F V			
UniRef90_K2DJU4	G S T P A A L L A S D V Q A L Q A D F V L A D A P D W V L A T P R S R D G Q L Q			
UniRef90_J2IB12	G Q T P F A L L T S T D P A L W Q Q Y R V T K Q Q S F F I H P Q S S D N P V Q			
UniRef90_UPI0004652B76	G T S P A A L L A G G P N V E E S F R L S E G L Q R V Q A K P K Q K D S G F Q			
UniRef90_UPI00030274E5	A N T P F M L I A G A Q Q T A W E T Y R V K K A G V Y T V I T P N D P A A A V			
UniRef90_M4U486	T E T P F V L L A G N A S E Q W K Y Y N V V V Q K G D Q F T L T S N R D T D S E R			
UniRef90_Q12NE8	E A S P I A L L V H R D E E T W S L Y H V E Q D T S C F N I L P K T L K A N V V			
UniRef90_UPI0000E0EF43	S D N P L M L L T S T D D K V W E Q F S V T Q Q A D S F E V T P S S A Q G Q I Q			
UniRef90_D0L0X6	G A P I G I F L G N Q P L Q Q E A F D V S S I G N W Y S L K D R S A K S D F N			
UniRef90_UPI00036A67CC	G A S P A S I L F G G N N D L D D T F S V Q D G M V W L R A T P K V A D Q G M S			
UniRef90_U1MA57	D N T P F A L L T S A D E S L W Q N Y S V T H A D N A Y V I T P N N Q Q S Q V E			
UniRef90_K9D7D3	G S S P A A I L F G S N K L E E N F T L S E A G E W L N A V P K A K D T S F E S			
UniRef90_UPI00047134E5	G T S P A A I L F G A G D I E A S F K V S V L P D W L R A V P R N A D A G F S			
UniRef90_UPI000372733A	E A T P A A I S Q P E R L E E H F R T L V P D G E A L R L P R D E H A D F V			
UniRef90_UPI0004765CA9	G S S P A A I L F G S N D L E K N F T L A E A G E W L K A T P K A K D T T F D			
UniRef90_F5XXE0	G P A A L V A A A P D I A A L R K D F E L Q E A P Q W V Q A T P R A R D G Q L R			
UniRef90_K6YFG8	S N N P I V L L T N P N N E Q W A D F T I S L T G N V Y S I A I K P E S Q L S			
UniRef90_D4X813	G T S P A A I L F G S G S L E Q S F D V K D G V D W L R A K P R T A D A G F S S			
UniRef90_UPI000381188D	G S S P A A I L F G S N D L E K N F T L S E A G E W L K A V P K A K D T S F E			
UniRef90_UPI000262CBC8	T A S P A A I L S G D L D V L G S R F Q V T E E R T V Y A L E P R A T D E V V			
UniRef90_I3YGJ4	R G T P A L L L A G P I E Q H F K A R P I T D G R D W V E L I P K D Q D T D V V			
UniRef90_UPI0003794A14	G Q T A F A L L T T D P T L W Q Q Y Q V I A Q Q E V F I I H P L D T N N P V Q			
UniRef90_K2K4U8	G R T P M L L L S S Q D P L V W S Q F T I K A K G G N Y D I T P K D K D A Y V T			
UniRef90_Q2SJC1	S N T P A L L L S G E V G K L D E Q Y Q V E E Q Q P E D F L L R P K G V D S L F D			
UniRef90_H3KBV2	P S T P A A I L F G G H D F S H D W K V S E K G L Y V R A V P A D R S A F E			
UniRef90_U1LRE5	D T T P F V L L T T Q D P K Q W Q Y Q V S E I S G Y R I E P I Q S G A Q V E			
UniRef90_U5T7C0	G V G A A Q Q L L S G D F F A R L Q E R F E L S V A D D R I V V M K P T D P A W D F Q			
UniRef90_UPI00039CE95F	D A T P I A A I T Q P E R L D E H F R M S L Q D A L R L V L V P R N E Q A D F T			
UniRef90_S6GH48	T N G A A L I L N G D L E A L S K R F N I K Q L I D R F E L L P K K E G N F E			
UniRef90_D4DMQ7	G D S P A S I L S D K N A L D S S Y S L K E D G D Y V L A T P K K N A G Y Q			
UniRef90_T0XZQ5	G A T P A M L L A G T R P L I R E L E P S R Q G L Q W A R L E P R T R H S E F R			
UniRef90_S6BTQ1	K G S P A K I L L A Q E P V D K E F N V V E L G E W L E L S P K D A E S D I L			
UniRef90_V4H8F5	D T T P F I L L L T T Q D K A Q W D K Y H V S K T T V G Y R I S P K P N E S Q V E			
UniRef90_2BNJ4	G S A P A L I L N G Q I D T L R Q T Y N I R L V D D S F D L Q P V S D Q H N F S			
UniRef90_K1ZYQ9	G E T P A L L L L S N T N T T L E K D F R I L T P L P D W V Q A V P K T R E G Q L Q			
UniRef90_Q125U6	N G T P V V A A A A D L K G L E A D F R I L T P L P D W V Q A V P K T R E G Q L Q			
UniRef90_G1UP12	D S R S I I Q V I T Q G Q A A L T K D F D V K P E G S E L R L Y P K E P A P Q M V			
UniRef90_A0YBU3	D K A P A L L L S G D I E E I S R Q F N I V E S V A E Q F I L T P L V A D G L F Q			
UniRef90_E6RHH2	D S T P F L L L T S K D P A Q W E K Y S V I A T D L G F S I T P K G V E S Q V E			
UniRef90_C3XA81	G S S P A A I L F G S N D L E K S F K L R N A G E W V E A I P K T K D T P F E			
UniRef90_X3X4D9	G N T P F M L I A R N Q A S D W Q Q Y N I K Q D G D N F V L T P K A S N G N L K			
UniRef90_W9VHR6	R G T P A L L L A N E T Y F E A K S I P S T D G R D W I Q L T P K Q K D T D V V			
UniRef90_UPI0003636065	S Q A P L L L S G N E S V L T K V F S V S A S E D S Y R L K P K D T N S L I Q			
UniRef90_UPI00037BAAB	R G T P A L L L A N N D P I D R K P I D S T D G R E W V E L T P K A A D T D V I			
UniRef90_K2BBK7	G F N P A K L L S G D T S D L L K S F M I T S Q A I T F T L I P R D H N A P F R			
UniRef90_UPI0002558444	G S A P A M I L N G Q I K Q L S E T F E I R K L D E D F E L L V P V D E N S T F T			
UniRef90_UPI00046D65F7	P A A R L L A L L N G L G R L D Q E F Q V S S G G R C L E L R P K T P Q P G L D			
UniRef90_Q48P09	H N T P I L L L T S D E P Q L W Q Q Y N V I Q Q N D V F V V M P K D E S S Q I K			
UniRef90_A8H4R5	N A S P I A L L V H S D D A T W S Q Y D V V V N N G D C F D I S P R D K D S G V S E			
UniRef90_V4LL27	D G T P A Q L L A S N E P P E Q R Q N I D R G D H R V W A E L I P K T S E T D V E			
UniRef90_T0P5M1	G N T P F M L I T R N D A K D W S Q Y K I S Q K G N D F E L T P N N I N G N L K			
UniRef90_E7RW25	Q A T P A A V L F G V G D L D E A F K L S E V G Q W V E A V P R S A D S G F D			
UniRef90_M1YNH3	S S N T P A L F L S G E G K L T E E S F N V E D E G N L V V E L I P K T E E Q G L D			
UniRef90_G4E474	D S A P I L L L S E S R P I E R D F Y V Q P F G E W I E L S P R S Q D S D F S			
UniRef90_A1S6H2	K A S P M A L L V H D E K R W N E Y Q I D R K G S H C F D I T P R Q G E S A V D			
UniRef90_UPI000373AFFE	R D F P L S W L L Y D A P L T E R A G S V K D G V H W F N L Q P R E G T F F Q			
UniRef90_G9ZFA5	G D V A V E L L N G E D N I S R N Y N I D R N G V T Y R L K P K T R Q E E Y D			
UniRef90_UPI00034520F8	G V S P A A I L F G S N D L N K N F K L R D I G N W L E L K P R A A D T Q F Q Q			
UniRef90_A6W0D2	G N S P A A L G Q P A A E V L P H Y N V T K L Q D E F R I L A P K E D Q D L F Q			
UniRef90_T1H9P1	G N T P F V L L I T R N D A S E W G Q Y N V R Q Q G D D F E L T P K A A K G N L K			
UniRef90_UPI0004004254	E H S P I V L L S D Q R D S T W Q Q Y A I E R E G E G Y M L T S K E D A L Q A			
UniRef90_T1AP75	S A T P A M L L S G T V D V R K S F R E R L L A G W V Y V A P R Q A S G A D F R			
UniRef90_UPI00047600DA	G N T P L A L L L D P N K D I A R Y A R I V P S G D P E T L V T G Q D A E Y G			
UniRef90_K2BSW7	M N P A K L L S G H T N D L L K Q F T V H R T A L V F Q L I P K K P N Q Q F R			
UniRef90_A0L885	R A P A A F L V S K S R I A E S F F T K V V H N E D T V F L I S P K A E A A H F K			
UniRef90_A6GU35	D S T P V A L L F G S K D V D K K D E G M K D G K E W L V I R P K D K D S L F D			
UniRef90_UPI000312E367	D S N P I L L L L Q P T S D A W Q A Y E I I S K V T D T Y R I K A K S Q E Q Q I D			
UniRef90_UPI00047755CF	Q D N P I V L L L T T D D E K Q W A E F T I Q K M S D S Y S I T P V D G T G Q I Q			
UniRef90_G4QGV6	Q N N P I M L L V S D D Q K Q W N A V T V E K K E S R F M V V S Q D E N A N I I			
UniRef90_UPI0003B696BF	A Q T P A L I I G A S I A E L E S R F E V A M N K Q E F I L K P R S P E M F S			
UniRef90_Q1GPP7	N S P I L G A L L D P D R D L A K Y A R I L P T G N K D V L S V E V K D P E Y G			
UniRef90_E6VX75	D S K T I L L R F I S G R A N L K E D F V I K K G F T V L Q L I P K E P E P G M V			
UniRef90_UPI000248B8B1	G D S P I S V L L L D P S K D L S K F A K V V P G G D P R L I V Q A R D P E F G			
UniRef90_Q1IRC4	D L R S P L R Y L L G H T K L E K E F T A V A G N T V L R G I P V S M A D R V S			
UniRef90_R5EWMO	Y S S P F M L I T T K S E S V W G Q Y E V A K G G N S Y V L K A K N P G Q V V			
UniRef90_E8LLA2	S A S P I F I L L L S D M S D N V W A H Y D R H E N G V Y I I T P N R Q G D I V			
UniRef90_F4BIY6	A Q F P L L L I L S R N T N I N K L F T V T E N N N S Y I L K P K N D Q M I D			
UniRef90_UPI00037092B7	G N S P L R V L L D P G R D I S G Y A Q V K P T A D S R V I S V E P K H P E Y G			
UniRef90_Q1NS79	Q S N P I L M L L I S D E Q Q Q W D Q V S V K Q E N T Y T L V S L T D N S P I N			
UniRef90_H5T9R5	G Q T P L L A S A S S L Q A K A E F D V S D G Q Q W A Q A I P K N K D G Q K L			
UniRef90_UPI0003957382	G D I P L S W L L I Y S E K I I E N K F T I I D A G Q W Y N L T P K K A T Y F Q			
UniRef90_UPI000477B96F	Q S G S G G A F L A D I R K I I R E E F T V E P G K S Q L V L T P K K E T P E L A			
UniRef90_UPI0003638CAB	A M S A A V T F L L G K G D L A R E F G L S T D G T A L V L R P K E E D P R V E			
UniRef90_A7H6G4	A Q F P L L L I L S K N T D N I N K L F T V K E D K N T Y L L K P K N D Q M I D			
UniRef90_B0UOJ9	N S R T L L M R F L I G K A N L K E D F K V E G V W D G F R L V P H K P E P G M L			
UniRef90_UPI0003B67C1A	G S S P A A L L G Q P A E T V L P L Y N I T A L G E K F R L S P Q E D Q D L F Q			
UniRef90_F6CTH9	G S T P A A I L G Q P E S S L D Q H F E L I D G E E W V A L V P K K D D L P Y T			
UniRef90_A4SWP5	A S T P A A I L F G E S S L D Q H F E L I D G E E W V A L V P K K D D L P Y T			
UniRef90_C1F526	D Q S P L R Y L L G H T E L M R E M P N L H I A G E E Y T V P R G M Q K S I A			
UniRef90_A0A017TEB5	Q Y P A A L A F L M G T G K L T K D F S L K E G G Y V L E G T P K E A T P A Y Q			

130            140            150            160

UniRef90_Z9JGA7	S A S F G F T Q A E L V R M E V D T L G Q R T V I A F S G Q R N P V L A V D	
UniRef90_UPI00034DB027	S L R V G F K G R S L S V I E I A D S F G Q R S V L Q F A D Q I L P S L P Q A	
UniRef90_W8X3L2	H A D I A F S G G L P R R L E L L D A F G Q V S R I V F T G K A N P D I P A G	
UniRef90_K2DJU4	S V R V G F R A A G D A A A L E I L D S F G Q R S V L T F K Q Q H N P A L A A S	
UniRef90_J2IB12	Q L L L T F S E D Q L I E M Q V I D I N Q Q Q S V F L F S D I R N N K I A N A	
UniRef90_UPI0004652B76	V V I I S F D H S K L A E M R L V D A F G Q S T H I V F S N V E N P S L N T N	
UniRef90_UPI00030274E5	F T L Q F K Q G D I A Q F T V Q E Q Q G Q Y S Q F A L T N K T M N K M D P A	
UniRef90_M4U486	Y F I F E F S K S G E I S K F M I V D E Q G Q R S A F T L V F A L K A P L N V S	
UniRef90_Q12NE8	A V S V C F K G K Q L T D F N L T D S Q G N L S R F A L S A Q R Q V K S D E Q	
UniRef90_UPI0000E0EF43	G L T L V F T Q G E L R A F T L L D N Q A Q R S E F V L S N I T N M P L P V S	
UniRef90_D0L0X6	Q V Q I G M D A K G I K A M V F T D K L D N R T T V Q F S Q E V N Q K V D D S	
UniRef90_UPI00036A67CC	Y M D I A F A N N L P A E L R I R D S F G Q T T I K L R N F N N A R I S A S	
UniRef90_U1MA57	R L E L K F D A D A L R S M T V F D D N T G Q T S V Y V F S Q Q V N Q T I D D A	
UniRef90_K9D7D3	Q I S I G L K G G V P M A M E L L K D T F G Q T S R R L T F T N Q R N P Q L G A Q	
UniRef90_UPI00047134E5	Q V D I G M R G D E P A R E L L D A F G Q V T R V E L S D Q N P K L P E G G	
UniRef90_UPI000372733A	R M M L D L T P D G D L V R M Q F E D L F G Q V T D V R F S E R N P E L E E G	
UniRef90_UPI0004765CA9	E I S I G L R N G V P E A M E L L R D S F G Q T S V L A F K N Q K N P A Q N A A G	
UniRef90_F5XXE0	S V L V G F R G K E L A A L E I L D S F G Q R S V M T F T M Q P N V P L P A G	
UniRef90_K6YFG8	E L K L R F E N D Q L S E L S F I D R Q Q Q T S E L T F S V Q Q N N A I G D E	
UniRef90_D4X8I3	R V D I G M K D N L P V R V E L L D S F G Q T T R V D L S A A N P S L P A K	
UniRef90_UPI000381188D	Q I S I G L R N G L P V E A M E L L K D S F G Q T S L L S F K I E R N P A L T A T	
UniRef90_UPI000262CBC8	Q I V L R F D G T R L L D L S I E D A L G N R S L I S L T E V K Y G K P A N A	
UniRef90_I3YGJ4	R I E I G F D K D T L D S L I M Q D S F G Q E T R L N F T G R R N T S L N A D	
UniRef90_UPI0003794A14	Q L M L A F D E N G I S E M T V D I N Q Q S V F R F T D R L N Q A I D D N	
UniRef90_K2K4U8	A L T V K K F S G D K V A G L V I H D A S G Q L N T V T F S G F E A P R S Q D G	
UniRef90_Q2SJC1	T L Q L S F V N D Q L V S M K L K D S L G Q Q T S L F F T A V V N Q T I I S E K	
UniRef90_H3KBV2	H V D I I F F G D G R F P V R A V L T D A F L N E T T I E F R N V E E R D L P A D	
UniRef90_U1LRE5	R L D V L F A D S G L K I Q L N V T D S S G Q I S S F K F S D Q I N G P V D A E	
UniRef90_U5T7C0	R V H L T L E Q Q G V P V A L E V A D G L G Q R I T V K L E I V R N P T I E S G A	
UniRef90_UPI00039CE95F	S L D L D L T A E G D L T R M A F R D I F G Q E T V I R F E T E R N A D L D P A	
UniRef90_S6GH48	K I Q L F F A D K V I Q E L M L V D I F G Q K T T I I L T K K L N L K F A A D	
UniRef90_D4DMQ7	F I R I G F K G E T L A A M E L L K D G F G N Q T S I K F S N V T H P N L S R G	
UniRef90_TOXZQ5	K I E L G L R N G I P V V M T L W D R L G E K T E I R F S K I I N L P N P K	
UniRef90_S6BTQ1	R I L V A F K G D E L R K L E L T D D Q F G Q I S R F T F E V K R N P A L L D D S	
UniRef90_V4H8F5	L L D I V F V A S A G V I D S L S I K D A S G Q T S T F K F S N K T N I E L L D D K	
UniRef90_Q2BNJ4	R I R L I A F A N Q I I S E I M L E D A L G Q R T S V V F N D Q L N P D F D K T	
UniRef90_K1ZYQ9	L I K L G F V V N N Q I K E M Q L Q D R L G H M T A I Q F N R V T N Q N V S P A	
UniRef90_Q125U6	S I Q V G F D K G S E L A A L E I L D S F G Q K S V M T F S F E I N P V L S P A	
UniRef90_G1UP12	E A L I W V E P D G Y I I R R A S I V D F Y G N T N E V R F S S F K P D M R L K A S Q	
UniRef90_A0YBU3	K L T I A F D V S G L L S M S L L D N F D Q I T D I Q F S D V V V N P D I S D Q	
UniRef90_E6RHH2	Q L D I T F D N E Q G L A K L V V K D N S G Q L S A F T F S S N Q V N T E L D K T	
UniRef90_C3XA81	K I N I G M K N G M P E A M E L Y D S L G Q L S L I K F T F T K N P P V S A S	
UniRef90_X3X4D9	UniRef90_W9VHR6	R I E V G F D G Q T L D S L I M E D S F G Q E T R L N F S G R R N I A L E P D
UniRef90_UPI0003636065	Y V D M R F S G K K L T E L V I Q S E T A Q S T V I T F D D N V S F Q P I S K H	
UniRef90_UPI00037BAAB	R I E L G F G D T G I E S M I M E D S F G Q T T R L N F T I K R N P S L D A A	
UniRef90_K2BBK7	K I T M T F K N N L L Q S M R I Q T N V S Q T N E F T F S H V L N P S L S R A G	
UniRef90_UPI0002558444	R I R L L F E Q D R I S E L S M Q D S L G Q R S S M L T L Q G E Y D T E L L P E G	
UniRef90_UPI00046D65F7	R V Q I I R L L P D R L P V A A T T Y D P V G N R T T V E L S G L R N E D L P A D	
UniRef90_Q48P09	K L T L T F S E T D Q L I S E F S F Q D A T G Q I S Q I S L S K F N S K T P A A T	
UniRef90_A8H4R5	E V E V C F N Q Q Q L T K M V L K D Q Q G N T S D F T L L T N Q T P I A E N D D S	
UniRef90_V4LL27	K L Q I I G F V D G E L D T L L M Q D R F G Q L T R F I F T N D R N P Q L Q Y S	
UniRef90_T0P5M1	H F	
UniRef90_E7RW25	R I R I G M R D G L P V V M E V V D A F G Q I N R F E F S K L T N E R I P A E	
UniRef90_M1YNH3	R L V L L A D R N N Q I I G S S V Y D K L G N R T Q M M F E D E N N P G I S D S	
UniRef90_G4E474	R V L I G M D E R Y V R A M V L F D H F E Q Q T R I R F D F V A N P D F A H D	
UniRef90_A1S6H2	T V S V C F A N N T L L S D I R L T D A Q G S T S H F S L S E Q A A V D A D E S	
UniRef90_UPI000373AFFE	S L E V A V L D E N G R L V Q L W M Y Q S S D N I T K V R F E N Q Q N A P V A M D S	
UniRef90_G9ZFA5	A L W V I L D G N S I S A V M I D G G S S Q T I L N F T T N K R N V G I P A S	
UniRef90_UPI00034520F8	R I L I G F R K G N I E A M K L F D L F G N V T L L V F T D K K N P S I P P D	
UniRef90_A6W0D2	T L T L T S F R N K V I S A M S I L D A L G Q T T V I E F K N E T H E G V A K E	
UniRef90_T1H9P1	Q F A I N V N V A N S G T I K S F V A T E Q D G Q R S S Y T L Q N Q N G A V D S S	
UniRef90_UPI0004004254	R F W V K L D G Q E Q V E R F D I I E Q N G Q R S E F V L S G L N T S P D I S	
UniRef90_T1AP75	S A L F G F D R G T L K K M I L E D T L G Q V A T V T F Q H I R N G P V P A A	
UniRef90_UPI00047600DA	S I T V A F R R S A Q L D G W T V L D Q A Q N N R T T V R L S N Q R N S P V D D S S	
UniRef90_K2BSW7	S I A I A F A H E K L Q S M Q I E N N A E Q T T I F D F S V I L N E H L S P S	
UniRef90_A0L885	E V A I T L D K S G Q E I Q F Q V T D T L G N R S Y F Q F V G M R N Q R V D E S	
UniRef90_A6GU35	Y A R I G W K D G L P V N L E I H D A L G Q V T Q L E L S N W D F S K Q P A G	
UniRef90_UPI000312E367	Y V D L A F S A T D Q V T A L N I K D R Q N Q L S E Y S F T N L R N S D Y A A N S	
UniRef90_UPI00047755CF	A L H Y F D G D I L S R L I M K D A Q G Q T S V L E F N H I Q T K F E P A S	
UniRef90_G4QGV6	S L N I E F S G D Q L T R L Q S T D R Q Q Q K S L I F S N E Q N Q P V A Q M	
UniRef90_UPI0003B696BF	Q M T L R F N K G K L V G M A M L D N Q A Q R T E I R L T S P R N K A I P A G	
UniRef90_Q1GPP7	T I T M V F V R D A R L R G W V A L D S Q N N R T R I D L L S N Q R N V A D S	
UniRef90_E6VX75	L A Y V G V E P D G G L R Q V M I V D F Y G N G N E V R L S N Q K D I K L S A D	
UniRef90_UPI000248B8B1	T I S I A A F A K S P M L R G W T I V D A Q N N R S T I Q L S N Q A N V A V S D K	
UniRef90_Q1IRC4	Q V L L E I T P E H R I A R I V V S E L D G S T T E F T F S Q Q D N P S L A D S S	
UniRef90_R5EWMO	Q I K L E F F Q G D L V S D L Y V Q L K D G N T N R Y T L S Q V K T Q V S D S	
UniRef90_E8LLA2	N L R K L V K G S D I D T I S L V M K D G N I T Y T K L S D G R R S A D P Q	
UniRef90_F4BIY6	S I I K I K F T S T N Q L I E Y L E I S T S L N Q F T K I E F S D K T D V N I S D T	
UniRef90_UPI00037092B7	R I T M V F Q K D G T A P G W V A L D A Q N N R T T I R L A S Q R N G P V A A D S	
UniRef90_Q1NS79	Y I L D I L V E P E S Y I I R R L D I V D H F G S V T T L I F S N E L D P E L A A D D	
UniRef90_H5T9R5	K I I L R F D A Q N K L T S L V S Y D R Q Q Q A N L L D F S D V V N Q H V S N D S	
UniRef90_UPI0003957382	Q V K V G F K G D E L Q T L E I D G F G Q R S V L R F G F K A L P S I P G S	
UniRef90_UPI000477B96F	S I E V G M L N G E M V E V W M Y Q G P D N V T K V R F K N E S N V V I P L K	
UniRef90_UPI0003638CAB	K I R I T V D P G Y E I P V V I E T N I Y G D T T K F I F T N K F S T F D E Q	
UniRef90_A7H6G4	T V G P D G E V R A T R V V D G A G N V N E I R F K V K R N A G L P D G	
UniRef90_B0UOJ9	S I A L I K F S D N E N L E Y L A I S T S L N Q F T K I S F S D K T D I D I D N N S	
UniRef90_UPI0003B67C1A	F A Y I G V E P E T Y L R R I M T V D F Q G N G N E I Y L R N K V D V D V K D S	
UniRef90_F6CTH9	T L T L S F R D Q V I D A M S I L D A L G Q T T V I E F N N V E H D G V A K E	
UniRef90_A4SWP5	K I S I G M T N G L P K A L E L I D G L G S V V L V T D N I K N V N L P A N S	
UniRef90_C1F526	G V T L K V T A D G Y I H Q I R V A Q T D G L V N E L D F S G E T N V P A P S S	
UniRef90_A0A017TEB5	K V L L Y V D A T N Q V R R V L I L D A Q G N R N R F D F S A V V N Q P V T K G	

170

UniRef90\_Z9JGA7 T F R F T P G K N | V | G D R  
 UniRef90\_UPI00034DB027 T F H F A V P A G A D V |  
 UniRef90\_W8X3L2 Q F R F A V P Q G A D L V K M  
 UniRef90\_K2DJU4 A F V F K P P A G A D V I R Q  
 UniRef90\_J2IB12 Q F S F K V T S N L D V D D Q R Q  
 UniRef90\_UPI0004652B76 Q F L F S I P K G V D V V  
 UniRef90\_UPI0003274E5 L F N F I I P E D T D I D D Q R  
 UniRef90\_M4U486 M F E F I I P D N V E V D D Q  
 UniRef90\_Q12NE8 L F K F A L P E N V D I D D Q R  
 UniRef90\_UPI0000E0EF43 Q F Q Y D I P V G Y S I D D Q T Q  
 UniRef90\_D0L0X6 L F Q F V P P K G V D V V N S R  
 UniRef90\_UPI00036A67CC E F S F T A P K G V D V V N M  
 UniRef90\_U1MA57 Y F Q F T I P A D V L V D D Q S Q  
 UniRef90\_K9D7D3 Q F K F T A P Q G A D V V N Q  
 UniRef90\_UPI00047134E5 Q F Q F Q P P A G V D V V R M  
 UniRef90\_UPI000372733A H F K F V M P K G A D V |  
 UniRef90\_UPI0004765CA9 T F Q F K P P A G A D V L R Q  
 UniRef90\_F5XXE0 Q F I F T I P D G F E L D D Q R  
 UniRef90\_K6YFG8 E F E F T A P K G V D I V K M  
 UniRef90\_D4X813 S F K F V M P K G A D V |  
 UniRef90\_UPI000381188D L F K F K P P E G A D V I  
 UniRef90\_UPI000262CBC8 L F K | I D Q R  
 UniRef90\_I3YGJ4 UniRef90\_UPI0003794A14 Q F K F T V P D G V D I D D Q R Q  
 UniRef90\_K2K4U8 Q F S F T P P Q G V A V D D Q R  
 UniRef90\_Q2SJC1 A F H F E I P D G V D V I R E  
 UniRef90\_H3KBV2 R F S F K V P E G T D V L D E  
 UniRef90\_U1LRE5 Q F K F V I P E G V V V D D Q T Q  
 UniRef90\_U5T7C0 R F D F Q P P E G V D V |  
 UniRef90\_UPI00039CE95F L F T F D P P S G T D I  
 UniRef90\_S6GH48 M F S F T P P K N T D I  
 UniRef90\_D4DQM7 N F K F V P P K G V D V L S Q  
 UniRef90\_T0XZQ5 R F R F I P P R G V A V I  
 UniRef90\_S6BTQ1 L F T Y Q P P P D W D L L N Q  
 UniRef90\_V4H8F5 S F T F K I P H G V V I D D Q T  
 UniRef90\_Q2BNJ4 A F L F R V P A D A D L I  
 UniRef90\_K1ZYQ9 L F A F K I L P A H V D V I D E T R  
 UniRef90\_Q125U6 S F Q F K P P S G A D V I R Q  
 UniRef90\_G1UP12 D F S F T P P K G I E V E D R  
 UniRef90\_A0YBU3 Q F E F S P P R D V D V I  
 UniRef90\_E6RHH2 T F E F T P P A G V E I D D Q  
 UniRef90\_C3XA81 T F K F V T P K G A D V |  
 UniRef90\_X3XA49 UniRef90\_W9VHR6 L F E I D P  
 UniRef90\_UPI0003636065 T F Y F T A P K G V D I L  
 UniRef90\_UPI00037BAAB L F E V D E K A G G D  
 UniRef90\_K2BBK7 L F I F H A P S G T E V L  
 UniRef90\_UPI0002558444 V F E F T P P E G T D V I D Q  
 UniRef90\_UPI00046D65F7 R F T F Q V P E G V Q V V  
 UniRef90\_Q480P9 L F S F S L P E G V R L E D K R  
 UniRef90\_A8H4R5 L F K F  
 UniRef90\_V4LL27 F F R F K R P A G T D  
 UniRef90\_T0P5M1 UniRef90\_E7RW25 R F H F K V P A G V D V L E  
 UniRef90\_M1YNH3 Q F Q F Q V P P G V E L I D |  
 UniRef90\_G4E474 A F H F N A P A T T D I I  
 UniRef90\_A1S6H2 L F Q F Q I P D G V S I D D Q R R  
 UniRef90\_UPI000373AFFE Q F R F Q P P K G V D V I  
 UniRef90\_G9ZFA5 Q F E F T P P K G V D V V  
 UniRef90\_UPI00034520F8 R F K F T V P Q D V D V V Q  
 UniRef90\_A6W0D2 N F V L D L P A N V D V I  
 UniRef90\_T1H9P1 K F T F T P P K G V T L D D Q R Q  
 UniRef90\_UPI0004004254 D F Q F V I P D G T A V D D Q R  
 UniRef90\_T1AP75 D L R F T P P P G V D  
 UniRef90\_UPI00047600DA A F R W N D P  
 UniRef90\_K2BSW7 L F Q F K A P S G V D V |  
 UniRef90\_A0L885 R F E F Q I P K G A D L I E  
 UniRef90\_A6GU35 F F D F K A P A G V D L I  
 UniRef90\_UPI000312E367 Y F K F A I E D G I E V D D Q R  
 UniRef90\_UPI00047755CF Q F E V T I P D T Y T I D D Q R  
 UniRef90\_G4QGV6 L F S Y Q I P E N Y I I D D Q R  
 UniRef90\_UPI0003B696BF D F R F N  
 UniRef90\_Q1GPP7 A F R W T D P  
 UniRef90\_E6VX75 M F T F V P P E G V Q V E D N T Q  
 UniRef90\_UPI000248B8B1 A F R W N D P  
 UniRef90\_Q1IRC4 S F E F K P P A G V E I L Q  
 UniRef90\_R5EWMO S F E Y K I P P E D A Q I D D E R K  
 UniRef90\_E8LLA2 V F E Y K I P P E D A E V D D E R R  
 UniRef90\_F4BIY6 S F N F R A P E N T D I I D E T K  
 UniRef90\_UPI00037092B7 A F R W N D P  
 UniRef90\_Q1NS79 F Y R F E P P A G T E I L  
 UniRef90\_H5T9R5 D F R F S T N E G W I I D D Q R E  
 UniRef90\_UPI0003957382 A F E F A I P S G A E V I R Q  
 UniRef90\_UPI000477B96F S F Q F Q L P E G V D L I G E P Q  
 UniRef90\_UPI0003638CAB L F E F T P P P G T E T I E  
 UniRef90\_A7H6G4 A F E V K L P K D V  
 UniRef90\_B0UOJ9 K F D F K I P D D T D V I D E T K  
 UniRef90\_UPI0003B67C1A K F E F V L P E G A Q V N D  
 UniRef90\_F6CTH9 N F K L D L P D D V D L I  
 UniRef90\_A4SWP5 R F N F I P P K G A E V V V R |  
 UniRef90\_C1F526 A F V F H P P A G V Y V V N  
 UniRef90\_A0A017TEB5 E F E F T P P P G T R I V

UniRef90\_J2WVP1  
 UniRef90\_B6BUC4  
 UniRef90\_UPI0003B73703  
 UniRef90\_UPI00047A66B7  
 UniRef90\_C8RXD0  
 UniRef90\_E1JYU5  
 UniRef90\_UPI000465119B  
 UniRef90\_G8NQD1  
 UniRef90\_A1ATL7  
 UniRef90\_S4Y182  
 UniRef90\_W4LQ55  
 UniRef90\_E8WXJ9  
 UniRef90\_UPI0003B62C58  
 UniRef90\_UPI0001DD0E24  
 UniRef90\_B7RV03  
 UniRef90\_UPI0002555EB0  
 UniRef90\_UPI00036D6856  
 UniRef90\_W9BVX7  
 UniRef90\_AOP6F7  
 UniRef90\_UPI000225E41D  
 UniRef90\_E8V029  
 UniRef90\_I0AHA5  
 UniRef90\_Q0BUL8  
 UniRef90\_Q2LRK4  
 UniRef90\_UPI0004681C8C  
 UniRef90\_V7EDS7  
 UniRef90\_UPI0004719230  
 UniRef90\_D6SQB5  
 UniRef90\_A4A3B0  
 UniRef90\_Q09CR9  
 UniRef90\_D7AFC7  
 UniRef90\_UPI0002E0AE9D  
 UniRef90\_UPI00026C9C17  
 UniRef90\_C8X0Z9  
 UniRef90\_H0A8V1  
 UniRef90\_UPI00037B3936  
 UniRef90\_K2FFW6  
 UniRef90\_UPI000366D8BF  
 UniRef90\_UPI0003B37889  
 UniRef90\_C8WECO  
 UniRef90\_UPI000262676A  
 UniRef90\_D0MJ06  
 UniRef90\_K1YRE3  
 UniRef90\_K1Y9Q4  
 UniRef90\_E3I390  
 UniRef90\_Q5R0C0  
 UniRef90\_A5P8T3  
 UniRef90\_D6Z6M9  
 UniRef90\_Q30ZZ3  
 UniRef90\_UPI0003B626DE  
 UniRef90\_A3TWH6  
 UniRef90\_R6ITE6  
 UniRef90\_B3T0P8  
 UniRef90\_F8C501  
 UniRef90\_R6I103  
 UniRef90\_UPI000362B33C  
 UniRef90\_B8KGf3  
 UniRef90\_G6XGR9  
 UniRef90\_B6IV36  
 UniRef90\_V4JG71  
 UniRef90\_M2U7J3  
 UniRef90\_B8KRK6  
 UniRef90\_Q5LMZ7  
 UniRef90\_F6IK27  
 UniRef90\_UPI00037E26C0  
 UniRef90\_L8XX30  
 UniRef90\_A3VZH4  
 UniRef90\_UPI00022600E7  
 UniRef90\_E8WQ51  
 UniRef90\_UPI0003680520  
 UniRef90\_G4QBF0  
 UniRef90\_UPI0002D41713  
 UniRef90\_K8P8H8  
 UniRef90\_L0B772  
 UniRef90\_B8IGW8  
 UniRef90\_A9CUD5  
 UniRef90\_UPI0004680D38  
 UniRef90\_UPI000375D935  
 UniRef90\_W6KDS1  
 UniRef90\_B7QT28  
 UniRef90\_UPI0003B31AA8  
 UniRef90\_A0A023D3P3  
 UniRef90\_V1TWR3  
 UniRef90\_K5YYT8  
 UniRef90\_D3DFU7  
 UniRef90\_Q2WBF4  
 UniRef90\_A0A058ZMD9  
 UniRef90\_I6ZSG4  
 UniRef90\_W7DSN0  
 UniRef90\_A0LIN4  
 UniRef90\_W8HXK4  
 UniRef90\_D0CU97

1                    10                    20                    30                    40

D L T Q V N A Y I R A V T T L T A D F S Q T D R N G Q V L T G K L T L K Q P G  
 A D E L S S L L N K T I A F S G Q F S Q S V Y D I E E A N G E V V F K K P H  
 D A L A R V D Q H Y N R L T S L R A R Y S E H Y A G M R T E S G T L L L K K P Q G  
 A A V V D R H Y N S L H S V H F T Q A I R N A A S G S G S F F F K K P V  
 L A K I S S Y L N G L T T A E A E F T Q I N G D G S I T S G R L Y I K R P G  
 E L A G R I Q N K Y A T I N A F S A S F T Q A I R N A A S G S G S F F F K K P V  
 I E T L H H F L E N L H T F K A N F V Q T Q P D E E K S T G S L T L R K P G  
 A H Q V D A H Y N H L Q S Q A R Y T E R Y Q G M R T E T T G S L T L R K P G  
 D V V S A L E K G Y A T L Q D V Q A D F S Q R M K R E Q R G N G E M L L K R P G  
 R V Q Q F Y D S T K T F K A S F T Q T Y T I K K V S T G K V I F E K P G  
 D L L D R I Q T Y D Q T Q A L S A D F V Q T L N R E Q A S A G R V Y I Q K P P Y  
 L Q K V D D H Y N H L A S L R A R Y R E H Y T G M R S E S G T L L L K K P P G  
 D L A A V Q R H L S D T G S M T A A F A Q T D R N G Q V L T G T L T L K K P P G  
 L D D A V A A L R G I S T M R A S F T Q T D R S G Q T V R G T M T L L K R P G  
 A T E Q L I V E L S N Q L Q G R F E Q T Q F A A D Q S S G H F K L L K P M  
 D D T N D L K K S I F D I S N Y E A K F Q S Q V K N L Q D G E G S I K L L R P N  
 L R E L Q N K Y N S I S D L S V D Y S Q R A G G K V I L S G K I I F K K E N  
 D A L A R L A A Y L N G L H T L R A R F R Q T A P D G Q V T Q G T V W L E R P G  
 I S R M Q V A Y E R T R D L K A S F I Q E V S R A E R E E G I L Y L K N P K  
 L G E I S A Y L N L K Q T A K G E F T Q I N D D G S I S T G T I Y I K R P G  
 L A K L S A Y L N G L A T A E A E F T Q V N S D G T I S T G K L F I K R P G  
 E L V E K I Q S S Y E K A E D M K A N F I Q E T T K T E R E E G T V Y F K K P K  
 E V V D R V Q D R L D A L E G L K A D Y V Q I L T N Q E R T G S I Y F K K P L  
 D D V W A L L A S Q S Q A R G S F V Q E L S D L E R T R G R Y A V L R P G  
 V E R M Q S F Y E K T E D F Q S G F K Q T F R R T Q T S T G T V T Y K K P G  
 D V V A T T L E Q G Y A S L K D L Q A S F T Q R V K R S Q T G S G E L F I R K R A  
 D L D R V V T A L R A I S T M K A F V Q T D R A G Q S L R G V M T L K R P G  
 N D L A H V Q N H L R A V V E S M T A T F T Q T D R S G K L L T G V L T L K K P P G  
 R I Q Q Q Y E Q L Q G F E T D F V Q V L T N A S S G E G T I A F E Q P R  
 V L G Q L E A Y L N S L L T T M R A R F L Q V S S N G A A A Q G T A M W R P G  
 D T T Q R F E N Y L N S L L K T L S G R F T I N S S G Q T A S G Q I H I S R P G  
 E T L A Q L S A Y L N S V T T M Q G R F T Q Q S S D G R V A Q G N F Y L R R P G  
 L K E I S R Y L L N G L T T A Q A E F T Q I N A D G S I S T G T L Y I Q R P G  
 Q I C K H R L R E V A T M T A H F V Q V D R N G Q A L D G S L T K K P P G  
 E R V Q E R Y L K M Q S F Q N F Q T T I V E S A G S S I A Y Q R P G  
 E R L L R A R Y Q Q I D A L Q A S F V Q I L Q R P D T L R G R L W L Q G D  
 A A D E L A Q L L N N T R T M Q A K F E Q F S I N G Q K T T G T M M L E R P G  
 A K T Q E M Y D K T I D L K A T F I Q E V T K T E R E E G T V Y F K N P K  
 E V V A K I N D Y F N K M T F L Q G V F V Q S D P D T K Q K R G K F Y L A R G G  
 D K Q A L Q S L L K Q T Q S L S A E F E Q V Q K D L Q T L S G T L K L K R P A  
 D L D Q A V E A L R G I S T M R A N F V Q T D R N G Q A V S G V M T L K R P G  
 R L Q E L Y D Q V T G F K A E F Q Q R T A P M P M S G E G T V M F R K P H  
 D A V A A L E K K V R S Y T S F K A D F V Q T L T H R Q S G Q G S I I F R K P D  
 D L Q K V G A H L K A A N T M T A D F T Q S D R A G Q T L T G K L T L K R P G  
 D L S T L S A Y L N G I T T A Q A K F T Q I A G D G T V S T G T L Y L K R P G  
 D D I K K I E N Y L N G I K T M E A R F V Q T A S N G N T A E G K F Y E K P N  
 V N D Y L N E M L S L Q A N F K Q T I F S P T N S E G S F L L K K P P G  
 E V L E K I Q F F Y E N I K T L K T N F I Q E T I L S K E I R T G K L L I K K P P G  
 L K Q I E D Y L N N I K T M Q A S F V Q T A S N G N T A E G M L Y I A K P N  
 R Q L A E Q K G F S C R F Q Q S I T T S Q K Y S G S L A I V L P P N  
 E D V W T L L A A Q S Q A S G A F T Q E L F D L E R S S G R Y A V L R P G  
 V D R I Q D A L G H V T T L Q A R F L Q T A P D G K T S T G T A T L D R P G  
 D L A R V E A Y L N G I G T L R S R F L Q V A D D G S S V K G T F A L A R P G  
 A E Q L R Q R Y A G I E S L S F D F V Q Q T S G E M R G A G R A L F S S H G  
 E L T A H L Q A T D T M A N F T Q I A A N G A T T G K V Y L E R P G  
 E G L Q Q G S F Q Q Q L V D L G S S E G R F A I L T P H  
 L A E I S T Y L N G L K T V Q T T F T Q I N D D G S L S T G K L W H R P G  
 L N E A V A A L R G I S T L R A D F V Q T D R T G Q S V T G T L T L K R P G  
 D A L Q G I N E Y F N G I D T M R G Q F V Q I G P D G S R T E G Q F A L K R P G  
 V V K Y F N D D L T S L Q A D F E Q T V T N K E I S D G I L Q R K K P G  
 L G E I S T Y L N G L K T A Q G A F T Q I N E D G T I S T G R I L I K R P G  
 V A R V Q D T M N A V T T M K G R F E Q V A P D G Q R T T G T V W L A R P G  
 L E Q G Y A S L N D L Q A D F S Q R L K R E E K G G G E L F I K K G G  
 D L A R I E T Y L D G V R T L T A R F V Q M D A R G G T A E G T L L W Q R P G  
 R S Q L K N F I S N V Q S A S G T F E Q T L K T S D L Q K G E F I F E R P G  
 D L R R V E A Y F N A M T T L K A R F L Q V A W N G A S A E G T A W I W R P G  
 A G K V S T Y L S S L Q N V S G N F V Q V G P D G K R T T G D F Y I Q K P P G  
 D F L L K E V R S F S C E F R Q S I L P Q S Q N G F L R F K K P P G  
 V I E R A N A Y F N G V S T L T G N F V Q I G A D G R K I I G G K L Y L A K P P G  
 D A A Q R V A D H F A S V K T M T G E F I Q F G P N G E Q T G G K F F I D R P G  
 I L G N I S S Y L N A M T T A Q G A F T Q I N G D G T I S T G T I Y I K R P G  
 V L A Q A N A Y F N G M T T L S G N F V Q I A G D G R R G K L T L A K P P G  
 L K K V Q H Y L N S I K T L Q S R F I Q A T S A G G Y A E G T L Y L S R P G  
 L N E V S Q Y L L N G I T T A Q A P F S Q I N D D G S L S T G K L Y M H R P G  
 E I L E E V E E Y L L N G I G T M E G R F A Q V T S T G N Y A E G E V A L R R P G  
 I L A R I Q D A L T A T T L F K A R F Q I A P D G K R S T G T A W L D R P G  
 D A A S S L K S R L L D K V S S F H A T F T Q K V T D G Q E G Q G D L W V K R P G  
 I A Q I E A Y L L N A Q K G L T A N F L Q V A A D G A T R T G K A W Q R P G  
 I L E E V E E Y L L N G I G T M E G R F A Q V T S T G N Y A E G E V A L R R P G  
 D I A R A E E Y L L N G V T T L K A R F L Q V S P N G A S V E G D A Y L S R P G  
 D L S Q I S S Y F N G G F K T A Q A D F T Q I N A D G T I S T G T L F I K R P G  
 D V L K K L Q D R F N S I D N F T A D F K F T S P A A N I N G K F V Y K R R N  
 D Q A Q T W I N Q L T T L Q A K F Q Q I A P D G Q R S T G V V W L K K P P G  
 E I L K K T E A N Y Q K I Q A F T A N F H Q S T T S T Q A S G K L F Y E K P R  
 A Q K I A D H F S S V V K T M S G E F V Q F G P R G E Q T G G K F Y I R R P G  
 L S Q I S N Y L N G L K T V Q T T F T Q I N D D G S L S T G K L W Q R P G

50            60            70            80

UniRef90_J2WVP1	K   R F Q Y Q K G   V P   L L I   V   G D G K A F T M   D Y E   V R Q   V Q R W P   I
UniRef90_B6BUC4	F F K W   Y Q A P H   Q N Q I I   G D G E T   V Y   I Y D   P D L S Q V I   M S K F   S Q S K
UniRef90_UPI0003B73703	R M R W S Y D E P   Q G K L   F I L   D G R F A W F Y T   P G D A Q A Q R I P   A D D   L R
UniRef90_UPI00047A66B7	K M R W T Y S T P   A G K L   F V L   D G H   N A Y F Y S   P G D T E   V P R V   P V K K L   D
UniRef90_C8RXD0	R   V R F E Y A P P   D K S L   V M A G G G Q   V A   F D A K S N Q P   P E Q Y P   L
UniRef90_E1JYU5	L   V R W E T   V K P   E K E L L   I V G K D A   V   W D Y F E E   D K E A Y R Y A   V K E   I
UniRef90_UPI000465119B	K   L   W V Y K   K P   D R Q E I I   T   D S   L N   L W V Y   E P D   D Q   V T V R P   L   T S   V Q
UniRef90_G8NQD1	R M R W S Y D S P   A G K L   F I L   D G K N   A I S Y T   P G D A Q A Q R I P   E D D   L R
UniRef90_A1ATL7	M F R F N Y A R P   K Q Q I   V S N G K Q   V   W F Y   L   P D S N Q   V M V   S S M E A M F
UniRef90_S4Y182	K M S W V Y D A P   N G N R V   V S D G E T   I   K V Y   E K D N E   Q M F E T   P   V K G S Q
UniRef90_W4LQ55	A   I R W E Y T Q   P D A Q T I   L Y   K D N T   L R I   Y T   P   K R K Q   V L   Q S V I   K A D D
UniRef90_E8WXJ9	R M A W H   Y D V   P A G K L   F   V   D G K F A   W F Y   T   P   G D P   Q   A Q K I   P A K Q M D
UniRef90_UPI0003B62C58	K   I R F Q Y Q K G   V P   L L I   V   G D G K A F T   F   I D Y S   V R Q   V Q R W P   I
UniRef90_UPI0001DD0E24	K   I R F E Y S   K D V   P L L   I V S   N G K S   L   T M V   D Y E   V N Q   V Q R W P   I
UniRef90_B7RV03	Y   F   L   W D I   D S P   D N Q   L   I V A   D G E   H   L   W H   H   D R D   L   E   T   V   T R R S   V A G   H   D
UniRef90_UPI0002555EB0	Y   F   R M D   I E T   P   S E A   L   I L   A N G   K E   I   Y   N Y   D E M   L   E   Q   V   T   V Y   S   Q G S   Q   M
UniRef90_UPI0003D6856	H   F   R W Q Y   T K P   Y   E Q   L   Y   I S N   G D G I   W   L   Y   E   P   D   L   M   Q   V   Q   W   L   Q   S   I   S   A   V
UniRef90_W9BVX7	R   I   R F E Y Q K D   A   Q   L   I   V   S   D   G   R   A   L   T   M   I   D   Y   Q   V   K   Q   V   Q   R   W   P   I
UniRef90_A0P6F7	L   F   K   W N Y   I   D   P   I   Q   S   Q   I   I   S   D   G   E   L   L   Y   L   Y   D   P   D   L   K   Q   V   V   I   S   S   L   K   K   L   G
UniRef90_UPI000225E41D	K   I   R F E Y A   D   D   V   P   L   I   V   S   N   G   K   S   L   T   M   I   D   Y   Q   V   N   Q   V   Q   R   W   P   I
UniRef90_E8V029	R   M   R   W N Y   A   S   P   A   G   K   V   F   L   I   N   S   K   Y   A   W   F   Y   T   P   G   D   P   Q   A   Q   R   V   A   A   K   Q   L   D
UniRef90_I0AHA5	K   Y   R   I   E   N   K   N   Q   I   I   G   S   D   G   N   S   A   W   N   Y   N   A   S   Q   K   K   F   V   I   T   N   Y   D   S   G   N
UniRef90_Q0BUL8	H   I   R   F   Q   Y   D   P   P   T   P   L   L   V   A   T   N   G   E   V   I   F   Q   D   F   Q   V   H   Q   V   S   R   I   P   L
UniRef90_Q2LRK4	R   M   L   W   D   Y   H   K   P   Q   M   K   K   L   V   V   N   P   Q   K   A   W   L   Y   V   P   E   D   H   V   Y   V   Q   N   A   D   Q   I   F
UniRef90_UPI0004681C8C	K   V   R   F   E   Y   N   P   P   E   S   A   L   V   V   A   G   S   N   T   V   V   I   Y   D   K   K   S   N   Q   P   A   E   S   Y   P   L
UniRef90_V7EDS7	R   A   R   F   E   Y   D   P   P   D   R   S   L   V   M   A   G   G   G   Q   V   A   I   F   D   A   K   S   N   Q   P   P   E   Q   Y   P   L
UniRef90_UPI0004719230	K   M   L   W   D   Y   S   R   P   G   S   K   K   L   V   I   N   P   K   K   S   W   L   Y   P   E   D   N   V   V   Y   V   Q   D   A   K   K   T   L
UniRef90_D6SQB5	Q   V   R   W   E   A   D   A   P   H   Q   E   L   L   V   I   D   Q   D   K   V   W   N   Y   F   P   D   D   E   V   A   Y   E   Y   V   E   E   V   L
UniRef90_A4A3B0	F   F   R   W   E   I   Q   E   P   D   Q   L   I   V   V   S   G   T   D   L   W   H   Y   D   R   D   L   A   A   T   R   R   D   T   S   Q   T   N
UniRef90_Q09CR9	L   M   R   W   E   Y   E   K   P   S   P   R   T   F   V   L   A   G   S   K   V   Y   A   Y   D   P   G   A   Q   S   L   T   V   G   N   V   D   T   N   T
UniRef90_D7AFC7	L   F   R   F   N   Y   V   K   P   S   Q   Q   I   I   V   S   N   G   K   T   V   W   Y   Y   L   P   E   N   R   Q   V   M   T   M   D   A   S   A   L   F
UniRef90_UPI0002E0AE9D	K   I   R   F   D   Y   G   K   S   A   N   F   L   V   I   S   N   G   K   S   L   Y   V   I   D   Y   E   V   N   Q   V   E   R   W   P   I
UniRef90_UPI00026C9C17	K   I   R   F   Q   Y   E   K   G   V   P   I   L   I   V   I   S   D   G   K   S   L   W   F   L   D   Y   S   V   A   Q   K   Q   R   W   P   I
UniRef90_C8X0Z9	S   I   R   W   E   T   T   S   P   E   Q   E   L   L   I   V   G   P   E   A   V   W   D   Y   F   P   A   E   E   V   A   Y   T   Y   A   P   Q   Q   V   F
UniRef90_H0A8V1	R   M   R   F   E   Y   D   P   P   E   P   L   L   M   V   A   S   D   G   Q   F   L   H   Y   D   K   E   L   R   Q   P   S   I   V   P   V
UniRef90_UPI00037B3936	R   F   R   W   Q   Y   Q   P   Y   E   Q   L   Y   I   G   D   G   Q   T   I   W   H   Y   E   P   D   L   M   Q   A   E   R   L   S   N   L   E   S   V
UniRef90_K2FFW6	R   L   R   F   E   Y   D   E   P   Y   P   T   L   V   V   A   D   G   V   W   A   V   I   N   R   R   A   K   T   L   D   R   L   P   L
UniRef90_UPI000366D8BF	R   A   R   F   E   Y   N   P   P   D   K   N   L   V   L   A   S   S   G   T   V   A   I   F   D   A   K   S   N   Q   P   P   E   Q   Y   P   L
UniRef90_UPI0003B37889	L   I   R   F   Q   Y   Q   K   D   V   P   L   L   V   V   G   D   G   K   A   L   V   M   I   D   Y   S   V   R   Q   V   S   R   W   P   I
UniRef90_C8WECO	K   M   R   W   E   Y   Q   E   P   D   P   Q   L   L   V   T   D   G   V   T   W   L   Y   D   P   L   L   E   N   V   T   I   Q   E   L   S   V   V   T
UniRef90_UPI000262676A	R   Y   R   V   E   T   P   R   Q   T   I   V   T   D   G   R   T   T   W   V   Y   L   P   D   T   R   Q   V   L   I   N   P   D   E   T   G   F
UniRef90_D0MJ06	K   F   R   W   E   I   T   Q   P   N   K   Q   L   I   I   V   N   K   N   K   T   F   L   Y   D   A   D   L   E   Q   V   V   K   R   K   V   D   Y   N   N
UniRef90_K1YRE3	M   M   L   W   D   Y   T   K   P   K   F   K   K   L   V   I   N   A   Q   K   A   W   L   Y   V   P   E   D   R   M   V   Y   V   Q   N   A   E   D   V   Y
UniRef90_K1Y9Q4	K   V   R   F   D   Y   G   A   P   S   R   L   K   I   I   A   D   G   K   Y   L   A   I   E   D   H   D   L   N   T   S   D   R   Y   P   L
UniRef90_E3I390	N   L   Y   W   H   T   K   E   P   D   E   S   V   M   V   A   N   G   K   K   V   W   Y   Y   N   P   F   V   E   Q   V   T   I   Y   A   Q   Q   D   M   V
UniRef90_Q5R0C0	K   I   R   F   E   Y   E   K   G   V   P   I   L   V   V   S   N   G   K   S   M   Y   M   I   D   Y   E   V   N   Q   V   Q   R   W   P   I   K
UniRef90_A5P8T3	Q   M   R   W   E   Y   A   P   D   H   Q   V   L   V   G   D   G   K   E   V   H   F   Y   S   A   R   S   N   Q   L   M   I   S   E   V   D   T   Y   L
UniRef90_D6Z6M9	S   L   R   W   E   T   V   H   P   S   R   E   L   V   V   T   D   S   A   V   W   N   Y   I   P   D   E   V   A   Y   K   Y   P   L   D   I   L   K
UniRef90_Q3ZZ3	R   I   R   F   Q   Y   Q   K   G   V   P   L   L   I   V   A   D   G   K   A   L   V   M   I   D   Y   S   V   R   Q   V   S   R   W   P   I
UniRef90_UPI0003B626DE	K   M   R   F   E   Y   D   P   P   N   K   S   Y   V   I   A   D   H   G   A   V   G   I   F   D   E   K   G   D   E   T   V   E   Q   Y   P   L
UniRef90_A3TWH6	K   I   R   M   T   Y   D   A   P   T   S   V   L   V   G   D   G   N   F   I   V   Y   N   D   T   E   L   D   Q   V   T   H   I   D   Y   D   D   I   P
UniRef90_R6ITE6	K   I   M   W   H   F   T   V   P   S   I   K   I   T   V   Q   E   Q   K   I   S   T   Y   D   A   N   L   N   Q   V   V   V   P   F   S   D   R   Y
UniRef90_B3T0P8	K   F   R   W   E   Y   E   K   P   R   E   F   I   I   S   D   G   D   V   K   V   F   V   Y   Y   P   K   E   K   E   V   L   I   Y   P   S   G   K   M   I
UniRef90_F8C501	K   I   R   M   E   Y   N   A   P   T   D   V   L   V   G   D   G   D   Y   I   I   Y   H   D   K   E   L   D   Q   V   T   N   I   D   Y   D   D   I   P
UniRef90_R6I103	R   F   R   W   Q   Y   T   R   P   Y   Q   Q   I   V   S   S   G   K   K   L   W   H   Y   E   P   D   L   M   Q   V   R   I   L   T   S   L   E   D   V
UniRef90_UPI000362B33C	F   F   R   W   Q   I   E   P   D   Q   Q   V   I   V   V   S   G   T   R   L   W   H   Y   D   I   D   L   A   A   A   T   R   R   D   T   S   Q   S   N
UniRef90_B8KGf3	R   M   R   F   D   Y   D   K   P   S   P   L   L   V   I   A   D   G   R   F   V   Y   F   W   D   A   E   L   K   Q   Q   S   N   A   P   I
UniRef90_G6XGR9	R   M   R   F   D   Y   D   P   P   V   G   N   F   I   V   A   D   G   R   F   V   Y   F   W   D   A   E   L   K   Q   Q   S   N   A   P   I
UniRef90_B6IV36	R   M   R   F   D   Y   D   P   D   Y   Q   V   I   I   S   D   G   T   T   V   S   M   Y   F   A   Q   L   I   N   Q   Q   I   I   A   P   V   E   Q   A   Q
UniRef90_V4JG71	R   M   R   F   D   Y   D   P   D   Y   Q   V   I   I   S   D   G   T   T   V   S   M   Y   F   A   Q   L   I   N   Q   Q   I   I   A   P   V   E   Q   A   Q
UniRef90_M2U7J3	K   I   R   F   Q   Y   Q   K   G   V   P   L   L   V   I   A   D   G   K   S   L   D   V   V   D   Y   E   V   N   Q   V   Q   R   Y   P   I
UniRef90_B8KRK6	F   F   R   W   E   L   T   A   P   G   S   Q   L   I   I   S   D   G   Q   D   L   W   Q   L   D   R   D   E   T   A   T   R   R   P   L   D   P   E   M
UniRef90_Q5LMZ7	R   M   R   F   E   Y   D   P   P   D   R   S   V   V   L   A   K   G   G   T   V   I   I   H   D   P   K   S   N   Q   P   P   E   Q   Y   P   L
UniRef90_F6IK27	R   I   R   F   Q   Y   E   K   S   V   N   M   L   I   V   S   D   G   K   A   L   T   M   I   D   Y   D   V   N   Q   V   Q   R   W   P   I
UniRef90_UPI00037E26C0	L   V   R   F   H   Y   N   P   P   A   Q   M   D   I   I   S   D   G   T   S   V   A   V   R   D   R   K   R   A   S   Q   D   I   W   P
UniRef90_L8XX30	G   F   Y   F   N   Y   T   S   P   F   E   Q   K   I   I   S   N   G   Q   K   L   W   H   Y   D   V   D   L   E   Q   V   V   K   I   N   L   A   I   F   E
UniRef90_A3VZH4	R   V   R   F   E   Y   D   P   P   E   E   A   L   V   V   A   D   G   D   T   V   G   I   D   P   R   S   N   D   G   P   Q   G   Y   P   L
UniRef90_UPI00022600E7	R   M   R   F   E   Y   D   K   P   S   P   L   L   V   I   A   N   D   G   K   V   V   F   R   D   T   Q   L   D   Q   T   T   E   I   P   L
UniRef90_E8WQ51	M   F   R   F   D   Y   K   K   P   K   Q   Q   I   V   S   N   G   K   T   V   W   Y   Y   P   P   D   Q   K   Q   V   M   V   M   D   L   A   Q   L   F
UniRef90_UPI0003680520	R   M   R   F   E   Y   D   P   P   A   Q   I   L   L   V   I   A   D   G   D   T   F   V   I   F   H   D   K   S   V   R   Q   T   S   H   I   P   I
UniRef90_G4QBF0	K   F   L   W   I   V   K   E   P   L   E   Q   Q   I   V   S   D   G   K   K   L   Y   Q   Y   D   P   D   L   L   Q   V   T   E   R   N   V   K   Q   A   I
UniRef90_UPI0002D41713	R   M   R   F   D   Y   D   P   P   E   P   L   L   V   A   S   H   G   Q   F   M   Q   F   D   R   E   L   G   Q   P   T   V   V   P   T
UniRef90_K8P8H8	K   I   R   F   E   Y   D   P   P   S   P   I   A   L   V   A   D   G   T   S   V   V   V   L   D   R   R   L   A   T   Q   D   V   Y   P   L
UniRef90_L0B772	K   F   R   W   E   I   V   S   N   S   R   Q   L   V   V   S   D   G   E   K   I   I   Y   Q   Y   D   S   D   L   C   Q   A   I   A   R   N   I   D   E   T   P
UniRef90_B8IGW8	R   L   R   F   D   Y   D   Q   P   S   P   L   E   V   V   A   D   G   T   S   V   A   V   R   D   R   K   L   A   T   Q   D   L   Y   P   F   I
UniRef90_A9CUD5	K   L   R   F   N   Y   E   A   P   S   S   V   R   V   I   I   A   D   G   K   A   V   V   I   G   N   R   K   L   R   T   W   D   L   Y   P   F   I
UniRef90_UPI0004680D38	R   V   R   F   E   Y   N   T   P   D   T   G   L   V   I   A   G   S   N   T   V   V   V   D   K   S   N   Q   A   P   E   T   Y   P   L
UniRef90_UPI000375D935	R   L   R   F   D   Y   D   Q   P   S   P   M   E   V   V   A   D   G   T   S   V   A   V   K   D   R   K   L   K   T   Q   D   L   Y   P   F   I
UniRef90_W6KDS1	K   L   R   F   E   Y   D   P   P   A   P   F   I   L   V   V   A   D   G   T   W   L   I   Y   E   D   K   E   L   E   Q   I   S   Y   P   L   L   L
UniRef90_B7QT28	K   M   R   F   E   Y   D   A   P   N   S   G   V   V   I   A   G   A   G   A   V   V   I   Q   D   P   K   S   N   Q   P   P   E   T   Y   P   L
UniRef90_UPI0003B31AA8	R   M   R   F   E   Y   D   S   P   N   P   T   I   L   V   V   A   D   G   F   N   L   T   V   Y   Y   D   R   E   L   E   E   A   T   M   L   P   L
UniRef90_A0A023D3P3	R   M   R   F   D   Y   D   K   P   Q   S   P   L   L   V   V   A   N   D   G   Q   I   V   V   Y   V   D   R   D   L   G   Q   V   T   T   L   P   V
UniRef90_V1TWR3	L   F   N   W   H   M   T   Q   P   D   E   S   I   L   V   V   A   S   D   G   K   T   L   W   F   Y   N   P   F   V   E   Q   A   T   A   T   W   L   K   D   A   T
UniRef90_K5YYT8	K   M   R   F   A   Y   D   P   P   D   P   Q   L   L   V   V   A   G   F   G   G   L   L   V   Y   H   D   P   A   L   G   Q   T   T   N   I   P   L
UniRef90_D3DFU7	K   F   R   I   E   Y   E   Q   P   E   R   M   L   I   V   V   S   D   G   E   R   I   I   L   L   Y   Y   P   K   E   K   S   A   I   I   D   K   V   E   N   R
UniRef90_Q2WBF4	K   L   R   L   Q   Y   D   P   P   S   P   L   L   V   V   A   D   G   S   F   L   I   V   H   D   S   Q   L   G   E   P   S   Y   I   P   L
UniRef90_A0A058ZMD9	R   V   R   F   E   Y   N   P   P   E   S   A   N   A   V   V   L   V   A   S   S   G   Q   L   A   I   Y   D   P   K   S   N   Q   P   P   E   Q   Y   P   L
UniRef90_I6ZSG4	K   F   V   I   E   S   E   A   R   K   I   V   S   D   S   K   S   V   W   N   Y   D   I   N   G   K   R   V   M   V   I   S   D   I   G   D   E   P
UniRef90_W7DSN0	R   I   R   F   E   Y   N   K   P   S   E   L   L   V   V   A   N   D   G   K   M   V   F   H   D   A   E   V   G   Q   T   T   T   I   P   L
UniRef90_A0LIN4	Q   M   R   W   E   Y   K   P   Q   V   F   V   V   A   N   R   D   L   A   W   L   Y   V   P   A   D   K   Q   I   S   L   F   D   A   K   T   L   F
UniRef90_W8HXK4	R   I   R   F   E   Y   N   E   A   P   S   P   M   R   V   I   S   D   G   K   S   V   I   G   N   M   K   L   T   W   D   I   Y   P   L
UniRef90_D0CU97	K   M   R   F   E   Y   D   P   P   N   S   A   V   V   L   V   A   N   A   G   T   V   M   V   F   D   P   K   S   N   Q   P   P   E   Q   Y   P   L

UniRef90\_J2WVP1  
UniRef90\_B6BUC4  
UniRef90\_UPI0003B73703  
UniRef90\_UPI00047A66B7  
UniRef90\_C8RXD0  
UniRef90\_E1JYU5  
UniRef90\_UPI000465119B  
UniRef90\_G8NQD1  
UniRef90\_A1ATL7  
UniRef90\_S4Y182  
UniRef90\_W4LQ55  
UniRef90\_E8WXJ9  
UniRef90\_UPI0003B62C58  
UniRef90\_UPI0001DD0E24  
UniRef90\_B7RV03  
UniRef90\_UPI0002555EB0  
UniRef90\_UPI00036D6856  
UniRef90\_W9BVX7  
UniRef90\_AOP6F7  
UniRef90\_UPI000225E41D  
UniRef90\_E8V029  
UniRef90\_I0AHA5  
UniRef90\_Q0BUL8  
UniRef90\_Q2LRK4  
UniRef90\_UPI0004681C8C  
UniRef90\_V7EDS7  
UniRef90\_UPI0004719230  
UniRef90\_D6SQB5  
UniRef90\_A4A3B0  
UniRef90\_Q09CR9  
UniRef90\_D7AFC7  
UniRef90\_UPI0002E0AE9D  
UniRef90\_UPI00026C9C17  
UniRef90\_C8X0Z9  
UniRef90\_H0A8V1  
UniRef90\_UPI00037B3936  
UniRef90\_K2FFW6  
UniRef90\_UPI000366D8BF  
UniRef90\_UPI0003B37889  
UniRef90\_C8WE0C  
UniRef90\_UPI000262676A  
UniRef90\_D0MJ06  
UniRef90\_K1YRE3  
UniRef90\_K1Y9Q4  
UniRef90\_E31390  
UniRef90\_Q5R0C0  
UniRef90\_A5P8T3  
UniRef90\_D6Z6M9  
UniRef90\_Q30ZZ3  
UniRef90\_UPI0003B626DE  
UniRef90\_A3TWH6  
UniRef90\_R6ITE6  
UniRef90\_B3T0P8  
UniRef90\_F8C501  
UniRef90\_R6I103  
UniRef90\_UPI000362B33C  
UniRef90\_B8KGf3  
UniRef90\_G6XGR9  
UniRef90\_B6IV36  
UniRef90\_V4JG71  
UniRef90\_M2U7J3  
UniRef90\_B8KRK6  
UniRef90\_Q5LMZ7  
UniRef90\_F6IK27  
UniRef90\_UPI00037E26C0  
UniRef90\_L8XX30  
UniRef90\_A3VZH4  
UniRef90\_UPI00022600E7  
UniRef90\_E8WQ51  
UniRef90\_UPI0003680520  
UniRef90\_G4QBF0  
UniRef90\_UPI0002D41713  
UniRef90\_K8P8H8  
UniRef90\_L0B772  
UniRef90\_B8IGW8  
UniRef90\_A9CUD5  
UniRef90\_UPI0004680D38  
UniRef90\_UPI000375D935  
UniRef90\_W6KDS1  
UniRef90\_B7QT28  
UniRef90\_UPI0003B31AA8  
UniRef90\_A0A023D3P3  
UniRef90\_V1TWR3  
UniRef90\_K5YYT8  
UniRef90\_D3DFU7  
UniRef90\_Q2WBF4  
UniRef90\_A0A058ZMD9  
UniRef90\_I6ZSG4  
UniRef90\_W7DSN0  
UniRef90\_A0LIN4  
UniRef90\_W8HXK4  
UniRef90\_D0CU97

90            100            110            120

G N S P L A A L I D P T K D L S K V G T I V T T G D P T V L S V Q T K D P E F G	N N P A N I F F L N N I E E Y F K V T E D E I W Y R C E S K S K D I D Y Q	S P L R F L L G H T Q L K K E L V N L T V T Q D N H G I H I P Q G M E Q R I H	D R S P L R F L L G H T Q L E K E L G S L R A E N G S Y V L V P K G M E Q R I A
A R T P L N L I L A A N V D L G R A K M V T E D G T S T R V Q A Q D P E P E Y G	S S K T M L R F L T G K A N L T E D F F V G P G Q A V L D L A P R E P E P G L V	T D F P L R W L L Y N D R I E S N F N I Q P E S I W Y N L T P K D S T F F Q	S P L R F L L G H T E L A K E L D G L S L T A V N G G Y T L T P K G M Q Q R V R
S P L R F L L G H T E L A K E L D G L S L T A V N G G Y T L T P K G M Q Q R V R	G N S I A L S Y L T G M G H V S R D F S I K N G N Y Q L E L L P K K P T A V L A	Y P A A L A F L M G K G Q L T K D F S L R E G G Y V L E G T P K E A T P A Y Q	Y P A A L A F L M G K G Q L T K D F S L R E G G Y V L E G T P K E A T P A Y Q
R S N V A L L F L L A G I G T L K D A F T V T S Q I T R L R L V P R S P Q A G F T	D H T P L R F L L G H T K K E L D Q I K V T P V G T E F F R I T P K G M Q Q R I H	N N S P L S I L V D P T R D I S R Y A K V V P S T N S G V L S V E P K H P E Y G	N N S P L S I L V D P T R D I S R Y A K V V P S T N S G V L S V E P K H P E Y G
Q L S P L Q V L A G D R A I L S E R F E V S R T G E R F L L V P D G S P G F R	V N S P F L L L I S Q D N E L W N K Y T V T R K D N T Y E I V S N N Q E G L I K	D P V A M R L L E G R V K P D E V Q L I D E V A G V Y H V R I G K A D R P T	D P V A M R L L E G R V K P D E V Q L I D E V A G V Y H V R I G K A D R P T
R N S P L G A L L D P S R D L T R Y G K V V P T G D P N V V S V E P K R P E Y G	G V S P A M L L V S S S A S I V K S I R A T D L I S I Y E A P K N P E A S F S	S N S P L G A L L D P N R D V K K Y G K L R N T G N P D V L S V E V R D P N Y G	S N S P L G A L L D P N R D V K K Y G K L R N T G N P D V L S V E V R D P N Y G
Q N S P L G A L L D P N R D V K K Y G K L R N T G N P D V L S V E V R D P N Y G	D R S P L R F L L G R L K I E K E L T N L T Q N S A K I K G V P K G M E Q R I N	N S I Y S I L V Y Q L P N E C T L S A R I E S V T K V L E L T P K T T N L Q F R	N S I Y S I L V Y Q L P N E C T L S A R I E S V T K V L E L T P K T T N L Q F R
D R T P L S I L L S D H I D F N G A A A V R E P G V I Q L S V V R R T D P G A G	K S K M A V R F L S G M G K L Q E D F S I K E G N Y Q L T L V P K R P G L G T D	S R T P L S I I L A R N V D L G R A K M V T G D G T A T V V K A Q D P N P G Y G	S R T P L S I I L A R N V D L G R A K M V T G D G T A T V V K A Q D P N P G Y G
K R T P L N L I L A R D V D L G R A K M V E A Q D T T R V V A Q D P E N P E Y G	D R S P L R F L L G R L K I E K E L T N L T Q N S A K I K G V P K G M E Q R I N	N S R L V I R F L A G V I G K L R D D F F V S T G N Y I L E L K P Q S P T A G I E	N S R L V I R F L A G V I G K L R D D F F V S T G N Y I L E L K P Q S P T A G I E
T S R A M I N F I S G Q A K L T E D F Q V E E Q Q G H K L K L V P A S P E P D L V	N S R L V I R F L A G V I G K L R D D F F V S T G N Y I L E L K P Q S P T A G I E	E F T P L E L L L A G D S D E L R E K F T T Q V L G G Q V R L V P T F P Q A G F A	E F T P L E L L L A G D S D E L R E K F T T Q V L G G Q V R L V P T F P Q A G F A
L S A S V T F L F G Q G R L A D E F N I T K G G T L L V L N P A Q A D P R F K	G G G V A L S Y L T G I G Q I S R D F A V S F A G N V L D L V P K K Q G Q A F A	G N S P L G A L F D P E K D V K R F G K L M P T S N R D V I S V Q P K K P E F G G	G N S P L G A L F D P E K D V K R F G K L M P T S N R D V I S V Q P K K P E F G G
G A S P L G I L L D P S R D M S K I L A T V V J A T D N P N V I A V D A A D P E Y G	Q S K T M L R F I S G E A N I T E D F R I V E R Q K S D L K L I P K Q P E P N L V	S S T P L G I F L L R P Q I R F S G D L E V R V G G M V Q V G L R R R K A A P G E G	S S T P L G I F L L R P Q I R F S G D L E V R V G G M V Q V G L R R R K A A P G E G
D P A V M R L L N Q G Q I K P S E I R M L K Q G Y D K I L D I S R F Q V S I E E	E N T P A A F I I L R P G A D V D T V N V V A K D K T T E V T L I R T A E P E A G	D P A V M R L L N Q G Q I K P S E I R M L K Q G Y D K I L D I S R F Q V S I E E	D P A V M R L L N Q G Q I K P S E I R M L K Q G Y D K I L D I S R F Q V S I E E
N S T P L A L L L R E N V N L T S E R D V Q R G P G I L R V T A V D P Q P G D G	N S T P L A L L L R E N V N L T S E R D V Q R G P G I L R V T A V D P Q P G D G	S R T P L S I I I L A N N V D L G R A K M V S V D G N T T R V R A Q D P E P E Y G	S R T P L S I I I L A N N V D L G R A K M V S V D G N T T R V R A Q D P E P E Y G
G D S P L S I I I L D P S K D I A S Y A T T L T D D G K N I V I T G H D P K P D F G G	D S D T I M R F I T G R A N L D S D F E I E Q G S T R I H L Y P Y H P Q Q T L T	E V T P F R L L L S E H V D L I N D A N V I E Q W T D V V V L T V E D K K G G S G	E V T P F R L L L S E H V D L I N D A N V I E Q W T D V V V L T V E D K K G G S G
D G T A L A F L L G V G E L T D D F T L S P D K S W E L V P N R E Q S V I E	A N S P L S A I I L D P D N N L A K F G K V I D T G N G N V V R V D V K D P E Y G	S L N E F L L H Y S D R Y E V L V L G G E A I I T Y Q N T A Y R I L R P L R P E A P F Q	S L N E F L L H Y S D R Y E V L V L G G E A I I T Y Q N T A Y R I L R P L R P E A P F Q
N S P L G A L V D P S R D V K K Y G R L T S H S D V V S I E V R D P K P E F G G	D S D V T Y A F F A G T G D I L R D F A V T A V P E R L R L E P R E L H S Q V E	P S N P A M L L S S P V E S M T L S F E I I S K Q D D L W F E L R P K N Q E A G Y Q	P S N P A M L L S S P V E S M T L S F E I I S K Q D D L W F E L R P K N Q E A G Y Q
D S D V T Y A F F A G T G D I L R D F A V T A V P E R L R L E P R E L H S Q V E	D S D T I M R F I T G R A N L D S D F E I E Q G S T R I H L Y P Y H P Q Q T L T	R S R M A V K F L S G I G R L S E D F Q I R D G N Y R L V L T A K E S G S G V D	R S R M A V K F L S G I G R L S E D F Q I R D G N Y R L V L T A K E S G S G V D
A N S P L S A I I L D P D N N L A K F G K V I D T G N G N V V R V D V K D P E Y G	A S D T I M R F I T G R A N L D S D F E I E Q G S T R I H L Y P Y H P Q Q T L T	E V T P F R L L L S E H V D L I N D A N V I E Q W T D V V V L T V E D K K G G S G	E V T P F R L L L S E H V D L I N D A N V I E Q W T D V V V L T V E D K K G G S G
R R T P L S I I I L D R H V D L G R A N M V T D G P S T I V R A Q D P K N P E Y G G	A S D T I M R F I T G R A N L D S D F E I E Q G S T R I H L Y P Y H P Q Q T L T	S S T P L G I F L L R P Q I R F S G D L E V R V G G M V Q V G L R R R K A A P G E G	S S T P L G I F L L R P Q I R F S G D L E V R V G G M V Q V G L R R R K A A P G E G
A S L I L A N D K I D G K K V K I K D A G I T T V I L D Y K E K G D I G	A S D T I M R F I T G R A N L D S D F E I E Q G S T R I H L Y P Y H P Q Q T L T	Q S S L A N I L L N D S L M S Y Y Q I H S E N A Y S V I L V Q K N S N N L F T	Q S S L A N I L L N D S L M S Y Y Q I H S E N A Y S V I L V Q K N S N N L F T
Q S S L A N I L L N D S L M S Y Y Q I H S E N A Y S V I L V Q K N S N N L F T	A S D T I M R F I T G R A N L D S D F E I E Q G S T R I H L Y P Y H P Q Q T L T	S S Q Q L A L G F M N G R G S K I K D L K L S K N T W R I S F L P L K K D P H I E G	S S Q Q L A L G F M N G R G S K I K D L K L S K N T W R I S F L P L K K D P H I E G
D P V V M Q L L A G R I G S D R E L L D S D T A A R R Y H L R I K G G P A A	A S D T I M R F I T G R A N L D S D F E I E Q G S T R I H L Y P Y H P Q Q T L T	A S L I L A N D V K L D G K K F K V T Q D A G I T T A T I Q Y K D N D I G	A S L I L A N D V K L D G K K F K V T Q D A G I T T A T I Q Y K D N D I G
E F T P L E L L L A G D S D E E Q A R F E A Q R L L G S R V V R L I P T F P Q A G F A	D R T P L G I F L L R P D D L R L S G D V T V T H T G G R I N L V V R T D N P G E G	D R T P L G I F L L R P D D L R L S G D V T V T H T G G R I N L V V R T D N P G E G	D R T P L G I F L L R P D D L R L S G D V T V T H T G G R I N L V V R T D N P G E G
D R T P L G I F L L R P D D L R L S G D V T V T H T G G R I N L V V R T D N P G E G	G S T L A D F I L L R P Q I S L S G D V T V T E D G G V L E V T A Q T K D P A L G	G S T L A D F I L L R P Q I S L S G D V T V T E D G G V L E V T A Q T K D P A L G	G S T L A D F I L L R P Q I S L S G D V T V T E D G G V L E V T A Q T K D P A L G
G T S P A S I I L F G N S K I E E S F K L T E K E G W L R A T P K Q S D S G M K	T D D L L F S F F S G R T P L A E S F F L I T D A D D V I R L Q P L D P R T N I S	T D D L L F S F F S G R T P L A E S F F L I T D A D D V I R L Q P L D P R T N I S	T D D L L F S F F S G R T P L A E S F F L I T D A D D V I R L Q P L D P R T N I S
S A T P L A F L L R A D L R L S G D V T V T R S S G G F L R V T L Y S S S P A E G	A E T P L S V S L L D P N A Q L A K F A Q V K S D A D A L V I E A R D K K P E Y G	S A T P L A F L L R A D L R L S G D V T V T R S S G G F L R V T L Y S S S P A E G	S A T P L A F L L R A D L R L S G D V T V T R S S G G F L R V T L Y S S S P A E G
S Q T P L R Y L L S D R I I L R D T N V S S D N M F I S V T L E E K Q Q A L V G	A E T P L S V S L L D P N A Q L A K F A Q V K S D A D A L V I E A R D K K P E Y G	S Q T P L R Y L L S D R I I L R D T N V S S D N M F I S V T L E E K Q Q A L V G	S Q T P L R Y L L S D R I I L R D T N V S S D N M F I S V T L E E K Q Q A L V G
L S F F M D M D L L S S D N L E E F V D I K Y S Y N R D W L S A T T N N L S S G F R	N R T P L S I I V L L A R T V D L D R A N M V V G D G T A T V V T A Q D P N P Q F G G	S Q T P L K F F L L R D R I I L R D T N V S S D N M F I S V T L E E K Q Q A L V G	S Q T P L K F F L L R D R I I L R D T N V S S D N M F I S V T L E E K Q Q A L V G
S Q T P L K F F L L R D R I I L R D T N V S S D N M F I S V T L E E K Q Q A L V G	S N S P L G A L L D P N R D V A K F G T V K P T G N P N V V S V E V R D P D E Y G	S Q T P L K F F L L R D R I I L R D T N V S S D N M F I S V T L E E K Q Q A L V G	S Q T P L K F F L L R D R I I L R D T N V S S D N M F I S V T L E E K Q Q A L V G
S N S P L G A L L D P N R D V A K F G T V K P T G N P N V V S V E V R D P D E Y G	K R T P L R F I L L R D S Q I D L T Q D A K V K S E V R D P V V L V T I A E N T A F G	S N S P L G A L L D P N R D V A K F G T V K P T G N P N V V S V E V R D P D E Y G	S N S P L G A L L D P N R D V A K F G T V K P T G N P N V V S V E V R D P D E Y G
K R T P L R F I L L R D S Q I D L T Q D A K V K S E V R D P V V L V T I A E N T A F G	Q D S P L M F M I F N D Q P L N A Q F A I K K N E Q K Y R L T P K K K G D V E	K R T P L R F I L L R D S Q I D L T Q D A K V K S E V R D P V V L V T I A E N T A F G	K R T P L R F I L L R D S Q I D L T Q D A K V K S E V R D P V V L V T I A E N T A F G
Q D S P L M F M I F N D Q P L N A Q F A I K K N E Q K Y R L T P K K K G D V E	N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G	Q D S P L M F M I F N D Q P L N A Q F A I K K N E Q K Y R L T P K K K G D V E	Q D S P L M F M I F N D Q P L N A Q F A I K K N E Q K Y R L T P K K K G D V E
N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G	E R T P L G I L L L S E H V S L S S G D V T V T Q N Q T L L Q I S A V R T A S P G E G	N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G	N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G
E R T P L G I L L L S E H V S L S S G D V T V V T Q N Q T L L Q I S A V R T A S P G E G	U N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G	E R T P L G I L L L S E H V S L S S G D V T V V T Q N Q T L L Q I S A V R T A S P G E G	E R T P L G I L L L S E H V S L S S G D V T V V T Q N Q T L L Q I S A V R T A S P G E G
U N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G	G N G I A M N Y L A G L Q V S K D F S I K S G N Y Q L E L I P H K K S P A M A	U N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G	U N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G
G N G I A M N Y L A G L Q V S K D F S I K S G N Y Q L E L I P H K K S P A M A	G A T P L S V V L L A E R I R L T G G D V V R T P G V I Q V T L V R A G R S G E G	G N G I A M N Y L A G L Q V S K D F S I K S G N Y Q L E L I P H K K S P A M A	G N G I A M N Y L A G L Q V S K D F S I K S G N Y Q L E L I P H K K S P A M A
G A T P L S V V L L A E R I R L T G G D V V R T P G V I Q V T L V R A G R S G E G	G T S P A S I I L F G N S K I E E S F K L T E K E G W L R A T P K Q S D S G M K	G A T P L S V V L L A E R I R L T G G D V V R T P G V I Q V T L V R A G R S G E G	G A T P L S V V L L A E R I R L T G G D V V R T P G V I Q V T L V R A G R S G E G
G T S P A S I I L F G N S K I E E S F K L T E K E G W L R A T P K Q S D S G M K	S A T P L A F L L R A D L R L S G D V T V T R S S G G F L R V T L Y S S S P A E G	G T S P A S I I L F G N S K I E E S F K L T E K E G W L R A T P K Q S D S G M K	G T S P A S I I L F G N S K I E E S F K L T E K E G W L R A T P K Q S D S G M K
S A T P L A F L L R A D L R L S G D V T V T R S S G G F L R V T L Y S S S P A E G	S Q T P L K F F L L R D R I I L R D T N V S S D N M F I S V T L E E K Q Q A L V G	S A T P L A F L L R A D L R L S G D V T V T R S S G G F L R V T L Y S S S P A E G	S A T P L A F L L R A D L R L S G D V T V T R S S G G F L R V T L Y S S S P A E G
S Q T P L K F F L L R D R I I L R D T N V S S D N M F I S V T L E E K Q Q A L V G	N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G	S Q T P L K F F L L R D R I I L R D T N V S S D N M F I S V T L E E K Q Q A L V G	S Q T P L K F F L L R D R I I L R D T N V S S D N M F I S V T L E E K Q Q A L V G
N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G	E R T P L G I L L L S E H V S L S S G D V T V V T Q N Q T L L Q I S A V R T A S P G E G	N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G	N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G
E R T P L G I L L L S E H V S L S S G D V T V V T Q N Q T L L Q I S A V R T A S P G E G	U N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G	E R T P L G I L L L S E H V S L S S G D V T V V T Q N Q T L L Q I S A V R T A S P G E G	E R T P L G I L L L S E H V S L S S G D V T V V T Q N Q T L L Q I S A V R T A S P G E G
U N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G	G S T P A G I L L V R D G A D V A T R V V R L R P G V V R I S V V E A E D P A A G	U N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G	U N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G
G S T P A G I L L V R D G A D V A T R V V R L R P G V V R I S V V E A E D P A A G	R R T P L N L I L L A K N V D L N R A K M V S D D T S T T V V A Q D P E H P E Y G G	G S T P A G I L L V R D G A D V A T R V V R L R P G V V R I S V V E A E D P A A G	G S T P A G I L L V R D G A D V A T R V V R L R P G V V R I S V V E A E D P A A G
R R T P L N L I L L A K N V D L N R A K M V S D D T S T T V V A Q D P E H P E Y G G	S S F S I Y L F D L P Q K C N V R N Y K D K K G K I Y L E L Q P K S E E D F K	R R T P L N L I L L A K N V D L N R A K M V S D D T S T T V V A Q D P E H P E Y G G	R R T P L N L I L L A K N V D L N R A K M V S D D T S T T V V A Q D P E H P E Y G G
S S F S I Y L F D L P Q K C N V R N Y K D K K G K I Y L E L Q P K S E E D F K	D Q S P L G I L L L K P Q L S F S G D V T V V T N N G L F Q I T V V R T A S P P S D G	S S F S I Y L F D L P Q K C N V R N Y K D K K G K I Y L E L Q P K S E E D F K	S S F S I Y L F D L P Q K C N V R N Y K D K K G K I Y L E L Q P K S E E D F K
D Q S P L G I L L L K P Q L S F S G D V T V V T N N G L F Q I T V V R T A S P P S D G	A S P L A Q T F F D G M V E L K K H F Q V S L D P K Q L R L V P K Q E D P N I K	D Q S P L G I L L L K P Q L S F S G D V T V V T N N G L F Q I T V V R T A S P P S D G	D Q S P L G I L L L K P Q L S F S G D V T V V T N N G L F Q I T V V R T A S P P S D G
A S P L A Q T F F D G M V E L K K H F Q V S L D P K Q L R L V P K Q E D P N I K	S K T P L N L I L L S E R I D L T G M D V K E E S D L I T I V L G D R S I G D S	A S P L A Q T F F D G M V E L K K H F Q V S L D P K Q L R L V P K Q E D P N I K	A S P L A Q T F F D G M V E L K K H F Q V S L D P K Q L R L V P K Q E D P N I K
S K T P L N L I L L S E R I D L T G M D V K E E S D L I T I V L G D R S I G D S	D R T P V G L L L R P D L K L S G D V T V V T A G G R V N L T M V R S A A P A E G	S K T P L N L I L L S E R I D L T G M D V K E E S D L I T I V L G D R S I G D S	S K T P L N L I L L S E R I D L T G M D V K E E S D L I T I V L G D R S I G D S
D R T P V G L L L R P D L K L S G D V T V V T A G G R V N L T M V R S A A P A E G	G N T P L S A I I L D P D N N L V V T V V A Q D P N P E Y G G	D R T P V G L L L R P D L K L S G D V T V V T A G G R V N L T M V R S A A P A E G	D R T P V G L L L R P D L K L S G D V T V V T A G G R V N L T M V R S A A P A E G
G N T P L S A I I L D P D N N L V V T V V A Q D P N P E Y G G	S A T P L G I L L L S E H V S L S S G D V T V V T Q N Q T L L Q I S A V R T A S P G E G	G N T P L S A I I L D P D N N L V V T V V A Q D P N P E Y G G	G N T P L S A I I L D P D N N L V V T V V A Q D P N P E Y G G
S A T P L G I L L L S E H V S L S S G D V T V V T Q N Q T L L Q I S A V R T A S P G E G	U N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G	S A T P L G I L L L S E H V S L S S G D V T V V T Q N Q T L L Q I S A V R T A S P G E G	S A T P L G I L L L S E H V S L S S G D V T V V T Q N Q T L L Q I S A V R T A S P G E G
U N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G	G S T P A G I L L V R D G A D V A T R V V R L R P G V V R I S V V E A E D P A A G	U N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G	U N R T P L K I I I L A R N V D L T R E R M V G S D G T S T T V V R A Q D P N P E Y G G
G S T P A G I L L V R D G A D V A T R V V R L R P G V V R I S V V E A E D P A A G	R R T P L N L I L L A K N V D L N R A K M V S D D T S T T V V A Q D P E H P E Y G G	G S T P A G I L L V R D G A D V A T R V V R L R P G V V R I S V V E A E D P A A G	G S T P A G I L L V R D G A D V A T R V V R L R P G V V R I S V V E A E D P A A G
R R T P L N L			

UniRef90\_J2WVP1  
 UniRef90\_B6BUC4  
 UniRef90\_UPI0003B73703  
 UniRef90\_UP100047A66B7  
 UniRef90\_C8RXD0  
 UniRef90\_E1JYU5  
 UniRef90\_UP1000465119B  
 UniRef90\_G8NQD1  
 UniRef90\_A1ATL7  
 UniRef90\_S4Y182  
 UniRef90\_W4LQ55  
 UniRef90\_E8WXJ9  
 UniRef90\_UP10003B62C58  
 UniRef90\_UP10001DD0E24  
 UniRef90\_B7RV03  
 UniRef90\_UP10002555EB0  
 UniRef90\_UP100036D6856  
 UniRef90\_W9BVX7  
 UniRef90\_AOP6F7  
 UniRef90\_UP1000225E41D  
 UniRef90\_E8V029  
 UniRef90\_I0AHA5  
 UniRef90\_Q0BUL8  
 UniRef90\_Q2LRK4  
 UniRef90\_UP10004681C8C  
 UniRef90\_V7EDS7  
 UniRef90\_UP10004719230  
 UniRef90\_D6SQB5  
 UniRef90\_A4A3B0  
 UniRef90\_Q09CR9  
 UniRef90\_D7AFC7  
 UniRef90\_UP10002E0AE9D  
 UniRef90\_UP100026C9C17  
 UniRef90\_C8X0Z9  
 UniRef90\_H0A8V1  
 UniRef90\_UP100037B3936  
 UniRef90\_K2FFW6  
 UniRef90\_UP1000366D8BF  
 UniRef90\_UP10003B37889  
 UniRef90\_C8WE0  
 UniRef90\_UP1000262676A  
 UniRef90\_D0MJ06  
 UniRef90\_K1YRE3  
 UniRef90\_K1Y9Q4  
 UniRef90\_E31390  
 UniRef90\_Q5R0C0  
 UniRef90\_A5P8T3  
 UniRef90\_D6Z6M9  
 UniRef90\_Q30ZZ3  
 UniRef90\_UP10003B626DE  
 UniRef90\_A3TWH6  
 UniRef90\_R6ITE6  
 UniRef90\_B3T0P8  
 UniRef90\_F8C501  
 UniRef90\_R6I103  
 UniRef90\_UP1000362B33C  
 UniRef90\_B8KGf3  
 UniRef90\_G6XGR9  
 UniRef90\_B6IV36  
 UniRef90\_V4JG71  
 UniRef90\_M2U7J3  
 UniRef90\_B8KRK6  
 UniRef90\_Q5LMZ7  
 UniRef90\_F6IK27  
 UniRef90\_UP100037E26C0  
 UniRef90\_L8XX30  
 UniRef90\_A3VZH4  
 UniRef90\_UP100022600E7  
 UniRef90\_E8WQ51  
 UniRef90\_UP10003680520  
 UniRef90\_G4QBF0  
 UniRef90\_UP10002D41713  
 UniRef90\_K8P8H8  
 UniRef90\_L0B772  
 UniRef90\_B8IGW8  
 UniRef90\_A9CUD5  
 UniRef90\_UP10004680D38  
 UniRef90\_UP1000375D935  
 UniRef90\_W6KDS1  
 UniRef90\_B7QT28  
 UniRef90\_UP10003B31AA8  
 UniRef90\_A0A023D3P3  
 UniRef90\_V1TWR3  
 UniRef90\_K5YYT8  
 UniRef90\_D3DFU7  
 UniRef90\_Q2WBF4  
 UniRef90\_A0A058ZMD9  
 UniRef90\_I6ZSG4  
 UniRef90\_W7DSN0  
 UniRef90\_A0LIN4  
 UniRef90\_W8HXK4  
 UniRef90\_D0CU97

	130				140				150				160																										
T	I	T	M	F	K	R	K	P	E	L	Y	G	W	V	A	L	D	S	Q	N	R	T	A	V	R	L	S	N	Q	G	V	P	V	A	D	S			
S	I	E	I	S	F	N	E	D	K	H	G	M	R	V	V	D	S	L	Q	N	K	I	I	N	F	L	N	I	Q	N	R	N	I	D	E	A			
R	L	T	L	D	V	T	A	G	E	I	Q	H	M	K	L	E	E	L	D	G	A	I	T	E	F	A	T	Q	V	E	N	P	T	R	E	Q			
S	V	S	I	T	A	R	A	D	G	T	I	Q	S	M	R	I	E	E	T	D	G	A	V	N	T	F	F	T	D	M	E	N	I	P	T	K	D	S	
S	I	E	M	V	F	T	A	N	P	T	L	R	Q	W	V	I	T	D	D	G	G	N	Q	T	T	V	I	L	E	M	S	K	G	S	Y	P	A	S	
M	A	R	V	W	V	D	S	T	D	M	I	A	R	V	F	I	Q	D	F	Y	A	N	T	N	D	L	T	L	T	G	V	V	N	P	K	L	A	D	T
S	L	E	V	A	I	K	G	D	Q	L	Q	W	M	Y	Q	S	M	D	N	V	T	K	V	F	T	D	Q	Q	N	P	T	I	A	S	N	S			
S	S	L	A	L	T	V	D	S	T	G	T	I	H	T	M	R	I	E	E	T	D	G	A	T	T	F	F	T	D	M	E	N	I	P	T	K	D	S	
R	L	S	L	S	V	S	G	E	A	V	Y	L	V	V	V	D	A	G	G	N	Q	T	R	I	D	Y	R	A	R	V	N	R	G	I	S	S			
K	M	L	Y	V	D	G	Q	N	Q	V	R	R	V	L	I	L	D	A	Q	G	N	R	N	R	F	D	F	S	P	V	V	N	Q	P	V	A	K		
E	L	H	L	A	V	N	Q	S	A	F	E	S	T	I	H	D	H	I	G	N	R	T	H	I	R	F	A	L	Q	T	H	P	T	L	P	A			
Q	L	G	Q	V	T	P	E	G	L	I	T	A	M	Q	V	E	I	D	G	A	K	T	E	F	T	F	T	M	K	E	N	I	P	A	T	N	A		
R	M	T	M	V	F	A	R	K	P	M	L	Q	G	W	A	L	D	S	Q	G	N	R	T	T	I	R	L	S	G	Q	R	N	M	P	V	S	D	S	
V	I	T	L	I	F	V	R	K	W	E	L	T	N	W	V	S	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D	
S	L	T	L	V	F	A	N	G	Q	S	T	I	H	E	T	D	G	A	T	F	T	F	T	F	T	M	E	N	I	P	A	T	N	A					
S	F	V	V	T	L	N	R	H	N	L	Q	E	V	I	T	E	N	D	E	R	Q	N	I	T	E	R	M	P	D	Q	K	D	S	P	A				
E	L	W	L	A	L	D	N	Q	Q	K	L	P	I	W	E	S	R	D	S	L	D	N	R	N	M	R	L	L	H	E	R	M	P	D	Q	K	D		
V	I	T	L	I	F	T	R	S	G	S	A	P	G	W	V	A	L	D	S	Q	N	K	R	T	T	I	R	L	S	G	Q	N	V	A	V	D	T		
K	V	L	I	H	F	N	Q	G	L	S	Q	M	H	I	I	D	N	F	N	H	K	T	I	Y	F	D	S	I	V	N	N	R	I	N	D	A			
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	N		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R	T	T	V	R	L	A	N	Q	R	G	V	S	V	S	D		
M	I	T	L	I	F	V	R	N	A	A	P	G	W	V	A	L	D	A	Q	N	N	R																	

UniRef90\_J2WVP1  
 UniRef90\_B6BUC4  
 UniRef90\_UPI0003B73703  
 UniRef90\_UPI00047A66B7  
 UniRef90\_C8RXD0  
 UniRef90\_E1JYU5  
 UniRef90\_UPI000465119B  
 UniRef90\_G8NQD1  
 UniRef90\_A1ATL7  
 UniRef90\_S4Y182  
 UniRef90\_W4LQQ5  
 UniRef90\_E8WXJ9  
 UniRef90\_UPI0003B62C58  
 UniRef90\_UPI0001DD0E24  
 UniRef90\_B7RV03  
 UniRef90\_UPI0002555EB0  
 UniRef90\_UPI00036D6856  
 UniRef90\_W9BVX7  
 UniRef90\_AOP6F7  
 UniRef90\_UPI000225E41D  
 UniRef90\_E8V029  
 UniRef90\_I0AHA5  
 UniRef90\_Q0BUL8  
 UniRef90\_Q2LRK4  
 UniRef90\_UPI0004681C8C  
 UniRef90\_V7EDS7  
 UniRef90\_UPI0004719230  
 UniRef90\_D6SQB5  
 UniRef90\_A4A3B0  
 UniRef90\_Q09CR9  
 UniRef90\_D7AFC7  
 UniRef90\_UPI0002E0AE9D  
 UniRef90\_UPI00026C9C17  
 UniRef90\_C8X0Z9  
 UniRef90\_H0A8V1  
 UniRef90\_UPI00037B3936  
 UniRef90\_K2FFW6  
 UniRef90\_UPI000366D8BF  
 UniRef90\_UPI0003B37889  
 UniRef90\_C8WEC0  
 UniRef90\_UPI000262676A  
 UniRef90\_D0MJ06  
 UniRef90\_K1YRE3  
 UniRef90\_K1Y9Q4  
 UniRef90\_E3I390  
 UniRef90\_Q5R0C0  
 UniRef90\_A5P8T3  
 UniRef90\_D6Z6M9  
 UniRef90\_Q30ZZ3  
 UniRef90\_UPI0003B626DE  
 UniRef90\_A3TWH6  
 UniRef90\_R6ITE6  
 UniRef90\_B3T0P8  
 UniRef90\_F8C501  
 UniRef90\_R6I103  
 UniRef90\_UPI000362B33C  
 UniRef90\_B8KGF3  
 UniRef90\_G6XGR9  
 UniRef90\_B6IV36  
 UniRef90\_V4JG71  
 UniRef90\_M2U7J3  
 UniRef90\_B8KRK6  
 UniRef90\_Q5LMZ7  
 UniRef90\_F6IK27  
 UniRef90\_UPI00037E26C0  
 UniRef90\_L8XX30  
 UniRef90\_A3VZH4  
 UniRef90\_UPI00022600E7  
 UniRef90\_E8WQ51  
 UniRef90\_UPI0003680520  
 UniRef90\_G4QBF0  
 UniRef90\_UPI0002D41713  
 UniRef90\_K8P8H8  
 UniRef90\_L0B772  
 UniRef90\_B8IGW8  
 UniRef90\_A9CUD5  
 UniRef90\_UPI0004680D38  
 UniRef90\_UPI000375D935  
 UniRef90\_W6KDS1  
 UniRef90\_B7QT28  
 UniRef90\_UPI0003B31AA8  
 UniRef90\_A0A023D3P3  
 UniRef90\_V1TWR3  
 UniRef90\_K5YYT8  
 UniRef90\_D3DFU7  
 UniRef90\_Q2WBF4  
 UniRef90\_A0A058ZMD9  
 UniRef90\_I6ZSG4  
 UniRef90\_W7DSN0  
 UniRef90\_A0LIN4  
 UniRef90\_W8HXK4  
 UniRef90\_D0CU97

A F R W T D P  
 S F L F N V P D N V E V I R  
 D F V F N L P E G A T V V D  
 A F L F Q P P A G V H I V D  
 L F N I T  
 L F T F T P P K D A K V H D  
 Q F D F K P P E G V D V V G Q  
 D F I F T P P Q G V A I I N  
 K F T F R P P P G V D V I Q Q  
 E F N F S P P P G T R V V R  
 T F D L R L P A D T E V I T Q  
 D F Q F T P P P G V T I I  
 T F R W T D P  
 T F T Y K D P  
 D F G F V P P E G A D L  
 D F K Y A I P E R I S I D D Q R Q  
 L F E F E I P E G V D V I D  
 A F A W T D P  
 A F L F N F P E G V D V I  
 T F T Y K D P  
 D F E F V A P A G V T V I E  
 L F S F N P P E G T K V I D L R  
 L F S P T L P P G  
 L F N F R V P T G V E V F N M  
 L F D  
 L F N I T  
 L F T F R P P Q G A I V  
 K F E F S P E D V E I  
 D F E F T P P P G V D V  
 S F K L D P P E G T R I D D F T K  
 L F T F K A P A G V E V I Q  
 T F T F K D P  
 A F Q W R D P  
 W F E F E P P D G V E V L R  
 I F T F N D P  
 L F S F T P P A D V D V L D M R  
 L F T F E S P  
 K F V I E D P  
 L F N I G I T I E Q R K  
 M F R W N D P R G  
 F F T F E V P P P G M E V I R  
 L F T F S P P D G V E V V D L R Q  
 K F V F T S P P N T D V F D  
 F F T F K A P E G V E V V Q M P Q  
 V F E F  
 Q F  
 A F T F  
 F Y R F E P P E E V E I L R  
 S F R F S P P A G T D I E D R T  
 S F R W N D P  
 L F N F  
 L F K F K  
 F F E F S F P K G A D V F D Q T  
 L F A F V P P R D S K I V N  
 L F K F K  
 Q F V F L I P E G V D V V R Q  
 D F E F V P P L G V D V  
 L F I L P K P E N  
 Q F F F R D P  
 L F T F S P P E G T E I I Y Q  
 A F R Y N D P  
 L F V M Q L P P H I E L V E Q  
 L F  
 D F R W N D P  
 L F K I D Y T V I R E  
 V F T L K V P K G V D V I D E T K  
 S F V  
 L F  
 K F T F K I P S G V Q V I K N R  
 L F R F V D P Q  
 A F K L N I P K N V D  
 L F E F N D P Q F L E K E Q M R R  
 M F K I D  
 L F S F I L P P N V D L L D M  
 M F V I N  
 V F K  
 L F D  
 Q F  
 L F R Y K D P  
 L F N T S A P P  
 T F N V Q N L P G V  
 L F V L P K D A  
 L F Q Y N P S S G  
 L F R I R L P S G V K V Q R  
 L F E F K N P K  
 L F S I V  
 I F T F V P P K G I R I D L R  
 L F K M D  
 L F E L D T P P G V T A T D M  
 V F K  
 L F T N K A R R G S D

The figure displays a multiple sequence alignment of 100 protein homologs from UniRef90. The sequences are arranged in four main groups based on their first letter:

- E Group:** E V L L A I E K A D G E F K T M R A N I A I T R S T S T E V S R G K L M Q Y K K P D
- D Group:** D T F Q R L K E L Y E N T K T I K V S F V Q K V K K A D V S K G I F Y A S K G G
- V Group:** V A T Q A E Q W L Q Q L K T A R A R F L L T A G N G T Q L I G T F Y L N R P G
- A Group:** A V R Q R I N A A A Q M K S L Q A D F V Q T L R S Q M V S H G R M A Y S R P D

Key features of the alignment include:

- Color Coding:** Amino acids are colored according to their hydrophobicity: blue for hydrophobic, red for polar, and green for aromatic.
- Conservation:** Positions highlighted with yellow boxes represent conserved residues across the alignment.
- Sequence Length:** The sequences vary in length, with some being significantly longer than others.
- Grouping:** The sequences are grouped by their first letter, suggesting they belong to the same protein family or have similar structural characteristics.

50                   60                   70                   80

K M R W [Y E V P E E Q L L V T N G E T L W L F D S [L L E N V T I Q K L E K L T	R I R F E Y N A P S D S L V L A S G G Q L A I F D A R S N T G P E R Y P L
K I R F E Y D A P Y S L L V V S D G K T V N T W D P R L K A F N Q Y P L	K I R F E Y N K P S P I R V I S D G D S V V I N N R K L D T W D L V P
K M R W N Y S E P I A Q L I I I N D G K E L S V Y T P Q D K Q L L V S P V Q D L E	K M R W N Y S E P I A Q L I I I N D G K E L S V Y T P Q D K Q L L V S P V Q D L E
R Y R I E T G T E T I V S N G T T L W I Y D R V Q E Q V I I D R V D D A Q	R Y R I E T G T E T I V S N G T T L W I Y D R V Q E Q V I I D R V D D A Q
K L Y L K F Y P P R N E V N I V D G R H I W V Y H P S E K Q V E K Y E I G S K Q	K L Y L K F Y P P R N E V N I V D G R H I W V Y H P S E K Q V E K Y E I G S K Q
R M R F Q Y D P P S P L L V A S H D Q V V F N D S Q L D Q T T T M P M D K	R M R F Q Y D P P S P L L V A S H D Q V V F N D S Q L D Q T T T M P M D K
R M R W Q Y Q Y P P E Q E V I I A D G R E V S I Y I P Q D R M V M V Y P L N Q V L	R M R W Q Y Q Y P P E Q E V I I A D G R E V S I Y I P Q D R M V M V Y P L N Q V L
K V R F D Y N P P E R A I V M A S A G A V Y I L D R K L G A T A D T Y P L	K V R F D Y N P P E R A I V M A S A G A V Y I L D R K L G A T A D T Y P L
Q M R L A Y D P P T P L V L V A N E G K V F R D N Q L D Q T T V I P M E R	Q M R L A Y D P P T P L V L V A N E G K V F R D N Q L D Q T T V I P M E R
R M R F E Y S D D D T L V L V A S G G Q V A I F D P K S N Q I A E Q Y P L	R M R F E Y S D D D T L V L V A S G G Q V A I F D P K S N Q I A E Q Y P L
R V R F E Y K G D R T L V L V A S A G Q V A V F D G K T R G T P Q Q Y P L	R V R F E Y K G D R T L V L V A S A G Q V A V F D G K T R G T P Q Q Y P L
R I R F N Y E A P S P M R V I A D G K S V V I G N M K L K T W D I Y P L	R I R F N Y E A P S P M R V I A D G K S V V I G N M K L K T W D I Y P L
K I R F Q Y Q K G V P L L I V G D G K A L T M I D Y E V R Q V Q R W P	K I R F Q Y Q K G V P L L I V G D G K A L T M I D Y E V R Q V Q R W P
R M R F D Y D S P S P L L V A N E G K V I F Q D R S V G Q V T A I P	R M R F D Y D S P S P L L V A N E G K V I F Q D R S V G Q V T A I P
R M R L E Y A P P Y P V E I I A D G H Y L I F H D K K L E Q V T Y L D D D N P	R M R L E Y A P P Y P V E I I A D G H Y L I F H D K K L E Q V T Y L D D D N P
UniRef90_T1B0R6	M W V Y D P D L Q Q V T V R A Q D S A E
UniRef90_K2QBD6	K L R F N Y E R P S P M R V I S D G K N V V I G N T K L K T W D L Y P
UniRef90_J7QWB5	R V R F E Y A Q P A T M E V V A D G Q A Q V A V R D R K L N T Q D L Y F I I L
UniRef90_K2MAK1	K M R F E Y N P P A Q I I L V S T G S D F I Y Y D K E I N A P T Y F N
UniRef90_UPI00036E5038	K I R F Q Y A P P S P L E I V S D G G S S V S V K N R K L A T Q E L W P
UniRef90_UPI000471F836	Q M R L A Y D P P T P L L V A S Q G K V F R D N Q L D Q T S V I P M D R
UniRef90_F21ZF7	K I R F Y Y S P P A Q L D I I A D G K S V S V K D R K M A T Q D L W P
UniRef90_Q2CAH5	R I R F Q Y N P P D R S L V L A G G G S V A V F D P Q S D N N P E R Y P L
UniRef90_A3V935	R I R F E Y N P P Q E S L V M A G G G Q L A I F D P R S N T G P D R Y P L
UniRef90_Q1PYN9	R L H L K F D P P R D E V N I I D G K H L W I Y H P K A K Q V E K Y A V N K G E
UniRef90_W4HGU0	K V R F E Y D P P E E A L V M A N N G T V V I F D R K V N A A P E T Y P L
UniRef90_Q5FPI1	R M R F D Y D K P S P L L V A N D G R V V F Q D R S V D Q V T T I P
UniRef90_W6RL33	K L R F N Y D N P S P I R V I A D G K N V A V G N M K L K T W D L Y P
UniRef90_UPI00040BDF59	K M R L E Y D P P I D F M Y V A D G T W L T Y Y D A E L H Q R K D V P L
UniRef90_UPI0003A91E1B	K A R F D Y D N Y P L L V I A D G M T V A Q R D E E L E T T D R V S
UniRef90_W2C611	K I R W E Y T Q P Y A Y V F S T D G T T V H M T S G K G G A S N R V P V S K L F
UniRef90_Q2S291	R Y R V E T P A Q T V V T D G A T T W I Y S P A D S Q V V V N T A D E A S
UniRef90_UPI000477EE5C	K L R F D Y D S P S T L K V I A D G R N V A V G N G D L D T W D F Y P L
UniRef90_K1YZD4	R L K I I Y T A D P K K T Y T T S N S K K L W V Y S E E N Q E V L V F K K M S K L
UniRef90_O67459	K V R I D Y Y S P D R V S I F V D R K K V V L V N F E E K V V Y I E S I K R N T
UniRef90_B5YL56	R I R W Q Y E G Q F P Q I I Y L N K E T L I V Y D K I R K Q A Q S S F S E E K R
UniRef90_E4TEW0	K A L W D Y N Y P Y K Q Y Y L F D K K G M E Y Y D S S T N Q V I I Q N K N S S R
UniRef90_K2KM55	K L R V Q Y T E P E P A F L L A N Q T L L V Y V D E K L G Q E S Y V P T
UniRef90_X6KE67	K I R F N Y A G Q S G V S V I A D G K S L V V V Y N K K L K T S R L Y A L
UniRef90_G214J7	R M R F Q Y D P P S P L L V A N H D Q V V F N D S Q L D Q T T T M P M D K T P
UniRef90_J2G2A3	K A R F A Y D G P A G L V L V S N G A N V N I F D S R L K T F E S Y P L
UniRef90_W0DBZ8	K F R I E Y E Q P E K M I I V S D G R E V V L Y Y P A Q G N A L I D S M E K N Q
UniRef90_F8N638	K L R W E Y T S P Y R Y V F I L N G N T V W M K N T Q G S N V A Q S K L F K E I I
UniRef90_UPI00037F7547	K L R F E Y A L P A T I L E I V A D G M S V A V V D R K L G T K D V Y F I I
UniRef90_A0A031JXD6	K I R F Q Y Q P S A K M L I V G D G R A L N F I D Y E V R Q V Q R W P I K
UniRef90_V4PJQ6	K M R F E Y D P P Y S L L I V S D G K N V N M W D P R L Q S F D S Y P
UniRef90_UP1000463DD1A	K I R F N Y D G A N G F K V I S D G Q S V V L L N K K L T S D L Y P
UniRef90_UP100045EB93A	R V R F E Y D A P S P V E L I I S N G Q S V A V R D R R N L N T Q D I T P
UniRef90_B2IE74	R L R F E Y A A P A T I L E I V A D G L Q S L A V V H D R R T A T K D V Y F I
UniRef90_Q28VB6	R V R F D Y D G D D L L V M A G G S Q V A I F D G R A S G P P E Q Y P L
UniRef90_R7BXC3	R F A W K T E K P Y V Q D I V S D G K T V I R L Y D K D L D Q L T V K S A E T M V
UniRef90_U4TH12	Q L L W Q V K N I D D Q V I L T K Q Q S V K I Y Q P L L E Q V I E R S L G S L D
UniRef90_G2KP15	K L R F D Y D D P V K D F V V A D G V F I Y F Y D A N L G E Q S N A P I I G Q T L
UniRef90_D9QNT0	R M R F E Y T D P A G L L V V S D G S N V K R Y D P R L N V F R Q V P L G A T P
UniRef90_A3ERL7	K M V L H Y S D P A G Q I L L L A G N R L A F Y V P Q N R Q V L I K T M H S R H
UniRef90_G8AH00	R M R L E Y D P P V K D F V V A D G A F I F Y W D G E M R Q Q S S A P I I
UniRef90_X5PGW1	K I R F N Y D G A S N F R V I S D G K S V V I L N K K L R T S D L Y P
UniRef90_UPI000366459E	R M R F T Y D A P S P L S V V A N E G R M V F Q D T S I D Q V T T M P
UniRef90_D5QG83	Q L R W [Y E V P S N Q Q I Y S N G T T L W V Y L P E N N Q V M I S Q L D D S L
UniRef90_Q1JW20	K V K W D Y K A P L Q K E I Y M N K N E V I M Y E P R L E Q V S H S R L K D K
UniRef90_Q7VJC7	W M K W E Y R K P E K K I F L I K D N L Y Q E Y Y V E E K Q L V E K T F S D K E
UniRef90_UPI0003717986	R V R F E Y R G D K T L V L A S S G Q V A I F D G K S N G G P Q Q Y P L
UniRef90_S5XVK6	R I R F A Y D E P S P L L I V A D G T T V A I A D R E L D T V D R A P I
UniRef90_UP10003739489	R A R F E Y A D P N P A L V L A G A G S V A V F D D R S N T G P D V Y P L
UniRef90_UP10004672397	K L S I T F T Q P A G D R I V G D G K W L W V Y L P S S A Q V L K L P A D A D
UniRef90_C1A7M2	K I R F Y Y N P P A Q L D I I A D G K S V S V L L D R K V Q T Q D I W P
UniRef90_UP10003799BB5	K F R I D S D R E Q I I S D G K I V W I Y S K E N K Q V T K N R K E K V K
UniRef90_T0LGB9	K I R F E Y D A P Y S L L I V A D G Q K V K M W D P R L K S F D E Y P L
UniRef90_V4PTA5	R I R F E Y D D G S A L V V A G G G Q V A V F D R R S N Q G P E R F P L
UniRef90_S9SF09	K V R F Y Y N K P S T L D I I A D G S M V S V K D R K L Q T Q D I W P
UniRef90_G8PIF7	K I R F Q Y Q P G V P L L I V S D G A A L T M I D Y E V R Q V Q R W P L
UniRef90_F1ZCC9	K I R M E Y G A P T N V L I V G D G N Y I V Y N D T D L D Q V T H I D Y D D I P
UniRef90_R5QXR3	K F K I I T S T Q D M I S D G K S Q W T Y L K Q D K E V N L S N V D N S S
UniRef90_R9H109	K I R F D Y D A P S T L K V I A D G R N V A V G N G E L D T W D F Y P L
UniRef90_UP1000463765E	R I R F E Y D D G S A L V V A G G G Q V A V F D R R S N Q G P E R F P L
UniRef90_D3S2I0	K I I W M R N E K A G T L I V S N G E K M W I Y D E K K N E V F V M N V S K M P
UniRef90_UP10003B7B8BA	K L R F N Y D D P S P I R V I S D G R N V A V G N L K L K T W S L Y P L
UniRef90_V6I0C7	R I R Y Q F S D P S G D E I V S D G K T L Y I L A R L N A V G K Q D L T L N K
UniRef90_Q58100	K F Y M E N D D V L I V C D G K T Y M Y D K K K N Q Y T K M E I K G E L
UniRef90_Q1GKM2	K V R F E Y A D N A G L V L A E A G T V A I M D P K S N Q P P E T Y P L
UniRef90_R6AY93	R L R W E Y T S P Y A Y T F V I N G S K V L I R R S D V I N V N Q S K M F K E I
UniRef90_I0Q51	K M I L H Y Q K P K G Q V L L L G N K M S F Y P Q N T Q L I N K T L K S R T
UniRef90_B9NLT4	K M R F E Y D P P N D A V V L A R A G T V Q I F D P K S N Q P P E Q Y P L
UniRef90_UP100036F92D9	K F H L L G Q G E V F T D G K T M S T Y K E T N E V N V Q D Y D A E L
UniRef90_N0BG70	R F R F D Y A L P S K Q I I V S D G E N L A I Q D L D L N N E D R V S
UniRef90_A0A017HJM9	R V R F E Y A D D S G L F V A G G G Q V A V F D A A S N E G P Q R F P L
UniRef90_A3X6U8	R M R F E Y D D G K G G G T V V A G A G V A R I H D P K S N Q P P E T F P L
UniRef90_N6UJA8	K I R F G Y K G V P L R I I A D G K S V G V N N S A L N T W N L Y Q L
UniRef90_V4PW59	K M R F E Y D A P S S L L V S D G R N V N M W D P R L Q S F D R Y P L

	90	100	110	120
UniRef90_UPI00028887BD	D G T A   L S F   L L   G N R R   L   I   S Q   V L L T   S P   N A   L I V E   E   L   E   P   K   K A   A   A N   L   S			
UniRef90_A4EFG1	N Q T P   L S I   I L   Q E N V   N   L   E R E D M V   T   S D G   T T T   V   T A Q D   P   D   P   N Y   G			
UniRef90_E8RNY4	N A T P   L S L   F   L   S K Q I   R   L   D   Q   G   V   V   T   E   T   D   G   F   R   L   K   A   R   D   R   R   D   V   G			
UniRef90_I1AXD8	S Q T P   L S I   I L   A R N V   N   L   G   Q   A   G   M   V   T   Y   D   G   T   A   T   V   T   A   Q   D   P   H   P   E   Y   G			
UniRef90_J3HTV5	S K T P   L K L   L   L   S D Q I   N   L   T   G   N   T   V   V   K   E   E   P   D   M   T   T   I   V   L   G   D   K   S   I   G   N   S			
UniRef90_E8RCH3	S D I   T Y A   I   F   T   G   T   K   G   L   L   D   E   F   A   V   S   A   A   D   A   D   A   V   L   L   I   P   R   E   P   H   P   Q   V   K			
UniRef90_UPI0003B6FFBC	G   L   T   P   T   A   F   F   S   D   F   A   A   R   F   R   S   G   T   R   L   G   A   P   H   A   V   L   T   L   A   A   Q   S   D   T   T   T   R   F   E			
UniRef90_I3IQS0	S S Q   G   M   G   F   F   E   F   G   Y   E   A   A   K   K   N   Y   K   I   T   L   S   D   T   K   L   D   L   P   K   D   P   K   S   Q   Y   T			
UniRef90_UPI0004729D82	T   P   L   G   L   L   L   R   P   H   L   Q   L   S   G   D   V   T   V   T   R   D   G   N   A   L   G   I   T   V   R   T   E   S   P   G   D   G			
UniRef90_F2NFW6	R   S   D   L   V   M   R   F   F   S   G   M   G   R   L   Q   T   D   F   T   V   T   W   D   P   I   R   I   R   L   K   P   V   K   P   Q   P   E   L   K			
UniRef90_X6KUV4	N   Q   T   P   L   S   I   I   L   D   R   N   V   D   L   T   R   A   G   M   V   T   A   D   G   T   A   T   V   V   T   A   Q   D   P   K   P   E   Y   G   G			
UniRef90_F7VAY1	T   P   L   G   L   L   L   R   Q   H   I   S   L   S   D   D   V   T   V   T   E   S   G   L   V   Q   V   S   L   V   R   T   S   S   P   G   D   G			
UniRef90_D5AS29	K   R   T   P   L   N   L   L   L   A   D   R   I   D   L   A   Q   A   R   M   V   V   I   E   G   A   N   T   A   V   V   A   Q   D   P   Q   N   P   D   Y   G   G			
UniRef90_UPI000225F060	S   K   T   P   L   S   L   L   L   A   P   N   I   N   L   G   Q   A   R   M   V   T   E   K   K   N   T   T   V   V   T   A   Q   D   P   Q   P   E   Y   G			
UniRef90_F6BTD2	S   K   T   P   L   N   L   L   L   S   E   R   I   D   L   R   R   D   V   R   V   E   A   D   L   I   T   I   V   L   G   D   R   S   I   F   G   D			
UniRef90_Q2G3E9	R   N   S   P   L   G   A   L   L   D   P   S   K   D   V   A   R   F   A   K   Q   T   N   D   R   D   V   V   S   L   Q   V   R   D   P   K   P   E   Y   G			
UniRef90_K7SENO	D   R   T   P   L   G   L   L   L   R   P   D   L   K   L   S   G   D   V   T   V   T   K   G   G   Q   I   H   L   Q   V   E   K   T   D   N   P   G   E   G			
UniRef90_R5Q1K9	A   S   I   I   L   K   N   F   S   F   K   D   S   D   L   T   T   V   E   D   I   S   R   S   P   G   F   I   E   V   T   V   F   K   T   E   Q   P   A   A   G			
UniRef90_T1B0R6	A   H   S   P   L   N   V   L   T   D   L   K   L   L   D   R   Q   F   K   V   S   E   D   G   A   W   L   K   L   R   P   D   T   D   Q   A   E   F   K			
UniRef90_K2QBD6	U   N   K   T   P   L   S   L   L   L   A   N   R   I   D   L   G   N   Q   M   D   V   K   Q   E   A   D   L   T   T   I   V   L   G   D   R   T   I   L   G   D   S   S			
UniRef90_J7QWB5	T   Q   T   P   L   K   F   L   L   M   K   D   K   V   S   L   T   T   R   E   V   K   V   V   D   A   E   T   M   R   V   E   M   V   R   K   S   D   P   G   A   G			
UniRef90_K2MAK1	N   Q   T   P   L   R   F   L   L   L   A   S   N   I   V   D   L   T   K   N   G   N   V   E   P   E   L   V   S   V   V   M   E   E   K   N   S   I   G   G   K   S   G   G			
UniRef90_UPI00036E5038	T   P   L   G   L   L   L   Q   A   H   V   S   L   S   D   G   V   V   V   T   E   G   G   L   V   A   V   K   L   V   R   T   A   Q   P   G   D   Q   Q			
UniRef90_UPI000471F836	S   E   T   P   L   R   F   L   L   L   A   D   N   I   V   D   L   T   K   D   T   K   V   V   G   A   E   P   D   L   V   T   V   V   I   E   D   K   T   T   F   G   G			
UniRef90_F2IZF7	S   E   T   P   L   K   I   I   L   E   Q   N   V   D   F   T   R   A   G   M   V   T   Y   D   G   T   A   T   T   V   T   A   Q   D   P   Q   P   E   Y   G   G			
UniRef90_Q2CAH5	S   Q   T   P   L   N   V   I   L   Q   R   N   V   D   L   T   T   A   A   R   M   V   T   S   D   G   T   I   T   T   V   T   V   Q   D   P   D   P   Q   Y   Y   G			
UniRef90_A3V935	H   T   A   Q   N   I   H   F   F   G   S   V   A   S   A   K   D   Y   T   I   S   L   A   D   T   A   L   D   L   T   P   K   S   T   S   S   Q   Y   A   G			
UniRef90_Q1PYN9	S   Q   T   P   L   S   I   I   L   D   R   N   V   N   L   G   R   A   N   M   V   T   N   D   G   T   A   T   T   V   T   A   Q   D   P   N   P   Q   Y   G			
UniRef90_W4HGU0	D   R   T   P   L   G   L   L   L   R   P   E   L   K   L   S   G   D   V   T   V   T   S   N   G   Q   I   R   V   Q   V   V   R   T   Q   S   A   G   E   G			
UniRef90_Q5FPI1	S   K   T   P   L   S   L   L   L   A   Q   R   I   D   L   S   S   S   V   V   K   S   V   K   Q   E   S   D   L   T   T   I   A   L   G   N   N   T   V   F   G   G			
UniRef90_W6RL33	G   S   T   I   A   D   F   I   T   R   A   N   V   R   L   S   G   D   V   T   V   T   K   V   G   R   G   N   N   L   L   V   Q   T   D   K   P   E   D   G   G			
UniRef90_UPI00040BDF59	K   S   T   P   L   P   Y   Y   Y   L   L   K   S   D   V   N   L   T   E   D   A   Q   V   V   E   A   A   G   D   S   T   F   V   T   L   S   D   P   E   G   E   F   F			
UniRef90_UPI0003A91E1B	S   E   I   S   R   V   M   V   G   G   D   S   P   D   F   S   S   T   F   S   V   G   Q   S   D   W   Q   I   T   L   T   P   R   K   K   E   V   R   F   A   G			
UniRef90_W2C611	T   L   T   P   Q   A   F   L   T   T   A   A   D   K   Y   D   R   T   R   T   V   T   R   A   G   T   A   S   S   S   A   R   F   F   E   E			
UniRef90_Q2S291	S   R   T   P   L   S   L   L   A   Q   D   I   Q   D   L   Q   H   R   M   D   V   V   R   E   Q   N   G   L   T   V   I   V   L   P   R   D   T   E   S   V   L   D   G			
UniRef90_UPI000477EE5C	V   A   G   E   A   L   D   F   L   N   G   L   G   E   L   D   L   Q   F   V   E   A   K   N   L   E   L   E   L   V   P   R   D   T   E   S   V   L   D   G			
UniRef90_K1YZD4	S   P   V   I   A   S   L   F   F   L   S   E   Q   P   E   K   V   F   K   P   I   G   E   D   K   T   V   L   L   L   K   P   L   K   K   D   E   N   V   K   G			
UniRef90_O67459	Y   G   Q   L   P   L   A   L   L   S   R   M   A   D   I   E   K   D   F   E   I   T   E   K   S   N   T   L   L   I   L   I   P   K   T   K   M   G   N   I   K   G			
UniRef90_B5YL56	E   A   N   I   L   T   V   L   F   N   F   K   E   I   E   N   N   F   D   I   V   V   N   G   K   T   Q   I   Q   L   K   P   K   Q   D   I   G   L   K   G			
UniRef90_E4TEW0	G   S   T   P   V   F   S   L   L   D   A   T   I   R   L   D   G   D   V   R   I   E   K   D   N   V   I   R   V   A   L   V   Q   R   D   D   P   D   A   G			
UniRef90_K2KM55	S   K   T   P   L   K   L   L   L   D   N   Q   V   D   F   S   G   N   R   S   I   R   D   D   G   A   Q   V   I   I   R   L   A   D   K   S   A   G   N   S   G			
UniRef90_X6KE67	L   G   L   L   L   R   P   R   L   Q   L   S   G   D   V   T   V   T   G   L   L   H   D   G   H   M   L   N   V   T   L   V   R   T   D   S   P   G   D   G			
UniRef90_G214J7	S   R   T   P   L   A   L   L   L   A   R   E   V   R   L   D   R   G   V   T   I   T   K   L   A   D   G   F   T   I   T   A   Q   D   K   R   Q   T   L   G			
UniRef90_J2G2A3	S   P   V   V   E   S   L   L   L   V   W   S   K   P   L   G   E   V   F   D   L   V   G   E   I   E   R   E   F   V   L   K   P   K   V   N   D   E   F   F   H			
UniRef90_W0DBZ8	T   R   I   M   M   S   S   V   M   G   T   C   V   S   N   S   R   D   F   S   V   S   L   Q   G   E   K   A   I   L   M   P   K   P   M   K   Q   M   F   K   G			
UniRef90_F8N638	N   Q   T   P   L   K   F   L   L   K   D   Q   V   D   L   A   Q   D   V   K   V   V   I   E   S   A   V   T   I   I   E   D   K   A   T   F   G   G   T   S   G			
UniRef90_UPI00037F7547	S   Q   T   P   L   K   F   L   L   K   D   Q   V   D   L   A   Q   D   V   K   V   V   I   E   S   A   V   T   I   I   E   D   K   A   T   F   G   G   T   S   G			
UniRef90_A0A031JXD6	N   N   S   P   L   G   A   L   L   D   P   S   R   D   V   A   K   F   G   K   L   I   Q   T   G   N   P   G   V   V   S   I   E   V   R   D   P   Q   P   N   Q			
UniRef90_V4PJQ6	S   E   T   P   L   S   F   L   L   D   R   Q   I   R   L   D   Q   G   V   V   V   T   S   N   A   Q   G   F   I   L   K   A   R   D   R   R   K   S   V   Q   G			
UniRef90_UPI000463DD1A	S   K   T   P   L   K   L   L   L   E   D   R   I   D   L   D   S   G   D   R   V   K   S   V   K   E   E   D   I   L   T   I   K   L   S   D   K   Q   V   S   G			
UniRef90_UPI00045EB93A	S   Q   T   P   L   R   F   L   L   L   A   E   R   I   D   L   G   A   E   P   H   V   T   Q   D   D   R   F   V   T   V   V   M   Q   E   T   V   P   M   F   G   G			
UniRef90_B2IE74	S   Q   T   P   L   K   F   L   L   K   D   Q   V   D   L   A   Q   D   V   K   V   V   I   E   S   A   V   T   I   I   E   D   K   A   T   F   G   G   T   S   G			
UniRef90_Q28VB6	D   Q   T   P   L   R   I   I   L   Q   R   N   V   D   L   G   Q   S   G   M   V   V   S   E   D   G   T   S   T   R   V   V   A   R   D   P   Q   P   N   Q			
UniRef90_R7BXC3	S   G   A   P   A   A   L   L   F   G   R   A   E   A   E   L   E   N   F   T   T   L   T   E   A   V   T   A   V   K   A   E   P   K   T   Q   D   A   A   F   V   S			
UniRef90_U4TH12	D   A   V   P   V   K   L   L   T   G   A   S   L   Q   A   L   A   G   F   D   V   R   E   Q   S   K   S   F   I   L   S   P   K   N   K   Q   S   L   V   S			
UniRef90_G2K15	A   D   F   L   L   R   S   D   I   R   L   S   G   D   V   K   V   V   D   S   V   V   E   S   G   G   L   I   Q   I   K   L   S   Q   T   A   D   A   G   A   G			
UniRef90_D9QNT0	L   S   T   F   L   L   A   R   N   V   R   L   D   Q   G   V   R   I   D   R   V   T   T   R   M   Q   S   G   A   F   A   L   T   V   R   D   S   S   P   N   D   G			
UniRef90_A3ERL7	I   P   E   T   P   A   L   L   F   A   N   L   G   H   L   R   K   Y   F   Y   I   R   Q   G   G   D   V   L   E   L   I   P   R   K   P   D   R   H   L   A   G			
UniRef90_G8AH00	G   S   T   L   A   D   F   I   L   R   K   N   I   R   L   S   G   D   V   T   V   T   A   P   G   L   V   E   I   S   L   T   E   T   K   D   P   G   K   G   G			
UniRef90_X5PGW1	S   K   T   P   L   K   L   L   L   D   D   K   I   D   L   S   R   V   R   S   V   K   E   E   D   D   L   T   T   I   I   Q   L   A   D   K   S   V   G   N   S   G			
UniRef90_UPI000366459E	D   R   T   P   L   G   L   L   R   P   H   P   F   S   G   D   V   T   I   T   Q   Q   K   Q   I   E   L   V   V   R   T   E   S   P   S   E   G   G			
UniRef90_D5QG83	T   P   I   G   L   L   L   R   P   H   P   L   E   L   S   G   D   V   R   V   T   H   E   G   P   E   I   E   I   T   V   R   A   D   S   P   G   D   G			
UniRef90_Q1JW20	D   S   N   D   P   M   L   F   L   R   N   L   G   R   E   Q   F   F   S   A   E   L   I   G   Y   R   L   E   L   T   P   K   K   P   S   A   Y   I   Q			
UniRef90_Q7VJC7	A   D   F   L   S   I   L   K   S   A   K   K   H   N   D   G   T   Y   H   T   K   V   D   G   I   E   Y   V   L   F			
UniRef90_UPI0003717986	N   E   A   E   V   L   S   L   L   L   A   G   K   R   G   I   L   E   N   Y   S   V   E   S   N   I   F   Q   I   K   L   T   P   L   T   E   E   A   N   T   F   G			
UniRef90_S5XVK6	S   K   T   P   L   S   F   L   L   A   P   N   V   N   L   S   Q   D   R   M   V   T   E   A   N   K   S   T   V   V   T   T   A   Q   D   P   S   P   E   Y   G   G			
UniRef90_UPI0003739489	G   S   T   P   L   R   W   L   L   A   E   E   T   N   L   W   E   R   G   A   V   E   Y   H   E   N   Q   L   Y   I   T   L   E   D   P   E   G   E   T   G   G			
UniRef90_UPI0004672397	S   Q   T   P   L   S   I   I   L   A   E   N   V   D   L   T   R   D   R   M   V   T   S   D   A   N   S   T   I   I   T   T   A   Q   D   P   D   P   E   Y   G   G			
UniRef90_C1A7M2	G   A   I   V   A   D   L   L   S   Q   L   L   D   T   P   K   K   A   F   T   I   S   R   A   A   R   R   V   Q   L   I   P   K   A   A   G   T   A   F   Q   G			
UniRef90_UPI0003799BB5	S   E   T   P   L   R   F   L   L   A   E   Q   I   D   L   T   K   D   T   N   V   V   I   E   P   D   L   V   T   V   V   V   E   D   R   T   T   F   N   S   G			
UniRef90_T0LGB9	N   I   L   D   F   S   Q   H   F   S   D   F   N   S   N   Y   K   S   T   L   K   G   K   D   L   E   L   T   P   K   K   E   N   F   I   T   G			
UniRef90_V4PTA5	G   E   T   P   L   S   F   L   L   S   R   Q   I   R   L   D   Q   N   V   V   I   V   T   Q   N   G   A   G   F   T   L   K   A   R   D   R   R   K   Q   V   G			
UniRef90_S9SF09	R   E   T   P   L   S   F   L   L   I   A   E   R   V   D   L   S   Q   A   G   M   V   T   S   D   G   T   T   T   T   V   T   T   M   Q   D   P   N   P   G   Y   G			
UniRef90_G8P1F7	S   Q   T   P   L   R   F   L   L   A   D   K   I   D   L   K   T   D   A   N   V   T   T   N   V   V   D   D   L   I   T   I   T   D   D   K   T   R   F   G   G			
UniRef90_F1ZCC9	R   N   S   P   L   G   A   L   L   D   P   N   K   D   V   A   R   F   A   R   L   I   P   T   G   Q   V   S   V   A   V   R   D   P   S   H   P   E   Y   G   G			
UniRef90_R5QXR3	A   T   L   I   L   A   N   D   I   K   D   G   K   K   I   K   V   S   D   F   Y   Q   D   S   G   S   T   S   I   T   L   D   Y   A   D   K   G   D   I   G			
UniRef90_R9H109	N   S   I   N   P   A   K   I   F   T   I   Y   E   K   G   Y   K   V   D   I   K   E   N   A   R   V   Y   D   L   T   P   T   A   S   G   N   N   F   F   G			
UniRef90_UPI000463765E	S   R   T   P   L   S   L   L   L   A   D   Q   I   D   L   E   N   R   M   V   R   Q   Q   S   G   L   T   I   I   V   L   G   D   K   S   I   F   G   D   Q   G			
UniRef90_D3S2I0	V   N   P   D   Y   G   K   L   V   K   E   M   Y   E   V   K   L   L   G   E   C   Y   V   I   E   L   K   S   K   E   M   N   Q			
UniRef90_UPI0003B7B8BA	S   K   T   P   L   S   L   L   L   A   R   R   I   N   L   S   D   V   K   S   V   K   E   E   S   D   L   T   T   I   A   L   G   N   K   T   I   G   N   S			
UniRef90_V6I0C7	S   N   K   F   S   P   I   F   S   S   G   L   S   R   I   F   R   K   Y   H   Y   K   F   D   S   I   E   L   N   L   E   Q   R   E   K   V   V   G   G   F   E			
UniRef90_Q58100	N   N   M   F   S   P   D   Y   G   K   F   I   K   S   M   L   E   K   F   N   V   S   Y   L   G   E   K   Y   V   L   E   L   I   S   K   E   N   P   E   E   G			
UniRef90_Q1GKM2	S   R   T   P   L   S   I   I   L   A   R   N   V   N   L   A   Q   A   N   M   V   V   G   H   G   F   D   G   V   S   T   V   D   P   K   A   P   E   H   G			
UniRef90_R6AY93	A   R   I   M   M   N   S   V   V   G   N   C   L   N   D   K   R   D   F   K   V   A   L   T   G   S   S   A   T   L   Y   P   K   Q   M   K   M   L   F   Q			
UniRef90_I0Q51	I   P   E   T   P   A   L   L   L   E   K   I   A   E   L   D   Q   Y   F   Y   I   R   P   E   G   E   T   I   S   L   V   P   K   E   A   D   R   H   L   A   G			
UniRef90_B9NLNT4	K   R   T   P   L   S   V   L   L   A   R   R   N   V   N   L   G   Q   A   N   M   V   V   G   D   G   T   A   T   V   V   T   A   Q   D   K   N   P   E   N   G			
UniRef90_UPI00036F92D9	N   P   T   Q   Y   T   I   Y   K   D   Y   R   F   L   K   E   Q   K   E   G   G   R   T   L   E   V   I   E   L   T   P   T   N   R   P   K   S   P   I   A			
UniRef90_N0BGT0	D   Q   T   P   F   R   M   L   L   R   K   D   V   D   L   L   R   D   T   E   V   V   Q   Q   A   D   D   L   I   V   L   G   L   E   D   K   D   P   G   K   I   G			
UniRef90_A0A017HJM9	S   E   T   P   L   S   I   I   L   A   D   N   V   N   L   G   R   A   G   M   V   T   S   D   G   T   T   T   T   V   T   A   Q   D   P   Q   P   D   Y   G   G			
UniRef90_A3X6U8	UniRef90_N6UJA8	S   Q   T   P   M   K   F   L   L   D   D   K   I   D   L   S   S   G   N   A   L   R   E   D   P   G   V   I   T   V   L   H   D   K   S   I   G   G   K   G		
UniRef90_V4PW59	N   E   T   P   L   S   F   L   L   Q   A   H   I   R   F   D   Q   G   V   V   V   T   S   N   A   T   G   F   T   L   K   A   R   D   R   K   S   A   E   G			

130            140            150            160

UniRef90_UPI00028887BD	F   Q L A V H P V T Y N L Q M I L M D Q E G N Y R T I E L S M H Y N L V L E D N
UniRef90_A4EFG1	S   Q M V F T A N P E L R Q W I V T D E F G A E T T V I L N D L I A G S V
UniRef90_E8RNY4	S   L M T F I E R G N A L Q W T V T D Q Q G K G T R V R L T F D R N T A V R P D
UniRef90_I1AXD8	S   Q M K F T D S P E L R Q W V V R D G N G S T T V V L G G L S D T K L S N R
UniRef90_J3HTV5	T   T M M F D P K T E L R Q W T I T D A Q G L D T T V M I T N V R T G K F A K D
UniRef90_E8RCH3	R   Q L W L N A D H T I H R L L M E D H F G A L T E L T F S Q V R F N T L P A S
UniRef90_UPI0003B6FFBC	A   T L L W V T T D R L I T Q L V A R D R N G T S F E I A L T L V P N P S L P A N
UniRef90_J3IQS0	T   R L L W V E E G F W L P K I E L R E S E G E V N T I E F K N I R N K N L S D K
UniRef90_UPI0004729D82	S   L T L L F D S P L L L R G W I I Q D A Q Q E S T R V D L L D I H T G G P P D S
UniRef90_F2NFW6	H   L I L T I D P E T F L V Q L E F S N A Y G D H T R M S F T Q Q L D I K L A P G
UniRef90_X6KUV4	S   Q L K F T G S P E L R Q W V I T D G D G T K T T V V L G G L Q K K D L P N R
UniRef90_F7VAY1	S   T L V F D K P L S L R S W S V L D A Q G R E T R V T F D V H T G I S I P P N
UniRef90_D5AS29	T   R L V F S A N P T L R R W V I T D D D T G A K T V V I L D Q L K P G V D P G
UniRef90_UPI000225F060	N   Q M V F S A N P T Q R Q W V V T D D D T G K R T T V I L G E M R T G S F P P S
UniRef90_F6BTD2	T   I M M F D P K S Y L R Q W T I T D A Q K D T S V M I F N V R T G I A L D D K
UniRef90_Q2G3E9	T   T M I F V R N G Q L D S W V A L D S Q N K R T T V R L S H Q Y G V A V D D K
UniRef90_K7SENO	N   L T L V F S E T P L A L G W E V V D A Q G R T T R I A L S D K T G G N V S Q S
UniRef90_R5Q1K9	K   T L V F D R P L A L K Q W Q I T D A Q K T K T L V S L N Q E F N V P V D E A
UniRef90_T1B0R6	Y   A E L G F A D N Q L H T M V F E D I L L G D R T T I R F S D R R N N V K L P A D
UniRef90_K2QBD6	T   T L M F D P K S Y L R Q W T I T D V Q K D T S V M I F N V Q N G V K F D P S
UniRef90_J7QWB5	H   V R L L I F D P K T K L K Q W Q V K D P Q G Y E T L I V F N I D Q A K V P D P T
UniRef90_K2MAK1	S   V T L V F F Q E N P M Q R Q W I V T D P A G V E T T V T F N T E E G M K L D P A
UniRef90_UPI00036E5038	Q   Q L M F S S K T Y A T Q W V V T D A Q G M E T S V Q L T D Q Q V A K L L D D N S
UniRef90_UPI000471F836	S   L T L V F Y E N P L A R S S W S V D A Q G R E T R V T L S D V P G A D I P A S
UniRef90_F2IZF7	K   T L L I F D R T Y E L I K Q W T D A Q G D T S V A V Y V N V A N G P T N P K
UniRef90_Q2CAH5	S   Q L K F T G S P E L R Q W I I T D D A G Q Q T T V V L G D L K N V A I G D I
UniRef90_A3V935	D   Q L V F T T A N P E L R Q W I I T D D L G N Q T T M V L N D L T T G P I G D I
UniRef90_Q1PYN9	K   R L W I E E G W L P V K I E L H E S G G E V N L I E F S I T L N S R M S D K
UniRef90_W4HGU0	T   Q M K F T D N P E L R Q W I I N D S N G S S T T V I L Q G L Q P A Q I N S G
UniRef90_Q5FPI1	T   L L V L S D A P L L Q G W T V D A Q G R T T T I A L S D V R G G T V P Q S
UniRef90_W6RL33	T   I T M M F D P K T Y L R Q W T I T D N Q G D T S V M V F N V K T G V Q F D D K
UniRef90_UPI00040BDF59	S   L T L N F S L N P M I L Q W V A V D A Q G T V Q D V L T I Q P G V Q L D N K
UniRef90_UPI0003A91E1B	V   L T L Y F S S P S E L R E W I A T D A L Q G Q E T R F A L T D V R R A S L L D P R
UniRef90_W2C611	S   V R L Y V G K D G R V R R V E L E E K S G D R T T I T L K N V Q N V A V D D A
UniRef90_Q2S291	E   A T L L W V R P D R I V T R L R A V D R N G S I L D L R I D R D P P I N G N
UniRef90_UPI000477EE5C	V   I T M M F D K T F D L R Q W T I T D A Q G K D T T V I L S N V R T G K F A R S S
UniRef90_K1YZD4	R   V L L A V K P Q N Q I L E M T L F N E S G N K T H Y I F T N I V N T N P P D S
UniRef90_O67459	E   V K I Y F S K D G E I L G L K T Y D A Q G S E I S I N F E V V R N Y T P T D E S
UniRef90_B5YL56	K   I E L I I E E D F P I K S L K I T D N A S N T V K I D F S S V K I N I N L K D S
UniRef90_E4TEW0	Y   I M L L L D S K N N I K G I H S E D I N G N I S E I E F N N E I N K D I S L D
UniRef90_K2KM55	S   S L V F T D L P E L R Q W T V D A Q G V K T T I A L N N T S Y G K L D P D
UniRef90_X6KE67	N   T M V F D R E S L L R R W T L T D E R G L T S T V T I I S N K Q G V R A P A G
UniRef90_G214J7	S   M T L L F D S P L R L R Q W I I Q D A Q Q E T T R V D L L D I T T G V P P D S
UniRef90_J2G2A3	R   I S L L D F G A D A A L M G W T V T D V K G G E T R V R L D F E K T S G L D P K
UniRef90_W0DBZ8	R   V L V H A D R D G T P R L V R V E E K D G T I T E I E F E V R T N F S P S Q G
UniRef90_F8N638	T   I V I Y F D R K S L V S G V K M I D K N G D A T S I V L K N Q V N T P V H A K
UniRef90_UPI00037F7547	F   K L M F D P K F T L K Q W Q I T D P Q G Y E T L V S F N V D L T K K P D P W
UniRef90_A0A031JXD6	V   T L I F T R K A S A P G W V S L D S Q N K R T T I S L S N Q R G V P V T D N S
UniRef90_V4PJQ6	N   T L G F S Q S G D L R E W T I T D A Q N R A T T V Q L S F T R D S G L N P S
UniRef90_UPI000463DD1A	T   T M M F D P K T Y L R Q W T I T D A Q G D T T V M I F N T K E G V S F A P D
UniRef90_UPI00045EB93A	T   Y R L L I A K T S A L K Q W V V T D P Q G Y D T Q V S L S N Q V N K R P D P K
UniRef90_B2IE74	R   I N L V F D P K F T L K Q W K V T D P Q G Y E T L V S F N V D L T K K P D P A
UniRef90_Q28VB6	S   T L V F T P N P E L R Q W V I T D E G Q G T T V I L G A L E Q G G R I P A R
UniRef90_R7BXC3	S   A V V G F D A A G L P A V L V L T D A F G G R T Q V L T D V T N R A L P E G
UniRef90_U4TH12	K   I E I A F K N K E L Q Q M T V L T P L G Q S T K L Q F N I K T N Q I L P S S
UniRef90_G2KP15	S   L T L G F T R E P Q L K K W R V V D P Q G S V S E V E F Q M Q T G V A L L E R D
UniRef90_D9QNT0	S   V I L A F A G N P M I Q E W T I T E A S G A R T R T Q L T S L T P A S L S A S S
UniRef90_A3ERL7	L   A R I V V D D S T H L P T T M T F D E F N G M E M T I D L Q N L P L T H V S E S
UniRef90_G8AH00	T   L T L V F D R P F Q L R K W R V L D A Q G L T T E V A L M N P R E G Q F D S K
UniRef90_X5PGW1	K   I T M M F D P K S Y L R Q W T I T D A Q G D T T V M I F N T K E G V S F A P D
UniRef90_UPI000366459E	E   L T L F F T A H P L A L Q W N V D A Q G R Q T R I H L S V Q T G V P V D A K
UniRef90_D5QG83	S   L T L L F Q E D K R L R Q W I V Q D A Q G E S T R V D L H S V Q T G V P V D A K
UniRef90_Q1JW20	T   L I T L D A E P P Q Q R A A I V D Q T G N Q T E I E F R H V L N Q A P E T E
UniRef90_Q7VJC7	I   D K A Q K P E R I E F V D S M S G V K T T L K L K N V K N G A I S D K
UniRef90_UPI0003717986	I   L L E I A D K T W L I K K V V S F D W T G N K Q E F H F S I E I N K N F P K N S
UniRef90_S5XVK6	N   I Q M A F T A N P T L R Q W V V T D D R G Q R T T V V L E M K T G V S F A P S
UniRef90_UPI0003739489	R   I T F A F D D P N T L T E W Y A V D A V G G L T Q M H L S I V R G E R L D P R
UniRef90_C1A7M2	S   I Q M V F T A N P T L R Q W K I I D D G N G S T T T V V L E M R V G A S I S N R
UniRef90_UPI0003799BB5	K   A V L W L D K D P R P L R V Q V V D Q G V G V D R T I T L T S P E A T L P A D
UniRef90_T0LGB9	K   T L I F D A Q T D L K Q W T V T D A Q G M D T S V A I Y N V T N G P S N P K
UniRef90_V4PTA5	N   I A L V F D Q A G N I R E W T V T D A Q G K A T K V H L T S F R G G G F R S D
UniRef90_S9SF09	S   I R L V F T P G S P E L R Q W I V T D Q S G E T T V V L H D Q T G V Q I G D R
UniRef90_G8PIF7	R   T L I F D R D Y K L K Q W T V R D A Q G D T S V A I Y D V V E N G A T N P D
UniRef90_F1ZCC9	T   T L Q M V R K A S A P S W I T T D A Q A R R T T V H L M N Q Y G I P V N E I
UniRef90_R5QXR3	P   T L V F S N D P M L K Q W K I V D P Q S V E V T V S L Y D Q K D V S L D S K
UniRef90_R9H109	K   R L T I D K N K Q I Y K A M I F D K N G S R Y S Y L I K S L L P V K I S E S
UniRef90_UPI000463765E	V   T L M F D K T Y E L R Q W T I T D A Q G K D T T V V L S N V R T G
UniRef90_D3S2I0	S   A K M W V D K E F W Y P L R I E S E S Y G I K I L T E Y K N V E N T G V S D E
UniRef90_UPI0003B7B8BA	T   T M M F D P K T Y L R Q W T I T D N Q G D T S V M V F N V R T G V Q F D Q K
UniRef90_V6I0C7	T   M L L Y V D A Q S Y F Q K A V A S D G R G K E T T I E F N I E T N P D L E D G
UniRef90_Q58100	K   M K M Y V D E E Y W Q P L K I E M D G V T L E Y K N V K F N V D V P D D
UniRef90_Q1GKM2	S   E M M F T D N P Q L R K W V I H G G S G E E T T V V L E M Q T G L S F P S S
UniRef90_R6AY93	K   I R L T I D P K W L P Q K I V F M E V N G V I L S I T L T D I R T S T L P N Q
UniRef90_I0Q51	L   A R I T I D P K W L P Q K I V F M E V N G V I L S I T L T D I R T S T L P N Q
UniRef90_B9NLT4	R   E L M F T A D P E L R K W V I H D N A G S Q T T V V L
UniRef90_UPI00036F92D9	T   L Q I S V D K D K S V R N W L I N K D G K R T T Y T I T K F T N V N V P D S
UniRef90_N0BGTO	K   L Y L A T K P S M E L K E W V T T D A Q G L N T R V E L S G E K S D D L D S N
UniRef90_A0A017HJM9	S   Q L V F T A A P E L R Q W V I T D S G G S Q T T V V L N D M R T G Q I G D R
UniRef90_A3X6U8	S   E L M F T G E P E L R K W V V H D G A G G K T T V V L A L E T G M R L P S T
UniRef90_N6UJA8	H   I R M I F D K N Y S L R Q W T I V D Q Q N L E T T V Q I M N V R T G Q F A D G
UniRef90_V4PW59	S   V T L L G F D G D V I L R E W T I T D M Q N R A T T V V R L T F A R D S A L K P D

UniRef90\_UPI00028887BD F F E F K **V** T Q D M E **V** I E  
 UniRef90\_A4EFG1 **L** F **V** L K K P K G A  
 UniRef90\_E8RNY4 T F D  
 UniRef90\_I1AXD8 M F T **I** D  
 UniRef90\_J3HTV5 **L** L Q **L** D **A** P G T E **I** I R Q  
 UniRef90\_E8RCH3 T F R F T **P** P D T A D V V D **L** R  
 UniRef90\_UPI0003B6FFBC **L** F T F N V P R G **V** E V I E  
 UniRef90\_J3IQS0 **L** F S T D L P E  
 UniRef90\_UPI0004729D82 F F T F I **P** P P G **V** E I V R  
 UniRef90\_F2NFW6 **L** F Y I D P  
 UniRef90\_X6KUV4 T F T  
 UniRef90\_F7VAY1  
 UniRef90\_D5AS29 P **L** M F S I V A E T E  
 UniRef90\_UPI000225F060 T F T I E  
 UniRef90\_F6BTD2 V F R **P** Y D E V R N K R R  
 UniRef90\_Q2G3E9 T F R W T D P  
 UniRef90\_K7SENO **L** F T **L** P K  
 UniRef90\_R5Q1K9 Q F V F K D P  
 UniRef90\_T1B0R6 T F R F T **P** P P G A D V I  
 UniRef90\_K2QBD6 V F E I P Y A E V H G Q R R  
 UniRef90\_J7QWB5 **L** F K I N  
 UniRef90\_K2MAK1 L F K F D  
 UniRef90\_UPI00036E5038 L F K  
 UniRef90\_UPI000471F836 L F D  
 UniRef90\_F2IZF7 **L** F V I D Y **L** A N A  
 UniRef90\_Q2CAH5 N F N  
 UniRef90\_A3V935 M F N  
 UniRef90\_Q1PYN9 **L** F M F D P P K G **V** E I I E  
 UniRef90\_W4HGU0 K F N  
 UniRef90\_Q5FPI1 **L** F V  
 UniRef90\_W6RL33 V F R  
 UniRef90\_UPI00040BDF59 L F  
 UniRef90\_UPI0003A91E1B L F T **L** D G D E A D D R R  
 UniRef90\_W2C611 **L** F T  
 UniRef90\_Q2S291 P F S F S P P A N A E V V D **L** R  
 UniRef90\_UPI000477EE5C V F R  
 UniRef90\_K1YZD4 F F E F V K P K G **V** R E V N Q  
 UniRef90\_O67459 **L** F K P S I P E G F K V L R  
 UniRef90\_B5YL56 I F K F V P K K D D T V L  
 UniRef90\_E4TEW0 V F K V K H P A D A Q I  
 UniRef90\_K2KM55 L F E  
 UniRef90\_X6KE67 T F T I D Y A A N  
 UniRef90\_G214J7 **L** F S T D **L** P E  
 UniRef90\_J2G2A3 L F V L T D P  
 UniRef90\_W0DBZ8 **L** F K L Q **L** P P N V K V  
 UniRef90\_F8N638 N F S  
 UniRef90\_UPI00037F7547 L F G L A P P P  
 UniRef90\_A0A031JXD6 D F R W N D P  
 UniRef90\_V4PJQ6 **L** F V L N K P Q  
 UniRef90\_UPI000463DD1A T F K I D Y T A N R E L  
 UniRef90\_UPI00045EB93A **L** F V I N  
 UniRef90\_B2IE74 **L** F Q L T  
 UniRef90\_Q28VB6 F F S I P Q E V  
 UniRef90\_R7BXC3 I F M V K T G P E T T V L E D R  
 UniRef90\_U4TH12 L F E L K **L** P K G I D V I K Q  
 UniRef90\_G2KP15 L F V Y R D P Q  
 UniRef90\_D9QNT0 **L** F R L T D P  
 UniRef90\_A3ERL7 A F N L V L P P G T T V V R T R Q  
 UniRef90\_G8AH00 **L** F Y F E P S K G  
 UniRef90\_X5PGW1 T F A I D Y T A N R E L  
 UniRef90\_UPI000366459E E F A L P K D  
 UniRef90\_D5QG83  
 UniRef90\_Q1JW20 Q F V F E L P E K V E I I  
 UniRef90\_Q7VJC7 K F V F V P P Q G V E I V E L  
 UniRef90\_UPI0003717986 T F E L D I P A D V E I I  
 UniRef90\_S5XVK6 T F V I Q N E I D R R R R  
 UniRef90\_UPI0003739489 **L** F Q F D  
 UniRef90\_UPI0004672397 A F R F N V P K G V K V  
 UniRef90\_C1A7M2 **L** F V I D  
 UniRef90\_UPI0003799BB5 K F S F Q L P Q G V E L V D L T  
 UniRef90\_T0LGB9 **L** F V L N P F N  
 UniRef90\_V4PTA5 **L** F V L N  
 UniRef90\_S9SF09 P F N  
 UniRef90\_G8PIF7 **L** F K I D  
 UniRef90\_F1ZCC9 T F R Y R D P  
 UniRef90\_R5QXR3 L F K F R N K K D  
 UniRef90\_R9H109 I F S F N P Q P G V E V V D L R  
 UniRef90\_UPI000463765E  
 UniRef90\_D3S2IO L F E F K I P E G A K V  
 UniRef90\_UPI0003B7B8BA V F R  
 UniRef90\_V610C7 Q F N F H I S G N A K I V N  
 UniRef90\_Q58100 R F K F V P P E G A K L  
 UniRef90\_Q1GKM2 L F S I S R P K  
 UniRef90\_R6AY93 V F Q  
 UniRef90\_I0IQ51 S F T M D I P P G T T I  
 UniRef90\_B9NLT4  
 UniRef90\_UPI00036F92D9 Y F V F D K G K G V E V V D L R  
 UniRef90\_N0BGT0 **L** F K  
 UniRef90\_A0A017HJM9 A F N  
 UniRef90\_A3X6U8 **L** F S  
 UniRef90\_N6UJA8 M F T  
 UniRef90\_V4PW59 **L** F V L N K P Q

UniRef90\_C1DUL2  
 UniRef90\_UP10004700EBE  
 UniRef90\_E8WU64  
 UniRef90\_C7PIA8  
 UniRef90\_L0LN50  
 UniRef90\_A3UIN2  
 UniRef90\_Q1Q293  
 UniRef90\_G0GFM7  
 UniRef90\_E6MTA1  
 UniRef90\_Q0FZC8  
 UniRef90\_UP1000361D4A9  
 UniRef90\_UP1000470EC01  
 UniRef90\_T0F6D7  
 UniRef90\_A8IGJ0  
 UniRef90\_B2V662  
 UniRef90\_U2J6V3  
 UniRef90\_A1UR29  
 UniRef90\_UP1000375953C  
 UniRef90\_W8F4G5  
 UniRef90\_C6XKC0  
 UniRef90\_V8CHL7  
 UniRef90\_M1P5E2  
 UniRef90\_UP100036E208B  
 UniRef90\_I2FAE4  
 UniRef90\_UP10004636F00  
 UniRef90\_K1XYN7  
 UniRef90\_X1T6K9  
 UniRef90\_C6SHS9  
 UniRef90\_M9RJT9  
 UniRef90\_A7K4S7  
 UniRef90\_UP100039B3D1D  
 UniRef90\_UP100037FF1AB  
 UniRef90\_B3Q894  
 UniRef90\_U7UGN6  
 UniRef90\_Q6LL29  
 UniRef90\_UP1000380D52D  
 UniRef90\_UP10003627DF8  
 UniRef90\_E6YX47  
 UniRef90\_H2BV23  
 UniRef90\_UP100036717B3  
 UniRef90\_UP10002FDBA19  
 UniRef90\_B5WM98  
 UniRef90\_E6W461  
 UniRef90\_UP1000372DF7  
 UniRef90\_UP10003B55904  
 UniRef90\_Q0FDS6  
 UniRef90\_M7Y3M1  
 UniRef90\_R5TV64  
 UniRef90\_W1IX09  
 UniRef90\_UP100041C4172  
 UniRef90\_K1ZR45  
 UniRef90\_C6BXP1  
 UniRef90\_UP1000344F7AC  
 UniRef90\_A0A014M926  
 UniRef90\_I9KUY0  
 UniRef90\_UP100037547FB  
 UniRef90\_V2Q294  
 UniRef90\_I0XC07  
 UniRef90\_E7AB50  
 UniRef90\_A3HW42  
 UniRef90\_A0A059E9X2  
 UniRef90\_UP10003B30A6E  
 UniRef90\_U6ZH52  
 UniRef90\_D5V1Y6  
 UniRef90\_UP10004721598  
 UniRef90\_E1T6E8  
 UniRef90\_E7FZV8  
 UniRef90\_Q1NQT6  
 UniRef90\_A0A023SDG2  
 UniRef90\_W0ETD1  
 UniRef90\_UP10003FA9D3C  
 UniRef90\_R6YHT6  
 UniRef90\_Q1KQ3  
 UniRef90\_UP10002EA9A33  
 UniRef90\_Q9ADU7  
 UniRef90\_U1FJ65  
 UniRef90\_B4SN05  
 UniRef90\_Q39QQ3  
 UniRef90\_V9HLZ1  
 UniRef90\_UP100031C894F  
 UniRef90\_L0R9J8  
 UniRef90\_M7MYJ2  
 UniRef90\_L0FYG1  
 UniRef90\_V9TUC5  
 UniRef90\_UP1000410EE5C  
 UniRef90\_K9H511  
 UniRef90\_E1SJ36  
 UniRef90\_UP10004780208  
 UniRef90\_A6G5D5  
 UniRef90\_T1C017  
 UniRef90\_L1NGL2  
 UniRef90\_T0DK92

1 D F | L T E F Q K K L S E | 10 E I | K A F E S E F T Q K T K N P D | 20 I F T G E | L K V | S K P | 40 L  
 L D K I | E Q E L | N R Q S T F Q A R I | R Q V | D S T G K T E T G T | V W M R R P | G  
 L E S L E R S A G S V K T L | L S S D F V | Q E F K N | V M T S K G R F Y | F A K P | D  
 L D G V S K K F A Q L | K S V | V A N F V | L K V | E G A N N S | G T V | Y | K | G A  
 A Q A I | A D H F S S I | K S M K G G F | L Q I | G P R G D Q M S | G A F F I | Q R P | G  
 G A D R A Q A W | E G L | D T | L R A R F E | Q I A A D N S E T A | G V L E | I | D R P | G  
 G T | L T M K K P | N  
 N | V R Q | I | E V A | A T N M K T M H | C | D F V | Q T L | N D K M I | S Q G K M Y | Y Q Q S D  
 A A Q R I | A D H F S S I | P S M H | G D F V | Q F D | P | P N G R Q S E | G K F Y | I | E K P | G  
 N | L A N I S | Q Y | L Q N | L K | K I | L K | A D F S | T N P | D D T | I S | S G T | I | L I | R R P | G  
 E | I | L D A M S | K K Y | K S I | P | A F E | A N I | S | C | N | L | T | N | D | E | F | K | G K I | T | V | K | G D  
 E | V | V K K | V | R K T F | S E | I | K | S Y | K | A | D | F | T | E | S | N | K | T | R | S | M | K | G | V | C | Y | K | K | G G  
 D | I | V | E | E | L | Q | K | K | F | S | E | I | K | G | F | Q | A | E | I | T | Q | K | T | S | S | P | D | I | F | Y | G | K | V | L | A | V | K | P | D  
 A | Q | V | I | A | N | H | F | A | I | K | T | M | T | G | D | F | V | Q | F | S | P | K | G | K | K | T | G | F | Y | M | Q | K | P | G  
 L | D | A | M | S | S | R | Y | K | S | L | N | S | Y | Q | A | A | F | T | Y | T | V | G | A | K | E | S | Y | K | G | D | L | T | V | K | G | Q  
 E | L | L | T | K | I | N | A | R | M | A | D | T | K | T | A | R | G | G | F | K | Q | T | D | A | M | G | E | I | T | T | G | D | F | Y | L | R | R | P | G  
 A | Q | N | I | I | N | H | F | A | I | K | V | M | T | G | D | F | I | Q | F | N | P | K | G | K | M | T | K | G | T | F | Y | I | E | R | P | G  
 L | S | K | I | N | S | R | M | E | E | A | K | T | A | R | G | G | F | K | Q | I | D | A | M | G | E | V | T | T | G | D | F | F | L | R | R | P | G  
 A | Q | Q | I | A | D | H | F | S | S | V | K | T | M | M | G | D | F | V | Q | F | G | P | S | G | E | Q | T | G | G | K | F | F | I | E | R | P | G

1 L D Q V | S S Y | L | N | S | F | T | S | A | E | G | A | F | T | Q | I | N | A | D | G | T | I | S | T | G | T | V | F | I | K | R | P | G  
 D | L | A | S | L | Q | Q | Q | L | S | Q | H | E | I | V | R | G | D | F | T | Q | Q | R | T | Q | P | L | T | S | K | G | Q | F | T | I | S | K | T | H  
 A | Q | A | I | A | N | Q | F | T | A | V | K | T | M | T | G | E | F | V | Q | F | G | P | K | G | D | Q | T | G | G | K | F | Y | I | E | R | P | G  
 E | T | V | Q | R | I | N | D | Y | F | N | S | F | K | T | M | I | G | D | F | V | Q | V | D | P | N | G | D | R | Q | Q | G | Q | F | Y | I | L | K | P | G  
 S | T | Y | L | S | S | L | Q | T | L | V | Q | G | F | V | Q | V | G | P | D | G | S | K | I | T | G | D | F | Y | I | M | K | P | G  
 L | D | R | T | A | Q | V | V | G | R | A | G | G | A | S | A | N | F | T | I | S | S | A | K | M | G | K | T | S | G | T | I | A | K | G | N  
 D | L | Q | E | K | L | S | N | Q | P | I | V | R | G | D | F | E | Q | T | R | K | M | P | L | T | S | Q | G | Q | F | L | L | A | E | K | Q | P | G  
 L | K | K | A | E | S | Y | M | S | A | L | K | T | L | Q | A | R | I | L | Q | I | T | T | S | S | S | Q | E | G | M | V | S | K | R | P | G  
 L | D | E | M | S | N | K | F | K | T | Y | S | S | F | K | A | S | F | T | F | T | L | K | N | T | E | V | S | E | G | E | L | L | V | R | G | S  
 A | Q | N | I | I | N | H | F | A | I | K | V | M | T | G | D | F | I | Q | F | N | P | K | G | K | M | T | K | G | T | F | Y | I | E | R | P | G  
 D | F | R | E | N | V | E | R | Q | A | D | E | I | L | Q | T | M | S | G | D | F | L | Q | V | M | Q | A | E | A | V | I | S | S | G | K | L | Y | F | K | S | P | D  
 Q | A | Y | K | G | E | L | A | V | L | Q | P | G  
 1 L S | D | L | Q | T | R | L | S | A | H | D | I | T | R | G | D | F | T | Q | T | L | D | M | P | L | V | S | Q | G | A | F | L | L | S | Q | T | D  
 V | S | Q | I | A | A | H | L | A | Q | A | R | G | V | R | A | Q | F | T | Q | T | M | Q | P | L | V | S | N | G | T | L | L | F | F | R | E | H  
 L | T | S | Y | R | S | L | Q | A | S | F | S | Q | Q | T | H | S | V | Q | E | G | R | G | T | F | S | I | S | K | D | A  
 V | R | R | V | E | V | Y | L | N | E | L | K | S | V | S | S | R | F | L | Q | V | S | T | G | S | L | A | E | G | Q | L | F | L | E | R | P | G  
 L | A | D | I | A | V | S | L | K | G | T | A | S | L | S | A | D | F | T | Q | T | Q | A | G | D | G | R | V | L | A | G | K | L | W | L | A | R | P | G  
 L | S | S | N | I | S | D | Y | I | N | E | L | K | M | V | E | A | D | F | E | Q | I | N | S | D | G | S | I | D | A | G | K | L | Y | I | R | R | P | G  
 E | V | L | D | A | V | S | L | K | Y | K | G | L | K | G | M | K | A | S | F | D | F | T | V | T | D | A | G | E | S | T | G | E | I | A | I | K | G | N  
 I | K | E | I | S | R | S | A | A | T | I | K | T | M | Q | C | D | F | V | Q | T | L | G | S | E | L | V | S | K | G | R | M | S | C | S | Q | P | D  
 L | D | E | L | Q | Q | R | F | A | H | Q | P | V | V | R | A | D | F | K | Q | V | M | S | P | L | N | S | S | G | E | M | L | V | S | P | H | K  
 L | A | Q | V | S | K | K | Y | R | S | Y | D | V | I | K | A | D | F | T | Y | T | I | K | N | P | Q | S | Q | S | G | L | L | Y | V | S | K | T | N  
 D | F | R | E | N | V | E | R | Q | A | D | E | I | L | Q | T | M | S | G | D | F | L | Q | V | M | Q | A | E | A | V | I | S | S | G | K | L | Y | F | K | S | P | D  
 Q | A | Y | K | G | E | L | A | V | L | Q | P | G  
 1 E | V | L | D | G | M | S | Q | K | Y | Q | S | M | K | G | F | T | A | S | F | D | Y | T | Y | S | D | G | D | R | Q | S | G | E | I | A | V | K | G | N  
 D | D | L | L | E | R | A | S | A | A | L | A | V | E | T | A | S | G | T | F | K | Q | L | A | P | D | Y | T | E | S | T | G | R | F | A | L | S | R | P | G  
 D | M | L | L | E | S | L | R | R | E | A | M | G | V | T | T | I | T | T | S | S | F | T | Q | V | F | N | D | T | V | I | S | E | G | H | F | F | F | Q | R | P | G  
 L | L | D | E | L | Q | Q | R | F | S | S | Q | P | V | V | R | A | D | F | S | Q | V | M | A | Q | P | L | K | S | S | G | A | M | L | I | A | R | Q | K  
 L | N | N | I | K | S | F | D | A | D | F | E | Q | K | I | I | N | P | S | K | Y | S | G | H | L | Y | L | K | D | P | Y  
 V | S | Q | I | A | S | H | L | A | A | A | R | G | V | R | A | Q | F | T | Q | T | M | Q | P | L | I | S | T | G | S | L | L | F | L | R | E | R  
 Q | F | T | T | L | S | A | H | F | K | Q | E | V | L | G | K | K | P | S | E | G | E | V | L | A | K | A | P | F  
 L | Q | E | V | D | R | A | A | A | E | V | R | S | M | S | C | A | F | T | Q | K | F | D | R | P | V | V | F | R | G | K | L | D | L | V | R | P | D  
 R | A | E | V | Q | Q | L | L | A | N | E | A | K | Q | Q | S | F | E | Q | E | L | S | Q | P | L | K | A | S | G | E | L | L | L | V | R | D | Q  
 L | D | E | V | S | T | K | F | K | T | Y | Q | T | V | S | A | N | F | A | Y | S | I | Q | N | A | Q | G | K | V | L | S | K | K | S | G  
 L | L | D | A | M | S | V | K | Y | Q | K | M | P | A | F | K | A | A | F | A | S | H | L | V | S | K | E | T | L | K | G | E | I | T | V | K | G | D  
 M | K | Q | L | S | D | I | K | S | L | S | A | E | F | K | Q | I | N | Y | G | E | D | I | Y | T | G | K | V | Y | I | N | M | K | E  
 I | S | E | Y | Y | G | T | L | K | D | Y | E | V | D | F | E | I | K | V | I | D | K | T | E | S | A | G | K | L | S | Y | K | S | P | D  
 V | K | T | F | K | A | H | F | K | Q | V | V | I | G | E | G | V | Y | E | G | E | L | F | A | K | I | P | D  
 V | S | Q | I | A | A | H | L | A | Q | A | R | G | V | R | A | Q | F | T | Q | T | M | Q | P | L | V | S | N | G | T | L | L | F | F | R | E | H  
 L | E | E | L | Q | Q | R | F | A | S | Q | T | Q | V | R | A | D | F | Y | T | Q | L | M | S | Q | P | L | K | S | D | G | S | M | L | I | A | Q | Q | K  
 V | V | A | Q | V | R | A | R | L | V | N | A | P | V | I | H | G | N | F | E | Q | K | K | T | N | P | L | V | S | T | G | T | F | L | I | A | Q | G | K  
 L | A | G | V | S | K | K | Y | R | S | Y | D | V | I | K | A | D | F | T | Y | T | I | K | N | P | Q | S | Q | S | G | V | L | Y | S | K | K | S | N  
 M | K | Q | L | S | D | I | K | S | L | S | A | E | F | K | Q | I | N | Y | G | E | D | I | Y | T | G | K | V | Y | I | N | M | K | E  
 I | S | E | Y | Y | G | T | L | K | D | Y | E | V | D | F | E | I | K | V | I | D | K | T | E | S | A | G | K | L | S | Y | K | S | P | D  
 V | K | T | F | K | A | H | F | K | Q | V | V | I | G | E | G | V | Y | E | G | E | L | F | A | K | I | P | D  
 V | S | Q | I | A | A | H | L | A | Q | A | R | G | V | R | A | Q | F | T | Q | T | M | Q | P | L | V | S | N | G | T | L | L | F | F | R | E | H  
 L | E | E | L | Q | Q | R | F | A | S | Q | T | Q | V | R | A | D | F | Y | T | Q | L | M | S | Q | P | L | K | S | D | G | S | M | L | I | A | Q | Q | K  
 V | V | A | Q | V | R | A | R | L | V | N | A | P | V | I | H | G | N | F | E | Q | K | K | T | N | P | L | V | S | T | G | T | F | L | I | A | Q | G | K  
 L | A | G | V | S | K | K | Y | R | S | Y | D | V | I | K | A | D | F | T | Y | T | I | K | N | P | Q | S | Q | S | G | V | L | Y | S | K | K | S | N  
 M | K | Q | L | S | D | I | K | S | L | S | A | E | F | K | Q | I | N | Y | G | E | D | I | Y | T | G | K | V | Y | I | N | M | K | E  
 I | S | E | Y | Y | G | T | L | K | D | Y | E | V | D | F | E | I | K | V | I | D | K | T | E | S | A | G | K | L | S | Y | K | S | P | D  
 V | K | T | F | K | A | H | F | K | Q | V | V | I | G | E | G | V | Y | E | G | E | L | F | A | K | I | P | D  
 V | S | Q | I | A | A | H | L | A | Q | A | R | G | V | R | A | Q | F | T | Q | T | M | Q | P | L | V | S | N | G | T | L | L | F | F | R | E | H  
 L | E | E | L | Q | Q | R | F | A | S | Q | T | Q | V | R | A | D | F | Y | T | Q | L | M | S | Q | P | L | K | S | D | G | S | M | L | I | A | Q | Q | K  
 V | V | A | Q | V | R | A | R | L | V | N | A | P | V | I | H | G | N | F | E | Q | K | K | T | N | P | L | V | S | T | G | T | F | L | I | A | Q | G | K  
 L | A | G | V | S | K | K | Y | R | S | Y | D | V | I | K | A | D | F | T | Y | T | I | K | N | P | Q | S | Q | S | G | V | L | Y | S | K | K | S | N  
 M | K | Q | L | S | D | I | K | S | L | S | A | E | F | K | Q | I | N | Y | G | E | D | I | Y | T | G | K | V | Y | I | N | M | K | E  
 I | S | E | Y | Y | G | T | L | K | D | Y | E | V | D | F | E | I | K | V | I | D | K | T | E | S | A | G | K | L | S | Y | K | S | P | D  
 V | K | T | F | K | A | H | F | K | Q | V | V | I | G | E | G | V | Y | E | G | E | L | F | A | K | I | P | D  
 V | S | Q | I | A | A | H | L | A | Q | A | R | G | V | R | A | Q | F | T | Q | T | M | Q | P | L | V | S | N | G | T | L | L | F | F | R | E | H  
 L | E | E | L | Q | Q | R | F | A | S | Q | T | Q | V | R | A | D | F | Y | T | Q | L | M | S | Q | P | L | K | S | D | G | S | M | L | I | A | Q | Q | K  
 V | V | A | Q | V | R | A | R | L | V | N | A | P | V | I | H | G | N | F | E | Q | K | K | T | N | P | L | V | S | T | G | T | F | L | I | A | Q | G | K  
 L | A | G | V | S | K | K | Y | R | S | Y | D | V | I | K | A | D | F | T | Y | T | I | K | N | P | Q | S | Q | S | G | V | L | Y | S | K | K | S | N  
 M | K | Q | L | S | D | I | K | S | L | S | A | E | F | K | Q | I | N | Y | G | E | D | I | Y | T | G | K | V | Y | I | N | M | K | E  
 I | S | E | Y | Y | G | T | L | K | D | Y | E | V | D | F | E | I | K | V | I | D | K | T | E | S | A | G | K | L | S | Y | K | S | P | D  
 V | K | T | F | K | A | H | F | K | Q | V | V | I | G | E | G | V | Y | E | G | E | L | F | A | K | I | P | D  
 V | S | Q | I | A | A | H | L | A | Q | A | R | G | V | R | A | Q | F | T | Q | T | M | Q | P | L | V | S | N | G | T | L | L | F | F | R | E | H  
 L | E | E | L | Q | Q | R | F | A | S | Q | T | Q | V | R | A | D | F | Y | T | Q | L | M | S | Q | P | L | K | S | D | G | S | M | L | I | A | Q | Q | K  
 V | V | A | Q | V | R | A | R | L | V | N | A | P | V | I | H | G | N | F | E | Q | K | K | T | N | P | L | V | S | T | G | T | F | L | I | A | Q | G | K  
 L | A | G | V | S | K | K | Y | R | S | Y | D | V | I | K | A | D | F | T | Y | T | I | K | N | P | Q | S | Q | S | G | V | L | Y | S | K | K | S | N  
 M | K | Q | L | S | D | I | K | S | L | S | A | E | F | K | Q | I | N | Y | G | E | D | I | Y | T | G | K | V | Y | I | N | M | K | E  
 I | S | E | Y | Y | G | T | L | K | D | Y | E | V | D | F | E | I | K | V | I | D | K | T | E | S | A | G | K | L | S | Y | K | S | P | D  
 V | K | T | F | K | A | H | F | K | Q | V | V | I | G | E | G | V | Y | E | G | E | L | F | A | K | I | P | D  
 V | S | Q | I | A | A | H | L | A | Q | A | R | G | V | R | A | Q | F | T | Q | T | M | Q | P | L | V | S | N | G | T | L | L | F | F | R | E | H  
 L | E | E | L | Q | Q | R | F | A | S | Q | T | Q | V | R | A | D | F | Y | T | Q | L | M | S | Q | P | L | K | S | D | G | S | M | L | I | A | Q | Q | K  
 V | V | A | Q | V | R | A | R | L | V | N | A | P | V | I | H | G | N | F | E | Q | K | K | T | N | P | L | V | S | T | G | T | F | L | I | A | Q | G | K  
 L | A | G | V | S | K | K | Y | R | S | Y | D | V | I | K | A | D | F | T | Y | T | I | K | N | P | Q | S | Q | S | G | V | L | Y | S | K | K | S | N  
 M | K | Q | L | S | D | I | K | S | L | S | A | E | F | K | Q | I | N | Y | G | E | D | I | Y | T | G | K | V | Y | I | N | M | K | E  
 I | S | E | Y | Y | G | T | L | K | D | Y | E | V | D | F | E | I | K | V | I | D | K | T | E | S | A | G | K | L | S | Y | K | S | P | D  
 V | K | T | F | K | A | H | F | K | Q | V | V | I | G | E | G | V | Y | E | G | E | L | F | A | K | I | P | D  
 V | S | Q | I | A | A | H | L | A | Q | A | R | G | V | R | A | Q | F | T | Q | T | M | Q | P | L | V | S | N | G | T | L | L | F | F | R | E | H  
 L | E | E | L | Q | Q | R | F | A | S | Q | T | Q | V | R | A | D | F | Y | T | Q | L | M | S | Q | P | L | K | S | D | G | S | M | L | I | A | Q | Q | K  
 V | V | A | Q | V | R | A | R | L | V | N | A | P | V | I | H | G | N | F | E | Q | K | K | T | N | P | L | V | S | T | G | T | F | L | I | A | Q | G | K  
 L | A | G | V | S | K | K | Y | R | S | Y | D | V | I | K | A | D | F | T | Y | T | I | K | N | P | Q | S | Q | S | G | V | L | Y | S | K | K | S | N  
 M | K | Q | L | S | D | I | K | S | L | S | A | E | F | K | Q | I | N | Y | G | E | D | I | Y | T | G | K | V | Y | I | N | M | K | E  
 I | S | E | Y | Y | G | T | L | K | D | Y | E | V | D | F | E | I | K | V | I | D | K | T | E | S | A | G | K | L | S | Y | K | S | P | D  
 V | K | T | F | K | A | H | F | K | Q | V | V | I | G | E | G | V | Y | E | G | E | L | F | A | K | I | P | D  
 V | S | Q | I | A | A | H | L | A | Q | A | R | G | V | R | A | Q | F | T | Q | T | M | Q | P | L | V | S | N | G | T | L | L | F | F | R | E | H  
 L | E | E | L | Q | Q | R | F | A | S | Q | T | Q | V | R | A | D | F | Y | T | Q | L | M | S | Q | P | L | K | S | D | G | S | M | L | I | A | Q | Q | K  
 V | V | A | Q | V | R | A | R | L | V | N | A | P | V | I | H | G | N | F | E | Q | K | K | T | N | P | L | V | S | T | G | T | F | L | I | A | Q | G | K  
 L | A | G | V | S | K | K | Y | R | S | Y | D | V | I | K | A | D | F | T | Y | T | I | K | N | P | Q | S | Q | S | G | V | L | Y | S | K | K | S | N  
 M | K | Q | L | S | D | I | K | S | L | S | A | E | F | K | Q | I | N | Y | G | E | D | I | Y | T | G | K | V | Y | I | N | M | K | E  
 I | S | E | Y | Y | G | T | L | K | D | Y | E | V | D | F | E | I | K | V | I | D | K | T | E | S | A | G | K | L | S | Y | K | S | P | D  
 V | K | T | F | K | A | H | F | K | Q | V | V | I | G | E | G | V | Y | E | G | E | L | F | A | K | I | P | D  
 V | S | Q | I | A | A | H | L | A | Q | A | R | G | V | R | A | Q | F | T | Q | T | M | Q | P | L | V | S | N | G | T | L | L | F | F | R | E | H  
 L | E | E | L | Q | Q | R | F | A | S | Q | T | Q | V | R | A | D | F | Y | T | Q | L | M | S | Q | P | L | K | S | D | G | S | M | L | I | A | Q | Q | K  
 V | V | A | Q | V | R | A | R | L | V | N | A | P | V | I | H | G | N | F | E | Q | K | K | T | N | P | L | V | S | T | G | T | F | L | I | A | Q | G | K  
 L | A | G | V | S | K | K | Y | R | S | Y | D | V | I | K | A | D | F | T | Y | T | I | K | N | P | Q | S | Q | S | G | V | L | Y | S | K | K | S | N  
 M | K | Q | L | S | D | I | K | S | L | S | A | E | F | K | Q | I | N | Y | G | E | D | I | Y | T | G | K | V | Y | I | N | M | K | E  
 I | S | E | Y | Y | G | T | L | K | D | Y | E | V | D | F | E | I | K | V | I | D | K | T | E | S | A | G | K | L | S | Y | K | S | P | D  
 V | K | T | F | K | A | H | F | K | Q | V | V | I | G | E | G | V | Y | E | G | E | L | F | A | K | I | P | D  
 V | S | Q | I | A | A | H | L | A | Q | A | R | G | V | R | A | Q | F | T | Q | T | M | Q | P | L | V | S | N | G | T | L | L | F | F | R | E | H  
 L | E | E | L | Q | Q | R | F | A | S | Q | T | Q | V | R | A | D | F | Y | T | Q | L | M | S | Q | P | L | K | S | D | G | S | M | L | I | A | Q | Q | K  
 V | V | A | Q | V | R | A | R | L | V | N | A | P | V | I | H | G | N | F | E | Q | K | K | T | N | P | L | V | S | T | G | T | F | L | I | A | Q | G | K  
 L | A | G | V | S | K | K | Y | R | S | Y | D | V | I | K | A | D | F | T | Y | T | I | K | N | P | Q | S | Q | S | G | V | L | Y | S | K | K | S | N  
 M | K | Q | L | S | D | I | K | S | L | S | A | E | F | K | Q | I | N | Y | G | E | D | I | Y | T | G | K | V | Y | I | N | M | K | E  
 I | S | E | Y | Y | G | T | L | K | D | Y | E | V | D | F | E | I | K | V | I | D | K | T | E | S | A | G | K | L | S | Y | K | S | P | D  
 V | K | T | F | K | A | H | F | K | Q | V | V | I | G | E | G | V | Y | E | G | E | L | F | A | K | I | P | D  
 V | S | Q | I | A | A | H | L | A | Q | A | R | G | V | R | A | Q | F | T | Q | T | M | Q | P | L | V | S | N | G | T | L | L | F | F | R | E | H  
 L | E | E | L | Q | Q | R | F | A | S | Q | T | Q | V | R | A | D | F | Y | T | Q | L | M | S | Q | P | L | K | S | D | G | S | M | L | I | A | Q | Q | K  
 V | V | A | Q | V | R | A | R | L | V | N | A | P | V | I | H | G | N | F | E | Q | K | K | T | N | P | L | V | S | T | G | T | F | L | I | A | Q | G | K  
 L | A | G | V | S | K | K | Y | R | S | Y | D | V | I | K | A | D | F | T | Y | T | I | K | N | P | Q | S | Q | S | G | V | L | Y | S | K | K | S | N  
 M | K | Q | L | S | D | I | K | S | L | S | A | E | F | K | Q | I | N | Y | G | E | D | I | Y | T | G | K | V | Y | I | N | M | K | E  
 I | S | E | Y | Y | G | T | L | K | D | Y | E | V | D | F | E | I | K | V | I | D | K | T | E | S | A | G | K | L | S | Y | K | S | P | D  
 V | K | T | F | K | A | H | F | K | Q | V | V | I | G | E | G | V | Y | E | G | E | L | F | A | K | I | P | D  
 V | S | Q | I | A | A | H | L | A | Q | A | R | G | V | R | A | Q | F | T | Q | T | M | Q | P | L | V | S | N | G | T | L | L | F | F | R | E | H  
 L | E | E | L | Q | Q | R | F | A | S | Q | T | Q | V | R | A | D | F | Y | T | Q | L | M | S | Q | P | L | K | S | D | G | S | M | L | I | A | Q | Q | K  
 V | V | A | Q | V | R | A | R | L | V | N | A | P | V | I | H | G | N | F | E | Q | K | K | T | N | P | L | V | S | T | G | T | F | L | I | A | Q | G | K  
 L | A | G | V | S | K | K | Y | R | S | Y | D | V | I | K | A | D | F | T | Y | T | I | K | N | P | Q | S | Q | S | G | V | L | Y | S | K | K | S | N  
 M | K | Q | L | S | D | I | K | S | L | S | A | E | F | K | Q | I | N | Y | G | E | D | I | Y | T | G | K | V | Y | I | N | M | K | E  
 I | S | E | Y | Y | G | T | L | K | D | Y | E | V | D | F | E | I | K | V | I | D | K | T | E | S | A | G | K | L | S | Y | K | S | P | D  
 V | K | T |

T I K L D Y T K P Y K Q T I F M T K E K I I L Y N P Q E N Q A L I T S P Q N S L  
 UniRef90\_C1DUL2  
 UniRef90\_UP10004700EBE  
 UniRef90\_E8WU64  
 UniRef90\_C7PIA8  
 UniRef90\_L0LN50  
 UniRef90\_A3UIN2  
 UniRef90\_Q1Q293  
 UniRef90\_G0GFM7  
 UniRef90\_E6MTA1  
 UniRef90\_Q0FZC8  
 UniRef90\_UP1000361D4A9  
 UniRef90\_UP1000470EC01  
 UniRef90\_T0F6D7  
 UniRef90\_A8IGJ0  
 UniRef90\_B2V662  
 UniRef90\_U2J6V3  
 UniRef90\_A1UR29  
 UniRef90\_UP1000375953C  
 UniRef90\_W8F4G5  
 UniRef90\_C6XKC0  
 UniRef90\_V8CHL7  
 UniRef90\_M1P5E2  
 UniRef90\_UP100036E208B  
 UniRef90\_I2FAE4  
 UniRef90\_UP10004636F00  
 UniRef90\_K1XYN7  
 UniRef90\_X1T6K9  
 UniRef90\_C6SHS9  
 UniRef90\_M9RJT9  
 UniRef90\_A7K4S7  
 UniRef90\_UP100039B3D1D  
 UniRef90\_UP100037FF1AB  
 UniRef90\_B3Q894  
 UniRef90\_U7UGN6  
 UniRef90\_Q6LL29  
 UniRef90\_UP1000380D52D  
 UniRef90\_UP10003627DF8  
 UniRef90\_E6YX47  
 UniRef90\_H2BV23  
 UniRef90\_UP100036717B3  
 UniRef90\_UP10002FDBA19  
 UniRef90\_B5WM98  
 UniRef90\_E6W461  
 UniRef90\_UP100037F2DF7  
 UniRef90\_UP10003B55904  
 UniRef90\_Q0FDS6  
 UniRef90\_M7Y3M1  
 UniRef90\_R5TV64  
 UniRef90\_W1IX09  
 UniRef90\_UP100041C4172  
 UniRef90\_K1ZR45  
 UniRef90\_C6BXP1  
 UniRef90\_UP1000344F7AC  
 UniRef90\_A0A014M926  
 UniRef90\_I9KUY0  
 UniRef90\_UP100037547FB  
 UniRef90\_V2Q294  
 UniRef90\_I0XC07  
 UniRef90\_E7AB50  
 UniRef90\_A3HW42  
 UniRef90\_A0A059E9X2  
 UniRef90\_UP10003B30A6E  
 UniRef90\_U6ZH52  
 UniRef90\_D5V1Y6  
 UniRef90\_UP10004721598  
 UniRef90\_E1T6E8  
 UniRef90\_E7FZV8  
 UniRef90\_Q1NQT6  
 UniRef90\_A0A023SDG2  
 UniRef90\_W0ETD1  
 UniRef90\_UP10003FA9D3C  
 UniRef90\_R6YHT6  
 UniRef90\_Q1K0Q3  
 UniRef90\_UP10002EA9A33  
 UniRef90\_Q9ADU7  
 UniRef90\_U1FJ65  
 UniRef90\_B4SN05  
 UniRef90\_Q39Q33  
 UniRef90\_V9HLZ1  
 UniRef90\_UP100031C894F  
 UniRef90\_L0R9J8  
 UniRef90\_M7MYJ2  
 UniRef90\_L0FYG1  
 UniRef90\_V9TUC5  
 UniRef90\_UP1000410EE5C  
 UniRef90\_K9H511  
 UniRef90\_E1SJ36  
 UniRef90\_UP10004780208  
 UniRef90\_A6G5D5  
 UniRef90\_T1C017  
 UniRef90\_L1NGL2  
 UniRef90\_T0DK92

	90	100	110	120
UniRef90_C1DUL2	L I T D V I T I F V D N K P I N K V F N I	K E N K N Y V I L E L I P K N G N	I K	
UniRef90_UPI0004700EBE	D R T P L G L L L R E H I S L S G D V T V	T D S G L V Q V T L V R T S A P G D G		
UniRef90_E8WU64	S E Q L F A W A R S D F A W L K K E Y R I	T E S P V S L R L E P R S A T A L H		
UniRef90_C7PIA8	T S L S P A K L F T N F Y D K D Y L Y R L D	G E T I E M T P T D K S K N V F		
UniRef90_L0LN50	S K T P L S L L L A N K I D L S A D M N V	D S Q P D L T K I T L G N R T V G D S		
UniRef90_A3UIN2	G A T P L R F L L E D D L D L A G S G A	V V D A G R Y L F V T L E D P E G E V Q		
UniRef90_Q1Q293	T A F F F S E I L S G S L E E M E K K F T L	E E D G I S F H L T P K S K M A R L S		
UniRef90_G0GFM7	G S G L Q L A T G E G L A L L R R N Y S I A	A E P V V K V L N L T W R S T R V G F R		
UniRef90_E6MTA1	A R I M M N S V V G K C L N D K K D F K V	S A N S S E Y I A T R K Q M Q Q M F Q		
UniRef90_Q0FZC8	S Q T P L K L L L D R R I N L S S N I R S V	R E E P D L T T I V M G D R S V F G		
UniRef90_UPI000361D4A9	K N N P I S L L L K G E V D L L N S E I V A	K Y K V S F V L T L R D K K P Q R G		
UniRef90_UPI000470EC01	E D V N P P S K I H E V Y K K N F K Y L Y L	Q E N G E E I D L V P E K K E T Q Y F		
UniRef90_T0F6D7	G P I F A S V T E E G L S R I F R K Y H Y	K F D S I E L A L E Q R E K I I G G Y E		
UniRef90_A8IGJ0	N Q T P L R F I L A E R I D L T R N S N V	Y Q D N L Y I Q V I M Q E S V P M M G		
UniRef90_B2V662	L I T E V L E M I K N K S I K S T F N V	K E T N D T Y K I S L K P K N A E V K		
UniRef90_U2J6V3	A R I M M N S V V G K A L N D K R D F K V	T S S E Y Y V A T L I P K Q L Q Q M F Q		
UniRef90_A1UR29	S Q T P M K L L L G D T I D I S S E N L L	R Q D S R A I E I I I R D K S L G K G		
UniRef90_UPI000375953C	N P T Q Y N I Y K N Y R F L K E Q K Q G	G R T L E V I E L T P T Q A K N S I S		
UniRef90_W8F4G5	Q E I S P S Q Y T L Y K K G Y K Y A Y V	Q E A K D V I E L S P E D R N N P V Y		
UniRef90_C6XKC0	S A T P L K H F L K K T L N A E D T T I S L	P D S H L V V I E D N P K N G D E		
UniRef90_V8CHL7	I D F L E I L H K A R Q R Q D G S Y S T	T D F E G T R Y V L I L R D R S V G A G		
UniRef90_M1P5E2	F Q T P M K L L L G D K I D L S S G H A	L R E T P G A T T I L R D R S V G A G		
UniRef90_UPI00036E208B	S A T P L K H F L K K K L D J A N D T K I L	D A K T E F H L V I E D N P Q N G		
UniRef90_12FAE4	D F I S I I K S A K Q P D G T Y H T K I E	G T Q Y V L F		
UniRef90_UPI0004636F00	S S T P L K L L L D E R I D L S K V Q D V	R Q E A D A T T I T L A D R S V G N S		
UniRef90_K1XYN7	A D L T Y S F F T G K G L L Q R D F H I	R P A N E D I K L I P K T P Q S Q V Q		
UniRef90_X1T6K9	E S K L T I R F L S G I G K L K D D F Q I	G E G N Y L L D L I P R S F E A G L E		
UniRef90_C6SHS9	G G S P A A I L S N K T A L E S S Y T L	K E D G D Y V L A T P K R N N A G Y Q		
UniRef90_M9RJT9	N Q T P L S I I L E R N I D F S R T D M V	T G H T T D G T T I V T A Q P E Y G		
UniRef90_A7K4S7	S H V F L S V F H G D T S A L Q E Q F T V	E N N Q W Q L V L V P K Q S P L N A V		
UniRef90_UPI00039B3D1D	S K T P L K L L L S D H V D L G R L R G L	K N E P D A L T M I I L G D K A V A D A		
UniRef90_UPI00037FF1AB	S A T P L R F I L L S E N F N L A R N A N V	T G V Y Q D V V I E E K Q P M V G T Y		
UniRef90_B3C894	S Q T P L R Y L L S D R L D L L R D T N V	V V I S I T S D I I I E E K N A V I G T S		
UniRef90_U7UGN6	S M N P Y T F I I N M Y K A G Y R L N H Q V	R G N N Y E V H M V A Q N K N N G I P		
UniRef90_Q6LL29	S H V F L S L L F K G D T S Q L T E Q F E L	A E K E W Q L V L T P K A A P L N A V		
UniRef90_UPI000380D52D	D S T P A G I L L R S D P D I I M T G I R	R S K G V S E V D L V M A S D P A A G		
UniRef90_UPI0003627DF8	D D I S P N K I I Y T M Y K K G Y K Y T Y V	G D K V E G V E L V P E D R K N R F F		
UniRef90_E6YX47	S Q T P M K F L L G N V I H L S S E N L L	R E D P T T I M I V L R D K T I G K G		
UniRef90_H2BV23	S G S M N G K L L L A D T K N F D F T Y V	R V V N N D K M V V L I P R D P S Q M F A		
UniRef90_UPI00036717B3	D P A V M R L L K N V I L L E T N E V K E	K V V L W L G L A S R K G N R L F S		
UniRef90_UPI0002FDBA19	S R L F L S L F Q G D T D A L A A Q F D L	I Q L T G T T L V L T P K Q P P L S Q V		
UniRef90_B5WM98	S K M M R A M L G G D M S A L Y S Q F D V	S A E G W R M R L T P N Q P Q L A Q S		
UniRef90_E6W461	S M S F S M L D R E A M E R I Y H V	Q E N T D T L V L E S K E E P V V F I		
UniRef90_UPI00037F2DF7	T P L W F L I R E K V E L H K D I Q I	Q E S S S T V Q L E L R A E E S D G A		
UniRef90_UPI0003B55904	R R T P L Q I L L A A E P D L A P I A R I	T A D T P D G V E V A D P K R P E F G		
UniRef90_Q0FDS6	K K T P L P N L L L K K D V N L I K N K M V	S E N K N T F I V V Q D P K R I L S Q G		
UniRef90_M7Y3M1	D E L T P S T V Y T I Y Q K G Y N Y R L V	D E L T A E K A N A P F K S		
UniRef90_R5TV64	A A I M L N S V L G N C F S D K S E V I D	A Q K Q E N G Q Y V I A T L K E M K M M F S		
UniRef90_W1IX09	N H L M R A L F Q A D R T V L A E N T I	N F H K R L V L T P K T S P L D K L		
UniRef90_UPI00041C4172	D A L L N P A K I L F T I Y E K G F K Y V Y	L T Y E T Q K N Q I D L T P V D G K G T F F		
UniRef90_K1ZR45	I S A E A L S F M G G L K N L S Q L F E T	N K S L Q K I H L T P K D K N S A I L		
UniRef90_C6BXP1	S E Q I L J A W T N T M D I P W L Q S L Y S	I T K V T N Y S M E L T P K S S K T K L N		
UniRef90_UPI000344F7AC	S K M M R T M L A G D L S A L Y S Q F D V	S K M M R T M L A G D L S A L Y S Q F D V		
UniRef90_A0A014M926	S H L L R A L F R A D R A V L E Q N F R V	E A T G T Q M R L V P N Q P Q I A Q S		
UniRef90_I9KUY0	N E M L F A V M A A D L R T L E Q R F A I	D Q Q K W R L V L T P K T S P L D K L		
UniRef90_UPI00037547FB	T A L L N P A K I F T M Y E K G F K Y V Y	S K Q Q G W W L Q L T P R D S M L A Q W		
UniRef90_V2Q294	E Y A L L Q V L M D F S Q L S K S F S A	G E T T Q N I E L A P L Q T R S F S		
UniRef90_I0XC07	N S A N S L A T P Q G L S L L S R Y Y T V	D E M V V K F V L L K P K N D T G L A		
UniRef90_E7AB50	D L F T I L K K A K L Q K D G R Y K T K V	T R K S A A E A F R		
UniRef90_A3HW42	G E L T P S N I Y K D Y K L L A D K S Y Q	K G T T Y Y F T L		
UniRef90_A0A059E9X2	L A L L L D D D I D F A T E A D V L D V	E A E K S N A P F Q		
UniRef90_UPI0003B30A6E	A E Q I L I A W T A F D L D T L R K Q Y E	L I T L R D K S G E M G		
UniRef90_U6ZH52	N H L L R A L F Q A D R Q V L E Q N F R V	I E V Q D T S K S L R L V P K S P A L H V I S		
UniRef90_D5V1Y6	D I F N L I K N A K E V S K N R F V V A N I	N Y D V K Y N L T P K V S P L D K L		
UniRef90_UPI0004721598	K S I A Q I M I L K E N N D F N T Q M Y V	T P K K A Q M M F R		
UniRef90_E1T6E8	S K M M R A M L G G D L S A L Y S Q F D V	T P N Q P Q I A Q S		
UniRef90_E7FZV8	N F F T I L Q K A K L Q K D G H Y Y K A K I	N F F T I L Q K A K L Q K D G H Y Y K A K I		
UniRef90_Q1NQT6	A R Q L W L W L G G E H D R L A E D Y H L	A R Q L W L W L G G E H D R L A E D Y H L		
UniRef90_A0A023SDG2	S Q M L L A L F G S D E A T L S R Y F S I	S Q M L L A L F G S D E A T L S R Y F S I		
UniRef90_W0ETD1	S I T P Q K L I F T D F Y V N K D F D S K I	T E A G W Q L V L V P T L A P L D K V		
UniRef90_UPI0003FA9D3C	G L N P T E I F S M Y K K F V E K V M A G K A	G S K T V T V T N I I M Q P I D K N K P F S S		
UniRef90_R6YHT6	A R I I M M N S I T G Q G L S G S G D F K V	A R I I M M N S I T G Q G L S G S G D F K V		
UniRef90_Q1K0Q3	S E Q L F A W A R A D L R W L Q E H Y Q I	H E I I E L V P D N K D L S F F		
UniRef90_UPI0002EA9A33	Q N R L F A V L L Q G D S S G L Q R D F E L	A R I I M M N S I T G Q G L S G S G D F K V		
UniRef90_Q9ADU7	D F F A I L H K A T L L G Q D G K Y H A K V	H E I I E L V P D N K D L S F F		
UniRef90_U1FJ65	A G G A S L A T S Q G L S L M S R Y Y T I	A R I I M M N S I T G Q G L S G S G D F K V		
UniRef90_B4SN05	N A I M F A L L M S G D V Q A L S Q F N V	H E I I E L V P D N K D L S F F		
UniRef90_Q39Q3	N P F T F S N F L Q G L E P R I S K K D F L	A R I I M M N S I T G Q G L S G S G D F K V		
UniRef90_V9HLZ1	V K L F M A V L L G G D T Q E L A K Q F N L	H E I I E L V P D N K D L S F F		
UniRef90_UPI00031C894F	N A I M F A L L M S G D A Q A L S Q A Q F T	A R I I M M N S I T G Q G L S G S G D F K V		
UniRef90_L0R9J8	S E Q I L J A W T T M N I S W L D S V Y T I	H E I I E L V P D N K D L S F F		
UniRef90_M7MYJ2	G S N L I H N L Y R K G F K Y L Y K E E K V	A R I I M M N S I T G Q G L S G S G D F K V		
UniRef90_L0FYG1	T P S S I Y N L Y K K G Y N Y V L K G E K S	H E I I E L V P D N K D L S F F		
UniRef90_V9TUC5	I S S P L S V L L S K Y I S F A D D L V I	H E I I E L V P D N K D L S F F		
UniRef90_UPI000410EE5C	S G S I N G K L L L E D D K K N Y D V S Y F	A R I I M M N S I T G Q G L S G S G D F K V		
UniRef90_K9H511	G V L L R Q N V S F G D P D T V T D V R K	H E I I E L V P D N K D L S F F		
UniRef90_E1SJ36	N H I I L R A L F Q A D Q K V L N E N F S V	A R I I M M N S I T G Q G L S G S G D F K V		
UniRef90_UPI0004780208	G E F D P S N I H N I Y K K G Y K G N Y V	H E I I E L V P D N K D L S F F		
UniRef90_A6G5D5	E V N A A L K F L F G G Q K L L K E F Q V	A R I I M M N S I T G Q G L S G S G D F K V		
UniRef90_T1C017	G S T P A A L L A G G D A L E K G Y V V	H E I I E L V P D N K D L S F F		
UniRef90_L1NGL2	S R L F L D L L G G N T R G L E N Q F D L	A R I I M M N S I T G Q G L S G S G D F K V		
UniRef90_T0DK92	L S N F F D L L K S G S L K S N K N Y K V	H E I I E L V P D N K D L S F F		

130            140            150            160

UniRef90_C1DUL2	S   E   L   T   I   E   K   N   T   K   L   Q   K   I   S   A   V   D   L   D   G   N   R   □   E   V   E   F   K   N   F   K   Y   Y   N   T   P   L   S
UniRef90_UP10004700EBE	S   L   T   L   V   F   R   E   K   P   L   A   V   A   W   S   V   T   D   A   Q   A   R   Q   T   R   V   T   L   S   D   □   R   S   G   T   L   A   D   S
UniRef90_E8WU64	H   L   Q   I   G   F   S   A   D   G   Y   V   R   S   V   E   L   H   E   K   D   G   D   F   T   R   I   R   F   V   N   T   V   N   R   Q   L   P   A   D
UniRef90_C7PIA8	K   V   I   V   S   I   D   K   K   G   Q   I   A   K   M   K   V   Y   E   K   N   G   N   H   Y   T   Y   E   I   T   N   F   T   N   G   S   V   T   D   A
UniRef90_L0LN50	T   I   T   M   I   F   D   S   K   S   Y   L   R   Q   W   T   V   I   D   P   Q   G   K   T   T   D   V   I   I   N   N   K   T   N   V   A   F   D   D   S
UniRef90_A3UIN2	R   L   T   L   V   F   E   E   T   M   A   L   A   G   W   Y   A   V   D   A   M   G   G   L   T   E   V   K   L   T   I   E   T   G   V   R   □   S   P   R
UniRef90_Q1Q293	H   V   I   H   Y   D   K   D   S   S   I   P   S   I   G   M   F   T   P   K   G   D   K   I   I   T   R   L   S   V   K   I   N   P   E   I   S   A   D
UniRef90_G0GFM7	Q   I   I   M   S   V   G   Q   D   G   Y   M   R   R   L   K   G   V   T   V   D   Y   Q   E   V   T   F   D   F   G   N   I   R   N   Q   N   L   P   D   A
UniRef90_E6MTA1	K   I   V   L   H   F   N   R   Q   H   A   I   V   K   V   E   L   V   E   K   R   G   D   C   T   V   I   E   M   K   N   V   K   N   S   P   I   N   A   K
UniRef90_Q0FZC8	N   S   T   I   T   T   M   M   F   D   P   Q   S   K   Q   W   T   I   R   D   K   Q   G   D   T   T   V   M   I   Y   N   V   K   E   G   G   D   I   Q   N   S
UniRef90_UP1000361D4A9	S   L   E   L   V   F   S   G   T   P   A   L   E   K   F   T   I   K   N   E   N   G   S   S   T   S   I   S   L   K   D   □   E   Y   P   K   L   N   E   T
UniRef90_UP1000470EC01	K   I   K   M   L   I   N   K   E   K   T   I   Q   S   F   T   L   F   D   K   G   G   N   R   Y   K   Y   T   I   S   K   F   T   N   A   K   I   D   D   N   G
UniRef90_T0F6D7	T   M   T   L   Y   V   D   E   N   F   L   I   K   R   A   V   A   S   D   G   R   G   K   T   T   T   V   E   F   S   G   D   R   N   A   D   V   E   D   G
UniRef90_A8IGJ0	T   Y   R   L   Q   I   A   K   D   F   Q   L   R   Q   W   T   V   T   D   P   Q   G   D   T   S   V   A   I   Y   D   L   N   Y   T   Q   R   P   P   D   P   S
UniRef90_B2V662	K   L   E   L   T   I   D   K   S   N   L   S   T   K   I   S   A   Q   D   T   D   N   N   I   T   E   I   E   F   E   K   F   K   Y   L   S   N   P   V   N
UniRef90_U2J6V3	K   I   I   L   H   F   N   R   Q   Q   M   V   A   K   V   E   L   I   E   K   R   G   D   R   T   V   I   E   M   K   V   K   V   N   S   P   I   N   A   K
UniRef90_A1UR29	Q   I   K   M   I   F   D   A   N   T   Y   A   L   Q   W   T   I   V   D   Q   Q   N   L   E   T   T   T   V   Q   V   M   N   V   R   T   G   R   F   A   E   D   S
UniRef90_UP1000375953C	K   V   Q   I   S   V   D   K   D   K   S   I   R   N   W   L   I   T   N   K   D   G   K   K   T   S   Y   T   I   T   K   F   T   N   V   T   I   P   D   S
UniRef90_W8F4G5	K   V   R   L   K   V   G   K   D   K   A   V   K   S   W   Q   M   F   K   K   N   G   N   R   Y   T   K   I   S   F   Q   P   N   V   P   V   D   A   T
UniRef90_C6XKC0	A   I   D   L   K   F   S   K   E   N   Y   L   M   G   W   V   T   I   D   G   L   G   N   E   T   R   V   D   F   D   M   E   L   N   G   N   I   S   P   R
UniRef90_V8CHL7	W   I   K   M   I   F   D   S   K   S   Y   A   R   Q   W   S   I   I   D   Q   Q   N   L   E   T   T   V   Q   I   M   N   V   R   T   G   K   F   A   D   G
UniRef90_M1P5E2	E   M   F   L   K   F   D   L   N   T   Y   L   I   G   W   V   T   Y   D   G   L   G   N   E   T   R   V   D   L   D   M   E   M   M   N   V   K   I   S   P   R
UniRef90_UP100036E208B	V   D   K   N   D   T   P   E   Q   □   E   F   V   D   S   M   G   S   K   T   I   L   K   L   T   K   V   R   N   P   K   I   Q   D   K   S
UniRef90_12FAE4	T   I   T   M   M   F   D   P   Q   N   Y   I   L   Q   W   T   I   R   D   A   Q   G   D   T   T   V   M   I   Y   N   V   Q   S   G   V   T   F   D   R   S
UniRef90_UP10004636F00	D   I   H   V   W   V   T   P   E   S   L   I   R   R   □   K   I   Q   D   H   F   G   T   I   T   V   L   N   L   S   D   □   E   N   P   A   E   N   D   K
UniRef90_K1XYN7	K   I   I   L   L   V   V   N   R   D   F   Q   I   M   G   F   A   L   T   D   I   Y   G   N   I   T   R   I   K   F   K   D   K   T   N   N   K   L   P   D   T
UniRef90_X1T6K9	Y   I   R   I   G   F   K   G   G   N   L   A   A   M   Q   L   K   D   S   F   G   N   Q   T   S   I   S   F   G   G   L   T   N   P   Q   L   S   R   G
UniRef90_C6SHS9	S   I   Q   M   V   Y   T   S   S   P   E   L   R   Q   W   I   V   T   D   D   T   G   Q   Q   T   T   V   I   L   G   D   L   K   D   G   R   V   P   N   I
UniRef90_M9RJT9	F   Q   S   I   T   L   S   G   K   T   H   I   D   R   □   T   L   Q   E   □   R   G   D   K   T   E   I   T   F   T   N   Q   T   S   L   P   Q   E   D   A
UniRef90_A7K4S7	T   I   A   L   M   F   D   P   N   A   E   L   K   Q   W   T   I   T   D   A   Q   R   Q   T   T   V   M   I   F   N   V   Q   K   G   V   R   F   A   D   N
UniRef90_UP100039B3D1D	R   L   M   I   M   F   D   A   K   T   M   Q   K   W   T   V   T   D   P   Q   G   Y   D   T   T   V   A   V   S   N   D   T   S   Q   R   P   D   P   M
UniRef90_UP100037FF1AB	R   L   L   M   I   M   F   T   M   D   G   Q   L   K   Q   W   T   V   T   D   P   Q   G   D   T   T   V   A   V   Y   N   L   D   T   T   R   R   P   D   P   S
UniRef90_B3Q894	E   M   Y   I   Y   I   N   K   R   T   Y   S   P   S   Q   V   K   I   K   Q   G   G   S   W   T   V   I   N   I   S   N   F   K   A   K   N   L   P   N   S
UniRef90_U7UGN6	F   K   T   I   T   I   N   G   N   T   F   I   N   H   L   T   L   T   E   I   R   G   D   V   T   D   I   T   F   S   N   Q   R
UniRef90_Q6LL29	S   L   T   L   V   F   D   S   P   F   E   L   R   Q   W   R   V   T   D   Q   A   Q   G   I   E   T   M   V   S   F   N   A   R   T   D   V   K   F   K   N   E
UniRef90_UP1000380D52D	K   V   V   R   L   E   I   N   K   D   K   S   I   K   N   W   K   L   F   E   K   G   N   Y   I   E   Y   S   I   K   T   F   T   P   N   T   I   A   D   D
UniRef90_UP10003627DF8	Q   I   K   M   I   F   D   S   Q   N   Y   A   R   Q   W   A   I   L   D   Q   Q   N   L   E   T   T   V   K   I   M   N   V   R   N   V   R   F   S   D   D
UniRef90_E6YX47	Q   I   V   L   I   F   N   S   K   N   L   V   N   S   V   K   L   V   E   D   S   G   D   F   T   E   I   Y   F   K   N   Q   I   N   K   P   I   D   P   S
UniRef90_H2BV23	S   G   R   S   G   V   S   P   G   G   K   S   K   T   V   E   S   M   D   A   L   G   N   Y   N   R   I   R   L   L   H   M   A   K   H   P   P   A   T
UniRef90_UP100036717B3	F   K   E   I   T   T   L   Q   G   T   E   H   I   D   M   L   T   L   H   E   V   R   G   D   H   S   E   I   R   F   T   N   V   T   F   T   P
UniRef90_UP10002FDBA19	I   K   G   L   D   M   S   G   G   D   Y   L   Q   S   L   R   I   T   L   A   N   G   D   V   T   K   L   E   F   A   N   S   T   T   V   A   E   P
UniRef90_B5WM98	T   V   L   L   E   N   N   L   P   K   T   L   I   Y   E   G   A   S   □   D   I   T   T   T   I   T   F   D   G   V   R   N   I   S   F   P   A   R
UniRef90_E6W461	Q   M   T   L   L   F   S   D   N   P   L   S   R   K   K   W   E   V   L   D   A   Q   G   I   T   T   T   Q   V   S   L   I   D   V   Y   D   N   P   I   D   E   T
UniRef90_UP100037F2DF7	T   L   S   I   R   F   V   R   A   A   A   I   A   G   W   T   A   L   D   A   Q   G   G   R   S   E   V   R   L   A   N   V   R   Y   G   A   L   A   G   V
UniRef90_UP10003B55904	K   I   K   M   V   F   S   N   Q   P   L   L   E   S   W   T   I   T   N   Q   S   N   Q   K   T   K   I   M   L   I   N   N   L   R
UniRef90_Q0FDS6	R   V   K   L   F   V   D   K   N   K   K   L   T   G   W   E   I   Y   D   D   Q   G   G   I   F   K   Y   K   F   K   S   V   T   N   V   D   L   P   D   E
UniRef90_M7Y3M1	R   I   V   L   H   Y   D   K   Q   S   M   V   H   E   V   E   L   Y   E   K   N   G   D   N   T   T   I   T   L   H   V   R   N   E   P   I   D   E   K
UniRef90_R5TV64	F   T   A   I   T   L   N   G   Q   T   F   L   D   E   I   V   I   D   D   R   Q   G   D   M   T   R   I   I   L   S   N   Q   R   I   T   P   L   S   D   D
UniRef90_W1IX09	K   V   R   L   K   I   D   K   N   K   Q   I   V   N   A   L   I   F   D   K   N   G   N   K   Y   T   Y   A   I   K   S   F   T   N   V   K   I   S   D   S
UniRef90_UP100041C4172	K   L   T   L   G   V   D   R   D   □   S   I   R   E   A   V   I   F   N   T   S   G   N   V   T   H   Y   A   F   N   N   I   F   D   K   D   L   A   D   S
UniRef90_K1ZR45	L   I   R   I   F   F   A   P   D   T   H   I   E   S   E   L   H   E   P   S   G   D   Y   T   K   I   I   F   S   N   V   L   N   Q   K   L   D   Q   D
UniRef90_C6BXP1	I   A   S   L   I   Q   M   S   G   G   D   Y   L   R   T   L   R   I   A   H   A   N   G   D   V   T   Q   L   D   F
UniRef90_UP1000344F7AC	F   N   T   I   T   L   Q   G   A   E   Y   L   R   T   L   R   I   A   H   A   N   G   D   V   T   Q   L   D   F
UniRef90_A0A014M926	Y   I   N   I   V   F   K   N   D   V   I   S   E   I   N   S   K   D   N   A   G   N   L   T   T   I   T   L   S   V   E   I   D   K   K   I   S   D   S
UniRef90_19KUY0	S   I   K   I   C   V   N   G   T   K   L   I   R   R   V   E   A   V   T   P   K   G   E   T   F   L   F   D   Y   D   K   L   I   N   Q   N   I   T   D   Q
UniRef90_UP100037547FB	Q   D   Q   L   P   H   T   L   E   F   K   D   K   L   H   N   K   V   E   I   T   F   S   I   Q   T   D   M   P   L   E   D   S   S
UniRef90_V2Q294	K   V   K   L   M   I   D   K   N   K   Q   I   V   N   A   L   I   F   D   K   N   G   N   K   Y   T   Y   A   I   K   S   F   T   N   V   K   I   S   D   S
UniRef90_I0XC07	F   T   R   I   N   D   G   G   A   L   V   Q   R   I   E   L   L   T   Q   G   D   S   T   V   L   R   L   D   S   T   A   N   Q   P   L   S   D   A
UniRef90_E7AB50	S   I   R   I   A   V   N   A   E   K   L   I   R   R   I   S   A   T   T   P   Q   G   T   E   Y   V   F   T   F   S   D   V   R   N   I   P   L   G   S   A
UniRef90_A3HW42	K   V   K   L   M   I   D   K   N   T   K   L   L   G   W   E   M   F   D   D   Q   G   G   T   F   A   Y   A   F   K   N   K   A   D   P   N   I   P   D   S   S
UniRef90_A0A059E9X2	T   L   T   L   L   M   E   S   D   M   S   L   T   G   W   R   T   M   D   S   G   N   L   T   S   V   Q   L   T   N   V   E   S   G   K   L   N   P   R
UniRef90_UP10003B30A6E	H   L   L   I   L   F   S   D   D   G   R   I   A   R   V   E   I   H   D   A   D   G   D   F   T   R   L   S   F   H   D   T   R   N   P   D   I   P   E   G
UniRef90_U6ZH52	F   N   A   I   T   L   N   G   Q   T   F   L   D   E   I   V   I   D   D   R   Q   G   D   M   T   R   I   I   L   S   N   Q   R   I   T   P   L   S   D   D
UniRef90_D5V1Y6	T   V   Q   L   H   F   N   R   H   N   M   V   S   Q   V   V   M   T   E   S   G   D   A   T   V   T   L   S   G   V   R   N   E   N   S   D   Q
UniRef90_UP10004721598	I   K   S   I   Q   M   N   G   G   D   Y   L   Q   N   L   R   I   A   L   A   N   G   D   I   T   Q   L   E   F   S
UniRef90_E1T6E8	K   G   L   P   I   Q   L   D   F   I   D   N   L   Q   E   K   V   R   I   T   F   S   D   V   R   N   I   P   L   G   S   A
UniRef90_E7FZV8	S   L   T   I   V   F   D   P   E   T   Q   P   R   Q   V   E   I   K   E   A   E   G   D   L   T   R   L   T   F   H   D   Q   P   D   P   D   P   D   E   A
UniRef90_Q1NQT6	F   A   S   L   T   L   S   G   Q   G   Q   L   Q   G   L   I   A   D   K   Q   G   D   S   T   R   I   F   T   A   W   R   D   R   A   L   P
UniRef90_A0A023SDG2	R   L   Y   L   A   I   D   K   A   K   T   V   V   G   Q   T   V   V   E   K   G   G   N   R   Y   V   Y   M   I   S   S   K   P   N   V   P   M   P   D   T
UniRef90_W0ETD1	K   V   R   L   A   I   D   K   K   K   T   L   H   S   W   E   V   F   E   K   T   G   R   R   Y   R   Y   E   I   T   N   F   T   N   V   E   V   K   D   S
UniRef90_UP10003FA9D3C	T   V   R   L   H   F   G   K   D   L   K   V   S   E   V   D   L   V   D   N   S   G   E   T   V   I   S   L   N   A   E   Y   N   K   T   V   D   A   K
UniRef90_R6YHT6	H   L   L   I   Q   F   D   S   A   A   Y   V   T   E   V   E   I   H   E   H   D   G   D   Y   T   R   I   R   F   S   H   D   V   N   A   P   L   T   G   T
UniRef90_Q1K0Q3	F   T   R   I   N   D   G   G   A   L   V   Q   R   I   E   L   L   T   Q   G   D   S   T   V   L   R   L   D   S   T   A   N   Q   P   L   S   D   A
UniRef90_UP10002EA9A33	F   A   K   N   L   P   H   K   I   T   F   I   D   E   L   Q   N   K   I   E   I   I   L   K   N   K   V   N   P   T   L   S   D   G
UniRef90_Q9ADU7	S   I   R   I   A   V   N   A   E   K   L   I   R   R   I   S   A   T   T   P   Q   G   T   E   Y   V   F   T   F   S   D   V   R   N   I   P   L   G   S   A
UniRef90_U1FJ65	F   E   S   L   T   L   Q   G   D   R   Y   V   R   Q   V   E   I   V   E   A   N   K   D   R   T   Q   I   Q   F   S   V
UniRef90_B4SN05	K   L   F   I   V   V   P   R   E   A   V   A   L   S   Y   V   T   M   E   D   H   Q   G   S   T   T   L   M   F   E   S   N   V   R   N   I   M   L   S   D   S
UniRef90_Q39Q3	F   E   N   I   S   I   Q   G   D   Q   V   V   R   Q   V   Q   L   R   E   K   Q   G   D   R   T   V   M   T   F   Q   N   K   I   N   Q   T   L   N   P   S
UniRef90_V9HLZ1	F   A   Q   L   T   L   S   G   D   R   Y   V   R   E   V   Q   I   N   E   A   N   Q   D   V   T   R   I   H   F   A   G   M   S   D   T   P
UniRef90_UP100031C894F	L   I   K   I   F   F   S   P   D   A   T   L   Q   G   I   E   L   H   V   P   G   G   D   Y   T   K   I   N   F   S   D   E   I   N   G   V   L   P   D   G
UniRef90_L0R9J8	K   I   Q   L   V   I   N   K   D   L   T   F   T   N   F   T   I   Y   E   K   N   G   N   R   Y   L   F   D   □   K   F   Q   P   D   I   A   I   A   D   G
UniRef90_M7MYJ2	K   I   I   L   F   V   D   K   N   K   D   L   L   A   W   E   V   S   D   S   D   G   G   G   T   F   K   Y   E   F   E   N   V   T   N   V   S   L   G   K   S
UniRef90_L0FYG1	K   I   I   F   A   F   Q   A   N   P   L   L   K   Q   W   S   I   I   D   N   N   G   S   E   □   R   I   V   L   L   N   N   F   T   N   V   E   V   A   E   N
UniRef90_V9TUC5	Q   I   V   L   L   F   D   R   N   F   V   V   I   T   V   R   L   I   E   A   S   G   D   Y   T   E   I   D   F   K   N   I   R   N   Q   P   I   H   P   T
UniRef90_UP1000410EE5C	T   L   T   L   V   F   T   E   N   P   E   L   R   Q   W   R   V   V   D   A   Q   N   T   Q   T   A   V   S   L   Y   I   N   T   R   T   G   A   L   P   Q   D
UniRef90_K9H511	F   N   R   I   S   L   A   G   S   A   F   L   D   S   N   L   D   D   D   K   Q   G   D   R   T   V   M   R   F   N   V   Q   T   D   K   P   F   T   P   D
UniRef90_E1SJ36	F   T   K   I   V   N   K   D   L   T   F   S   K   F   T   I   F   E   K   N   G   N   R   F   V   V   N   L   N   N   F   T   N   V   E   V   A   E   N
UniRef90_UP10004780208	G   L   L   L   I   V   H   A   T   G   R   V   D   K   F   V   V   Y   N   T   D   G   S   S   N   F   F   Q   L   R   I   K   T   N   V   G   L   N   D   K
UniRef90_A6G5D5	W   V   K   M   G   F   T   D   Q   A   L   A   R   M   E   L   R   D   S   F   G   H   T   L   S   I   V   F   T   F   E   K   D   P   K   F   T   P   D
UniRef90_T1C017	E   T   K   L   T   F   K   G   K   K   E   F   S   N   L   T   S   I   D   A   D   G   K   V   V   K   L   V   L   S   N   V   K   N   E   S   F   K   A   K
UniRef90_L1NGL2	
UniRef90_T0DK92	

170

UniRef90_C1DUL2	L   D F K [P] K N [V] E [I] R Q
UniRef90_UP10004700EBE	L   F [V]
UniRef90_E8WU64	[I] F
UniRef90_C7PIA8	T F S F D P K K G[V] E V V D [L] R
UniRef90_L0LN50	[V] F R [I] D
UniRef90_A3UIN2	Q F [I] L D
UniRef90_Q1Q293	[I] F T I K [P] A D [V] L I T N R R
UniRef90_G0GFM7	R F E Y D S P P S A N V
UniRef90_E6MTA1	[V] F T [I] N
UniRef90_Q0FZC8	A F N
UniRef90_UP1000361D4A9	[V] F S
UniRef90_UP1000470EC01	V F S F D P K K G[V] E [I] D [L] R
UniRef90_T0F6D7	Q F N F R P D G N A K I V N
UniRef90_A8IGJ0	[L] F [V] I N
UniRef90_B2V662	[I] N F N L [P] K N V K I L N
UniRef90_U2J6V3	T F
UniRef90_A1UR29	M F T
UniRef90_UP1000375953C	Y F [V] F D N S K G[V] E V V D [L] R
UniRef90_W8F4G5	T F N F T K Y K G[V] K V I D [L] R
UniRef90_C6XKC0	[L] F [V] L E
UniRef90_V8CHL7	[I] F [V] F [P] P V G[V] D I I E Q
UniRef90_M1P5E2	M F T
UniRef90_UP100036E208B	[L] F [V] L E
UniRef90_12FAE4	[I] F E F S I [P] N G[V] E V V D
UniRef90_UP10004636F00	V F
UniRef90_K1XYN7	R F S F [V] P P E G T E [I] I R Q
UniRef90_X1T6K9	F F I F R P P P G[V] E I Y D
UniRef90_C6SHS9	A F K F T P P K G[V] D V L
UniRef90_M9RJT9	[L] F N
UniRef90_A7K4S7	Q F R F
UniRef90_UP100039B3D1D	M F K I D
UniRef90_UP100037FF1AB	[L] F [V] I N
UniRef90_B3Q894	M F K I D
UniRef90_U7UGN6	T F [V] F K D M P S A E V I D [L] R
UniRef90_Q6LL29	T A P A E L T V E E Q R
UniRef90_UP1000380D52D	[L] F [V] Y T D [L] P G
UniRef90_UP10003627DF8	T F T F D K S K G[V] E V I D [L] R
UniRef90_E6YX47	M F V
UniRef90_H2BV23	[I] F E
UniRef90_UP100036717B3	S F [V] F R I [P] A G[V] D V L
UniRef90_UP10002FDBA19	
UniRef90_B5WM98	
UniRef90_E6W461	H F E A D T P R G W E V I R Q
UniRef90_UP100037F2DF7	[V] F K
UniRef90_UP10003B55904	S F G F T D P
UniRef90_Q0FDS6	
UniRef90_M7Y3M1	Y F N F N P Q K K [V] E [I] D [L] R
UniRef90_R5TV64	[I] Y D
UniRef90_W1IX09	
UniRef90_UP100041C4172	[V] F S F D [V] K K G[V] E L V D [L] R
UniRef90_K1ZR45	E F A [L] P P S P K R N I I K Q
UniRef90_C6BXP1	[I] F
UniRef90_UP1000344F7AC	
UniRef90_A0A014M926	
UniRef90_I9KUY0	
UniRef90_UP100037547FB	[I] F S F D P K P G[V] E V V D [L] R
UniRef90_V2Q294	S F K K K [L] P K D V N V F N Q
UniRef90_I0XC07	R F I Y D A P S S A
UniRef90_E7AB50	M F I F T [L] P Q G[V] D L V R Q
UniRef90_A3HW42	H F V F D T K K G[V] E V I D [L] R
UniRef90_A0A059E9X2	[L] F V M K
UniRef90_UP10003B30A6E	T F
UniRef90_U6ZH52	R F [V] F
UniRef90_D5V1Y6	[L] F K F [L] P P E N Y D I I R
UniRef90_UP10004721598	[I] F
UniRef90_E1T6E8	
UniRef90_E7FZV8	[L] F E F T P P K G[V] D I I R Q
UniRef90_Q1NQT6	[L] F D
UniRef90_A0A023SDG2	
UniRef90_W0ETD1	Q F T F D K A K G[V] E V V D [L] R
UniRef90_UP10003FA9D3C	Y F Q F N [V] P K V E V I D [L] R
UniRef90_R6YHT6	[V] F V V D
UniRef90_Q1K0Q3	[L] F T
UniRef90_UP10002EA9A33	
UniRef90_Q9ADU7	[I] F [V] F T P P N N I D I I E Q
UniRef90_U1FJ65	R F I Y D P P S S A N V
UniRef90_B4SN05	
UniRef90_Q39QQ3	[L] F S F A V P P G[V] Q V V
UniRef90_V9HLZ1	
UniRef90_UP100031C894F	
UniRef90_L0R9J8	[I] F E
UniRef90_M7MYJ2	T F T F Q K A K G[V] T E V D M R E
UniRef90_L0FYG1	F F T F D P Q K G[V] E [I] D [L] R
UniRef90_V9TUC5	
UniRef90_UP1000410EE5C	[V] F Q
UniRef90_K9H511	[L] F E Y S R P
UniRef90_E1SJ36	
UniRef90_UP10004780208	[I] F T F N K P K V V E V D
UniRef90_A6G5D5	[L] F D F K V P R G Y
UniRef90_T1C017	T F H F T P P P G A D V I Q
UniRef90_L1NGL2	
UniRef90_T0DK92	H F I L N V P K N A N V S Y Q

UniRef90\_C6Y2Q1  
 UniRef90\_D6DWK4  
 UniRef90\_Q6AM51  
 UniRef90\_S5ZZ41  
 UniRef90\_UPI0002ECC2D0  
 UniRef90\_A0A024F590  
 UniRef90\_T1CX54  
 UniRef90\_S2DR43  
 UniRef90\_UPI000401EE68  
 UniRef90\_U2L8G2  
 UniRef90\_UPI000363D680  
 UniRef90\_U6B709  
 UniRef90\_B4CW91  
 UniRef90\_UPI0003FCEC58  
 UniRef90\_UPI00041E0818  
 UniRef90\_A0A010YW63  
 UniRef90\_H8NPK7  
 UniRef90\_G6A0U9  
 UniRef90\_F0S3K4  
 UniRef90\_B6E142  
 UniRef90\_H1SJ44  
 UniRef90\_A8F315  
 UniRef90\_R5SJW5  
 UniRef90\_UPI0003B338CB  
 UniRef90\_C9PWK3  
 UniRef90\_A0A059G617  
 UniRef90\_F8EYP7  
 UniRef90\_F2KRC9  
 UniRef90\_D5BFX4  
 UniRef90\_W6WVP9  
 UniRef90\_I4WHE8  
 UniRef90\_H1HIL1  
 UniRef90\_UPI00041E69CD  
 UniRef90\_UPI00045E7011  
 UniRef90\_A6D1V6  
 UniRef90\_UPI0004023955  
 UniRef90\_C3XHU4  
 UniRef90\_A0A024KDZ4  
 UniRef90\_UPI00041F1794  
 UniRef90\_R0DUR7  
 UniRef90\_K1L5F4  
 UniRef90\_W9B452  
 UniRef90\_U2HZ00  
 UniRef90\_S6J3D7  
 UniRef90\_A6UT98  
 UniRef90\_F4LPG0  
 UniRef90\_D0LUK4  
 UniRef90\_UPI000465AA2C  
 UniRef90\_U3AKE8  
 UniRef90\_D8F100  
 UniRef90\_UPI0002F21B47  
 UniRef90\_H3NTQ3  
 UniRef90\_R5AZU9  
 UniRef90\_S3JYG5  
 UniRef90\_L1N940  
 UniRef90\_B5FCF3  
 UniRef90\_M1LSF8  
 UniRef90\_F3YZB9  
 UniRef90\_V8QVB5  
 UniRef90\_F2PCR7  
 UniRef90\_Q5FXU4  
 UniRef90\_UPI00035D422F  
 UniRef90\_L1N9V6  
 UniRef90\_UPI000400AB33  
 UniRef90\_Q3A163  
 UniRef90\_C4UST1  
 UniRef90\_S4MG61  
 UniRef90\_X5J9E0  
 UniRef90\_UPI00029A4619  
 UniRef90\_M3CAU8  
 UniRef90\_D9PNL2  
 UniRef90\_B12ZW6  
 UniRef90\_F9EVF5  
 UniRef90\_D9WRG4  
 UniRef90\_B5ZJY0  
 UniRef90\_UPI0003639B77  
 UniRef90\_F8ECD6  
 UniRef90\_G8TJQ0  
 UniRef90\_C2FSS8  
 UniRef90\_G3IYZ3  
 UniRef90\_10XMM2  
 UniRef90\_R6Q2M3  
 UniRef90\_R7H343  
 UniRef90\_J4JL59  
 UniRef90\_D9X8D4  
 UniRef90\_UPI0003149DF6  
 UniRef90\_C6W7C3  
 UniRef90\_E1R7Z1  
 UniRef90\_D1VX55  
 UniRef90\_A3QIT7  
 UniRef90\_UPI00046E725B  
 UniRef90\_R6AXS4

1 [L] N A V S K K Y R S Y D I V K T D F T Q Q A N A K E T Q Q G T L Y V K A N A  
 10 [L] D E L Q Q R F A E Q P V V R A H F E Q T M P Q P L R S Q G E M L I A R D N  
 20 [L] H K I Q Q T S R Q A E A F S T D F I Q E L N K P V I F R G H L S L I R P D  
 30 [A] F F S A V S D K Y A Q F S D Y V V D M N I T S G T A M F K R P D  
 40 [A] L E Q L Q Q Q L S N H P I V R G D F V Q T R H M K M Q S S G T F L L S S Q H  
 1 [L] Q K V A K K Y R T T K L V E M N V E K T V K S E T K Y D G K I Y L A N G  
 10 [E] N I K S I E A D F T Q Q T K S T L T Y K G H F Y A K S N S  
 20 [L] D G V S Q K Y K S L K G L Q A S F E F T Y L D G S E G R G Q S Q S G  
 30 [V] Q A V N R Y F N S I T T F E G K F L Q T A P D G G E T T G Y F V I D R P G  
 40 [L] D Q L Q Q R F A S Q P V I R A N F V Q V R T Q P L V S R G Q L L I A Q Q Q  
 1 [V] R S L S A K I A S Y V S Y E V S F T A D M D G E F D G Q G R I V V N G D  
 10 [I] Q E T I D H F V S I R T L K A S F M Q K D D Q G N I F R G E F F M S R P G  
 20 [A] K Q E D L H S V Q A D F T Q T L R S P I A T P G H M W F G M P D  
 30 [E] V L D A I S Q N Y Q A M Q A F K I D F T Y T L K G E E S L Q G N I V I K A K  
 40 [V] L D A M S Q K Y Q N M K G Y T A G F D Y T Y S D G D R Q S G E L A V K G A  
 1 [E] L E L Q Q R F S Q V P V L R A E F A Q Q R T Q P L N S S G N L L I A R Q Q  
 10 [I] A R A E H A I T E L T T L Q A K F I Q I S S D G T I G E G H V Y F R R P F  
 20 [L] D S F L E K L K S I K T L K I V F S Q E T K L P V A G D G V I Y Y E K P S  
 30 [V] D D L Q Q Q L S Q S T L V R G E F S Q V R T H P L S T S G T F L L E H D K  
 40 [A] I S E L K T Y L R T I K S V A I D F T Q E D S Y S K I V K G K L L I H K P Y  
 1 [R] E E L A S K T S A L T T I Q A K F V Q T F S R E M K S E G R F Y W Q K T D  
 10 [L] E Q L Q Q K L M T D Q L R G D F S Q S K T H P L L S S G T F L L S H Q Q  
 20 [A] D Q M M Q K V Q K T K S C S F T Q T L N Q K M I V K G R M C Y S Q P S  
 30 [L] K E V A K A L S D V K T A K G K F E Q V A P D Y S E S T G T F A I S R P G  
 40 [L] A Q V A E T Y S G I K D Y S A K I T V S T G K T D M Y G T I I Y K N P N  
 1 [E] I A K K V E K Y N Q L E D F R G V V V E T N G V K H T Q E Y E F A F K K P N  
 10 [S] Q L T E K M E S A K S L Y G E F E Q T K V K M M S S H G K I Y Y K S P D  
 20 [V] S Q V A S R L A Q A K G V R A Q F T Q T M K Q P L V S T G T L V F F R E R  
 30 [D] A L Q H V L A E L G Q H Q A V R A D F V Q T L T Q P Q V I S R G Q L L F V L N H  
 40 [Q] T I N A A A S K I T S I T S S F T Q V L N D K V R S T G N L Y F T N Q Q  
 1 [V] L D A M S Q K F Q A M N G F T A E F D F T Y Q D G S G S S D R Q S G E V A V  
 10 [E] E L L Q Q Q L A Q H P I V R G D F E Q K R T Q P L T S T G Q F T L D K T H  
 20 [N] V L D K V S K V L E K S G G A S A N S F S V I S S Y Q G N T K G T I F I K G K  
 30 [Q] E V W R N V K S I E A D F T Q E I K G P V V I Y A A D N  
 40 [I] Q Q I G A H N S A I R T M A G R F L Q V D S Q G G R T E G T F F L E R P N  
 1 [Q] Q L R K T S Q E V N S I Q A A F T E V L K E P E H S S G N F Y Y K K N D  
 10 [V] S Q V A A Q L A Q A R G V R A Q F V Q T M Q K P L V S N G T L L F M R D Q  
 20 [L] D G V S Q K Y Q S L K G M K A S F E F S D G R M Q P R K G E V A I K G E  
 30 [L] L G E L Q H T L S A T K V V R G D F S Q T R T Q P L L S N G E F L I A A N N  
 40 [L] L N E V S K K Y D S Y K T I R S E F D L T V Q D A N K T T G V M Y F N K P K  
 1 [D] L Q Q L S E Q L A K P E V I H G S F I Q E L P Q P L T S K G T F V L A K N H  
 10 [Q] K M Q E K Y D S I N D M S C N M V M T V D K P E K I E Y T Y K Y K P N  
 20 [Q] S V S E Y Y G T I K D Y E A N M Q I T A A R S D M Y G K V S F K R P N  
 30 [V] V A R V Q E F Y I D T Q R L T A F R Q I Y T N T T V S D G K L W V K K P G  
 40 [A] I L A L L N A S I K N L D S F F G N F K Q T I T S D S K S N G K V F I K K S G E  
 1 [D] L A S L Q T Q L A K H P M V R G D F T Q K R K Q P L L S S G Q F L L S A K N G  
 10 [L] Q G I K N R Y G T T S G L S V P Y T R E V A K G D P A S G I I Y F K P P Q  
 20 [L] Q G I K N R Y G T T S G L S V P Y T R E V A K G D P A S G I I Y F K P P Q  
 30 [L] Q G I K N R Y G T T S G L S V P Y T R E V A K G D P A S G I I Y F K P P Q  
 40 [L] Q G I K N R Y G T T S G L S V P Y T R E V A K G D P A S G I I Y F K P P Q  
 1 [D] V L S R A S A R F R A A K S I E A T F T L T S S Q A G V I K G T I I M S G Q  
 10 [D] V L D E V E K R F A A S P V V R A N F E Q E T A Q P L H S S G K L L I A K N K  
 20 [V] L D K T A A I V G S K N G A T A D F K I S N K K L G T T S G T L S I K G N  
 30 [V] V D D L Q Q Q L A K S T L V R G D F K Q V R T Q P L S T S G T F L L D H E K  
 40 [V] V I D L Y K N H K C I H G D F I Q T T Q Y N D N S E G K F Y I K R P N  
 1 [V] L D G L R K A A K D I H S V S A D F V Q R K K E V M I S K G R L A L V K P D  
 10 [L] Q D L Q Q Q L S A H Q T V Q G D V Q Q R L E Q P L I S E G T F V M Q A Q K  
 20 [L] E Q L Q K N L L S S T P L V R G D F T Q K R K Q P L L S S G Q F L L S A K N G  
 30 [D] D V H R I E A Y L N G V Q G L Q A A F L Q H G P D A G E S A G R F S Y I P G  
 40 [D] D A S A A P Q K L M E L A S G A H T L A V D G P D  
 1 [Q] K V N D A A Q K M K T M Q C T F V Q T L K K K M V S N G R M A Y S Q P S  
 10 [L] D A M S K K Y Q A M K A F N V D F V Q T M E N K E T M Q G N I T I S G D  
 20 [V] L Q R L K T T A G S V Q T I Q S S F V Q E F S E A L E S H G T F S F Q R P G  
 30 [L] L S S L Q Q R F S E Q P V L R A N F E Q Q M D K P L K S N G N L L I S R E K  
 40 [E] I L S K T S A Y Y Q S L E N F S A T Y N L T I Q Y P E E S H A K M C I T A R G  
 1 [L] A E V S K K Y K S Y N I V K T D F T F T L D N P K T Q G Q T L Y V K N S N G  
 10 [K] L T E L A S G T H T L R V A A D G  
 20 [V] L S R L E K K M S G I K T L K T G F V Q V F K Q K V V L K G T V C I E K P G  
 30 [V] V A D V A T R L A R V G A I R A D F R Q T M K Q P L V S T G S M L F D R R S  
 40 [E] E L A Q T L Q K P S N V Q G A F T Q Q L S K P M I T G G K F V L I P K K  
 1 [D] V A R I E R Y L N T T R G L S A H V A Q T W P D G G V G E G T L S Y D P G G  
 10 [K] L T E L A S G T H T L R V A A D G  
 20 [V] L D A M S S K Y K T M T S F R V A F T Y T N E G S K E T K G D A T V K G T  
 30 [V] L D G V S A K F K T F K A V Q Q A F T L R Q E D A K G G K G T V S L K G S  
 40 [V] L N Q V S A K Y D G Y K T I K A S F S F S A K Q Q A N G G T G T L Y L K K A N K  
 1 [E] V L T E I A A R L A K T P L T Q G D F H Q Q L H K P L I S T G T F T Y H Q S K  
 10 [V] V K K V R K T F S D L K S Y K A D F V I Q T K K V V T K G V C Y Y K K G G  
 20 [V] L D R T A K V I G N K S G A S A N F T L S N A K I G L S S S G T I A I K G N  
 30 [V] L D R T A K V I G R S G G A S A S F T M M N A S T G T V S G T I A I K G N  
 40 [V] V S E I A A R L A R V G A L R A D F R Q T M K R P L V S T G S M L F D R R S  
 1 [D] D D Q L S E Q L G E P E V V R G S F I Q E L P Q P L T S R G T F V L A K D H  
 10 [L] D A M S S K Y Q K I K S F K A L F T Y I S K G E K P L K G E A T V K G T  
 20 [V] V S D A Y G E V D D Y E A L I T I N H G D T T M E G V C Y Y K S P N  
 30 [A] L S K L V T R L G G G E S A R G A F T Q V L K P L V S R G E F L F Q D K L  
 40 [I] E R V E T Y L N T A R G L K A D F V Q T W P D G G G Q Q G V L R Y D P G  
 1 [A] Q Q V L N K T A K I G G A S A N F S L S S T K Y G S T S G T I A I K G N

UniRef90\_C6Y2Q1  
 UniRef90\_D6DWK4  
 UniRef90\_Q6AM51  
 UniRef90\_S5ZZ41  
 UniRef90\_UPI0002ECC2D0  
 UniRef90\_A0A024F590  
 UniRef90\_T1CX54  
 UniRef90\_S2DR43  
 UniRef90\_UPI000401EE68  
 UniRef90\_U2L8G2  
 UniRef90\_UPI000363D680  
 UniRef90\_U6B709  
 UniRef90\_B4CW91  
 UniRef90\_UPI0003FCEC58  
 UniRef90\_UPI00041E0818  
 UniRef90\_A0A010YW63  
 UniRef90\_H8NPK7  
 UniRef90\_G6A0U9  
 UniRef90\_F0S3K4  
 UniRef90\_B6E142  
 UniRef90\_H1SJ44  
 UniRef90\_A8F315  
 UniRef90\_R5SJW5  
 UniRef90\_UPI0003B338CB  
 UniRef90\_C9PWK3  
 UniRef90\_A0A059G617  
 UniRef90\_F8EYP7  
 UniRef90\_F2KRC9  
 UniRef90\_D5BFX4  
 UniRef90\_W6WVP9  
 UniRef90\_I4WHE8  
 UniRef90\_H1HIL1  
 UniRef90\_UPI00041E69CD  
 UniRef90\_UPI00045E7011  
 UniRef90\_A6D1V6  
 UniRef90\_UPI0004023955  
 UniRef90\_C3XHU4  
 UniRef90\_A0A024KDZ4  
 UniRef90\_UPI00041F1794  
 UniRef90\_R0DUR7  
 UniRef90\_K1L5F4  
 UniRef90\_W9B452  
 UniRef90\_U2HZ00  
 UniRef90\_S6J3D7  
 UniRef90\_A6UT98  
 UniRef90\_F4LPG0  
 UniRef90\_D0LUK4  
 UniRef90\_UPI000465AA2C  
 UniRef90\_U3AKE8  
 UniRef90\_D8F100  
 UniRef90\_UPI0002F21B47  
 UniRef90\_H3NTQ3  
 UniRef90\_R5AZU9  
 UniRef90\_S3JYG5  
 UniRef90\_L1N940  
 UniRef90\_B5FCF3  
 UniRef90\_M1LSF8  
 UniRef90\_F3YZB9  
 UniRef90\_V8QVB5  
 UniRef90\_F2PCR7  
 UniRef90\_Q5FXU4  
 UniRef90\_UPI00035D422F  
 UniRef90\_L1N9V6  
 UniRef90\_UPI000400AB33  
 UniRef90\_Q3A163  
 UniRef90\_C4UST1  
 UniRef90\_S4MG61  
 UniRef90\_X5J9E0  
 UniRef90\_UPI00029A4619  
 UniRef90\_M3CAU8  
 UniRef90\_D9PNL2  
 UniRef90\_B12ZB6  
 UniRef90\_F9EVF5  
 UniRef90\_D9WRG4  
 UniRef90\_B5ZJY0  
 UniRef90\_UPI0003639B77  
 UniRef90\_F8ECD6  
 UniRef90\_G8TJQ0  
 UniRef90\_C2FSS8  
 UniRef90\_G31YZ3  
 UniRef90\_10XMM2  
 UniRef90\_R6Q2M3  
 UniRef90\_R7H343  
 UniRef90\_J4JL59  
 UniRef90\_D9X8D4  
 UniRef90\_UPI0003149DF6  
 UniRef90\_C6W7C3  
 UniRef90\_E1R7Z1  
 UniRef90\_D1VX55  
 UniRef90\_A3QIT7  
 UniRef90\_UPI00046E725B  
 UniRef90\_R6AXS4

S K Y K V S T G G Q E M I S D G K T L W T Y L K E E K E V Q V T D A D N S N  
 G L L W D Q K A P F P M T L L L D D K R M V Q I V N G Q S P Q T I T P Q M F Q F  
 K L R W Q F T S P L P S A L I F N G E Q G M R C D S E G E A T S S D P V M R V V  
 M L R L D F K S P A E Q C I V F S G N T L S I Y L P D Y R T I L R Q E I D K S S  
 G L W W Q Q T S P F P T S L I L T Q D K L S Q R I G D Q P K V R D N P M V F Y F  
 K F R W E N T K P E E T L L V F D G K T I W S V Q V P P K E Q V A K G V V D K K  
 K A K W Y T A P T H K E I Y I N D T L T I V Y E P L L E Q A T I G K S R N N I  
 E I S I K H K L P E Q E I F N N G K T V W T Y I E G Y K E V T I N N A S D M E  
 K M R F R Y Y P P A Q L D I T V D G R T V A V D D K A M Q S Q T L Y L L  
 G L W W Q Q N T P F P M T L L L D D K R M V Q S M P Q V I T A E S N P Q M F Q F  
 R Y R V E V N G S E L Y C D G K L L Y T F R A D E D E V T I E P G D R S L  
 K L Y F K Y G H P F Y L T L I S D G S N I A L Y N S K L D S W S V Y P L R  
 S L R W E L G E P A K T I V I R K G D T Y Y L I Q P A R K R A E R Y K A D K K G  
 R F R L A L P G Q E I I N N G A T V W T Y L K D D N E V N I S N Y E P E P  
 K Y R L K L P D Q E I I F N D G K T V W I Q T D T Y K E V T I N D V T Q M E  
 K Q R V A L V G S L E S D V V R N G N D V W T W S S Q K N E A T V Q P S G T P L  
 G L W W Q Q E K P F P S L T L L L T E N R M V Q I I M A G Q Q T A E T N P Q M F Q F  
 Q L R L D Y T N P E T L S I V T S R I W V Y I D D K I A Q T V E A Y P V S E T P  
 K F R W E Y T K G S D I Y L V S N G E Y L E T V F P S D N Q C Q I T E L D T K S  
 G L L W Q Q N T P F P I Y L T L T K N K L R Q S I N G E S Q V S E N P M A F Y F  
 W R Y I K P Y Q D Q L Q A D G Q T L Y I Y D K D L N Q V T E R K L D G A L  
 N F R Y N Y Y P P F P L V I I G T K N F V S M Y D Y D M E Q V S R I N R S E  
 K I C L D Y R T P V A Y E I V I N G D K I K T V N V G K A S V I D T K G N P M M  
 G L V W K Q A S P F P V A L V L A K D K L S Q Q F P D V I E A K D N P M V F Y F  
 K L R W Q Y I S P Q Y Q T F I L N G T K V L M K S A R Q R D V D A A K N K V F  
 K V R F D Y N D P T P I L I V S D G A T V A M Q D S D L E T T D R V P L S S T P  
 L V R I D F T K P E E Q V I A Y N G E T L T V Y L P E Y R A V L S Q T T S A S G  
 K V R M Y N K E Q G L L I V S N G K T M W S Y D E K N N E V F V M E L K Q P E  
 I I K W Q Y T K P F P Y S L L F K N D F L Y I D D D G Q K S K Q D M S A N D L I  
 G V I W R V D T P Y K A T Y V I T D A G V S E V D S N G K R V N T K S A Q A Q V  
 G M L W Q T Q S P Y A E T L A I L T G R H A A R V D A Q G H A H P M R D G M D R I  
 Q L R W E Y I S P Q Y T F I I N G E K V H I K N G K R S Q V K S S Q M F K S I  
 M L L W Q Y T K P Y Q Y S V V F K C N N K I T I N D A G K K S S A M D M G N S K M F  
 K G E Q Y R L K L P E Q E I F N D G K T V W T F I Q G Y R E V T I N D V S Q M E F  
 G L L W R Q D V P F T V Q L V L T K D K L R Q T F A D Q P T A K D N P M A F Y F  
 K F K A L T P Q A T I W F D G K T Q W T Y M K K T N E V N I S T P N E A Q  
 K V K W L Y V A P L A K E V Y L E K T Q A Y I Y E P E L K Q V T I G N L K  
 K V R F R Y N P P S R E E I I S V G R G F Y V I N R K D Q T Q Y A Y P Q D R  
 K M R W E Q K S P V K Y V I L I N G D R L R V Q E A G K E K S V G Q R M A A Q I  
 G A V W R I E Q P T R M T Y V I T D S G V T A L D A N D K P M R G A R N A A Q V  
 K Y R I K L P E Q E I F N N G K T V W T F I E S G N E V T I N N A S D M G  
 G L L W W H Q T A P M A V S L V L T T N N K L S Q F D N Q P P Q A A Q N P M V F Y F  
 K Q Y A I K M E D Q E I L S N G K T V W N I A H D I K E V Q I T D A E H D D  
 G L L W L L K T P L Q Q D Y R I T G Q G I A R R D A N G W Q M L P G K S A G A E  
 K S F I E N D E F L M A S D G K T F Y M Y D K N K N E Y M T M D A P K Q Q  
 L L R I D F S N P E N Q V I V F N G E T L T I Y L P G P S A A L I Q S V T A S S  
 K M R W D Y R G S Q K K V F I S D G T T L W A V E H D N Q Q V F K K N L E D D M  
 K I L W Q Y E T P I K K N V Y J I D N N M A I V D E P E L E Q A L F T K L D N E I  
 G L L W Q Q N T P F P V N L V L T K D T F A N Q T P Q V I T A K D N P M A F Y F  
 F L R L D Q E K P V V E R I I I A N D S I L L W W Y I P Q K K E A H Q Y R T K D F G  
 P D R Q K L E N A A E Y S L I H D G K D V W G Y D S A S N E V Y H A T T S E A P  
 Y Y L W E I Q T P D R Q V L L I N P E G F W Q V D L D L E V A L V R D V P D A  
 K F R I T A P Q Y T S W Y D G T T Q W V L N A A D R E V T V T S P T A Q E L  
 G L W W Q Q R Q P F P M R L I V N G G H M V Q V M G S Q P P Q T I T P Q M F H F  
 K F Y A H T S K A I M W Y N G K T Q W S Y L T S T N E V N I S T P N P A Q  
 G L L W Q Q T T P F P I A L T L T Q N K L R Q S L N G D T Q V M T N P M A F Y F  
 K I R L E L F S G N D Q I V V Y D G E C I N Q Y D I S L N Q L I K R I D G C  
 R L R W E Y L E P V I V A S G F A L K G G K G R R W N M D D F D I L R Q D P V M Q V I  
 G L L W E T R S P I A S L I R I T P D G M T Q K D S A G N W Q P L Q Q G A G S  
 G L W W H Q T Q P M P V I S L V L T Q D K S Q Q F D N Q P A Q V S D N P M V F Y F  
 H R L D Y V A P H P M E L V A G D G H L V L D D P A T G A V T H L S L  
 K Q R V I V D K A A E Y S I V H N G K D V W G Y D S K S N E V Y H R G K D Q Q P  
 Q Y R L S Y E Q K E T I T D G E T V W V Y D K A L K E V T I S E Y T K T D  
 K Y K V A M T N Q E L F S D G K S Q W T Y L K K D K E V Q V S S I D P N S  
 K Q R V I V E R A A E Y S V V R D G Q V W A Y D S G S S T A Y H T P Q E L A K  
 R L A W Y V N E P M K Y K M V I S Q D M I S Q W D E D T N R V S K N P A F E A A  
 G V V W R I D T P Y K A T Y V I T D G G M R E V G A D G R V A P A G G G R Q V  
 G L L W Q M Q K P F E T T V R A D G I M Q W N G S A W T N P N Q G K V G Q S Q Q  
 K Q R V I V E N A A E Y S I M H N G D Q L W A Y D S G S S V Q R E T P R D L R  
 Y L R L D Y D T P H R M R L V A A G G H L V F R D A V R Q S V T R M N L  
 E N K Q K V E D A A E Y S L I H N G K D V W G Y D S K S N S V F H T K P K D E L L  
 K F R L K M A G Q E I F N D G K V M T T Y I K E S N E A T V N N Y D P D I  
 R Y R V S I A G T G Q E I F C D G T N I W T Y D K S A N E V T I T K P D P S A  
 K Y L I E M K S Q D L I S D G K S T W T I L K E E D E V T Q V I N D A D Q S N  
 G V I W K T L T P V V S L L L V N E S R L L T G Q G E Q A V P A A F  
 K I K Y E F S D P S G D E I V S D G K T L W I F I K R L N A A G K Q D L T L N K  
 K F N A R T P Q A I V W F N G K T Q W S Y L K K T N E V N I S T P T Q A Q Q  
 G V V W R I D T P Y K A T Y V I T D S G V R E V G A D G R V A P G N G G R Q V  
 K L S L L E N A A E Y S V V H N G K D V W G Y D H E K E Q P P A T P K D F A E  
 G L L W L L Q R P L Q Q D Y R I D A Q G I A R R S E Q G W Q F V A Q Q S A T A Q  
 K F R L K M A G Q E I F N D G K L M A T Y I K E T N E V N L Q D F D A A G  
 L L R I N F T E P K D Q T I V V D G E K M S L Y L P R Q N V V L R Q Q L K R H S  
 K F Y A R T P Q A T V W F D G K T Q W S Y L K Q T N E V N I S S H T Q Q V  
 G I A W L Q T A P P F S G L V L T Q N T L V Q I D A D G N R Q I S H A D D N P Q  
 R L R L D Y T T P G P M K V A A N G H L L F V D H R R E S V T R M S L  
 K F N A H T P Q A T V W Y N G K T Q W T Y M K N T N E V N V S N P T Q A Q

90            100            110            120

UniRef90_C6Y2Q1	N A [L N P A K I F T [I Y E S G F K Y [I Y T G D K K V G [D L T P T D [N K P Y F		
UniRef90_D6DWK4	N H L L R A L F Q A D R K V L E E N F R V G E G R W S L V L T P V T T P L D K I		
UniRef90_Q6AM51	A E Q L W N W L G G D Y L K L S K L Y R L S K M E P A S L V I H F D K E G A I S		
UniRef90_S5ZZ41	A G G T A L A T P Q G L S L M K R S Y T I Q E S V V I L I M N R K S A S E T F K		
UniRef90_UPI0002ECC2D0	S H V F L S L F Q G D T N A L T E Q F E L K L T Q E Q L Q L T P K A A P L N K V		
UniRef90_A0A024F590	T K S H I L I S S L L G E D L N K N F K I L L K E E K D G E L V P L N G G L T V K		
UniRef90_T1CX54	D F [H] I L Q Q A K Q I D K Q T Y N T T F E N T T Y T L T		
UniRef90_S2DR43	D E L T P P S S V Y T N Y K L L G E K K E N G T T V Q E I E L T A E K S N A P F Q		
UniRef90_UPI000401EE68	S E T P L R F L L D K N I D L L E E A V V Q S D S D F I V I R L Q D P G T F V T		
UniRef90_U2L8G2	N H L L R A L F Q A D E K V L K E N F T L G N E N W Q L G L T P K A A P L N K I		
UniRef90_UPI000363D680	L S N P P R F F R L E G D D F E V A Y K G R E D A D R L E L T P K S P D A G Y R		
UniRef90_U6B709	N T I F E L I F S N K R D K L Q N S V N E I E L K N E F I T V F L G E N S N E N		
UniRef90_B4CW91	G A M G F A M I N F P I A K D F A D F N V T D D H C H L E I L P R D A Q A K K M		
UniRef90_UPI0003FCEC58	D E I T P S N I Y T I Y Q K G F K Y S L V G E E N H V I E L I P E N I N A Q Y T		
UniRef90_UPI00041E0818	G E L L T P S N I Y T I Y Q K G F K Y S L V G E E N H V I E L I P E N I N A Q Y T		
UniRef90_A0A010YW63	P S T P Q E A A D Q A L A A I S P T E V T T D G T E L V L K P K D R A S R V G		
UniRef90_H8NPK7	N S L L S A L L F H A D R K V L E E N F S L G K G A W T L I L T P K V S P L N R L		
UniRef90_G6A0U9	F A P L L E Q T V S F R S E Q V K T S A R L E N G I A S V Q L E K D T G E G A G		
UniRef90_F0S3K4	E L F P L L F Q I L L N P E N F K K L F K I S R N F E T V E L K P T Y E N S I F E		
UniRef90_B6E142	T R L F L S L F K G D T K A L Q E N F T M T K E G W I L L L T P K S A P L N S V		
UniRef90_H1SJ44	G S S P A A L L F G G S N D L E K N F V V K D G V E W L E L T P R A K D T Q F E		
UniRef90_A8F315	N T F N F N L L E D N E H F D K D F I F E S N E R N I S K I T I Y H T L T E K		
UniRef90_R5SJW5	D Q M S T L I M T G D L T K L G A D F A V S S A D Y R L T I V P K S K T A Y I D		
UniRef90_UPI0003B338CB	S H L F L S L F K G D M N A L A K A Q F E L T K G H W V V L L K P K S A P L N K V		
UniRef90_C9PWK3	R E I T A I M L L S S D K Q R F K T Q M F V D G D K W I A Q L T P K E M K Q M F S		
UniRef90_A0A059G617	L S L L L D D N L D F E R E A Q V L D V I R T N G R I G V T L R D R S G E M D G		
UniRef90_F8EYP7	G T S G A G L A S Q G L G L L R R N Y N S A E L V I K L T L T R R T V S E G F R		
UniRef90_F2KCR9	V S P D Y G K L V K D V E L L G S E K V L G R D C Y V L K L T P K E G S E F A		
UniRef90_D5BFX4	T G S L N G K L L Q Q D D A N F D V E Y R K K N N V V E A V I T P K N K S M A F E		
UniRef90_W6WVP9	S K M M R A M L G G D L S A L Y S Q F D V D A Q G T K L E L K P N Q P Q L A Q S		
UniRef90_I4WHE8	S Q M L L Q S M L A G K L L D E V L R Q F N V V A S G T T L R F T P K Q E R M A R V		
UniRef90_H1HIL1	A R M M M N S I T G R N L M D N R D F T L Y L R G R E W V A I M T P R R S Q F K		
UniRef90_UPI00041E69CD	N K L N K L I V G S D E A E F T I T Y F K T A E Y N I T K L V P K D A K K Y I N		
UniRef90_UPI00045E7011	G E L T P S N I Y R D Y K L L A E K T Y Q G K K V Q V V E L N A T S A D A P F A		
UniRef90_A6D1V6	S H I F L A V F H G D T D Q L K Q Q F D M T F K A D T L A L T P K A A P L N A V		
UniRef90_UPI0004023955	R M S M P Y S F M T I Y K N G Y Q S M K A S T N Y N I Y L K A I H P A R S L Q		
UniRef90_C3XHU4	E N V D F I Q I L K R V Q K I G K D S Y S T K T Q I G D I		
UniRef90_A0A024KDZ4	I P L R N F L G D K I D L L T A N I V S S D A Y M A V I T I S D D T P I G V V		
UniRef90_UPI00041F1794	K E L L M I G L V N G D N K A F S Q S A M E S T D Q Y M V V L T P V N R K N I Y S		
UniRef90_R0DUR7	S R M M R A M L A G D L S A L Y S Q F N V N A Q G N V L K L T P A Q P Q L A Q A		
UniRef90_K1L5F4	D E L T P P S S V Y N I Y K K G Y N Y R L I G E R T E D I E L L A E S A S A P F K		
UniRef90_W9B452	S H I F L A L F N G D T S A L D Q Q F T L K D N Q W Q L V L I P K Q A P L N K V		
UniRef90_U2HZ00	S T I G P N N L F S F Y K K G Y K Y I S M T E S L R V V E L S P L D T K T N Y F		
UniRef90_S6J3D7	Q N R L F L V L Q G D S S G L Q R D F E L T L A G D K L T L T P R S L L L K Q V		
UniRef90_A6UT98	N N N Y G E M I K S L L E M Y N P E Y V G E E N G D C Y I L T T K N K T G T I A		
UniRef90_F4LPG0	E Q S G M S L A T Q G L S L M S R Y Y S V D E K V I K L I L S R R N S S E G F R		
UniRef90_D0LUK4	L P V A V S F L Y G K G A L D T S N K Y G K K S D Y V L E L T P R K P S A Q Y K		
UniRef90_UPI000465AA2C	N I I K L L N E A K K I D N E N Y V S T I N G I K Y N I K A S A D K		
UniRef90_U3AKE8	S H V F L A V F H G D T D Q L K A Q F D V K S S V W T I T L T P T Q A P L N S V		
UniRef90_D8F100	R E I L R L L D I F R G L A D V K D S F K V E K G N D E I V L V P D P P W Q E I D		
UniRef90_UPI0002F21B47	G A T P K D F A D Q A L K A V D D T T S V T V D G T R L V I E P K Q E G S T V G		
UniRef90_H3NTQ3	S E L P L A Y I W L D Q A E L Q G F S D K V I A Q G Q I I E A I S		
UniRef90_R5AZU9	Q M I N P V M V V N M F S K Q Y T V T K T Q R V L R L T A K Q K K A D I R		
UniRef90_S3JYG5	N Q I L R T L F H I D R K V L E K S F D L G Q Q R W R L V L I P A D E P L N K L		
UniRef90_L1N940	Q M A M N P Y T F I N L Y K S G Y N L A L K T V G A D Y Q V H M K A Q N A S I A		
UniRef90_B5FCF3	T R L F L S L F K G D T E S I K E N F T L Q L T G E T F I L T P T K A P I D S V		
UniRef90_M1LSF8	Y F S S I F F L D H N N K I L K V N K Y E E R D N C V L V S A D N F D M G F R		
UniRef90_F3YZB9	V D Q L L A W T N A D L E R M S R D F T L E V A G S E L V L R P R V P A V G I E		
UniRef90_V8QVB5	Q S Q F M D L L A G N T R A L S G Q F D L S L Q G D D W T L T L G P T S S I L K		
UniRef90_F2PCR7	S H V F L S L F K G D T S Q L T E Q F D L T N N Q W Q L V L T P K A A P L D K V		
UniRef90_Q5FXU4	R H N P L G L L L K Y P I R F D G D V Q V T T D D G S L Q I S V A Q A D N P S Q G		
UniRef90_UPI00035D422F	G A T P Q D L L A K Q A L E A A G D T T S V T V D G T Q L L I K P K Q T G S T V G		
UniRef90_L1N9V6	R E I T N I M L L T D K Q N F K T Q M I L L D G D K W I A R L T P V K K E Q L F N		
UniRef90_UPI000400AB33	Q Q M S P N A I F N L Y K K G Y N K Y E V K E A G Q V Y E L A P E D K N N P I F		
UniRef90_Q3A163	E L R I A A W T E L D D L K L Q R A Y D I E V Q P V S L L T P R G M G A R V D		
UniRef90_C4UST1	D A I N P A K I F T V Y K G F K Y I Y T G D E K V I G D E L T P K T T P L D K L		
UniRef90_S4MG61	P A T P K D F A E E A L K A T D D T T S V T V D G T K L V I K P K Q S G S T V G		
UniRef90_X5J9E0	S D L N F A E L Y N L Y Q E G Y L S V Y V G E M R D I V Q L T P L H E D S S C K		
UniRef90_UPI00029A4619	D A I N P A K I F T V Y K G F K Y I Y T G D E K V I G D E L T P K T T P L D K L		
UniRef90_M3CAU8	K A L A A A Q G T T D V A V D G T A K V A G R D A Y R L T L T P K Q S E S T I G		
UniRef90_D9PNL2	I Q Q M Q E W F S G A Y T P L L K E Y E I K E N P A S L K F T P R A S T I A K		
UniRef90_B122W6	S R M M R D M L G G D L S A L Y A Q F D V E A S G T R M V L R P N Q P Q L A Q A		
UniRef90_F9EVF5	I K L F P D L L G G N T Q G L E K Q F N L T E K Q W T L N L T P K T A V T R Q I		
UniRef90_D9WRG4	E A T P Q Q L L A K Q M L L A A V D D T T E V T V D G T T L L I K P K Q S A S T V G		
UniRef90_B5ZJY0	S R Q P L G L L L A T P V H L G G E V T V T Q H G D H V V S L A R T A N P S Q G		
UniRef90_UPI0003639B77	P A T P K D L A E D A L K A A D K T T S I T V E G T R L V V V K P K D E D T T V G		
UniRef90_F8ECD6	D P T K V Y T I Y K K G Y K Y V F I E E V T E S G R V Y E L S P E K K E S K V S		
UniRef90_G8TJQ0	S T I S M S Q K I F T S F Y D K D F L Y K L N G D K V W M T P T D K N K P F H		
UniRef90_C2FSS8	D N I N P S N I F S F Y K T G F K Y V S A D D E K N V I E L S P I D T K K N Y F		
UniRef90_G31YZ3	G K V F K A M L G G D L L A A L T D G F A I T G T D Q K T V L T P K D E M L Q K I		
UniRef90_I0XMM2	U R I F P Q L L A K Q M L L A A V D D T T E V T V D G T T L L I K P K Q S A S T V G		
UniRef90_R6Q2M3	S N K S G P I F S E G L S R I F R K Y H Y K F E S I E L A L E Q R E K I L G G Y E		
UniRef90_R7H343	Q M N P Y T F I N I Y K T G Y K M N M K K S G N N Y Q V H L T A Q N Q K R S V A		
UniRef90_J4JL59	Q Q N P Y S F I T M Y K T G Y K M S A T T S G A N D E V H L V A Q N K N K S I A		
UniRef90_D9X8D4	S R M M R D M L G G D L S A L Y S Q F D V D A S G D Q W R M T L R P N Q P Q L A		
UniRef90_UPI0003149DF6	E A L K A V D D T T S V T V D G T A Q V A G R D A Y K L L I K P K Q S G S T V G		
UniRef90_C6W7C3	Q N R L F L V L K G D S S G L R Q D F E L S L S G T Q L D L T P R S V L L K Q V		
UniRef90_E1R7Z1	G D L D P T K L Y T A Y K K G F K S A F V K E K Q E V V E L T S T N K N S Q V N		
UniRef90_D1VX55	Q V A L A S M A S S G L A L L K R G Y S I D E G S D L L V L H W R S T D E G F R		
UniRef90_A3QIT7	S M N P Y T F I Y M Y K S G Y Q L Y S K T V G N N Y Q R M V A Q N K R S S I S		
UniRef90_UPI00046E725B	G R Q P L G L L I N Q P V H L S G Q I V V T A T N S L Q V S L A R A D S A S Q G		
UniRef90_R6AXS4	Q M S M N P Y T F I N I Y K T G Y N S S L K N A G S N Y E L I A Q N K R R T V Q		

130            140            150            160

UniRef90_C6Y2Q1	K   R   L   S   D   K   A   K   Q   I   A   S   A   L   I   E   K   N   G   N   R   Y   T   Y   N   V   T   F   V   P   N   V   K   V   P   E   S
UniRef90_D6DWK4	F   S   T   L   D   L   K   G   A   I   Y   L   E   S   I   R   L   N   D   K   Q   G   D   T   T   D   I   A   L   S   R   H   Q   L   T   P   A   D   A   E
UniRef90_Q6AM51	K   I   T   I   R   F   N   E   K   S   L   Q   P   Q   V   K   I   V   E   R   G   G   D   F   T   R   I   F   F   K   N   Q   L   N   I   P   L   A   D   D
UniRef90_S5ZZ41	T   L   R   V   M   I   S   P   E   K   L   I   R   R   I   E   A   V   P   V   S   G   G   K   V   I   F   D   F   Y   N   Y   R   N   V   G   L   K   S   Q
UniRef90_UPI0002ECC2D0	F   N   S   I   T   V   S   G   K   D   Y   I   N   H   V   E   L   N   E   V   R   G   D   K   S   I   I   D   F   T   H   Q   Q   S   A   P
UniRef90_A0A024F590	S   L   K   L   T   V   K   K   D   N   T   L   Q   T   I   S   Y   L   D   D   I   G   N   L   T   T   M   K   F   S   D   V   K   F   K   K   E   N   K   K
UniRef90_T1CX54	T   K   D   N   L   P   Y   T   L   E   F   H   D   E   F   D   N   Q   I   T   I   T   F   S   I   Q   I   N   Q   T   M   Q   D   E
UniRef90_S2DR43	T   V   K   L   L   A   D   K   E   K   K   L   V   G   W   E   I   H   H   D   D   Q   G   G   V   F   K   Y   R   F   K   S   V   T   S   I   D   L   P   E   S
UniRef90_UPI000401EE68	H   L   T   L   L   Y   F   D   K   T   T   E   L   K   Q   W   T   V   T   D   D   Q   G   D   T   T   V   V   A   I   Y   E   T   K   I   G   T   P   T   N   P   E
UniRef90_U2L8G2	F   N   R   I   E   L   L   Q   G   G   A   Y   L   I   N   R   I   Q   L   D   D   K   Q   G   D   K   T   D   I   T   L   S   D   T   R   T   E   P
UniRef90_UPI000363D680	S   I   E   I   G   V   D   P   A   D   G   M   P   V   R   V   Y   R   V   D   G   A   A   P   L   R   I   R   I   D   R   N   V   P   V   K   D   S
UniRef90_U6B709	L   I   S   I   T   F   S   R   P   S   Y   L   I   S   W   K   I   D   G   F   G   G   N   N   T   F   V   E   I   L   N   N   K   N   I   N   P   E
UniRef90_B4CW91	L   Q   A   I   K   F   D   F   D   G   H   L   S   F   E   M   A   T   R   D   G   S   S   M   R   S   D   F   T   N   V   R   N   Q   K   I   D   R   H
UniRef90_UPI0003FCEC58	K   I   R   L   K   A   T   K   D   T   R   I   I   Q   W   E   L   F   E   R   N   A   N   R   Y   T   Y   S   V   T   K   F   A   K   V   T   V   G   D   S
UniRef90_UPI00041E0818	Q   K   L   K   M   V   D   K   T   T   K   L   L   G   W   E   M   S   D   G   I   G   G   F   Y   S   F   K   N   K   A   A   P   N   L   P   E   D
UniRef90_A0A010YW63	Q   V   R   I   A   I   D   A   D   K   K   M   P   Q   L   Y   A   R   D   A   S   K   P   A   F   E   V   G   F   T   Q   V   S   F   S   A   P   D   P   A
UniRef90_H8NPK7	F   R   S   I   T   L   N   G   E   T   F   L   I   N   N   D   I   N   D   M   Q   G   D   A   T   H   I   R   F   F   N   Q   K   T   T   P
UniRef90_G6A0U9	R   L   T   L   E   F   D   G   A   W   Q   L   R   R   W   V   I   T   D   A   L   G   V   T   T   T   V   T   L   Q   N   V   Y   G   G   S   L   N   N   R
UniRef90_F0S3K4	K   I   I   L   L   I   D   K   D   C   N   L   K   A   F   K   T   V   Q   I   D   K   T   F   A   T   Y   V   I   K   S   K   E   N   V   K   L   S   E   N
UniRef90_B6E142	F   E   T   I   K   I   E   G   G   V   Y   L   I   N   R   V   V   L   L   R   E   V   R   G   D   V   T   E   M   I   F   S   N   Q   S   S   T   P
UniRef90_H1SJ44	R   I   G   I   G   F   K   S   S   G   N   L   V   P   K
UniRef90_A8F315	R   S   E   I   T   F   N   K   A   T   Q   Q   I   E   A   L   K   I   F   E   D   N   N   I   V   T   I   T   F   D   K   I   K   V   Q   K   F   S   D   D
UniRef90_R5SJW5	K   M   V   I   L   L   N   K   D   L   S   V   N   R   L   T   M   Y   E   N   A   S   D   Y   T   M   Y   D   F   T   D   K   K   N   A   A   I   P   Q   T
UniRef90_UPI0003B338CB	F   S   K   I   E   I   G   N   K   Q   I   Q   G   L   N   L   V   E   L   N   G   D   A   T   T   I   F   T   N   I   S   T   Q   P   Q   E   K   D
UniRef90_C9PWK3	L   L   V   I   T   F   D   K   Q   L   I   A   T   V   E   M   R   E   K   G   G   D   N   T   R   I   E   L   Q   V   K   K   N   V   A   V   S   D   E
UniRef90_A0A059G617	T   L   T   L   V   M   D   V   T   K   E   L   I   G   W   R   T   E   D   S   G   G   N   I   T   S   V   Q   L   S   D   V   E   Y   G   K   L   N   P   R
UniRef90_F8EYP7	E   L   K   I   S   I   H   P   E   K   L   L   R   R   I   E   G   V   T   L   A   G   E   T   I   I   F   N   F   T   D   L   K   N   Q   G   I   G   E   S
UniRef90_F2KRC9	E   F   K   M   W   I   D   K   E   Y   W   Y   P   K   T   E   M   K   G   K   D   M   S   M   T   M   E   Y   T   E   I   E   F   N   T   G   V   S   D   D
UniRef90_D5BFX4	K   V   I   M   S   F   S   E   Q   M   L   Q   S   V   K   L   Q   E   D   T   G   D   Y   T   L   I   T   F   K   N   Y   I   N   K   P   I   K   A   A
UniRef90_W6WVP9	I   K   G   L   Q   M   T   G   G   E   F   L   Q   T   L   R   I   T   L   A   N   G   D   V   T   Q   I   E   F
UniRef90_I4WHE8	L   G   S   I   T   L   S   G   D   A   F   L   E   G   I   R   I   A   M   H   D   D   G   G   S   T   D   I   R   F   A   H   T   R   D   A   G   P
UniRef90_H1HIL1	S   V   T   L   Y   F   N   E   Q   S   M   V   S   R   V   V   M   T   E   P   S   G   D   T   T   V   I   T   L   S   N   V   K   N   A   T   I   P   E   Q
UniRef90_UPI00041E69CD	Q   M   E   L   Y   F   D   K   K   N   M   V   I   A   Q   V   K   M   I   E   P   S   N   D   Y   T   I   V   F   K   N   K   V   N   A   P   V   P   D   S
UniRef90_UPI00045E7011	Q   V   K   L   M   I   D   K   G   T   K   L   L   G   W   E   M   F   D   G   Q   G   G   M   Y   S   Y   F   K   N   K   A   N   D   L   P   P   T
UniRef90_A6D1V6	F   N   T   I   T   L   L   G   G   K   S   D   L   E   R   L   T   L   Q   E   I   R   G   D   K   T   D   I   L   F   S   N   Q   S   Y   Q   P
UniRef90_UPI0004023955	E   I   Y   V   I   I   V   K   N   R   Y   Q   P   Q   K   I   K   F   L   Q   N   G   K   W   V   T   I   N   T   N   R   V   G   K   Q   P   D   K
UniRef90_C3XHU4	A   Y   Y   V   I   I   K   D   S   K   P   Y   E   L   K   Y   T   D   S   I   D   N   V   I   T   R   F   S   V   K   M   N   A   K   I   D   G   S   S
UniRef90_A0A024KDZ4	Q   V   G   L   I   F   D   K   Q   T   L   L   A   Q   W   T   L   T   E   P   S   G   A   E   L   T   F   S   L   D   I   Q   K   D   V   Q   I   P   K   S
UniRef90_UPI00041F1794	K   I   T   L   L   V   F   P   K   S   T   M   L   K   E   I   S   F   Y   E   K   G   G   D   K   S   V   M   K   F   Q   N   E   K   N   Q   P   I   D   D   N
UniRef90_R0DUR7	L   R   G   L   D   L   S   G   D   T   Y   V   R   S   R   I   Q   S   A   S   G   D   E   T   H   I   E   F   M   E   S   T   R   V   E   V   P   N   A
UniRef90_K1L5F4	R   V   I   T   L   V   D   K   Q   K   D   L   L   G   W   E   I   Y   D   D   Q   G   D   M   F   K   Y   T   F   T   N   T   N   V   D   L   P   N   D
UniRef90_W9B452	F   T   S   I   T   L   L   Q   G   G   K   F   I   I   N   H   L   T   L   A   E   I   R   G   D   K   T   V   I   T   F   S   H   Q   R   T   T   P
UniRef90_U2HZ00	K   I   K   L   R   I   N   E   N   N   H   I   H   D   V   T   I   F   D   K   S   S   N   R   F   T   Y   T   I   K   S   S   L   L   G   Q   K   F   D   E   S
UniRef90_S6J3D7	F   T   Q   I   N   I   D   G   G   A   L   V   Q   R   I   E   L   L   E   T   Q   G   D   S   T   L   L   Q   M   R   D   S   T   S   Q   P   L   S   A   A
UniRef90_A6UT98	S   S   T   M   K   I   W   V   D   K   E   Y   W   Q   P   I   K   I   E   F   N   G   G   T   I   E   Y   Q   N   V   K   Y   N   T   G   L   D   D   S
UniRef90_F4LPG0	T   I   K   L   A   V   N   P   E   K   L   I   R   R   V   E   A   V   T   P   Q   N   E   T   F   V   F   L   F   S   D   V   L   N   Q   N   I   S   V   Q   Q
UniRef90_D0LUK4	T   L   Y   L   V   V   D   P   N   F   R   V   K   E   S   V   V   I   E   A   S   G   N   T   N   H   F   R   F   S   P   D   T   R   A   G   I   Q   D   A
UniRef90_UPI000465AA2C	U   V   S   K   I   T   Y   K   D   E   L   D   N   Q   V   A   I   N   F   N   I   V   Q   N   G   E   I   S   D   E
UniRef90_U3AKE8	F   T   S   I   V   L   V   G   K   D   N   I   D   S   L   T   L   Q   E   I   R   G   D   K   T   E   I   V   F   S   N   Q   T   H   Q   P
UniRef90_D8F100	R   I   A   L   T   V   S   P   E   H   E   I   R   S   V   R   I   F   N   T   L   G   S   V   T   R   F   N   L   Q   F   T   L   G   K   N   F   E   K   G
UniRef90_UPI0002F21B47	A   V   S   I   A   V   D   K   T   G   M   P   L   K   F   T   L   T   P   A   S   G   G   A   V   V   D   F   T   Q   V   S   F   A   K   P   D   A   S
UniRef90_H3NTQ3	E   F   N   L   K   V   L   N   P   A   A   L   E   M   H   I   V   D   P   L   G   R   T   T   R   F   E   L   N   I   E   S   T   D   E   P   E   P   S
UniRef90_R5AZU9	Q   A   V   V   T   L   D   S   S   S   L   L   P   Q   I   T   L   T   A   S   N   G   T   T   V   T   V   K   L   G   T   K   I   G   S   S   L   A   D   A
UniRef90_S3JYG5	F   R   S   V   T   L   T   R   G   E   K   Y   I   R   E   L   E   L   N   D   V   E   D   Y   T   E   I   S   F   T   H
UniRef90_L1N940	E   V   Y   I   I   L   I   N   R   S   T   Y   K   P   Q   V   K   M   K   R   G   G   E   W   T   T   I   T   V   S   N   F   K   N   Q   K   L   A   D   R
UniRef90_B5FCF3	F   K   T   I   K   I   E   G   N   D   Y   L   N   R   V   V   L   S   E   V   R   G   D   V   T   E   M   V   F   V   T   N   Q   S   T   P
UniRef90_M1LSF8	E   I   N   V   V   L   V   L   D   T   F   I   H   R   I   S   M   V   D   V   F   D   R   V   I   S   D   F   L   N   V   E   F   D   G   L   S   D   S
UniRef90_F3YZB9	R   I   A   I   R   Y   A   A   D   K   R   I   Q   R   V   E   V   M   E   P   G   G   D   S   T   Q   L   D   F   Q   D   V   R   N   T   P   L   A   E   D
UniRef90_V8QVB5	Q   I   R   I   V   I   R   G   G   Q   T   V   N   Q   V   T   L   S   E   T   Q   G   D   R   T   E   I   L   F   S   N   L   R   D   Q   P   L   P   A   D
UniRef90_F2PCR7	F   S   K   I   E   L   E   G   G   K   F   I   N   E   L   L   D   E   I   R   G   D   K   T   I   I   T   F   S   Q   Q   K   T   T   P
UniRef90_Q5FXU4	L   L   T   I   Q   F   N   G   Q   L   G   I   G   Q   G   V   D   A   R   Q   H   H   F   V   V   E   L   S   V   Q   Q   G   V   A   I   A   P   S
UniRef90_UPI00035D422F	S   I   R   V   A   V   D   A   E   G   T   P   L   K   F   T   L   T   P   K   S   G   G   A   A   V   D   F   T   N   V   D   F   A   K   P   A   A   S
UniRef90_L1N9V6	T   L   V   I   A   T   F   D   R   Q   M   M   A   V   S   V   E   M   I   E   K   S   G   D   N   T   L   I   E   L   R   N   K   K   N   V   S   I   D   S   N
UniRef90_UPI000400AB33	K   V   R   I   Q   I   N   K   D   N   S   V   K   S   W   K   M   F   R   N   N   G   N   R   Y   T   Y   T   I   K   Q   L   P   N   P   V   V   D   A   N
UniRef90_Q3A163	H   L   K   V   T   F   S   A   S   R   T   V   T   E   V   A   I   F   E   T   G   G   D   K   T   L   L   R   F   S   D   K   I   D   R   A   L   D   E   A
UniRef90_C4UST1	F   K   T   I   T   L   T   H   G   Q   F   F   L   E   T   I   D   I   E   M   D   Q   G   D   G   T   L   F   R   F   N   Q   L   T   E   P
UniRef90_S4MG61	A   V   T   V   A   V   D   K   T   G   M   P   L   K   F   T   L   T   P   A   S   G   G   A   A   V   V   D   F   T   Q   V   S   F   A   Q   P   A   A   S
UniRef90_X5J9E0	S   I   T   L   E   I   D   R   T   T   Q   I   H   R   W   E   V   V   Q   N   E   E   T   R   T   V   C   S   F   S   V   N   I   P   L   P   D   A
UniRef90_UPI00029A4619	K   V   R   L   S   I   D   K   A   K   Q   I   A   N   V   V   L   F   D   K   N   G   N   K   Y   T   Y   T   I   K   Q   L   P   N   P   V   V   P   E   T
UniRef90_M3CAU8	S   V   T   V   A   V   D   K   N   G   V   P   L   K   F   T   V   T   P   K   G   G   G   K   A   A   V   D   F   T   K   V   S   F   D   R   P   S   A   S
UniRef90_D9PNL2	S   V   T   V   V   F   R   K   D   E   Q   Y   S   R   I   F   I   E   E   K   S   G   D   T   T   N   L   S   F   D   T   H   L   N   V   P   L   E   N   S
UniRef90_B12Z2W6	I   R   V   L   E   M   S   G   G   A   Y   L   G   K   L   D   M   T   F   A   N   G   N   V   T   V   L   E   F   V   R   P   T   P   V   D   A
UniRef90_F9EVF5	F   N   R   I   A   I   S   G   D   N   V   V   R   K   E   L   D   E   K   Q   G   D   K   T   V   M   Q   F   R   E   V   Q   T   G   K   P   L   D   D
UniRef90_D9WRG4	S   I   R   I   A   V   D   A   D   G   V   P   L   K   F   T   L   T   P   K   S   G   G   K   A   A   V   D   F   T   K   V   D   F   G   K   P   A   A   G
UniRef90_B5ZJY0	L   L   T   L   L   G   F   S   G   Q   L   S   L   V   A   I   D   I   L   D   E   R   H   N   R   T   R   L   H   L   T   D   Q   R   T   G   A   F   P   A   D
UniRef90_UPI0003639B77	Q   I   T   T   V   A   V   D   K   T   G   L   P   L   K   F   T   L   T   P   A   S   G   G   A   A   V   V   D   F   T   Q   V   S   F   D   R   P   A   A   S
UniRef90_F8ECD6	K   V   Q   I   K   V   D   D   K   S   V   R   S   W   K   V   I   Q   R   S   G   Q   R   L   T   F   K   V   D   K   L   T   N   V   K   V   E   D   K
UniRef90_G8TJQ0	K   V   Y   V   L   V   D   K   S   S   Q   I   N   S   T   R   I   L   D   K   S   G   N   V   M   V   Y   T   I   T   N   M   N   N   A   N   I   P   D   N
UniRef90_C2FSS8	K   I   K   L   R   I   N   K   S   K   L   I   Y   D   A   T   I   F   D   K   S   G   S   R   Y   T   Y   T   I   K   S   L   N   N   A   S   I   A   T   S
UniRef90_G31YZ3	I   S   T   M   V   L   S   G   D   T   E   L   R   W   L   E   I   R   E   A   G   G   N   V   T   R   I   T   F   E   N   I   T   H   P   A
UniRef90_10XMM2	T   M   T   L   Y   V   D   A   Q   T   S   F   K   K   A   V   A   S   D   G   R   G   K   T   T   T   V   E   F   G   L   D   P   N   A   D   I   E   D   G
UniRef90_R6Q2M3	E   L   Y   I   T   I   N   R   K   T   Y   V   P   S   Q   V   K   M   R   Q   G   K   T   W   S   T   I   K   V   S   N   F   K   A   R   S   I   P   N   S
UniRef90_R7H343	E   M   Y   I   T   L   N   R   K   T   G   V   P   S   K   V   K   M   K   H   K   G   K   W   S   T   I   T   V   S   I   N   F   S   P   K   S   L   S   N   A
UniRef90_J4JL59	Q   A   T   L   E   M   R   G   G   A   Y   L   D   R   L   D   M   T   F   S   N   G   N   V   T   V   L   E   F
UniRef90_D9X8D4	A   I   T   V   P   A   V   D   K   T   G   T   P   L   K   F   T   L   T   P   A   G   G   G   A   A   V   V   D   F   T   Q   V   S   F   D   R   P   A   A   S
UniRef90_UPI0003149DF6	F   K   A   I   V   I   N   G   G   E   L   V   Q   R   E   L   Q   E   T   Q   G   D   S   T   V   L   R   L   D   N   Q   A   D   Q   S   L   S   D   A
UniRef90_C6W7C3	K   V   Q   I   E   V   N   K   D   K   S   I   I   S   S   W   K   I   F   Q   K   N   G   Q   E   V   T   Y   K   V   D   F   V   P   D   V   N   V   A   D   N
UniRef90_E1R7Z1	Q   I   I   I   S   V   D   E   D   L   R   I   R   R   M   K   G   I   T   A   D   Y   E   S   F   Q   F   D   F   N   V   D   V   N   Q   G   I   P   D   A
UniRef90_D1VX55	E   M   Y   I   L   I   N   K   D   N   Y   I   P   A   Q   K   I   K   Q   G   N   Q   W   S   T   I   Q   V   R   F   N   R   F   T   K   N   L   P   T   A   D
UniRef90_A3QIT7	Q   A   R   I   V   L   Q   G   Q   S   E   Q   L   E   S   I   S   L   S   L   L   D   N   R   G   D   L   S   V   I   E   F   N   A   L   Q   R   P   L   T   A   D
UniRef90_UPI00046E725B	I   L   T   L   G   F   S   D   I   G   S   L   L   V   I   E   M   T   D   V   E   R   V   R   Q   H   L   R   L   D   L   T   D   A   S   G   E   S   W   P   D   A
UniRef90_R6AXS4	E   L   I   I   T   I   N   K   K   T   Y   V   P   S   V   I   K   M   R   Q   G   S   S   W   S   T   I   K   V   S   N   F   R   A   K   N   V   S   N   S

170

UniRef90\_C6Y2Q1 T F T F D S K K G **V** E **V** V D **L** R  
 UniRef90\_D6DWK4 R Q R F A A **P**  
 UniRef90\_Q6AM51 **L** F S  
 UniRef90\_S5ZZ41 N F **V** F D A **P** P T A K **V** L D  
 UniRef90\_UPI0002ECC2D0 **L** F K Y Q **P** P K D A Q **V** T D **L**  
 UniRef90\_A0A024F590 I F T F **V** P P P H **I** D I I Q  
 UniRef90\_T1CX54 Y F T F N P Q K K V E I I D **L** R  
 UniRef90\_S2DR43 W F Q **I** N Y S K  
 UniRef90\_UPI000401EE68 D F T F D **P** R K G **V** E **V** I D F R  
 UniRef90\_U6B709 **L** F **V**  
 UniRef90\_B4CW91 V F D Y D F T G Y E **V** V D  
 UniRef90\_UPI0003FCEC58 Y F E F N K A **P** G **V** R V E D **L** R  
 UniRef90\_UPI00041E0818 Y F T F D **P** K K G I E I I D **L** R  
 UniRef90\_A0A010YW63 Q F T F T **P** P P G A T V N E Q  
 UniRef90\_H8NPK7 **L** F  
 UniRef90\_G6A0U9 L F K **I** T **P**  
 UniRef90\_F0S3K4  
 UniRef90\_B6E142  
 UniRef90\_H1SJ44  
 UniRef90\_A8F315 **L** F K **L** K N **P** E  
 UniRef90\_R5SJW5 V F N  
 UniRef90\_UPI0003B338CB V F N F  
 UniRef90\_C9PKW3 E F K  
 UniRef90\_A0A059G617 **L** F  
 UniRef90\_F8EYP7 R F A Y D S **P** A S A N **V**  
 UniRef90\_F2KRC9 V F E F T **P** P E G A K **I**  
 UniRef90\_D5BFX4 V F Q  
 UniRef90\_W6WVP9  
 UniRef90\_I4WHE8  
 UniRef90\_H1HIL1 **I** F **V**  
 UniRef90\_UPI00041E69CD V F S  
 UniRef90\_UPI00045E7011 Y F A F D T K K G **I** E **V** I D **L** R  
 UniRef90\_A6D1V6  
 UniRef90\_UPI0004023955 **L** F **H** F N A K E K A E **I** I D **L** R  
 UniRef90\_C3XHU4 V F I F Q **P** P D D **V** E Y I D  
 UniRef90\_A0A024KDZ4 Y F Y I D **P**  
 UniRef90\_UPI00041F1794 **L** F  
 UniRef90\_R0DUR7  
 UniRef90\_K1L5F4 Y F N F D **P** Q Q K **V** E I I D **L** R  
 UniRef90\_W9B452 **I** F T F D R Y K G Y E S **I** D **L** R  
 UniRef90\_U2HZ00  
 UniRef90\_S6J3D7  
 UniRef90\_A6UT98 **I** F T **I** T **P** P K G A K **L**  
 UniRef90\_F4LPG0 R F V Y D A P S S A  
 UniRef90\_D0LUK4 W F F F N  
 UniRef90\_UPI000465AA2C **I** F K F **I** I P S N Y D **V** I R  
 UniRef90\_U3AKE8  
 UniRef90\_D8F100 F F D F A A **P** P G **V** N **L**  
 UniRef90\_UPI0002F21B47 T F D F T **P** P E G A K **V**  
 UniRef90\_H3NTQ3 **L** F Q P N **I** P G G A D F F D E R  
 UniRef90\_R5AZU9 Y F R F S P K P G **V** D I I D **L** R  
 UniRef90\_S3JYG5  
 UniRef90\_L1N940 **I** F T F Q S K P T A E **V** V D **L** R  
 UniRef90\_B5FCF3  
 UniRef90\_M1LSF8 F F E L I L P D D **V** E I I N M  
 UniRef90\_F3YZB9  
 UniRef90\_V8QVB5  
 UniRef90\_F2PCR7  
 UniRef90\_Q5FUX4 **V** F T **P** P A  
 UniRef90\_UPI00035D422F T F D F T **P** P K G A K **V** V D  
 UniRef90\_L1N9V6 E F K **V** D  
 UniRef90\_UPI000400AB33 T F T F D K N K G **V** K V V D **L** R  
 UniRef90\_Q3A163 **L** F  
 UniRef90\_C4UST1  
 UniRef90\_S4MG61 T F D F T **P** P K G A K **V**  
 UniRef90\_X5J9E0 Y F T F D M **H** G D L E I I D **L** R E  
 UniRef90\_UPI00029A4619 T F A F D A K K G V E V V D **L** R  
 UniRef90\_M3CAU8 T F S F T **P** P K G A K **V** T E G R Q  
 UniRef90\_D9PNL2 V W N **V** I P D G V  
 UniRef90\_B1Z2W6  
 UniRef90\_F9EVF5  
 UniRef90\_D9WRG4 T F D F T **P** P K G A K **V**  
 UniRef90\_B5ZJY0 F F S **I** T A  
 UniRef90\_UPI0003639B77 T F D F T **P** P K G A K **V**  
 UniRef90\_F8ECD6 F F A F D P A K G V E V I D **L** R  
 UniRef90\_G8TJQ0 Q F **V** F D K A K G V E V V D **L** R  
 UniRef90\_C2FSS8 T F T F N K S K G M E I V D **L** R  
 UniRef90\_G31YZ3  
 UniRef90\_I0XMM2 **V** F N F R P D G N S K I V N  
 UniRef90\_R6Q2M3 S F A F N A K E S A E V I D **L** R  
 UniRef90\_R7H343 **I** F T F K D Y P T A E V I D **L** R  
 UniRef90\_J4JL59  
 UniRef90\_D9X8D4 T F D F T **P** P K G A K **V**  
 UniRef90\_UPI0003149DF6  
 UniRef90\_C6W7C3 F F A F N A K P G **V** E V V D **L** R  
 UniRef90\_E1R7Z1 R F Q Y D E P A S A Y V I E  
 UniRef90\_D1VX55 **L** F V F K S R P S A E V I D **L** R  
 UniRef90\_A3QIT7 E F K L D A  
 UniRef90\_UPI00046E725B **L** F T L S P  
 UniRef90\_R6AXS4 T F V F D F P K A E I V D **L** R

UniRef90\_UPI0003712F6D  
 UniRef90\_R6WVT3  
 UniRef90\_Q04Q5D  
 UniRef90\_U2MF15  
 UniRef90\_V6JCP5  
 UniRef90\_A6Q382  
 UniRef90\_F4L1T4  
 UniRef90\_UP10004727F8C  
 UniRef90\_U2KS59  
 UniRef90\_F2IEB3  
 UniRef90\_R6FZC7  
 UniRef90\_A4F8F3  
 UniRef90\_Q82DV2  
 UniRef90\_U2ZF93  
 UniRef90\_UP100046A86F5  
 UniRef90\_D2TKR4  
 UniRef90\_UP10004788BC8  
 UniRef90\_A0A023WVZ1  
 UniRef90\_G1WAP2  
 UniRef90\_R6XW81  
 UniRef90\_UP100036DCE97  
 UniRef90\_Y0KKJ1  
 UniRef90\_K1XFK5  
 UniRef90\_W5Y8P4  
 UniRef90\_I6ZX78  
 UniRef90\_UP1000255CED5  
 UniRef90\_B9M805  
 UniRef90\_M7NC41  
 UniRef90\_B5SFQ3  
 UniRef90\_UP10004285EC4  
 UniRef90\_UP100035F662C  
 UniRef90\_F5S7E8  
 UniRef90\_A1AV88  
 UniRef90\_I3UHR2  
 UniRef90\_F2NUGO  
 UniRef90\_UP100041321FF  
 UniRef90\_UP1000369878A  
 UniRef90\_T0Z8I1  
 UniRef90\_I0XWS4  
 UniRef90\_L0MD33  
 UniRef90\_UP100035D5CC0  
 UniRef90\_A0A023BV07  
 UniRef90\_D6KAW8  
 UniRef90\_UP100035FED64  
 UniRef90\_W7DRK5  
 UniRef90\_U3QVQ9  
 UniRef90\_UP100045E7ABC  
 UniRef90\_K7T159  
 UniRef90\_UP1000299F2F8  
 UniRef90\_C3XNV1  
 UniRef90\_UP10003487D84  
 UniRef90\_V7IBR7  
 UniRef90\_D1B2T9  
 UniRef90\_E1YLW8  
 UniRef90\_U2J0J4  
 UniRef90\_UP10002891AE4  
 UniRef90\_J1ZVP7  
 UniRef90\_R7ZTC7  
 UniRef90\_B0VG35  
 UniRef90\_R6CZK4  
 UniRef90\_Q8TI29  
 UniRef90\_UP10003B6E412  
 UniRef90\_D5ERJ8  
 UniRef90\_C9LIE6  
 UniRef90\_W8RPV8  
 UniRef90\_J7IZ26  
 UniRef90\_M4U141  
 UniRef90\_UP10003824A25  
 UniRef90\_F0ERT0  
 UniRef90\_UP100040D6A92  
 UniRef90\_A0A016XGY9  
 UniRef90\_D9VTH7  
 UniRef90\_U2YYX4  
 UniRef90\_Q8TI30  
 UniRef90\_M4RM90  
 UniRef90\_UP1000470F183  
 UniRef90\_C6WKV9  
 UniRef90\_K1Y3M1  
 UniRef90\_F3Y0T0  
 UniRef90\_R6WH97  
 UniRef90\_UP1000474A7B7  
 UniRef90\_M2B813  
 UniRef90\_M2TRG8  
 UniRef90\_A6H1U4  
 UniRef90\_H0PSF3  
 UniRef90\_H0JE71  
 UniRef90\_G01ZV0  
 UniRef90\_U2NNU6  
 UniRef90\_C5ZX98  
 UniRef90\_E6QWF1  
 UniRef90\_K0JQZ8  
 UniRef90\_L1M4K6

1 10 20 30 40

E I L Y K M S E K Y K Q T P A F K A K F V Y E L S S P G E Y E G E I L V | K Q N  
 V L D K T A A V V S N K N G A T A Q F T L S S A K T G T V S G R L S L K G N  
 D R L G A L L G R M G E I S S L R A S V T I N N E I I S G T L S Y K K P N  
 D L D A L Q R Q L S A P A V V K G P F I Q E L P Q P L L S E G E F V L A R D H  
 K I E A L Q S H F I Q Q I T N D Q T Y T G E V V Y K A P N  
 V L D K M K A K Y E G Y K T L E A D F S T L T L E M P Q Q K G K L L Q K G A  
 V L D G V S A K L K T F K G V T A G F Y S Y S T K D R K N K G S V S G Q I S I  
 E Q V N K A A Q A M K T L Q C T F R Q T L K N K M V A K G R M C Y S Q P S  
 A A L E K Q H K E T E S I K A D F S E T L T S A Q K A T G K M W Y K K S D  
 E I L D K A A A K F K A Y P A A E I D F T L T M E N P S E N I H E M A W M K G N  
 D A S T S V L S Q S N S A F Q V W A D G Q G  
 S A D P S A K L M E L A S G T H T L R V A A D D G  
 D L M S L Q H Q L A Q H N I V R G E F T Q Q R E Q P L E S S G Q F V L D K K Y  
 A N F T I T G E I G R A S S G S I A L K G E  
 L D D L Q Q R F T E Q P V V R A H F D Q T L P Q P L R S G G K M L I T R D Q  
 D L Q Q L M E T L A Q S K S G R A R F V E T L L D K P V E S S G D L L Y S A P D  
 D L P Q L A E Q L S G P A V V R G D F I Q E L P Q P L T S H G Q F A L S R E H  
 G A S A S F S I Q S G N V G T T K G T I A I K G N  
 V L D K T A K V I G N K S G A S A N F S M S P S K Y G S A S G T I A I K G N  
 S A D P K E Q L T E L L A G S H T L R V A A D D G  
 D V L K Q L G S R V E Q H A V L R A D F T Q T L K R P L I T S G K L L Y S K V H  
 N Q Y N S L S A E Y V Q K K K N E L V I K G Y M K I C K P Y  
 D I A R V E A Y L N T S D G L Q A N F A Q T W P D G G K G Q G V M H Y D P G  
 D L A Q L S Q Q L R E P A V I R G Q F V Q Q L P L P L V I S R Q G F V L L A R E H  
 L D K V S E I I Q S C Q S I K A D F T F T M E N T Q S H E G T I L I A G D  
 E A L E T L R R G F S G M N D F T A D I V Q E M K R K M V I S K G L V R F R K P G  
 T T K T I V S D F T Q Y L S N D I I T K G K L A F K T P D  
 T L D R L M S T L G H N K S G R A T F V E T K Y Q P V E S S G E L V F V A P D  
 V I D A F G S K V K A S K G I T A S F S L K S T S K G K A N G T K A L S L S M  
 D L L A Q F K P L T V A T G T F V Q V L K N P V I S T G E L Y L D Q S I L  
 E L T A Q L Q G Q P N T V Q G Q F V Q Q L P K P M Q T S G Q F A L K K Q V  
 S N F F N S F R E L S A N F T Q I T Y S L A S S S G T L L F K R P Q  
 L Q D L Q K Q L S A H Q T V Q G H V Q Q K L E Q P L L S Q G R F V M A A D K  
 K S V S D R Y A E I K D Y E A D I D I T I G K S E M K G K V S F K R P E  
 I D A M Q K K Y K A M K S F S A S F S Y G V D G T Q V L K G D I T V K G Q  
 A P Q D L L A Q F K P L T I A S G T F V Q V L N N P V T S T G E L Y L D Q A L  
 D E L V L L V K N V K S G E G F S G D F V Q T L T A G T R S E G S L V Y R A P G  
 E R L S G V I G K M A E I S S F R A S Q L Q Q R F S Q Q A V L R A E F E Q Q M A K P L Q S G G E L L I S Q Q K  
 D P S G R L T E L A S G T H T L R A D P D R Q K L S L L E N A A E Y S L I H N G  
 A K V K A L A T T T K T I S S D F T Q Y L S N D I I T T G K L A F K T P N G  
 S A D P S A K L T E L A S G T H T L R V A A D D G  
 A D P S S K L T E L A S G T H T L R V A A D D G  
 A I T Q V E S Y L N N P K G F E G Q F T Q T W P D G G K S T G R I V Y E P G  
 D T L G A I A A R L A D A P V I R G R F E Q K F T N P L L I S R G D F V L A R E R  
 D Q V A Q R L S A N S V L H A D F A Q T L K K P L Q L S G R M A F S R E A  
 K E I N S F N G K F V Q T I D K I V Y S G E L W A S K P Q  
 G L D E L S K Q L G E P A V I K G P F I Q E L P Q P L V S K G Q F V L A R D H  
 L Q V V L G E L A R H E A V R A D F V Q T R S N P Q E S H G Q L L F V L G H  
 E L T A Q L Q A P Q S V Q G G F T Q Q M D K P V Q T S S G R F A L R P G R  
 A K I L D S F K T I Q S D F V Q K V T N D Q N Y Q G V F Y A T H D K  
 V L S R L E K K M S G I K T L K T G F I Q V F N N K I V L K G T V Y I E K P Y  
 Q N L M R K T A Q I K T L T A D F V Q Y V K N E L I S S G K F Y V K N P D  
 L S G A T Q S S D T S A A D P T A K L T E L A A G T H T L R V A T D G  
 L T E V S D R Y K Q L N G F K A T F E Y T Y S T I Q T N T G E V S V K G D  
 Q K I A K T Y G S L S S F Q A V I K Q Q L D K S I T Y H G N I Y F T K  
 L D Q A A A N Y K K S Q G I S I Q F E G T Q P G T L L Q G D G  
 D I A E Q M Q E K D A G I E D Y S Y T M Y I T D K W E G Q I E I M Y K K P G  
 L S Q V S Q K Y K S Y D V I K T D F T F S L N N Q Q A G T G T L I S K K S G  
 V L D K A A A T I T A P Q G V K A N F K M S A T S G S T S G T I A I K G K  
 D V L D K T A A K I A N S G S L K V S F T T T F Y N G L K T N G T I L L K G N  
 D I L A Q L S R Q L S E P E V I R G N F T Q E L P Q P L V S T G A F V L A R D R  
 L D R L M A T L A Q H K S G H A T F T E T A T Q P V E S S G E L V F V A P D  
 Q L Q K K L T A H D L L R G D F V Q H F K Q P L V S N G H F L L D N K N  
 S A D P T A K L T E L A S G T H T L R V A A D D G  
 A D L V K Q L Q Q P Q S V Q Q N F I Q H L N K P I E M Q G Q F A L L L A Q K  
 L A R I R Q R L Q T A P V L R G Q F E Q V F K N P L V S R G E F L V A R D H  
 D L A D L S A Q L A K P A V V R G P F V Q E L P T L T S Q G Q F T L S R D H  
 E I A A R M L E K Q N S I E D Y S Y T M H M T Y Y K V V E N E F K T I Y K K P H  
 Q D L V L Q I L Q K P S N L Q Q G F S Q Q L T K P M T T Q G D F V L L K N Q  
 V L D K T A A I V G N K G G A Q A S F K S N G K L G A I N G T I S I K G N  
 E S K A R M W T D G Q G  
 K L K I R A E N T A T L V A D F R Q E L K N K M I S K G V F K Y K R E D  
 A Q L I A K T R T L Q T M Q A D F Q Q K M S K D I E T F G K M A F A K P S  
 L D K T A Q T L Y S K S G A K A N F S A S G K L G N V S G T V A V K G N  
 D L S Q L A A Q L G K P A V V R G E F L Q S L P Q P L V S K G H F V L A K Q H  
 S S V S D R Y A Q I Q D Y I V D M N I T V G S S T Q Q A T A M F K R P D  
 Q L A E Q L S G P A V V R G D F I Q E L P Q P L T S Q G Q F V L A R D H  
 V K E V A T K I K S L S T D F V Q Y L S K D I E T S G K M A F K E P N  
 D L D D L A T Q L A R P A A V V A G S F V Q Q L P Q P L V S T G S H F T L A R G L  
 E I L S K V S E N Y K S L N G F T G L F E Y S Y S T I Q T N T G N V T V K G N  
 G A T A R F S S G G S K I K S E G S I S L K G N  
 Q E I R T L Q S M Q A N F T Q K L I S Q N S T K G E F F A L A P H  
 D I D Q L M G S L A Q V R S G H A S F V E K L D Q P I E S G E L F Y T A P D  
 G L E D L R K Q L S E P E V I K G P F I Q E L P Q P L V S T G Q F V L A R D H

UniRef90\_UPI0003712F6D K Y H L T L G S Q E I F N N E K N V W T Y L V D D N E V T I T E Y E K D P  
 UniRef90\_R6WVT3 K F Q V T T P H S I I W Y N G K T Q W S Y L K S T E E V N V S T P A Q Q L  
 UniRef90\_Q04Q55 Y L H V K F S D G R V V S S N G R F L W F Y S P A R A I V G K Q D L R G T S  
 UniRef90\_U2MF15 K Y F Y A N T P K A I V W Y N G K T Q W T Y M R A T N E V N I S T P D E T K  
 UniRef90\_V6JCP5 G L L W M L H T P L R Q D Y R I D A H G I A R R D P S G W Q V P S R S A G A Q Q  
 UniRef90\_A6Q382 H L Y W K Y V S P I R K E I Y I N G K K A V I I E P E I E Q V V I K R D D T L  
 UniRef90\_F4L1T4 K G E Q Y Y I K Q G T T E I F C N G S K T W N Y N G E N E V T V S D V D N D S R  
 UniRef90\_UPI0004727F8C Q L R W E Y T S P Y Q Y V F I V N G N K V L M K N T D V I D A N K N K V F K Q I  
 UniRef90\_U2KS59 K I R W E K T S P E S H I I L I N G K T V K M K D K E V T N A S A K M V A K K I  
 UniRef90\_R6FZC7 L Y K L N V M D V E N Y Y D G K N I Y T Y M P E V Q E V N I K N P N E E E  
 UniRef90\_A4F8F3 R H R V S L P S P A E N T I V N D G A T V W N W N S A E R T V T R A A H D S A P  
 UniRef90\_Q82DV2 E D K Q K L D K A A E Y S I I R N G A D V W A Y D S A S N E A Y H A K D A D D V  
 UniRef90\_U2ZF93 G L L W Q Q T T P F P V N L V L T E D K L Q Q T F A D Q S T A Q D N P M A F Y F  
 UniRef90\_UPI00046A86F5 K F K K A V T P E T T I W F D G K T Q W A Y M K S T N E V N I S T P N E A M  
 UniRef90\_D2TKR4 G L L W D Q T R P F P M Q L L L D D K R M V Q T I N G Q P P Q T I T P Q M F Q F  
 UniRef90\_UPI0004788BC8 R L E L K R T L K P Q P E S M I V N G D E L V I E R G R Q K Q L Q S Y P E L A A F  
 UniRef90\_A0A023WVZ1 G L L W L L Q Q P I R Q D Y R I T P Q G I L A R R S E N G W Q V D P Q G G S A R Q  
 UniRef90\_G1WAP2 M F H A R T D K A T M W Y N G K T Q W T Y M K A T N E V N I T T P N A A K  
 UniRef90\_R6XW81 K F N A R T A Q A T V W Y D G K T Q W T Y M K K T N E V N I V N V S N P T Q A M  
 UniRef90\_UPI00036DCE97 P Q R Q K V V R N A A E Y S L I H N G D E V W A Y D S G S G N Q A Y H W P A T P Q E  
 UniRef90\_Y0KKJ1 G V V W Q I T K P Y P I T Y I L S E D K V I E V S A D G R S V K D I P G F A Q I  
 UniRef90\_K1XF5 K L L W H S E T P L R Q T I V L T N E L I S I K D F E N K K V N T F K L K D N P  
 UniRef90\_W5Y8P4 R L R L D Y E T P G S M K L V A Q D G H L F V D H R R E S V T R M S L  
 UniRef90\_I6ZX78 G L L W S L K Q P L Q D Y R I S G S G I A Q R T P S G W E P T D Q Q P A A R  
 UniRef90\_UPI000255CED5 K Y K A S V M N V E S Y F D G K T L W T Y L K E V D E V N I S Y P D D E T  
 UniRef90\_B9M805 T F F M E L L P P Y A S R L L L R D N T M R L P E Q G V T D R I V L P P D E S L  
 UniRef90\_M7NC41 L V K W E Y T E P Y K Y A V L F K N E T L F I N D E G K K N Q V D M G S N K L F  
 UniRef90\_B5SFQ3 H L E K H T L S P K P E H L V V D G D K L T L I E R N Q R K Y T A Q Y P E L D A F  
 UniRef90\_UPI0004285EC4 R G E K Y V L K Q G K T E I I C D G K N V Y N F D G A K T I T K S A V E E S S Q  
 UniRef90\_UPI00035F662C G F V W H T S K P I A S T M I L K G D G L F S I D H R Q Q Q K K I N N A T P I  
 UniRef90\_F5S7E8 G L F W Q V Q K P D L Q L R V S Q G I S Q W D K N A K T W R N S S Q S G Q A A Q  
 UniRef90\_A1AV88 Q L I W H T L P N E R I L L L N T E L W L I D I E L E Q A S L I Q A T N L  
 UniRef90\_I3UHR2 G L L W E T R S P I A S L I R I T P E G M M H Q D G A G R W Q P L Q Q Q S Q T Q  
 UniRef90\_F2NUGO M L R I D F S D P A E Q V V V F N G D D L T I Y L P S P T S A I L E Q N V T  
 UniRef90\_UPI00041321FF K Y R L K L A G Q E L F N N G K E V A T Y I K E T N E V N I S D Y E P S D  
 UniRef90\_UPI000369878A G F V W H T S K P I A S T M I L K D D G L F A I D H R Q Q Q T K I N N A T P I  
 UniRef90\_T0Z8I1 L M I L H Y S N P P G Q W L K L E G N R M A L Y V P Q N R Q V L L K T I R K H R  
 UniRef90\_J0XWS4 H I H V K F S D G R V I A S N G R Y L W F Y S P S R G I V G K Q D V K G M T  
 UniRef90\_L0MD33 G L W W A Q Q R P F P L T L L D D R R M V Q Q A P Q V V T A E N N P Q M F Q F  
 UniRef90\_UPI00035D5CC0 K D V W G Y D S A S N E V Y H A T L D E A D A K E R S R S R Q Q P P A T P K D F A E  
 UniRef90\_A0A023BV07 I V K W E Y V E P F T Y S V L F K N K T L Y I N N E G N K S N I D I G S S E Q F  
 UniRef90\_D6KAW8 P D R Q K I E S A A E Y S L I H D G K D V W G Y D S K S D E V Y H T P R D F A E  
 UniRef90\_UPI00035FED64 K L S L R E R G A E Y S L I H N G K D V W G Y D S G S N E V F H K E R E D D R  
 UniRef90\_W7DRK5 K L R L N Y E Y P A P M I V V A K D K R M V A K D F S N Q S V T H I G L  
 UniRef90\_U3QVQ9 G L A W T T R E P I V S S L L V T P T Q L V V R D G Q V Q Q A D E Q P A M R V V  
 UniRef90\_UPI00045E7ABC G V V W Q I A K P Y S L T M T A R G V T E I L P D G S R R E R A R P G I G S V  
 UniRef90\_K7T159 N A I L W V Y Q K P I Q K S V Y I N A Q K I T V V E P S I E Q V T L R T L D D E I  
 UniRef90\_UPI000299F2F8 G L L W L L Q P L K Q D Y R L N A Q G I A R R D P S G W Q M L P G K S A G A E  
 UniRef90\_C3XNV1 S V L W K Y E T P P I P K E I Y I L D N G T M I F E P K L Q Q A L F T Q L Q E N M  
 UniRef90\_UPI0003487D84 G M L W Q S L A P V A E T L A F T G R Q A A R I D T Q G Q A Y P L R N A R A Q I  
 UniRef90\_V7IBR7 G L F W H L Q K P F E M K L R V R R D G T S R Q D A Q G Q W R A S Q T A Q A A Q  
 UniRef90\_D1B2T9 K A L W I Y D K P V E K K I Y N E T R V L I I E P E L E Q V I I T T L E N T P  
 UniRef90\_E1YLV8 R L A W L V D K P L K Y S M V M S E D T I S Q W D E T D N T N V S K N P A F E A V  
 UniRef90\_U2J0J4 K L A W F Y S S P T A Y T M V F N D K K M M I E E K G K K K I M D M G R S K Q F  
 UniRef90\_UPI0002891AE4 K L S L L E N A A E Y S L I H N G K N V W G Y D S K S N E V Y H S T K D S Q A  
 UniRef90\_J1ZVP7 K Q R V I V D K A A E Y S L V H N G N E V W G Y D H G K Q Q A P K D L P K G L Q  
 UniRef90\_R7ZTC7 K Y R L E L D D Q I I Y N D G N T V W T Y L K K Y E E V T I N S V D K D S  
 UniRef90\_B0VG35 R M V I R Y N K P Y F Q R L S V S G G I V E L Y D S Q S N T V F R S K M R P E F  
 UniRef90\_R6CZK4 C F Y L N C G G V I S S W F D G K T Q W S Y M Q Q Q N N E V T I S S P E E L E  
 UniRef90\_Q8TI29 M M K T H S K G G S E Q L T V S D G E F S W S Y T P G I N T V S K Q T K S D Y M  
 UniRef90\_UPI0003B6E412 K Y R V S L Y K P E D K E I M S D G K T Q W T Y L K K D K E V Q V G D V D K G G  
 UniRef90\_D5ERJ8 K F K Y A T T P P Q A T V W F D G K T Q W T Y M K N N D E V N V S N P T E A Q  
 UniRef90\_C9LIE6 K F K L L T S R E V I S V W Y D G K T E W S L V A G N N E V N V S T P S A S E  
 UniRef90\_W8RPV8 G L L W F L R E P L Q Q D Y R I S A S G I A R R D A S N W H P A H Q Q G A A A R  
 UniRef90\_J7IZ26 H L E K R T L S P K P E Q L V V D G D M L T V E R N N R K Y T A R Y P E L G A F  
 UniRef90\_M4U141 G L I W Q Q E S P F P V A L V L V K D K L K Q Q I A K Q P A Q V I N P M V F Y F  
 UniRef90\_UPI0003824A25 P D K Q K V V E N A A E Y S L I H N G K D V W G Y D S K S N E V F H A S K G D E T  
 UniRef90\_F0ERT0 G L L W Q L L K K P F N N S L R V T P P N G I Q Q W N G T Q W V N S G N V G Q N E Q  
 UniRef90\_UPI00040D6A92 A E R T I V Q D G T T T W L W N S A D R S V V K Y R N G D T A  
 UniRef90\_A0A016XGY9 G I V W H T L R P F E S T L V V T R D R L Q N R Q A D G S D A R D E P G L R A V  
 UniRef90\_D9VTH7 P D R Q K L L D G K D E Y T L V H N G Q D V W G Y D S K S N E V D H K K T A E R L  
 UniRef90\_U2YYX4 G L L W P Q K P L K Q D Y I A D S G I A R R T P E G W W Q Q P Q P G Q D V V A A Q Q  
 UniRef90\_Q8TI30 M I K N F I E E P E E T L V L S D G E F R W T Y A P G T N T V M K T K I D D Y L  
 UniRef90\_M4RM90 G L L W Q M K K P F E N Q L R V K A D G I S Q W N G S Q W V S S Q Q L G Q S E Q  
 UniRef90\_UPI000470F183 K F Y A R T A K A T V W F N G K T Q W S Y M P S T N E V N V S T P N E I Q  
 UniRef90\_C6WKV9 R T R V Q L P S S S E R T L V N D G S T L W M W N S A D Q K V T R Y S A A E R P  
 UniRef90\_K1Y3M1 K I A F F Y S S P M V Y H M I I N G Q W L R A F S N G S N M V N N N P V M K E I  
 UniRef90\_F3Y0T0 Q L N W Q Y T K P Y Q Y R I I F Q K D N I T V N D A G K V I S Q I K A D N K V F K  
 UniRef90\_R6WH97 K F Y A Y T P A S S V V W Y D G R T Q W T Y M K K S Q E V N I S T P T E A Q  
 UniRef90\_UPI000474A7B7 G L L W L L Q T P L K Q D Y R I D D Q G I A R R D A N G W Q Q L P Q R S A S A Q  
 UniRef90\_M2B813 K L R L D F K S P A E Q C I V F N G N T L S I Y L P Q Y R T I L T Q D V E Q S N  
 UniRef90\_M2TRG8 G L L W L L Q Q P I R Q D Y R I S A L G I A R R S E Q G W Q A L D P Q G S S A R  
 UniRef90\_A6H1U4 M L Q W Q Y K K P Y N Y S I V F K N G K I F I N D E G K K S A M D V S S S K I F  
 UniRef90\_H0PSF3 R L E K I T L K P K P E S L V L E G N T V T V N R G K K Q L S D Y R E V A A F  
 UniRef90\_H0JE71 G L L W R L E K P L T Q T Y R I T P G A I A K E T P A G W T P P G S D L A A R Q  
 UniRef90\_G0IZV0 K Y R L T L D D Q E I F N G N K T V W I K S T K Y K E V T I N N V E D D V  
 UniRef90\_U2NNU6 K F Y A S T P Q A A I W F N G K T Q W S Y M K S S N E V N I S T P N E A K  
 UniRef90\_C5ZX98 F V L W K R Y E S P I P K E V Y I N K D S M I I Y E P K L E Q A I Y S T L K E N L  
 UniRef90\_E6QWF1 R L E K R T V K P K P E T M V V D G D H L I D R G A Q K Q L Q D Y P E L A A F  
 UniRef90\_K0QZ8 R V R V Q L P A G D E R T F V D D G Q T G W L W N S A D Q T V T K L P H G Q Q L  
 UniRef90\_L1M4K6 G L L W L L Q S P L K Q D Y R I N A S G I A R R D A A G W Q V P T R T A G T E

	90	100	110
UniRef90_UPI0003712F6D	E D I S P T D M P D L Y K E G Y K Y R F V K E T K V D V E L L Q P E D T D L S Y F		
UniRef90_R6WVT3	Q M N P Y R F I N M Y K T G Y N N L G L T D T G K G A Y W V H L T A R N P P K N S V P		
UniRef90_Q04QD5	G G V F G G L L S G Y E D V S Q V V G G S I R L K S S T K S Y Q		
UniRef90_U2MF15	Q A A M N P Y T F I N I Y R K G Y D M G V K S V G K S Y Q L V A Q N K S R G I Q		
UniRef90_V6JCP5	N Q L L F F A V L Q G D S T G L Q R D F E L A L S G D Q L R L T P R S L L L K Q I		
UniRef90_A6Q382	S L D T L I H N A K K I S K D R F E A N Y E N K S K G F T I L L		
UniRef90_F4L1T4	I L S P Q A L F R I Y L R K D F E F A Q G Q K R V V Q E I E F K P T D K Y S E Y S		
UniRef90UPI0004727F8C	T L T P Q K L L S N F Y D K D F T Y K L I S S A G N E I Q M T P I D S R K N F K		
UniRef90_U2KS59	T S I I M M S S V T G K C L T D H Q N F K M S T S G T S W I L T P V K K E Q L F S		
UniRef90_F2IEB3	Q Q L L M V Q M M G N E K D F K I V Y F E N K S N Y K L V L T P K N D K M Y V A		
UniRef90_R6FZC7	E N P T T L F D I H N Q G F D Q K L V S T G N D I T Y I E L P T D K S R N F T		
UniRef90_A4F8F3	P A D P A A M S R Q L I D A V R Q T S E V S V D G T E L V L K P K P T E T V L R		
UniRef90_Q82DV2	P A T P K E M A D E A L K A V D D D T T S V A V D G T K L V I K P K Q S G S T V G		
UniRef90_U2ZF93	T R V F L A V F H G D T A V L K Q Q F H V E N G Q W V L L L T P K Q A P L D K V		
UniRef90UPI00046A86F5	S M N P Y A F I S M Y K N G Y R M S M K T V N N T Y V V H L Q A I H P A R S M Q		
UniRef90_D2TKR4	N H L L R A L F R A D R K V L E Q N F R V E A G R W T L R L T P V T T P L D K I		
UniRef90UPI0004788BC8	I D S I R G T L A G D R K A L E R N Y R L S L E G T T L Q L L P D E K M Q I Q		
UniRef90_A0A023WVZ1	N Q L F L A V L S G D T K A L Q R D F Q L E L S G W R L Q L T P R G A L L L K Q I		
UniRef90_G1WAP2	Q A N P Y K F L S L Y L K T G Y Q L S M K S V R A P Y Q I H L T A I D K Q Q S P Q		
UniRef90_R6XW81	S M N P Y T F I N I Y K T G Y T S T M K T I G S N Y K V R L V A Q N K N K R T V Q		
UniRef90UPI00036DCE97	A A K K I L D A A D D S S T V T V D G T A R I A G R D L V V T P K A T D S T V G		
UniRef90_Y0KKJ1	S R I F K A M L S G D V N A L N A Y F E S K Q T A W Q L Q L T P K Q T Q T S R F		
UniRef90_K1XF5K	Q I R E F M F L K G D Y E S L E K E F S I I S D N P M Q V I E C I P K G N G Y R I T		
UniRef90_W5Y8P4	G H Q P L G L L L D Q P V H L S G L I S V T Q N S L V S L A R R D S E S Q G		
UniRef90_I6ZX78	Q N R L F L V L G G D A E A L Q R D F Q L E L L G T T L T P R S K L L Q Q I		
UniRef90UPI000255CED5	T L S P S N I F S I H K N G F R E E D V I D G Q K V N I V D L L F P E D R N K P Y S		
UniRef90_B9M805	D K W F A Y L A K P M T K L P E G M V E R Q G S T W N V Q L S P K G K G G V K		
UniRef90_M7NC41	K E L N H L I N S I K G D M F D E Y F K T G K N S E V H F P K K D N N S I E		
UniRef90_B5SFQ3	I E S I R A T L T G N R Y A L E Q I Y K V A V A G D D W T L T L T P L D A R M L		
UniRef90UPI0004285EC4	T L S P Q K L L A G S Y D K D F S Y K L V N S N G N E I E M V P L D K R K N F Q		
UniRef90UPI00035F662C	A T V L M S A L S G D L S A L A S Q F S L A A T S T C I E L T P K D A T I A K V		
UniRef90_F5S7E8	V K L L F M A V L G G D T T E L S K Q F D L R V S G W T L T L Q P K T A L M K Q V		
UniRef90_A1AV88	T Q T P L J W L I S Q P S D I S H Q Y T H T K D K I D W Y S T Q Q A N Q L S F G		
UniRef90_I3UHR2	I R L F M D L L S G N T R S L S G Q F A Q S L Q G D A W T L T L D P A L A V L K		
UniRef90_F2NUGO	A S G P N A A T S Q G L S L L R Y Y T V D E M V V N L L L S R R S A A E A F R		
UniRef90UPI00041321FF	N D N P A K V Y T F D K K G Y R Y V F E V K E G A D T Y E L S P E K K G T Q V A		
UniRef90UPI000369878A	A T V L M G A L S G D L T A L E S Q F M A S T S Q T C I E L T P K D D T I A K V		
UniRef90_T0Z8I1	I P E T P A I L L A S I P E I T K W F F V R P E G T S I V L I P R H P D P H L A		
UniRef90_I0XWS4	G G M A G L L S G Y E E V T P V G G S L R L K S A T R T Y E L		
UniRef90_L0MD33	N H L L S A L F H A D G Q A L E Q N F T L Q D E R W R L V L T P K T T P L D K I		
UniRef90UPI00035D5CC0	E A L K A V D D T T S V T V D G T A Q V A G R D A Y K L V V K P K H A S T T V G		
UniRef90_A0A023BV07	K Q L L N K L I I N S V K G D M F N D Y Y K N K G N S E V H F S P K D K E K F I K		
UniRef90_D6KA8	E A L L K A A D D T T S V T V D G T A Q V A G R D A Y K L V V K P K H A S T T V G		
UniRef90UPI00035FED64	H G T P Q D F A E N A L K A V D D T T S V T V G G T E L L I K P K Q Q G S T V G		
UniRef90_W7DRK5	S S R N P L G L M L K T P V H L S K P I L V T K N G F L Q I S L A S S D N P S Q G		
UniRef90_U3QVQ9	G E S M I A V L R G D L S K L S T R F A L G K D S W A L T L T P T D S G I R R A		
UniRef90UPI00045E7ABC	D G L F R G L V V S G D K A L L L Q Q H F V V V A A Q Q G W T L Q L T P K A G P L Q K A		
UniRef90_K7T159	D F L Q I I Q K A K V V D D E K Y Q S A T V K G E N Y T I L P K Q D D T I A K V		
UniRef90UPI000299F2F8	Q N L F F A V L V Q G D S S G L Q R D F E L S L K G D Q L R L T P R S L L L K Q V		
UniRef90_C3XNV1	D L L S L L K K A K K I K E N H Y E A V I L G Q K Y I L L L K		
UniRef90UPI0003487D84	S D M L L Q S M L A G H G D E V S R Q F D M T A S G T T L Q L V P R Q E R V A R V		
UniRef90_V7IBR7	V K L F F M A V L G G D T A E L Q R H F N L A L S G N Q L T L P K T A V M R Q V		
UniRef90_D1B2T9	N I L A Q L L Q E A K I I S T N T Y V T K F M E T T Y T I L A N T H G		
UniRef90_E1YLV8	I G Q M R E W F S G T Y T Q L M K E Y N V S D K P V S L K F V P K P A S N V I K		
UniRef90_U2J0J4	E K I L S Q A I Q A N M N G G T Y Q S Y F Q S N K L Y I L K L D P I A K E K A M K		
UniRef90UPI0002891AE4	P A T P K D L T E E T L K A L D P T T S V T V D G T V H V V T P K Q S G S T V G		
UniRef90_J1ZVP7	N A T P Q D L A K Q A L Q A A G D T T S V T V D G T V H V V T P K Q S G S T V G		
UniRef90_R7ZTC7	D E L T P B S N I Y T I H K L L G E K N L D R R P V Y E V V L L T T N K N S Q I V		
UniRef90_B0VG35	G M N P V E I L Q L Y W K K S T V N I Q Q G K G N L V N V F L K P F D D P V I V		
UniRef90_R6CZK4	A I N P Y A I I I N S Y N T E V T L L R E E E L A G R S V Y L L E A V P K Q K Q D L K		
UniRef90_Q8TI29	S V I E Y F L N Q T E V T L L R E E E L A G R S V Y L L E A V P K Q K Q D L K		
UniRef90UPI0003B6E412	D G N P A Q I T M F Y M E K G F K Y L T G E Q K I Q N I E L T P E D E K K S I F		
UniRef90_D5ERJ8	A I N P Y N F I N L Y K R G Y N Y T I N T G K D Y V V H L L A N S G E R K I K		
UniRef90_C9LIE6	A A M M N P Y T F T S L Y K K G Y N T S I K D T K Y E V A L Q A Q N K G N Q I Q		
UniRef90_W8RPV8	Q N D L F L V L R G D T E A L Q R D F E L E L S G T A L T L P R S K L L Q I		
UniRef90_J1ZI26	I G L F L G L L S G N I D G L K S Q F D A L S G N Q L T L P N S L L M Q Q I		
UniRef90_M4U141	A S D P T T A A Q T I V G K I Q Q D S V I T V D G T Q L V L T P K P T E T T L L R		
UniRef90UPI0003824A25	N A L L F A L L M A A D L E T L A Q R F H I Q A Q D W R I S L R P R D A A L A Q W		
UniRef90_F0ERT0	R A T P K G L T D E A I K S V D D T T S V T V D G T E L V I K P K Q S G T T V G		
UniRef90UPI00040D6A92	Q N D L F L V L R G D T E A L Q R D F E L E L S G T A L T L P D S R M L M		
UniRef90_A0A016XGY9	A A D P T T A A Q T I V G K I Q Q D S V I T V D G T Q L V L T P K P T E T T L L R		
UniRef90_D9VTH7	N A L L F A L L M A A D L E T L A Q R F H I Q A Q D W R I S L R P R D A A L A Q W		
UniRef90_U2Y7X4	P A S P Q E L A T T D I L S V G D T A Q V A G R D A Y Q L V L K P K Q S G S T V G		
UniRef90_Q8T130	S R I F L F A V L K G D R S G L E R D F E L K Q D A W Q L Q L T P H S L L L K Q I		
UniRef90_M4RM90	S I I G I T L N D T N V S L L K T E E I E G R E A Y L L E A T P K E E D T P A Y		
UniRef90UPI000470F183	I K L F L G L L S G D V I A L S S Q F D L Q L N G T E W Q L S L V I P N T L L M K		
UniRef90_C6WKV9	Q A N P Y T F I N M Y K S G Y K L S M N K V G S D Y Q V H L E A E K G N K G I P		
UniRef90_K1Y3M1	A A D P T V S A A R E V V T A V Q Q Y S D V S V D G T E L V L A P K P D E T V L R		
UniRef90_F3Y0T0	R G L I S A S F T G N L S R A G S N Y K I E S E G I L I V S V V P L N R Q S I I		
UniRef90_R6WH97	T K I N H L I I S S T G D M F D E K E F T I S L K H T L V K L P K D K T L L I R		
UniRef90UPI000474A7B7	Q Q S P Y K F L Y I Y K N G Y K L S V K K L G N G W Q V H M D A V N K G R T I K		
UniRef90_M2B813	Q N R L F L V L E G D S S G L Q R D F D L A L S G N D W K L T L T P R A V L L L K		
UniRef90_M2TRG8	A G G S S L A T P Q G L S I K R G Y T I Q E N V I I L L M N R K S A T E T F K		
UniRef90_A6H1U4	Q N Q F L F L V L S G D T Q A L Q R D F D L Q L N G D R L Q L T P S G A L L R Q V		
UniRef90_H0PSF3	A K I N K L I V G S D D A A F S I S Y F K N K I N N I T K F I P K D A K K Y I K		
UniRef90_H0JE71	V D S I R A T L A G G D R A T L E R T Y A L H L A G D N W T L T L L P R D P R M A		
UniRef90_G0IZV0	S A L F L F A V L G G D R S G L E R D F E L A L S G D Q L R L T P R G A L L L K Q V		
UniRef90_U2NNU6	D E L T P B S N I Y N I Y K K G Y T I Q S L Q I G S S A H E I I L L T S D K A N A R F K		
UniRef90_C5ZX98	Q A N P Y K F L T L Y R N G Y Q L S I Q R T K K S Y L V H L M A Q D K K R G I Q		
UniRef90_E6QWF1	I D S V R G T L A G G D R A K A L E R N Y D L S L E G W T L Q L V P V S A K M K Q V		
UniRef90_K0JQZ8	P P D P V S L S R E V V A K V K E F S D V T V D G T E L V L V T P K P T E T V L R		
UniRef90_L1M4K6	Q N K F F A V L Q G D S S G L E R D F E L A L Q G D Q L R L T P R S L V L K Q I		

130            140            150            160

UniRef90_UPI0003712F6D	K I L L T I E K D K T L   R S W K V F Y K D N R T T E Y M I   K D F P Q T N   L S D N
UniRef90_R6WVT3	E I Y I L I D K K T S H P E T I K M R R G K E W T T T V T V R N F K A G R L L A D S S
UniRef90_Q04Q5D	E I V V T T M N P D N T P K S L R M H R G S G E Y T S I S F S V Q T N V G L S A S
UniRef90_U2MF15	E F Y I S V D K N T Y V P N Q I K I H Q S G G W T T I D I S N F Q T K N L N D N
UniRef90_V6JCP5	F S R I D I S G G R F V Q R I E L S E T Q G D S T V L R L
UniRef90_A6Q382	K N S K L Y T I E Y K D E L G N N V T L K F I N K Q N V Q I D P S
UniRef90_F4L1T4	K L R L T L D K K T Q F I E L K V F S K D G S R Y T L V M N T I T N K A L T D A
UniRef90_UPI0004727F8C	Q V N V F V D K K N L I T K A R V I D K S D N V I E F A L N N I T N A T L P D S
UniRef90_U2KS59	Q L L I T F D T K R M V V R V E M I E K G G D N T V I E L L D I K N A S V N G N
UniRef90_F2IEB3	E I S L I F D K K E L I K Q L T M E Q D E S S K L D Y K F S N E L N T S I A D T
UniRef90_R6FZC7	K I G I W V N P T S S I Q K V T S F G K D G N N V L I T I K S Q S S P V P A D S
UniRef90_A4F8F3	E V R I A V D A E K R I P L A V T V G T N G S D S H V G F S N L D L A Q P D P A S
UniRef90_Q82DV2	A I T I A V D K T G L P L K F T L T P A K G G A A V V D F T Q V T F A K P S A S
UniRef90_U2ZF93	F Q R I T L S G Q T D I E Q L T L Q E L R G D N T R I Q F H H Q T H Q P
UniRef90_UPI00046A86F5	E F Y I T I S K S Y Y P Q Q K M L Q G K K W V I N I S N F R T V S Q S N S
UniRef90_D2TKR4	F A T I D L A G G N Y L E H I T L N D K Q G D R T E I T L S Q H Q L T P
UniRef90_UPI0004788BC8	R I R I T G V R D Q V R S E I T Q A D G D S S L M A I
UniRef90_A0A023WVZ1	F A D I E I Q G G E T V T Q I E L H E T Q G D R T L I R L D S Q T G V A L T A S
UniRef90_G1WAP2	E F Y I T I S K T Y V P T L I K M R Q A S N W T T I K I S N F K Q Q E H N A A
UniRef90_R6XW81	E L I L T I D K K S Y I P S Q I K M R Q G N T W S T I T V S N F K A K S I S N S S
UniRef90_UPI00036DCE97	S I R I G V D A T G V P L K F T L A P R G G G K A I V D F T K V D F S R P A A S
UniRef90_Y0KKJ1	I Q E I I V V T G D Q F V T S I H I H E P N A A S T A I L F S N T E A A P
UniRef90_K1XFK5	K V R I L F I G E L G Y F N K I L M E E S K G D T L E I E F F S N V V N P V I Q D S
UniRef90_W5Y8P4	I L T L G F S G K L S L V I E M T D V E R Q H I R L D L T D V S G Q K W P D A
UniRef90_I6ZX78	F S A I H I Q G G A T T R R I E L L E T Q G D S T L L L L
UniRef90_UPI000255CED5	R I K V Y V D K T H Y I K K I V Q I G K D G N N Y M I D I N H E T N I P Y E A D
UniRef90_B9M805	D L A I S F D A D G K I K R L A I D E R N G D R T V I K F A N R R R N A G L T E K
UniRef90_M7NC41	T F Q I T F N P S G D V T E V K M M E P S G D Y T K I V F S N K L N K P L P D A
UniRef90_B5SFQ3	K V V S T I L D G T L H R V I A I Q Q A D G D R S V M R L I Q D R
UniRef90_UPI0004285EC4	K V T L Y F N K N S L L A K A S I V D K S N N V T E L G V N N L N A K L A D A
UniRef90_UPI00035F662C	M R V I E L C G S D T I V E Q L V L F E T S G N R T E I A I K L T E V P E E L P E A
UniRef90_F5S7E8	F E N I S I Q G D K L V R Q V E L R E K Q G D R T V M K F D A K I N Q P L S N E
UniRef90_A1AV88	F E N I S I Q G D K L V R Q V E L R E K Q G D R T V M K F D A K I N Q P L S N E
UniRef90_I3UHR2	Q I R I T I K G A R S I E Q V T L A E T Q G D R T E I L F S N L R N Q P L P A
UniRef90_F2NUGO	T I K L S V D P T K L I R R V I A V V S S Q D V D Y I F D F H N N L N V N I S D Q
UniRef90_UPI00041321FF	U n i t e d   S t a t e s   o f   A m e r i c a
UniRef90_UPI000369878A	K V K I K L N K D K S V K S W T I T D K S G K R Q T F K V N T F T N L N V D D K
UniRef90_T0Z8I1	M R V I K L C G G D T V E H L V L F E T S G N R T E I E L L S L T A V A E L P K A
UniRef90_J0XWS4	Q A R L T L K G E G I L T D L L F M E Q N G T H L G I R L K F R L S H V P T R S
UniRef90_L0MD33	E I V V T L L G P D N T P R S L R M K R S T G E Y T S V S F S V Q T G I G L P A S
UniRef90_UPI00035D5CC0	F T R I T L N L G A R F L N T I D D K Q N D A T H I R F F N Q R T E P
UniRef90_A0A023BV07	A V S I A V D S E G G M P L K F T L T P S S G G S A V V D F T K V S F D R P D A S
UniRef90_D6KAW8	A F H I T F N S K G D V I E V K M I E P S N D Y T R I V F N V N L N K P L S D E S
UniRef90_UPI00035FED64	V I S I A V D A E G M P L K F T L T P A S G G A A V V D F T Q V S F A K P A A S
UniRef90_W7DRK5	A V T I I A V D K T G T P L K F T L T A K S G G K P V V D F T Q V S F A K P A A S
UniRef90_U3QVQ9	L L T L L F I D D Q K I L K Q M Q A V D V R Q R R S I M D L E N L Q G I Q V P A S
UniRef90_UPI00045E7ABC	F A R I E L S G D R F V R S I R L E E A G D A T Q I R L
UniRef90_K7T159	I R S A E L A G G A Q I E R V T L L Q E T G G D S T V I R F S G D T A R P
UniRef90_UPI000299F2F8	M F K N D L L S S I S Y T D S F D N K V A I V F A N S Q N R P I E M S
UniRef90_C3XNV1	F S Q I D I D G G R Y V E R I Q L L E T Q G D S T V L R
UniRef90_UPI0003487D84	D G I L K E L R F V D A L G N K V E I V F T I V I N S K I D E G
UniRef90_V7IBR7	F N K I V I S G G Q L V Q Q K V E L L D E K Q G D R T V M Q F N Q Q T N Q P L S P A
UniRef90_D1B2T9	F N K I V I S G G Q L V Q Q K V E L L D E K Q G D R T V M Q F N Q Q T N Q P L S P A
UniRef90_E1YLV8	S V T V D F R K D E Q Y N K I F I E E K S G D T T S L L F D T H L N I P I D P A
UniRef90_U2J0J4	Q L V V S F D K S T Y Q V E V M L L D N S N G S T R F V F T N K I N T T L A E S
UniRef90_UPI0002891AE4	A I S I A V D K T G L P L K F T L T P R S G G A A V I D F T Q V S F D K P A A S
UniRef90_J1ZVP7	S I S I A V D A N G V P L K F T L T P K S G G A A A I D F T S V D F A K P A A S
UniRef90_R7ZTC7	E V K L Y I E R N Q K L I A W E I L K D D V G G I F L Y K F K E V R N E P L P D N
UniRef90_B0VG35	S I S A V V N S E G I V Q S L T W T N R N N D K V T Y N F S I K T N A K I P A S S
UniRef90_R6CZK4	V I S L W L S K N Y S P V R I I I K D H D G N A Q T F N I R S Y T P Q K Q P E S S
UniRef90_Q8TI29	E D K I W V D K E W M P L K Y E T D S K G Q K T E I L D L K I N T G I P D S
UniRef90_UPI0003B6E412	K V K L T I D K K K Q I L Y S A L L F D K N G N R Y T Y T V S F T P N V P A P D A
UniRef90_D5ERJ8	E L F V T V D K K N Y Q P K Q V K M L H G K K W T T F D I S N K K E K L A D G
UniRef90_C9LIE6	R L L V I V D A N Y T P L N I R I K N K Q G N W I R F A I T F K P N Q Q V S N S
UniRef90_W8RPV8	F T R I L I Q G G S T A A E R I E L L E T Q G D S T L L S L T D
UniRef90_J7IZ26	K V V S T I T L E G G T L R S V A I R Q A D G D H S L M R L Q P V P A N
UniRef90_M4U141	F S Y I D I S G A Q Y I D Q L K L V E L S G D S S L L D F S Q Q R A L P V
UniRef90_UPI0003824A25	A I S I A V D K T G L P L K F T L T P A S G G A A V V D F T Q L S L S K P A A S
UniRef90_F0ERT0	F T T I D I S G D Q T V K K L T L N E K Q G D R T Q I E F K I Q L N Q S L S
UniRef90_UPI00040D6A92	E V R V S V D A D T R L P V R V E V L A N G Q S E E V G F T T F N A G A P D P S
UniRef90_A0A016XGY9	L S R V E L Q G D R Y L R G A T L V E A R G D E S L I R F S A Q
UniRef90_D9VTH7	S V I Q I A V D K N G V P L R I Q L L S S Q G G G K P I V D F T Q V D F A K P A A D
UniRef90_U2YYX4	F S A I R I D G G A L V E R I E L I E T Q G D R T V L K
UniRef90_Q8TI30	S M I V R V D K E W M F L G Y E M Y D S N E T L S K V E I R D K V N T G I P A S
UniRef90_M4RM90	Q I F I E I R G D L V V K S I E I R E K Q G D R T L I R F Q I Q Q D Q P L S A
UniRef90_UPI000470F183	E I Y V L V D A S Y K P K Q V K M K R G G E W T T I T I S N F Q H K K L S D N
UniRef90_C6WKV9	E V R V A V D S E L R V P L R V S V L T N G T T A Q I G F T D F E A G A Q D A S
UniRef90_K1Y3M1	E I R I Y F S S Q N E I R R L K I E E G S G T T E Y I F S N Q R N T D V H D E
UniRef90_F3Y0T0	E I N L Y F D A Q Y L V D R V K L I E P T A D Y T E I I F T N K K N T S I D E A
UniRef90_R6WH97	E M Y V T V S K S Y Q L Q T V K M R Q S S G W T T I R V S N F R K V N L S D S
UniRef90_UPI000474A7B7	E I S I E I I A G G E L V Q R I E L H E A Q G D R T V L R M T S
UniRef90_M2B813	T L R V M I Y P D G K I R R I E A I P V S G G K I T F D Y N Y R N A G V G S K
UniRef90_M2TRG8	F E T I E L E G S D T V T R I E L L H E V Q G D R T V L R L
UniRef90_A6H1U4	Q I E L T F D K D D T V I Q V K L L E S S E D Y T R I V L K N K V N A K I D N F
UniRef90_H0PSF3	E L V L R I D S R G G L L R E I R I Q R A D G D R S V M E I
UniRef90_H0JE71	F D G I L I Q G G E L V E Q V E I R E T Q G D R S S L R L D G Q A R D A L S A D
UniRef90_G0IZV0	R I K L Y I D K K N E L L A W E I K K D D V G G T F K Y T F K E L P N V K I V D D
UniRef90_U2NNU6	E L Y I T I N R T S Y K P S L V K F R Q G A S W T S I I V S Q V S T Q K L A D S
UniRef90_C5ZX98	F F D K G I L K Q I T F M D A V G N S V E I L F E N Q T N H K L N L Q
UniRef90_E6QWF1	V A R I R I A G V G E I R S I D I I Q A D G D S S Q M R I K L T T P
UniRef90_K0JQZ8	E V R V V A I D S E L R I P L R V A V L T N G T N Q V G F A D L T V G P Q D A A
UniRef90_L1M4K6	F T G I E I H G G Q F V D R I E L L E T Q G D S T V L R M P S S T S T L T D A

UniRef90\_UPI0003712F6D L F | V | F Q T E P N [V] E | V V | D | L | R  
 UniRef90\_R6WVT3 V F T F N A K E H A E | V V | D | L | R  
 UniRef90\_Q04QD5 L F N F S A P S S A Q I V E  
 UniRef90\_U2MF15 V F T F K D Y P S A E | I | D | L | R  
 UniRef90\_V6JCP5  
 UniRef90\_A6Q382 L F E Y H [D] P E Y D | V | I  
 UniRef90\_F4L1T4 S F [V] F N K A P G Y H | V | E | D | L | R E  
 UniRef90\_UPI0004727F8C K F V F N E K P G [V] E | V | I  
 UniRef90\_U2KS59 E Y K | D  
 UniRef90\_F2IEB3 K F T  
 UniRef90\_R6FZC7 F F K F D P A K E | V | E | V | I | D | L | R  
 UniRef90\_A4F8F3 L F R F T A P P G A Q V  
 UniRef90\_Q82DV2 T F D F T P P K G T K V  
 UniRef90\_U2ZF93  
 UniRef90\_UPI00046A86F5 N F R F K D A P S A E | I | D | L | R  
 UniRef90\_D2TKR4  
 UniRef90\_UPI0004788BC8  
 UniRef90\_A0A023WVZ1  
 UniRef90\_G1WAP2 L F S F D F P K A E | I | D | L | R  
 UniRef90\_R6XW81 T F [V] F D F P K A E | I | V | D | L | R  
 UniRef90\_UPI00036DCE97 T F D F T P P K G A E | V |  
 UniRef90\_Y0KKJ1  
 UniRef90\_K1XFK5 E F E | L | K  
 UniRef90\_W5Y8P4 L F T  
 UniRef90\_I6ZX78 E S T E | V | D | D | Q  
 UniRef90\_UPI000255CED5 M F | F D P A P D | V | E | V | I | D | M | R  
 UniRef90\_B9M805 D F  
 UniRef90\_M7NC41 | F T  
 UniRef90\_B5SFQ3  
 UniRef90\_UPI0004285EC4 | F | V | F N Y P K D A E | L | D  
 UniRef90\_UPI00035F662C | I |  
 UniRef90\_F5S7E8 A F E | L | N | L | A P E F D | V | L | R  
 UniRef90\_A1AV88  
 UniRef90\_I3UHR2  
 UniRef90\_F2NUG0 R F | Y D P P S S A  
 UniRef90\_UPI00041321FF F F A F D K S K G | V | E | V | N | D | L | R  
 UniRef90\_UPI000369878A | I |  
 UniRef90\_T0Z8I1 D | L | V | V | T | V | P | Q | G | T | T  
 UniRef90\_J0XWS4 L F N F G A P A N A Q | V | E  
 UniRef90\_L0MD33  
 UniRef90\_UPI00035D5CC0 T F D F T P P K G A K V  
 UniRef90\_A0A023BV07 | I | F  
 UniRef90\_D6KAW8 T F D F T P P K G A K | I |  
 UniRef90\_UPI00035FED64 T F D F T P P K G A K V  
 UniRef90\_W7DRK5 Y F A Y P D G  
 UniRef90\_U3QVQ9  
 UniRef90\_UPI00045E7ABC K F K P | V | P E D F D | V | K | D | R  
 UniRef90\_K7T159  
 UniRef90\_UPI000299F2F8  
 UniRef90\_C3XNV1  
 UniRef90\_UPI0003487D84  
 UniRef90\_V7IBR7  
 UniRef90\_D1B2T9 L F K A D | P K G Y D | I | R | E  
 UniRef90\_E1YLV8 V W R | L | A P  
 UniRef90\_U2J0J4 | I | F D  
 UniRef90\_UPI0002891AE4 T F D F T A P K G A K V  
 UniRef90\_J1ZVP7 T F A F T P P K G A K V V  
 UniRef90\_R7ZTC7 V | F | D | F | T | S | H | S | K | V | E | I | I | D | L | R  
 UniRef90\_B0VG35 V | W | Q | Y | T | Y | P | K | D | V | Q | V | V | E | Q  
 UniRef90\_R6CZK4 A F R | F | D | T | K | K | H | A | E | V | V | D | M | R  
 UniRef90\_Q8TI29 E F E F E | V | P | E | G | A | E | V | I |  
 UniRef90\_UPI0003B6E412 T F F A W D A K | P | G | V | E | V | V | D | L | R  
 UniRef90\_D5ERJ8 Q F R | F | D | F | P | K | A | E | I | I | D | L | R  
 UniRef90\_C9LIE6 A F R | F | N | P | K | P | N | I | E | I | D | L | R  
 UniRef90\_W8RPV8  
 UniRef90\_J7IZ26  
 UniRef90\_M4U141  
 UniRef90\_UPI0003824A25 T F D F K T P K G A K V  
 UniRef90\_F0ERT0  
 UniRef90\_UPI00040D6A92 L F T F T P P A G A K | V | T | D  
 UniRef90\_A0A016XGY9  
 UniRef90\_D9VTH7 A F T F T P P K G A K V  
 UniRef90\_U2YYX4  
 UniRef90\_Q8TI30 E F E F K | P | E | G | A | T | V |  
 UniRef90\_M4RM90  
 UniRef90\_UPI000470F183 L F S F N S K P T A E | V | I | D | L | R  
 UniRef90\_C6WKV9 L F T F T P P A N A E | V | V | E  
 UniRef90\_K1Y3M1 D F K  
 UniRef90\_F3Y0T0 N F K  
 UniRef90\_R6WH97 H F R F N S K E N A E | V | I | D | L | R  
 UniRef90\_UPI000474A7B7 N F | V | F D A P S T A K  
 UniRef90\_M2B813  
 UniRef90\_M2TRG8  
 UniRef90\_A6H1U4  
 UniRef90\_H0PSF3  
 UniRef90\_H0JE71 Q  
 UniRef90\_G0IZV0 Y F | V | F K | V | S | E | D | V | E | V | I | D | L | R  
 UniRef90\_U2NNU6 | I | F | E | F | D | Y | P | K | A | E | I | I | D | L | R  
 UniRef90\_C5ZX98 | I | F | E | F | K | P | T | S | N | L | D | I | L  
 UniRef90\_E6QWF1  
 UniRef90\_K0JQZ8  
 UniRef90\_L1M4K6 | L | F | S | F | T | P | P | A | G | A | K | V | E | Q

1                    10                    20                    30                    40

UniRef90_F2KYX9	[L] D K A T A [I] V A N Q G G [V] T A R F A [S] R P S [V] G R T S G T I [S] V K G T			
UniRef90_Q5FGH1	T Y F D A I [R] S F K A D F M Q I S S S E D I R Y G Y V L M K K P G			
UniRef90_A6F891	L L S Q F K P L T I A S G T F V Q V L K N P I T S T G E L Y L D Q A L			
UniRef90_X1LRL1				
UniRef90_R7P3R0	E [I] L D K T A N A L Q Q A G G I R A T F G G T G N G T L L L K G N			
UniRef90_J9GSJ1	V L L D Q T A A K L K N S G G I E A S F E G T Q F K G V E E D G T V L Y L Q G N			
UniRef90_R7NT50	E V L D K T A A A M K N A G G I R A V F G G T S N G T L L L K G E			
UniRef90_F0R135		T Q R G T L L L K G E		
UniRef90_S5VKM1			K L T E L V S G T H T L R V A A D G	
UniRef90_K8R7K1	L D R L M N T L G A K K S G R A H F T E T R Y A P L E S S G E L V F V A P D			
UniRef90_I3XXR5	L F A K M D H F Q T I Q S N F S Q K V T N D Q N T E G L F Y A T N D K			
UniRef90_C8PGJ2	A A S C I A S G I E T L S A N S Q T V Q D A K I S Y G G D F S A T K E			
UniRef90_G2LGY0	L Q A A N Q R L S G L R A T V V H Q R V N S Q Q Q V G T L R F S T K G			
UniRef90_C1F4G7	L S E M D A A S A H F R S A S A S F T A I V V Q H E P Q T G T I A F R R E H			
UniRef90_L1KQR2				
UniRef90_UP100034676EE	E [I] L D A L S N K A K E Y K S F S S D F E Y T L V D N E T Q S G S V S M K G Q K			
UniRef90_B7RWJ6	D A L K Q V D R Q A D D F K S A M A R V E I V R R D L S R E Q G T V F V D R K G			
UniRef90_D3Q8N9	R V W Y A A P D			
UniRef90_UP100036E782F	L R Q L Q D T A G Q T H S L K S D F I Q I F S E K L V S A G R F A Y Q Q P D			
UniRef90_R6E999	G A Q A N F K M T S Q G Y G S A S G T I H K G N			
UniRef90_UP10004040EFB	V L D A M S Q K F Q S M N G F T A E F D F V Y Q D D A G A S D R Q S G E I A V			
UniRef90_R5JPJ3	L D K T A A A F E K A G G V Q A D F T V E A F N K G G L G K A V G N I K L			
UniRef90_UP100047D4C42	T A Q V H D G T N			
UniRef90_R6HIG9	A R L L Q E A K N I E S I E S N F T Q I V F D E K T S K G K F Y Y K K S N			
UniRef90_B1W4Z8				
UniRef90_G8R640	Q S I Q T F A S P F K Q S M N K P L I S T G E F Y Y Q K R D			
UniRef90_I4C2L4	A I D Q I V G K L Q E V Y S F K A R F D Q L T V N T D K F Q G V M F V K K P G			
UniRef90_E0NQA6	E Q I G H A A Q A Q M K T M Q C T F K Q T M K S K M V S K G R M C Y T Q P S			
UniRef90_J2KD61	V T K L I S S D T K E I K T L Q S D F T Q T L D K S I V T Y G K M S L K S P N			
UniRef90_B5HDP1	S A A P D A K L T E L A T G T H T L R I A A D G			
UniRef90_UP100035F35D6	L A Q I Q K A A G S I R S I S A D F I Q I L V K P L I S K G I I R F Q S P D			
UniRef90_A6L914	D I L R K A A A A Y E N S N G I S A S F T M F T R S G E F E G T I Q M K G D			
UniRef90_Q8TQL2	L L K A Q E S F E D I V Y K K P N			
UniRef90_UP10003B60670	D V G T R L Q Q P E L L R G Q F E Q R F S R P L R S R G D F L F W Q G H			
UniRef90_T0S1E2	A S T Q V L A F L P N S F K T E Y I Q E F K S K R K A T G I F E Y K Y P S			
UniRef90_D6TGL1	L D R I A Q R L N S A K T L H G R F T L T L Q G R A A T G T I W S A Q G G G			
UniRef90_UP10001FFE2A2	T S T A R V W S D G A G			
UniRef90_D8HRP0				
UniRef90_UP100040B35DE	K V E R E T Q G I K T L K T D F V Q Y L S K D I E T S G K M A F K S P N			
UniRef90_UP100036BC1D3	D G A S A D P R A R L T E L A S G T H T L R I A A D G			
UniRef90_A5FKZ5	V L K S I D Q A S V G F K G L T A D I T Q V V N V D D V S E G V I A V K R D T			
UniRef90_Q01SD9	D A I R Q I D R Q A D D F E S V M A H V V I T R S N T T E E K G V I F A N K Q G			
UniRef90_B8KU32	L D E V Y T K V N G Y E N I Y V D F K Y V V L E N T Q E T K G N V T L Q K N			
UniRef90_I0WC3	L D K A T A I V S N Q G G L T A R F A L S Q T G V G R I S G T I S V K			
UniRef90_G6AGW1	I S D L Q T V L S A N N I V R G E F T Q I R N Q P L T S Q G T F L L D K S N			
UniRef90_UP10002FDD482	L D A V S S K Y Q Q L S G F K A N F E F S Y K H P S K Q Q G E I A V K G S			
UniRef90_I5BZ13	A V S T I F Q Q L A K S D V V R A D F E Q Q L N K T F V S N G T L T F A K S N G			
UniRef90_N9LGB6	L A R H P N T T G N F T Q V K V N R S L T S S G T F I F S L D G I			
UniRef90_U2L301	A K V I E K N A T I E T L Q A D F K Q R M S K D I E T K G M A F L K P D			
UniRef90_F0IHL1	D L D D L Q R Q L R A T P V V R G H F V Q Q L P Q P L T S R G D F T I L I A A G R			
UniRef90_M9U1M8	Q I Q A A L A K P A I M C G R F D Q T I K K P L L S N G R F C V A T G K			
UniRef90_E5U1X4	E S R L I A K E A Q T V E S I E S D F T Q V V F D E K T S K G K F Y Y Q K T H			
UniRef90_J2LSE3	I L E K L T D R L E L G E N A Q G K F T Q V L K K P L I S H G Q F A F D S S L			
UniRef90_R6J847	E I V S N M Q M K M D S L L E D Y S F T M Y V N S S S R E Q Y E V V W K K P D			
UniRef90_B1KLX4	L D K S T A K I K A L P A V E D F T T M E N K A E H E G K A W M K G N			
UniRef90_Q46C18	Q I T F Q Q L S Q S P T V R A D F E Q Q L N K T F V I S N G S L L F S K S Y			
UniRef90_R5VK18	K E V V S K T K E I T S L S T D F T Q Y M S K D I E S K G E M L L Q V P N			
UniRef90_G2JFQ6	L D Q V S Q K V K S Y D N L S L D F K Y V L H N A Q E T R G D V I L M S G D K			
UniRef90_H1H1X2	V S E K Y A Q I Q D Y E A D M A I A G K T R M Q S R V S F K R P N			
UniRef90_T2KMN5	E I L D K A S E T Y N K S G A V T A N F T L D S K D T K S Y D G K A F M K G N			
UniRef90_S3KDP1	D L Q Q L S E Q L A K P V V V R G G F I Q E L P Q P L V S K G K F V L A K E F			
UniRef90_F5J027	L L E Q L Q K K L S S E P L V R G D F S Q Q R E Q P L I S S G Q F L L S A K K			
UniRef90_S6IM51	D V H R I E T Y L N G I G G M R A A F I Q N G P D A G Q S E G R F S Y S P G			
UniRef90_Q2BXF5	G V D Q L L M S A L A Q R K S G R V R F T E T L E R P V E S S G E L V F V A P D			
UniRef90_R6E0S1	E S L S D V L A K G Q G L K S M S Y E F I L T T P Q G T Q T G K V W L D G N R			
UniRef90_G6X92	D R Q A L Q A R L E Q T P A L A G H F T Q I V D T E L E S Q G R F A Y V R D E			
UniRef90_E1X021	A S F D N L N S F E A D F T Q S V T D D K N Y K G H I I A S K P Q			
UniRef90_A0A022H5L6	A D A V Q A T E S G L K P M S G T V M Q T L P E V A G M G G T V W Y G G E D			
UniRef90_D7CJ09	D L H E L S A Q M A N P A V V H G P F I Q E L P M P L T S Q G T F V L A R D F			
UniRef90_A0A024PZ49	L G E L M Q M L A Q A K S A K A T F I E K V D K P V E S S G E L S F T A P D			
UniRef90_B6BK72	A D P T T R L T G L L T G D H T L R V A A D G			
UniRef90_D9UMM3	E G L E L L R S A F A G V N D F T A E I T Q E M K K K L V T N G M V R F R K P D			
UniRef90_D2BF00	D L T E L Q N Q L Q R P Q N I K G D F T Q Q T N K P I I A Q G Q F V L V P K A			
UniRef90_I4N622	E D I S S R Y K N I E D M Q A K I S L N V K G L K Q T G T L L Y K F P D			
UniRef90_UP100037FED3A	A Y A D I S A L M E S H S S L Q Q G R F D Q V L E A E I S S S G R F E Y E H D K			
UniRef90_F8JXH7	D I L E Q L S A Q L A K P A L L R G P F I Q E L P Q P L T S K G L F V L S A E H			
UniRef90_X2HE18	V L D K T A A A F E K A G G V K A D F S V Q A F N K G H S V G T A T G T I E L			
UniRef90_D7AEZ6	L L D K I V A P I E S G K G L S L K F L L Q Q S D M E N V E G S I D M L S D			
UniRef90_A4ZZ39	Q V L Q H A L D R S H E P S A H Y V E V E M K T T D G T G K E W V S K D G			
UniRef90_UP100025583FA	S Y F N T I H S F K A E F V Q T N S A N N V A Q G T L I M K K P G			
UniRef90_UP100046A6F72	L K Q V F A Q L G A T P V V R A Q F E Q Q L N K T Y V S K G A V L F S K N Q			
UniRef90_I8XP55	L A Q V R E R V Q S A P V V R Q F Q T Q L K T P L K S G D F V V I A R G K			
UniRef90_R5Y1L9	I K K F T A Q T E T L S A D F I Q Y L A K P A E S R G K L Y F S K P N			
UniRef90_L5MY65	A V Q K A I D H F L S I Q T I Q G I F V Q E D T V G N V I K G E F F M T R P S			
UniRef90_Q3YQX8	U N Q V F A Q L G A T P V V R A Q F E Q Q L N K T Y V S K G A V L F S K N Q			
UniRef90_N8RSN5	L A Q V R E R V Q S A P V V R Q F Q T Q L K T P L K S G D F V V I A R G K			
UniRef90_UP1000307F709	I K K F T A Q T E T L S A D F I Q Y L A K P A E S R G K L Y F S K P N			
UniRef90_E4RWZ9	A V Q K A I D H F L S I Q T I Q G I F V Q E D T V G N V I K G E F F M T R P S			
UniRef90_UP10003A16873	U N Q V F A Q L G A T P V V R A Q F E Q Q L N K T Y V S K G A V L F S K N Q			
UniRef90_E4UCD1	L K E V S D K L L A Q E N I S L Q F N Y T L F N A Q E T S G K V Q L K G E			
UniRef90_D4ZE10	L K E V S D K L L A Q E N I S L Q F N Y T L F N A Q E T S G K V Q L K G E			
UniRef90_C0BN55	L K E V S D K L L A Q E N I S L Q F N Y T L F N A Q E T S G K V Q L K G E			

50                    60                    70                    80

UniRef90_F2KYX9	K F V A T T P Q M T I W F N G K T Q W S Y M K S T N E V N I S T P T E A L	I V
UniRef90_Q5FGH1	L L K W D Y Y P P T P V I S I V I K G T T I S Y Y D R E L E E Y S Y T	P I
UniRef90_A6F891	G F V W H T S Q P I A S T M I L K D E G L F S I D H R Q Q Q K Q I I N N A T	P I
UniRef90_X1LRL1	G H I T V I D G K T I W T Y L P K H R Q V Q I S D H D F P S	
UniRef90_R7P3R0	R F Y L N S G G I Q S W F D G T T Q W S Y L E S S E E V N V S N P E E L Q	
UniRef90_J9GSJ1	K F K I T S S S L T T W F D G H T Q W S L M T G S D E E V N V T P T V E E L	
UniRef90_R7NT50	Q F Y L N S G G V Q S W F D G K T Q W S Y L E S S G E E V N I S S P K E L Q	
UniRef90_F0R135	C F Y L E C G G V K S W F D G E T Q W S Y V E E E E V T V S N P S E L Q	
UniRef90_S5VKM1	P D R Q K L E S G A E Y S L I H D G K D V W G Y D S K S N E E V Y H K E H R A E Q	
UniRef90_K8R7K1	H L E K H T T S P K P E N L V V D G D M L T V D R N G R K I T I Y P E L G A F	
UniRef90_I3XXR5	K A L W I Y E K P V S K K I Y F N Q N R V L I V E P E L E Q V I I T T L Q N T P	
UniRef90_C8PGJ2	H A V W H Y K T P T I K N I F F S F T K V V V I E P E L E Q A L I T N I K E T T	
UniRef90_G2LGY0	R L R I D Y T E P Q S K T V V V N G N E A I L I E P A L N Q A T T S E I A K K T	
UniRef90_C1F4G7	H I T S E G G Q P A N R Q L V F K H G Q L D Y Y E P N L K Q E T I Y S A G N N Y	
UniRef90_L1KQR2	K A A E Y S V I H N G D D V W A Y D S A S N E V Y H A D A S E D V	
UniRef90_UPI00034676EE	K Y K L N V A G Q Q I M C N G E T V W T Y L Q D V K L Q I S D L P E E D	
UniRef90_B7RWJ6	R I R L D T D A P K H R S Y V E G S T L H I H Y P G E K R V E V Y S L S R H K	
UniRef90_D3Q8N9	K M R T A V L S D Y E S D T I R N G E D V W T W N S E G G E A T H Y P P S E M G	
UniRef90_UPI00036E782F	R L R W E L L T P I D S G F V L R G D K G E R W N R S D F S V A N D P I M G I I	
UniRef90_R6E999	K F H A R T N N G V I V W F N G K T Q W S Y M K S T Q E E V N I S T P T Q A Q	
UniRef90_UPI0004040EFB	K G E Q Y R L K L P E Q E I Y N D G K T V W T F I Q G Y K E E V T I N D V T Q M E	
UniRef90_R5JPJ3	K G E K F L L K T S E T I S W F D G E T Q W S Y L T Q N D E V N I S T P E E L Q	
UniRef90_UPI00047D4C42	K A R L Q V M D Q L A Q R V I V V N D D E V W L Y D S R A K E A T H S P E H S I P	
UniRef90_R6HIG9	K I C M D Y A Q P M N Y L I V I N N N Q L K I V S D G K K S I M S N K M M N Q M	
UniRef90_B1W4Z8	A P A T P K D F A E	
UniRef90_G8R640	R L R W E Y L K P I Q Y V M L I N G E Q V R I K E D G K V K S Y S S A V N E I	
UniRef90_I4C2L4	S I S L E V D F P E P Q K V V V K G K T Y A L Y F P Q D G T S A N G E I P P E M	
UniRef90_E0NQA6	Q L R W E Y T S P Y Q I F I V N G S K V Y M K S D R Q T N V D A N K N K V F	
UniRef90_J2KD61	T L S W R Y T K P Y Q Y S I V F K E N K I F I N D Q G K K S V D A K S K T F E K	
UniRef90_B5HDP1	P D R Q K V E D S S E Y S L I H N G D D V W G Y D S A S N E V F H T P K D L A D	
UniRef90_UPI00035F35D6	A L R F E Y R E P I Q N I L I M Q Q G R V S R Y I R K D T T F V R D N A A A M G	
UniRef90_A6L914	K F T L V T P E A L T W F N G T T Q W T Y V E R N D E V N V T N P E E L Q	
UniRef90_Q8TQL2	M K K I T M G T G N E T V M I Y Y G K M E W L Y G P E T N V V Q K I M V P E E Y	
UniRef90_UPI0003B60670	G V I W H T R A P F E A S L I L T P R T L A S R Q N N Q T D A Q K E P G L R A L	
UniRef90_T0S1E2	N L R L D Q S Q P E K L L Y V S N S K T T W I Y R D E A P E V T I H K G Q E T S	
UniRef90_D6TGL1	K S R N E T Q A V A G S L T V S D G K K M W Q Y D P S Q K V V Y V G P A Q Q S S	
UniRef90_UPI0001FFE2A2	H G R L A L P R P D E R T Y V R D G E G T W A Y D S A D R T A T R I P G P D R P	
UniRef90_D8HRP0	S Q Q T V V H D G T T V W D Y S S K T N T A T K V T I G S E K K	
UniRef90_UPI00040B35DE	H L N W Q Y T K P Y Q Y S I I V F K N N K I V Y I N D Q G N K T V D A K S K M F E K	
UniRef90_UPI00036BC1D3	P E R Q K V D G S E E Y S L I R N G E E V W A W D S A S K E A F R A D P S A E L	
UniRef90_A5FK25	L L Q W Q Y K K P Y Q Y N S I T F K N G K I L I N D E G K K S A V D M G D S K I F	
UniRef90_Q01SD9	R I R I D F K Q P S Q M V A I G G G K V E I Y Y P K L N E V Q E G D L G K I R	
UniRef90_B8KU32	D T R I V I E S P P Q S L V Y L L D H R D L Y R Y I P E Q E V V E E Y K H P Q L V	
UniRef90_I0WC3	K Y L F N Y L G A T K M F D G K K T Y T V V P E N E E V I I S N G D D E G	
UniRef90_G6AGW1	G A K F V A T P Q T T I W F D G K T Q W S Y M K S T N E V N V S N P T E A L	
UniRef90_UPI0002FDD482	G L L W T Q A T P F L V S L V L T D N K L S Q R F A D Q P A K L I T P M A F Y F	
UniRef90_I5BZ13	K Y R L K L P G Q E I F N D G T T S W T Y L E D G N E E V T I N D A A A A E	
UniRef90_N9LGB6	G V L W K I K R P V Q A D L I V T Q K K T Q R T Y S Q I Q D Q S P Y S S V	
UniRef90_U2L301	I M W K T L K P F P S S L V V G L T S V I Q T T P D G K K A S N N Q I F T S I	
UniRef90_F0IHL1	Q L N W Q Y T T P Y R Y Q I V F Q R D N I K V N D E G K V S Q M K N K I F K K I V	
UniRef90_M9U1M8	K Q R L S V L G E S E Y S L V H G D D V W G Y D S A S N E V Y H A E S D E G V	
UniRef90_E5U1X4	G L L W L L R S P I A Q Q D L R I S A D G I A R R G P D G A W Q A L P Q H A G A E	
UniRef90_J2LSE3	G I L W Q T L Q P F P N T L R I T R N A I V Q M Q N G R V D A Q Q E P V V K M I	
UniRef90_R6J847	K I C M E Y F R P M D Y L I V I N G S K L K I V S D G K K S I S S N K M M A Q M	
UniRef90_B1KLX4	G L V W Q Q T R P F P S T L V L D G E L I Q I D S S G N R Q I T K A S E S Q G A	
UniRef90_Q46C18	L M K M I L L G P D N D T M V S D G D F Q W I Y S S E E I V F K A E T S D D F	
UniRef90_R5VKA8	L Y K L H V M D V E N Y Y D G K N I Y T Y M P E V K E V N L K N P S D E E	
UniRef90_G2JFQ6	G V A W Q I K R P V Q A D L I V T P T K K T Q R T Y S Q I Q D Q S P Y S S V	
UniRef90_H1H1X2	K L L W K Y S T P F E Y S I A F K D N K I S I N D Q K K N K V D I N N K K F A K	
UniRef90_T2KMN5	Y V L N I L G V T R I F D G K T L Y S I N P E D E E V T I S N P E D A G	
UniRef90_S3KDP1	L L R I D F S N P E T Q V I V F N G E Q L T V Y L P G Q R S I L S Q S V E S G R	
UniRef90_F5J027	K F K I E I P D A I T W F D G T T T Q W V Y I K D T E E V N I S N P T Q A I	
UniRef90_S6IM51	G L L W L L D T P L Q D Y R I T P A G I A R R E T G G W Q M L P T K S A G A E	
UniRef90_Q2BXF5	G L W W H Q T A P M P L S V L T Q D K L S Q Q F D K V L A A S D N P M V F Y F	
UniRef90_R6E0S1	K I C L D Y R T P A K Y R I T I A G D K I K T V T N G K A M V L S A K G N P M M	
UniRef90_G6X192	H R L R D Y V I P H P M E L V A G K G H V L L D D A G S G A V T H L S L K R	
UniRef90_E1X021	N I K L E T S S P E S L T Y V S N D S K T W Y Y T P E P G Q V T I Q D A T K N	
UniRef90_A0A022H5L6	H L E K R T V A P K P E N L V L D G D M M T V E R G G K R F V M N Y P E I A A F	
UniRef90_D7CJ09	L K T D S T I E G K R I V T F F D T N T V I T Y Y P E Q N Q A V K T D S N E A P	
UniRef90_A0A024PZ49	K V V W Q L E T P V E D T L V L T P A D A D D A T Q S E S A R Q A G R E Q I	
UniRef90_B6BK72	N A V W N Y I Q P I K K D V Y I N R F N V T V I E P E I E Q V I I R K I D A S L	
UniRef90_D9UMM3	R Q R L I L E D A A E Y S V I R D G A R A W A Y D S A S D K A V R L D R S P Y T	
UniRef90_D2BF00	R F R F A L P G M S E T D L I V N G D Q A W L W E S A T N K A T R T P Q V A D	
UniRef90_I4N622	G L L W L L K T P L Q D Y R I T A Q G I A R R D A T G W Q M P E R N A G S E Q	
UniRef90_UPI00037FED3A	K L E K R T L K P K A E S L V L D G D A L T V D I P G K R R T T I Y P E V A A F	
UniRef90_F8JXH7	P D R Q R V E G T S E Y T L V H N G T Q V W G Y D S A G N A V F H A T P D D R L	
UniRef90_X2HE18	G L L W Q M K K P F A D T M R V N A N N K W I A S K Q S A S A Q K N Q V K L F L	
UniRef90_D7AEZ6	S F M M E L N P P H A S R V L L R D N V I S T L L P G V R Q K I V L P D E G L	
UniRef90_A4ZZ39	K F I I N F D S N N Q V F V S D G E I L T V Y Y P A L G T S F R Q Q L T M G K	
UniRef90_UPI00025583FA	A I R W H T R E P I E N N L L T L D G K V L S R L D A E S N P V V S L F	
UniRef90_UPI00046A6F72	G L L W Q L R S P L H D Y R I D A N G I A R R T K Q G W Q Q Q A Q D S A G Q Q	
UniRef90_I8XP55	K G E K F F L K T A E T V S W F D G K T Q W S Y L T Q N D E V N I S T P T E A E	
UniRef90_R5Y1L9	K F V L Q V P D M I T W F D G T T Q W T Y L K S S E E V N I S P E K D E L	
UniRef90_L5MY65	K R R T E A E A Q D K T V T H D G A R L I I Y Q P E L K Q A M V S D D P E L L	
UniRef90_Q3YQX8	L L K W D Y Y A P T P A S I I I Q G T T I S Y Y D K E L E E Y S Y A I	
UniRef90_N8RSN5	G V L W Q I Q S P V K A D L V V T P R K K T Q R T S S Q I E V D K T P Y G S V	
UniRef90_UPI000307F709	G I A W Q V R Q P F A S T L I V R P D S L L I S R G A D G S T A V Q M R A Q D E L	
UniRef90_E4RWZ9	T V L W K Y Q S P Q V V D V L F K D K K M S V E N G K S K E A G K R W E K L Q N	
UniRef90_UPI0003A16873	A M R W N Y T Q P I D Y N V I F N N G K I Y I N D E G K K S S V D V Q G N K K F	
UniRef90_E4UCD1	K F Y F K Y S S P P S S G S L V S D G R N V A I Y N A K L D A W T V Y P L	
UniRef90_D4ZE10	G L V W S Q E T P F K S T L I L K D D V L I Q I D S S G R Q Q V S Q P G A G A L	
UniRef90_C0BN55	K Y R F E Y L G I Q L N D T K N T Y T I V P E N E E V T I V S N E N A G	

90                    100                    110                    120

UniRef90_F2KYX9	S M N P Y S L   M T M Y R Q G Y D L S M T N K G N A Y   L V H M K A A N A Q R S   V Q		
UniRef90_Q5FGH1	N N P I I G L L   S S D I K N I S D F I N I   D T V N N Q K I V T L   H D K K S D L Y		
UniRef90_A6F891	A T V L M S A L S G D L A A L E S Q F S L S S N Q T C I E L   T P K D A T I A K V		
UniRef90_X1LRL1	P H N I F K R F A D E R E A V L S G E E E V M G S I C D I   S L V S D N P A D I		
UniRef90_R7P3R0	T I N P Y A L L S I Y K S G Y N Y K Y T N G K Q G F E V I L   T P E N K Q D I T		
UniRef90_J9GSJ1	Q Q M N P Y T F V D L Y K K   A P T T Y Q G K P S H E V R L   T A D N K S A P L Q		
UniRef90_R7NT50	G I N P Y S L L S L Y K N G Y N Y K Y T N G K Q G Y E V I L   T P E Q E Q N V T		
UniRef90_F0R135	S I N P Y A L L I N S Y T T L F N Y Q Y   L K G K Q G N E V I L   T P R R K S D I K		
UniRef90_S5VKM1	P A T P K D F A D E A L K S V D D T T S V T V D G T A H V I K P K Q S G T T V G		
UniRef90_K8R7K1	I E S I R A T L A G N R F A L E N A Y K V S I   D G W T M T L V P I   D S R M Q Q K		
UniRef90_I3XXR5	N   I A Q L L Q E A K E V K P N T Y I   T Q F M E T T Y T I		
UniRef90_C8PGJ2	N L T   A I L A L A N A K P N K K G V Y E A S F D D V K Y   L I E M K G D		
UniRef90_G2LGY0	A S T S L L T V L T D A Q Q L S D N F E V S L E G D E   L L R P K G K S Q Y T		
UniRef90_C1F4G7	E S F L T I L G F G G S G R D L A A H W Q I   T L E G T K L D L V S K D A K N N F S		
UniRef90_L1KQR2	P A T P Q Q L A E E A L K A V D   D T T S V T V D G T K L L I   E P K Q S G S T V G		
UniRef90UPI00034676EE	D Q N P A N A F H M Y K N G F K Y N Y S G K E T A D V I K M F P M D P K S P Y H		
UniRef90_B7RWJ6	S R M P F I R L G F F N N S D L K D D Y   L L T S L G E R L E L T P E K E K T R M G		
UniRef90_D3Q8N9	G A D P A K A A E Q A L K A I E P T T K V S R D A Y E L V L E P K D G E S L V D		
UniRef90UPI00036E782F	A R Q L L A W A R V V D L D W L Q S R Y R M E E S P V R L R   L T P K G E A G F I E		
UniRef90_E6E999	Q M S M N P Y T F I N I Y K T G Y T A T I K S S G N N Y V L V A Q N K Q R T V Q		
UniRef90UPI0004040EFB	G E L T P S N Y I K M Y Q S G F D Y R   L I G E K Q Y Q V E L I   A T S G S R P F D S		
UniRef90_R5JPJ3	G M N P Y A L L Y L Y K K G F D Y K   L G V E K K V V S E V V L T A T N K K Q D L S		
UniRef90UPI00047D4C42	G H T P A A L A E K F L S I   D S S T E V T V G D D E L V L T P R A D D T L V G		
UniRef90_R6HIG9	Q D M L T A C M V G D L S N M S P G Y V L E E D A H Y Y L I V S K A V Q A Y I N		
UniRef90_B1W4Z8	Q A L A V A G D T T S V T V D G T A Q V A G R D A Y Q L L I K P K Q S G S T I G		
UniRef90_G8R640	F K T V K E V I L G K N P D Y E A S Y F E N E N T Y Q V K L K P I K K D L Q M K		
UniRef90_I4C2L4	N V E Q F F G F F T N I G N L G R N F T I T E N M Y F L E L T D A V N P S S T Y		
UniRef90_E0NQA6	R Q I T Q I M M L T D R Q N F K T E M L V S G T N W I A K L I P L K K E Q I F T		
UniRef90_J2KD61	I N K L I V G S N N G M K F N D P E F T T V T A G Y N I A K F V P K S S Q L L I K		
UniRef90_B5HDP1	E V L K A A D D T T S V T V D G T S Q V A G R D A Y K L V V K P K Q E G S T V G		
UniRef90UPI00035F35D6	A M T V V M W L K G N F S T S V F N A T I E E T P E R I I I L A P K D K A M T I Q		
UniRef90_A6L914	F T N P A L L N S Y K K G F T A A Y K G E S T A Y D V E L T P K K G D I V		
UniRef90_Q8TQL2	Q E S N L D Y F K F F N Y V F N E Y D V S V P G S D T V T K P K D E D D N L L D		
UniRef90UPI0003B60670	N E T L M A L L S G N L D S L Q Q R F E I T G T V T Q L R L I P R D A R L A G I		
UniRef90_T0S1E2	L S N F F D I L L K A G L K T N A H Y   V V K L D K S M A K I T F N K N K T G V K		
UniRef90_D6TGL1	S N T L L S V F G S S A G T L V S D K A S V D G K A A Y Q V H V V P Q E S G D Q		
UniRef90UPI0001FFE2A2	D R D P Q A A T E I V G A L R G T S T V A V D G T T L V L T P A A E R T V L L R		
UniRef90_D8HRP0	T A D P L T A S T E L L A K V R E S S T V S V D G T E L V L T P K P T E T L L R		
UniRef90UPI00040B35DE	I N K L I V G S V V S G N M F D D K E F V I S K T K E F Y I A K L E P K T T T I K		
UniRef90UPI00036BC1D3	P A T P L L E F S G D T T S Y R V G G T A R V A G R D L V V A P E Q K G S T V K		
UniRef90_A5FK25	A R I N K L I V G S G N M F D D K E F T I S K G Q N L A K F I P K D A K K Y I I K		
UniRef90_Q01SD9	S L V D Q L M L L G N S A D L Q E A Y A V S L G G T R I V L I P K S K E Q H V K		
UniRef90_B8KU32	A P F L R L G F S T T T G K D L E D D F L V S A I G E R L D L T P K K E K N R V V		
UniRef90_I0WC3	T I T P S K M L T F Y K Q Q Y K Y K W D I A Q N V Q Y V E L I P I S S N S D I K		
UniRef90_G6AGW1	T I T P S K M L T F Y K Q Q Y K Y K W D I A Q N V Q Y V E L I P I S S N S D I K		
UniRef90UPI0002FDD482	S M N P Y S L M T M Y R Q G Y T L N M T S E G G A Y V V Y M K A T N P N R S V S		
UniRef90_I5BZ13	S H I F L S V F H G D T Q K L Q E Q F S L S G T S W K L T L K P K S A P M N A V		
UniRef90_N9LGB6	D E T P S S I I Y T L Y K K G Y F Y T L K G E E K A Q V V E L T A E K R S A S F R		
UniRef90_U2L301	A T L F L Q L M S G D E K A L A K N F N V R A T G W N I A L T P K S G L F K K L		
UniRef90_F0IHL1	S T T L S S I F S G N V K K L Y E N F S V S S D G N K W V L T P K D K T V A A V		
UniRef90_M9U1M8	N K L I V I S S V S G N M F D D K E F A I I L Y T S G N E T I S P K D R T L Q I K		
UniRef90_E5U1X4	P G T P K E L A E K A L A A A D D T T S V T V G G T K L V I K P K Q S G S T I G		
UniRef90_J2LSE3	N R L F L A V L A G D T R G L R E N F D L T L T G W Q L V L L P R S A L L R Q I		
UniRef90_R6J847	N N V L F S L L S G D L Q S Q L D K L F T I K N G N W H V A L K A R E P G L A K A		
UniRef90_B1KLX4	Q D M L T A C M I G D L S K M S S N Y L L E E D A R Y Y L V K K P T N K A V Q		
UniRef90_Q46C18	G A L L K A L L S G E I T A L N D Q F N L Q V N G W Q L G L V P K D P L M L K V		
UniRef90_R5VK18	D G N G F V L S S G G S P F L L G T E K I D G E S V Y L L E L T P S E N N E S L Q		
UniRef90_G2JFQ6	E E S P T K I F D I H N T G F T Q K L V S Q E K G I A Y I L Y P L D E D K N F T		
UniRef90_H1H1X2	A T L F L Q L M S G N E Q A L A K N F N V V I S A N Y S W S M S L T P K S S L F K		
UniRef90_T2KMN5	I N N L I V G S I S G N M F D E K E F S I T Y F K D K L I P L S K D I S Q Y I S		
UniRef90_S3KDP1	S I T P S K M L S G Y T Y K M G E K Q N I K G R D I Q F V L T P M D S N S E I K		
UniRef90_F5J027	R E N A A N L A T P D G L A L M R Y Y S E E K V V K L L L S R K T L S E G F Q		
UniRef90_S6IM51	S P S V L F N I Y K K G F N L S Y K G E K R I L N G Y E V E L I P Q K K G G D F T		
UniRef90_Q2BXF5	Q N R L F L V L Q G D S S G L Q R D F E L I Q L K G D Q L T L I P R S L L L Q Q V		
UniRef90_R6E0S1	S H V F L S L F K G D T S Q L T D Q F D L T H D Q W Q L V L T P K A A P L N K V		
UniRef90_G6X92	D Q M S A L I M T G N L N A M G A G F K V Q E S A A D Y R I T I T P Q S Q S I A		
UniRef90_E1X021	N P L G L L L H Q P I R F D N G S I Q V T D D D G S L Q I S V A E A D N P S Q G		
UniRef90_A0A022H5L6	E L T K F L D I L R K G L L T N K L Y K V S K N G E Y F L E F S K T K D L G V E		
UniRef90_D7CJ09	I E S I R G T L A G N R N A L E R Y Y R L G I E G T R W T I L T L T P A D S R M A		
UniRef90_A0A024PZ49	S P T D Y T G N L N P K V K V I R T E I Y D G A R C K V L E M I A P S S Q G E		
UniRef90_B6BK72	A A L L L R L L L G G D W S A L D S R F T Q T L E G W R V T L S P R D A A L A E R		
UniRef90_D9UMM3	D F F N M I Q N A K E I E K D K Y E A N Y K E		
UniRef90_D2BF00	A L T P Q E L A D R A L K A V D A H T T V R V D G T Q L V I E P K Q S G S T V K		
UniRef90_I4N622	E M L K R A D A A T A V S V S N T E K V A G R S A Y Q L V L T P R D G S S L V K		
UniRef90UPI00037FED3A	V E S I R G T L A G D R S A L E R V Y K L E L S G E K W L L V L T P T Q A K M S		
UniRef90_F8JXH7	P A T P Q E A A R Q I L K A V G P T T S V S V G D T Q L V I R P K Q A D T T V D		
UniRef90_X2HE18	D L L A G Q T N S I Q S Q F T M Q L Q G T K L Q L Q P K S V L M K Q I		
UniRef90_D7AEZ6	A R W F A L M E N P V T S L P D G V A V Q R N G D A V T I S I A P S Q G G V K		
UniRef90_A4ZZ39	G G S G F M N I L G N S P N L E P L D E S G G T E T N F I K L T L Y K G A A T I D		
UniRef90UPI00025583FA	S D I F F G V M T A D W Q R L E H H F E V T G A N W H A V L T P R A P E V E S I		
UniRef90UPI00046A6F72	S R L F L A V L K G D H A G L A R D F E L H L G G D A W Q L S L T P R S L L L K		
UniRef90_I8XP55	G L N P Y A L L G F D Y E L G K V A D F H G K Q V Y E V I L T A T D K K Q D L S		
UniRef90_R5Y1L9	L Q T N P C L L Q S Y K K A F D C K F I E K K G D V C E L S I P K Q S E T		
UniRef90_L5MY65	Q I S P K K Q V E Q L L Q M I Q Q T H E I S A R G E E V M A K A K D S T T L L G		
UniRef90_Q3YQX8	V N N P I I N L L S S D I K N I E D T N I S T V D D N N K I L T L Q D K K T Q I L		
UniRef90_N8RSN5	A T M F L Q L M S G N E A A L A K N F N V V S A N T Q W N V S L T P K S S L F K		
UniRef90UPI000307F709	N A M L F A V V S A D L A Q T H Y F D V S G Q Q G W R L H L V P R D P V L A Q W		
UniRef90_E4RWZ9	L I T Q S S T G E L F E S K E F K Y K F L K G G K V I L T T V D P Q L K R Y I S		
UniRef90UPI0003A16873	E K I L N Q L I V G S G N L F D T N D F V I T F S K T D L Q P K L K D V K K Y I K		
UniRef90_E4UCD1	P N T A F G I I F S N K R N E M Q Q S I L Q R E T N N A F I T L F F R E V L T K N		
UniRef90_D4ZE10	A Q T L P A L L G G E L Q T L D E H F S F Y Q A P W T L G L I P K D P L M L K A		
UniRef90_C0BN55	S M N P A K I L N F Y N E G Y R F Q W D I A Q N Q Q Y I K L V P I D S S S D I A		

130                  140                  150                  160

UniRef90_F2KYX9	E V Y V T V S K N Y Q L Q A I R M K Q G G K W T T I T V S G I Q R K N L S D A		
UniRef90_Q5FGH1	A E V I F N T D P I T I V G L N I I L N P D S K T S I Q F Y N I S S N I P I D K R		
UniRef90_A6F891	M R V I E L C G K D T V E H L V L F E T S G N R T E I T I N		
UniRef90_X1LRL1	K A T V W I D R K L D F P V K A V E E T S G D K I T H V L S D V R N E K I D D D		
UniRef90_R7P3R0	S I T L F V S Q T Y Q P L Y I K V E Q S N K S A N E I I V T S Q T N Q P L D N A		
UniRef90_J9GSJ1	L L I I V I D K N S Q L P Q I R I K D N R G E W T R I R V N S I R T K R W N D A		
UniRef90_R7NT50	S I T L F V S K T Y E P L Y I K I L Q S N K T V N E I I V S S Q T H Q P L D D A		
UniRef90_F0R135	S I V L F I S D N Y Q P L H I T I N L V N G Q V Q E F R I S Y K T H Q P Y A E T		
UniRef90_S5VKM1	A I S I A V D A E G Q P L K F T L T P R S G G A A V L D F T Q V S F D R P A A S		
UniRef90_K8R7K1	V S S I T L A G T G A A A R V E I R Q A D G D R S L M R L Q D		
UniRef90_I3XXR5	L A Q K G T I E K V M Y R D K L D N A V E I V F Y N Q T N L F L D D E		
UniRef90_C8PGJ2	L P S K I S Y T D K M D N K V V I N L S N V R N A P V N E A S		
UniRef90_G2LGY0	R L E V W V S H Q N W L P V K Q V L H T R S D Y T T I L L S N I R L Q S I P E S S		
UniRef90_C1F4G7	H I T I W I D P Q K L A Y K Q E L F F M P S G D T R T V N Y T D V R N K P L P S S		
UniRef90_L1KQR2	A I T V A V D K T G L P L K F T L T P A S G G A A V V D F T Q V D F G K P S A S S		
UniRef90_UPI00034676EE	T V I V N V D K N L E L I S M I V L N K D G N V F T Y K L K N K S N V N L T D S		
UniRef90_B7RWJ6	K A Q L W I D Q A S W M P T Q Q V I T A S S Q G E E I T L T V A R N L E L N P D		
UniRef90_D3Q8N9	R V T L A I D A E H G V P L R T Q V Y S D D E K F D I G F S R V D F G T P D K E		
UniRef90_UPI00036E782F	E L Q I L F A G D S H V A E V L L K E Q G G D S T L L R F T N Q L N T A L P V A		
UniRef90_R6E999	E M Y I T I N K K T Y V P S Q V K M R Q G N S W M T I N I S G F Q A K N Q S N S		
UniRef90_UPI0004040EFB	S V K L M I D K S K D L L G W E M Y D G Q G G M F S Y T F K N K Q N S S L P S T		
UniRef90_R5JPJ3	R I V L Y V T K D T Y E P V F I A V E Q D G S R S E I T I T Y Q T G L K L A D S		
UniRef90_UPI00047D4C42	A V S L T V D A E T G L P L G F A V A A E E G Q E F S V A F S S D F N E P A D S S		
UniRef90_R6HIG9	Q I Q I Y L D K D M S V H K L R L S E T A T N Y T E Y E F S N K K F N S L L K D E		
UniRef90_B1W4Z8	S V R I A V D A N G V P L K F T L S A A S G G K A V V D F T K V D F S R P A A S		
UniRef90_G8R640	E V N I F I D K G F S H L I L M D G S G D L T T I E F T K K V N Q E L P K G S		
UniRef90_I4C2L4	R M V L G L D A K F T V K R A I I Y D A L G N Y N R F D L T D F T F D S L L P D S		
UniRef90_E0NQA6	Q L V I T F D T K R M I T R V E M F E R G G D T T T I E L L N T K N V T V S Q N		
UniRef90_J2KD61	Q I E L S F K G Q S T V S Q V N M T E A S G D T T N I V F K N K I N A P I P A S S		
UniRef90_B5HDP1	S I V I A V D K N G V P L K F T L N P S S G G K A V V D F T K V D F S R P A A S		
UniRef90_UPI00035F35D6	D I V L V L S E Q G V F K E V V I R E N Q D S Y T R L R F K V Q L N E G I A P D		
UniRef90_A6L914	K V E L Q I E K Y S N F P R I T V T S K N G V S S T I Q I S Q K T G I N Q P D R		
UniRef90_Q8TQL2	G I R I W V D E E T W I P L K Y E I Y L G P Q R M E I E I R N K I N T G I Q D S		
UniRef90_UPI0003B60670	I Q R I E L S G D A H V R D V T M L E R N G D S S H I R F D R L S T S P A A S		
UniRef90_T0S1E2	S A Q L V F D G K D K M K Q L V I Q Y E D G R D V K L D L K N K T N V N F S K K		
UniRef90_D6TGL1	Q G E V Y I Y D K S S E Q P R M D L T L A S L G P V S M H F D F E L N A P V D S G		
UniRef90_UPI0001FFE2A2	E V R A A V D A E T R M P E L T V L G A G A E V L Q I G F D D L T V G P Q D P S		
UniRef90_D8HRP0	E I R V A V D S Q T R M P L R V S V L S N G T A T E V A F T E L E F T Q Q P A D		
UniRef90_UPI00040B35DE	Q V E L F F P G E A T V S Q V K L I E S S G D F T R I V F K N K T N D K V D D S S		
UniRef90_UPI00036BC1D3	S V T I A V D K T G T P L K F T L T P S G G G K A V I D F T R V D F A K P A A S		
UniRef90_A5FKZ5	Q I E L T F D K E A T V V Q V K L L E S S E D Y T R I V L K N K V N A K I D D S		
UniRef90_Q01SD9	K C E L W I S D K G L T I Q Q K L D Q G G G D Y L L S T Y S K I L S A N I P E S S		
UniRef90_B8KU32	G M K I W I D Q A S W M P V E Q V I E S N G Q V M T V M F S S N M R N L K L N P D		
UniRef90_I0WC3	Q I L L G I D Q T K H I Y N L I E T G K N G T K T T I T V S F K T N Q P L S K S G		
UniRef90_G6AGW1	E A Y V T V S K A Y Q L Q K I R M K Q G K K W T T I T V S N I Q K K N L S D G		
UniRef90_UPI0002FDD482	F E A I T L L Q G N N D I E R I E L K E I R G D S T V I E F S Q L S H Q P		
UniRef90_I5BZ13	S V T L Y I D K A S K A L A W D I Q D D Q G G V F S Y R F K Q V E S P K F E D S		
UniRef90_N9LGB6	F V R I E A Q G Q Q Y V D K I V I Q E Q A N N S T I L F R N Q N T P		
UniRef90_U2L301	M K T L A L G G T G E F D T I V M T E A G G D T V Y T F S N Q K Y P K		
UniRef90_F0IHL1	E I H L F F S S D A T V G R V K L E P T E D Y T E I I F M N K K N T P I D A S		
UniRef90_M9U1M8	S V T V A V D A T G V P L K F T L A P S S G G K A A V D F T Q V D F A K P D A S		
UniRef90_E5U1X4	F E N I Q I S G G G K L V D R I E L R E V Q G D R S V L Q M T D		
UniRef90_J2LSE3	I G D I Q L D G G G A Y V N K V T M Q E A S G D H T D I V F S G Q T G D		
UniRef90_R6J847	A I E I Y L D K D M S V H K L R L L S E T A T N Y T E Y E F Y N K K F N S L K N E		
UniRef90_B1KLX4	I P Q M V L Q G E N Q L R S L T L L S S N G D T S R I E F E Q I N S D P L D E E		
UniRef90_Q46C18	W K K I W V D E N W M L L G G Y E L Y D S K G N V Y E M E I R D L R N T G I P Y S S		
UniRef90_R5VK18	K I G I Q V T A D S S I E E V K S F G K D G N N L I K I K I N Q P T P V P A D S		
UniRef90_G2JFQ6	K L L F V R V D A Q G Q Q N Q V I T E K A N N L T T I R F S H Q T S Q P		
UniRef90_H1H1X2	Q I V L Y F D G Q S T V S E V K L V E P S E D Y T R I V F K N K T N K L N D S		
UniRef90_T2KMN5	H V L L G I D P Q T K I Y N L I E V G Q N G T Q T T L T V I S F E T N Q T L L S K A		
UniRef90_S3KDP1	T I K L A I D P S T L I R R V E A V S A S R E V F K F D F S N Y L N Q N I P D T		
UniRef90_F5J027	K L A V L I D K S N I F S K I T V T D K A G L E N I L T I K S Q A G S N L L T D D		
UniRef90_S6IM51	F K Q I N I D G G P L V Q R I E L L E T Q G D S T L L K L D S Q S V P A L S D A		
UniRef90_Q2BXF5	F S K I S I E G G Q Q F I N K L E L D E I R G D K T L I		
UniRef90_R6E0S1	R M E I Y L D K D L S V N R L V M Y E N G T D Y T G Y V F T D K K N E T I P A S		
UniRef90_G6X92	L L T I Q F D M N G R L I G L E G V D A R Q H H F S V S V L S D V Q G V R I D P T		
UniRef90_E1X021	K A K L T F K K D K N L K I V E M T L S N K K T K K L E L S I V E G P K F K K E		
UniRef90_A0A022H5L6	G I V R Q V R I E G T L D S V E I V Q A D G D R S V M K I K		
UniRef90_D7CJ09	K V L L W V R E D G L P V R V E T T A A S G E K T I M E Y K N I Y V G S L P A D		
UniRef90_A0A024PZ49	I G E I R L R A G G R Y V E H L E M H T A E G D R L S V D F S D Q		
UniRef90_B6BK72	K F T I T T T N N K I I K S I S Y I D E F E N K V K I V F N N Q K N E E I N K E		
UniRef90_D9UMM3	A V R I L V D R T G T P L R A A L T A R D G G G K P V V E F T K V S F T A P A A K		
UniRef90_D2BF00	E V K L A L D G E T V P Q V Y A K S A A E P A F E V G F T S V T F T P P A P D		
UniRef90_I4N622	F T Q I Q I S G G H Y V I E R I E L S E T Q G D S T V L R		
UniRef90_UPI00037FED3A	K I V T R I R M Q G S H S E I K S I D A D G D R S E M L V I T S I Q		
UniRef90_F8JXH7	S V R I A V D A N G A P L R F T L T P K G S A K V D I G Y T K V D F G K P A A S		
UniRef90_X2HE18	F T R I D I Q G D E S V K K I I I L S E V Q G D R T E I T F S L K I N T A L N		
UniRef90_D7AEZ6	N L Q V I L A A D G K L R V I E E Q N R D R T V I S F R N V R N V G L T D R		
UniRef90_A4ZZ39	S F M I A F T S S G G V I R R V I A Y P T G G G R I V I D F S V K L N V G L P E I		
UniRef90_UPI00025583FA	V S R V E L Q G D S Y L R E I I L H E A G G D W T R I R F S		
UniRef90_UPI00046A6F72	Q I V I Q I Q G G A L V E R I E L L Q E A Q G D S T L L R L D S Q T G N S L L S E		
UniRef90_I8XP55	R I V L Y V V K S T Y Q P Y I K V E Q R D G S R E S T I T T Y Q T G L K L S D S		
UniRef90_R5Y1L9	E L E I F V D K Q T A L T H T V I K Q D G Q K T D D I R Y E T N T N F P A N		
UniRef90_L5MY65	D Q E L L W I D K E N W M V L K S V S T S G N I R T E T T Y T V E L N P D I P A D S		
UniRef90_Q3YQX8	A A V V F N V N P I T I V G L N I I N P D S T I Y I K F Y N I Q N N I T I E E S		
UniRef90_N8RSN5	K L F V Q V D A Q G Q V D R I T I L E Q A N N R T I I R F S Q Q T A Q P		
UniRef90_UPI000307F709	L L Q A V D L S G Q Q F V Q S V Q L Q E A R G D R S Q I Q M A N Q A L R A Q D A A		
UniRef90_E4RWZ9	Q I D L Q F D E Y A L S E I K M V E P K G D Y T L I Q M K N K Q N K K L D A Q		
UniRef90_UPI0003A16873	E I Q L T F S G Q S T V T E V K L I E P S D D Y T K I L F T N K L N Q T I N A S E		
UniRef90_E4UCD1	M I S L T F D R S Y R L L N W E I T D S S G T S I L V K L K Y K E N I T L K S E		
UniRef90_D4ZE10	I P K M I L E E G S Y Q V S A L T L V S A N G D T S R I E F E E I N N A P L A E A A		
UniRef90_C0BN55	Y I L L G I D N Q K K V Y K V I E T G K N G T Q T T I T K E T N T N L A P N		

170

UniRef90\_F2KYX9  
 UniRef90\_Q5FGH1  
 UniRef90\_A6F891  
 UniRef90\_X1LRL1  
 UniRef90\_R7P3R0  
 UniRef90\_J9GSJ1  
 UniRef90\_R7NT50  
 UniRef90\_F0R135  
 UniRef90\_S5VKM1  
 UniRef90\_K8R7K1  
 UniRef90\_I3XXR5  
 UniRef90\_C8PGJ2  
 UniRef90\_G2LGY0  
 UniRef90\_C1F4G7  
 UniRef90\_L1KQR2  
 UniRef90\_UPI00034676EE  
 UniRef90\_B7RWJ6  
 UniRef90\_D3Q8N9  
 UniRef90\_UPI00036E782F  
 UniRef90\_R6E999  
 UniRef90\_UPI0004040EFB  
 UniRef90\_R5JPJ3  
 UniRef90\_UPI00047D4C42  
 UniRef90\_R6HIG9  
 UniRef90\_B1W4Z8  
 UniRef90\_G8R640  
 UniRef90\_I4C2L4  
 UniRef90\_E0NQA6  
 UniRef90\_J2KD61  
 UniRef90\_B5HDP1  
 UniRef90\_UPI00035F35D6  
 UniRef90\_A6L914  
 UniRef90\_Q8TQL2  
 UniRef90\_UPI0003B60670  
 UniRef90\_T0S1E2  
 UniRef90\_D6TGL1  
 UniRef90\_UPI0001FFE2A2  
 UniRef90\_D8HRP0  
 UniRef90\_UPI00040B35DE  
 UniRef90\_UPI00036BC1D3  
 UniRef90\_A5FKZ5  
 UniRef90\_Q01SD9  
 UniRef90\_B8KU32  
 UniRef90\_I0WCC3  
 UniRef90\_G6AGW1  
 UniRef90\_UPI0002FDD482  
 UniRef90\_I5BZ13  
 UniRef90\_N9LGB6  
 UniRef90\_U2L301  
 UniRef90\_F0IHL1  
 UniRef90\_M9U1M8  
 UniRef90\_ESU1X4  
 UniRef90\_J2LSE3  
 UniRef90\_R6J847  
 UniRef90\_B1KLX4  
 UniRef90\_Q46C18  
 UniRef90\_R5VK18  
 UniRef90\_G2JFQ6  
 UniRef90\_H1H1X2  
 UniRef90\_T2KMN5  
 UniRef90\_S3KDP1  
 UniRef90\_F5J027  
 UniRef90\_S6IM51  
 UniRef90\_Q2BXF5  
 UniRef90\_R6E0S1  
 UniRef90\_G6XI92  
 UniRef90\_E1X021  
 UniRef90\_A0A022H5L6  
 UniRef90\_D7CJ09  
 UniRef90\_A0A024PZ49  
 UniRef90\_B6BK72  
 UniRef90\_D9UMM3  
 UniRef90\_D2BF00  
 UniRef90\_I4N622  
 UniRef90\_UPI00037FED3A  
 UniRef90\_F8JXH7  
 UniRef90\_X2HE18  
 UniRef90\_D7AEZ6  
 UniRef90\_A4ZZ39  
 UniRef90\_UPI00025583FA  
 UniRef90\_UPI00046A6F72  
 UniRef90\_I8XP55  
 UniRef90\_R5Y1L9  
 UniRef90\_L5MY65  
 UniRef90\_Q3YQX8  
 UniRef90\_N8RSN5  
 UniRef90\_UPI000307F709  
 UniRef90\_E4RWZ9  
 UniRef90\_UPI0003A16873  
 UniRef90\_E4UCD1  
 UniRef90\_D4ZE10  
 UniRef90\_C0BN55

170

L F T F K S H P S A E I I D L R  
 E F K H D I

M F V F V P P E G V T K V D M R E  
 T F K F D K K K N A E V I D L R  
 T F K F D E K K G I E V I D L R  
 S F R F D K R K D A E V I D L R  
 T F H F N P K P D A E V I D M R  
 T F D F T P P K G A K V

L F K G E I P K G Y D V V R E  
 L F K P T I P K N Y D I I T Q  
 S F K V D Y S K Y K V I R  
 M F T L H A A P G T K K I  
 T F D F T P P K G A K V

D F E F D E S L A D D I I D L R  
 L F S T R W P R G T D  
 N F T F T A P K G V T V  
 T F E

T F V F D F P Q A E I I D L R  
 Y F A F D T K K G I E V I D L R  
 V F V F D K K P T A E V I D L R  
 L F E F T P P P E A T V

T K F T I  
 T F D F T P P K G A E V

I F D  
 R F E  
 E Y K I N  
 E F S  
 T F D F T P P K G A K V

L F  
 F F V F N D Y P D V E V I D L R  
 E F V F D V P E G A E V V

R  
 Y F E F E V P K N A K I V R Q  
 K F T F V V P A G V K

L F T F T P P P G A T V E N  
 L F T F T P P K G A K V I D Q  
 V F T  
 V F D F T P P K G A K I  
 V F T

A V K L D V P K G A K  
 L F K R K W P R G T D  
 L F T F D  
 I F T F N K K P S A E I V D L R

Y F V F D A S A K V E I I D L R

V F N  
 S F S F T P P K G A K V

T  
 M K Q L I S P Q S V  
 D F E F K I P D G A Q V  
 F F K F D A H P E V E V I D M R

S F  
 L F S F D  
 R F L Y D A P S S A  
 V F H F N K K P R A E V V D L R

V F D  
 V F T P P G G  
 H F V F K V P A N T K I

T F E I P P G V Q V T D L

I F V P K Y P L E F D I I R  
 T F S F T P P K G T E V  
 N F T F T P P A G A K V

T F E F T V P K G A K V

D F R I E  
 K F K Y E L P K

V F V F N K Q P T A E I I D L R  
 H F V F Q K G T E I I D L R  
 T F A L E L P E D V E I Q D L  
 E F K

L F D  
 V F N  
 V F N  
 L F V

L F S F E E K K Y I D L

The figure displays a sequence logo for a protein domain, likely a transmembrane domain, based on the presence of hydrophobic amino acids (I, V, L, M, F, W) at many positions. The x-axis represents the position of the amino acid, ranging from 1 to 40. The y-axis lists UniRef90 entries. Colored boxes indicate the presence of specific amino acids at each position, with black representing conservative substitutions and colored boxes representing non-conservative substitutions.

50            60            70            80

UniRef90_UPI0003619DE3	R L E K R T L K P K P E S M L D K D K L T V E Q R G K K R V Q N Y P E V A A F
UniRef90_C9PNU3	G V I W Q Q T A P F P Q T I V M T E K Q I Y Q S V M G A V Q I I S Q P Q L F H F
UniRef90_I2K682	L F K W S Y R E P T K K E V C S D G L E L L V V D H D L E Q V S A Y R I S N G I
UniRef90_R7L3U6	R I R W Q T F S P Y E S I L I F D G K E L S Q Y E K L S G G W K K L S A H S R E
UniRef90_UPI00047B0DEC	K Y R L N I L G V T R I F D G K T M Y T I S P E D E E V T I S S D N T E D
UniRef90_W5SMC9	K F I I S L D S N N Q V F V S D G E V L T T V Y V P A L G T S F R Q Q L T I G R
UniRef90_U3H978	G L L W L L E K P L Q Q D Y R I G A A G I A R R V D G H W Q A Q P Q D V A A Q Q
UniRef90_G9Z427	G L L W D Q K T P F P M L L M L D D K R M V V I N H Q P A Q V I T N P Q M F Q F
UniRef90_A4X5A9	Q Q R I A L V D T L G Q R F I R N G R D V W L W N S R T N T A H R P Q E A A A
UniRef90_W7J170	K A R I S M D Q G R E K T V I A D G A T T W L W N S A D R S V V K Y D S A A E H
UniRef90_A0A011QXL7	R L E K R Q L T P R P E T L L L D K E R L T I E R G Q K Q D L T A Q P E A R A F
UniRef90_UPI0002D95837	Y K A S V M V N W D S Y F D G T T L W T H L K E V D E V N I S N P D D E T
UniRef90_A4G8Z3	R L E K R T F K P K P E R M V L D R D T L L V L K N K F S M Q L G D S P E L A A L
UniRef90_J0U865	G I V W H V L K P F E S T L V V R P D S L Q S R G S D G K L T T Q M R A Q D E V
UniRef90_R4T3P5	S Q Q T I V R N G Q T V W E Y S S K D N S A T K V T P D G L
UniRef90_UPI0004763D97	K A R V S V D D M A E R V L T T D G K T A W I Y D S A K R E A T K Q A Y D P Q A
UniRef90_R5URP8	C F Y L E C G G V K S W F D G T T Q W S Y V E Q N E E V T V S S P D E L Q
UniRef90_D6B671	P D R Q K V D G A D E Y S L I R D G D Q A W A Y D G S T G E A L H T K D D H V S
UniRef90_B9L9Q9	V F W K Y T Y P N E K E I W I N D K V Y V Y E P D L L Q V T I S K K P
UniRef90_UPI00047D4785	Q S R L Q V L D Q L E E R N V I N G D E L W Y Y N S D E N E A T L G D H E K P D
UniRef90_UPI0004235BCB	Y L L N F M G I T K I F D G K K N Y T I V P E D E E I T I S N Q D D V D
UniRef90_C8PU38	G I T W Y T E K P Q K S I T V M T E Q K V L Q V F P N G T E K E L G N S G N P I
UniRef90_V6K6M9	K Q R L I L D S A A E Y S V I H N G D E V W A Y D S A S N E A Y H T P Q D F A Q
UniRef90_L8UHK6	G L L W Q M E K P F T N Q L R V K T D G I M Q W D G K Q W V A N G N M G Q A Q Q
UniRef90_S6SR80	G L L W L L E T P L K Q D Y R I N A R R E T V G D V I S T W K P V P N K N A G A E
UniRef90_UPI0003B5FDEF	Q A R V Q V F D T F E R D V I V D G D Q A W F Y D S G D D T A T H T P E Q L A Q
UniRef90_UPI0003663370	G I T W R T T T P F A S E L V I Q R D A L V Q R D A N G Q E V R I Q P A V R M V
UniRef90_E4T0Y6	K F V L E M S D M K V W F D G K T Q W A W V E Q N N E V S I T S E K E L A
UniRef90_R6MPE0	C F Y L D C A G V K S W F D G K T Q W S Y V Q Q N E E V T I S N P E E I Q
UniRef90_H0QIR7	R A R I Q V M D M A E R D A V R Q G N E L W L Y N S K D N T A T H R S H D M P A
UniRef90_UPI00028937CB	Y V L N L M G T T Q I Y D G K K L H I I V P E D E E I S I S T P T A D E
UniRef90_L8Y0M5	G L Y W E Q T P F M L S I L F T P T H M V Q Q I K E V I T A K N N P M L F Q F
UniRef90_W0GZF6	G L L W L L D T P L K Q D Y R I T P A G I A R R E T P G K L L P G K S A G A E Q
UniRef90_UPI0002EE3879	G I L W Q T L Q P F P N T L R I T R E A I V Q I Q D G H V I D A Q Q E P V V K M I
UniRef90_V9R8D1	LL K W D Y Y P P T P A S I I I Q G T T V S Y Y D K E L E E Y S Y S I
UniRef90_B3EU14	R Y K I V L D E Q V V I S N G E I V W N Y L P E L H E V H I N N F E D E E
UniRef90_G0JT18	T L E M H T V K P R D Q V M L V Q G D V L T M D K Y T I Q L D D H P E L L A F
UniRef90_W7T1S5	N S A S E E T I V Y D G T T V W D W T S S N K T V H K K P S S G E V
UniRef90_Q3IC64	K L V W Q V E Q P V K S A L I V E N G Q V L V E N A K G E F V P Q P G S E Q F
UniRef90_D1Y0L8	K F M A V T R Q A S V W F D G K T Q W T Y M K S T N E V N I S T P T E A L
UniRef90_W8W0Q0	E A K L S G N K Y N G T T Y M F D G K K L Y T I N R E D E Q V T V Q N N D G S E
UniRef90_E6SVQ4	K F I L L E T D G V I T T W F D G H T Q W S Y L S S G K E V N I S E P E E I Q
UniRef90_F5YGT4	F L R I L D F T K P S E Q V I A F N G E T L T V Y L P E Y R N Q S I T P S R R S P
UniRef90_UPI00035F00ED	N F R C N Y Y A P Y P P L L I V G N K H S I S L Y D F E M Q Q L T R N P N D E S L
UniRef90_H1ZCT7	K L L W K Y T S P F A Y S I A F A D N K I T I N D Q G K K N K I D N N K K F A K
UniRef90_L9VLZ1	E A D E P E P D V I V S D G S T I W M Y D E D D N E A V Q M E D E E A L
UniRef90_F2IFR2	K F S A V Y G E N T M I S N G L K K W S I V K E E K T V Y E A D A S G D D
UniRef90_R5SDP3	H L T M R Y S K P A G E L L V V N G N K F H M N K G G K A M T K N T L M G S L
UniRef90_UPI0003700780	G V L W R T L Q P F P N T L R I T R D E I V H F Q G E R V D A K T E P V V R M I
UniRef90_I2N455	K T S E Y S L I R N G D E V W G Y D S A S N E V F H H K G A G R G
UniRef90_X0N5W1	D Y T L I H N G T D V W A Y D S G S S N S A V H H T P E G L Q
UniRef90_D7DLY7	R L E K R T L K P K A E S M V L D K D K L I L E Q R G K K H V Q S Y P E I A A F
UniRef90_H1Z646	L Y R L S F M D M T R I F D G K K I Y T I S D E D K E V T V Y D P K K I D
UniRef90_R7HT10	K F C I T A S N M I C W Y N G N K T Q W S Y S T M S N E V S I M E P T A S E
UniRef90_UPI000408A594	R F R L V R H R G G E D V L V G D G R N I I W S W N S E E R T A T R D D V G G A D
UniRef90_F6GGC2	K Y K L N I L G I T R V F D G S K L Y T I S P E D E E V T I S S E N N S E
UniRef90_D5BG68	K Y V L N F M G T T Q L F D G K V Y T I P E D E E I N I S N Y E D E N
UniRef90_E3GAV8	G L L W D Q K T P F P M Q L M L N D A R M V Q Q P P Q V I T A D N N P Q M F Q L
UniRef90_UPI00040E57C3	K F V L Q T A E M T T W F D G K T Q W S Y L S G S E E V N I S N P Q E L Q
UniRef90_UPI00036F8A7E	K Q R V Q L T Q Q A E Q D V V H N G S D V W T W D S K E R T A T H T P A D I A E
UniRef90_UPI00037FA5D7	M M K L E Y T T P F Q Y I M A L Y K G K V I I K D N G K V S K Y D S K S N K V F
UniRef90_Q46U97	H L E K R T V T P K P E N L V L D G D M M T V E R R F T M P L Q N Y P E I A A F
UniRef90_A6QAC6	L M K W D Y T R P T K K E V C T D G K E L R V V D H D L E Q V S T Y L I S K G F
UniRef90_C7R9X1	G M V W Q T S E P L K G T I V I K N G S L K Q F N K H D Q A V S A Q K S S Q L I
UniRef90_UPI00037EC72D	R L R I E Y I N P T K I V F V L K D D K K A M Y F N K D L Q E V Q Y F N P K N T A
UniRef90_UPI00037B61A4	G L R W S L R K P V S T N L R I T P N E I V E R Q D G E E N V D E Q P M T R A I
UniRef90_UPI0003F80D7E	F V H F A F Q P P E D L I L H T P K A L I S Y S P E A K A G E L M K I G I I K
UniRef90_R0JV80	K F I I N L D L N N Q V F V S D G E F L T V Y V P S L G T S F N Q Q L L K G S
UniRef90_UPI000364F4BF	K I S L Q Y D K P M Q Y T V T I N G D K L Q T V T G K K T V N L G S N K M M
UniRef90_S0EUE5	R F Y I Q T S S D G D L L V S D G Q N L Y I Y R K A V Q E Y T K A K S D D L L
UniRef90_F4H4X1	E M R S R V G A A S E Y S V H D G L E A W T Y S S Q D D E V V H Y T V A A A D
UniRef90_UPI0003B48DF1	E Q Q D V F R N G R D L W Q W D S E S R I A T H T P S D A A A A
UniRef90_A4CKV4	Y V L N Y M G A Q Q L Y D G D K V Y T V V P E N E E V T I E D K I S D D P
UniRef90_I3YTV2	L V K W E Y T N P Y K Y S V I F K E D Q L L I N D G G T K S Q V D I G N S K L F
UniRef90_V6KEM8	A D L T P K E A A E
UniRef90_A1SB33	G L M W A Q N Q P F E N L L I L S E T R M L S R D S E L W Q Q T E V N A K A G P
UniRef90_UPI000377E212	K Y R L T Q Q G G A Q H T T V S D G S T L W N Y G S K D R T V N K L P M Q Q V K
UniRef90_U2A358	K A R L Q V D R M A E R D V V V N G T E A W F Y S S A D N S A V H T P D D N A R
UniRef90_R4LS58	K V R L A L L S K I L G E T D V I N G T D V W M W R S A Q N E A T H L K L S Q G L
UniRef90_B0TPS7	G V I W Q Q N M P F S S T L I L K D K Q L I Q I D S Q G N Q A S G N Q I S D V M
UniRef90_A6W250	K I I I W H T L T P I D S T L E L T P K T M L N Y Q D G V Q V N K N P I V A V F
UniRef90_B9KGT4	L L R F D Y H A P I S T S I V I K N G W M T F Y D Q A L K H Y S Y I K V R H P I
UniRef90_R5EU34	K F Y W N T T S M T V W Y D G L Q Q W T Y V K A T E E V N L T P T T E E I
UniRef90_N8TJ20	G V I W Q I Q K P V Q A D L I V T P K K L L Q K T Q R T M S Q L E I D N S Q S V
UniRef90_UPI00035FF588	Q L P Q T P E D A A K
UniRef90_R7WWB1	G V V W Q V R S P E P H G Y V Y G R Q R S A R L D A D G N D T Q P S A V T Q Q I
UniRef90_I0HB29	K V R L A L L G T D G E T D V I N A G D V W I W K S S D N T G T H V T L P E D I
UniRef90_A9EBZ6	K Y L L N F L G F T K M Y D T K K V Y T I V P A N E E V T I T D A D D E T
UniRef90_UPI000378151C	E N R Q K L L D A A E Y S V I H N G D D V W A Y D S A S D E A Y H A K A D Q A S
UniRef90_UPI00036C486E	K M R L A L V G T K G P E T D V I N Q N D V W L W N S A E K Q V P K T P Q E A A D
UniRef90_L0WYQ7	G I C W F T K T P Q E S V T V M G E K N V V Q I M P D G K K V M A D S N N A I
UniRef90_E1IGQ4	R V R L E A S Q P E G A L V V S D G E Q F W I Y S P N E K T V T A A E M K E Y A

	90	100	110	120
UniRef90_UPI0003619DE3	<span style="border: 1px solid black; padding: 2px;">D</span> S <span style="border: 1px solid black; padding: 2px;">I</span> R G T L A G D R K A L E R A Y Q L S <span style="border: 1px solid black; padding: 2px;">L</span> T G D E L T L L P I E D K M K K I			
UniRef90_C9PNU3	T Q L M S D I L L Q G N W Q A L G D Y F V L Q E S E W Q V V L L T P K K S P F Q Q I			
UniRef90_I2K682	N I A K I V K Q A K L H S N N I Y V A E Y E N K			
UniRef90_R7L3U6	S V K K I I S I S K L V V G D Y S S Y E V Y K S G G K I F L T P K D A K K V L K			
UniRef90_UPI00047B0DEC	E N T P S K M L S F Y K E G Y S Y K M D I V Q D V Q Y V K L I P M D S N S E I K			
UniRef90_W5SMC9	G E S G F M K I L S N L E P L D E S G G G N T E S V I K L T F S R R K G A A T I D			
UniRef90_U3H978	S R L F L A V L K G D H Q G L A R D F Q L Q L S G D Q L Q L T P N S L L L K Q I			
UniRef90_G9Z427	S R L F L A V L K G D H Q G L A R D F Q L Q L S G D Q L Q L T P N S L L L K Q I			
UniRef90_A4X5A9	N H L L R A L F Q A D R K V L E Q N F R I G Q G R W T L R L T P T T T P L D K I			
UniRef90_W7J170	Q A L A A V D P T T E V S V G R S A T V A G R D A Y E L V L T P R D A A S L V H			
UniRef90_A0A011QXL7	R A D P A A V S L E F I T A M R A D S T V S V D G T Q L V L T P K P T E T L L R			
UniRef90_UPI0002D95837	V D S I R G A L T G N R Q A L E K N Y A L H L A G N R W T L T L L P S D Q A I A			
UniRef90_A4G8Z3	T L S P S S I F N I H K Q G F R E E D I L D G E E V N I V D M F P E D R D K P Y S			
UniRef90_J0U865	I E S I R A T L A G D R R S L E F N F I V A L Q G W I M T L T P S S N E A Q Q K			
UniRef90_R4T3P5	N A M L F A V M S A N L T E L A Q H F E V T A K G W S L R L V P R D P T L A Q W			
UniRef90_UPI0004763D97	D V D P A T V A S E L L G K V R E S S T I A V S G T E L V L T P K P T E T L L R			
UniRef90_R5URP8	A A K K F L A A I D P S T K V E V S G S T E K V A G R D L R L V P K T D K T T V G			
UniRef90_D6B671	S I N P Y A L I N S Y N R L F G K H T I R G K E G N E I I L T P R Q K G D I E			
UniRef90_B9L9Q9	D M S P K E L A T K A L D A A D E T T R V T V D G T T T V L T P K D S G S T V K			
UniRef90_UPI00047D4785	E F N L F F N A L N K A K K I N S K E Y E A V V D			
UniRef90_UPI0004235BCB	G G T P H D L A A H F L E K V D P S T E V T V G S D D L I L T P R S A D T L V G			
UniRef90_C8PU38	G M S P A K M L T F F T S G F K Y S W D I V Q N V Q Y V K L V P T N A K D Y R K			
UniRef90_V6K6M9	F S S V A L L F T Q D T T V I E Q H L N V Q Q K N G L L E Y V P K D N T S V I K			
UniRef90_L8UHK6	E A L K A A G D T T S V T V D G T A R I A G R D A Y Q L V I K P K Q T G S T I G			
UniRef90_S6SR80	I S L F L G L L S G D I S G L K A Q F E V A L S G E N W Q L T L T P S S L L L M K			
UniRef90_UPI0003B5FDEF	Q N R L F L V L Q G D S S G L Q R D F D L Q L K G E H L T L T P R S L L L Q Q V			
UniRef90_UPI0003663370	H V I E A A D P S T A L T I G E N V Q V A G R T A Y D L V L T P R S T D T L V G			
UniRef90_E4T0Y6	A R I L F F A V F S L D F A E L E Q L F S L Q Q D G G G W Q L G L Q P K Q A S G T			
UniRef90_R6MPME0	E T N P M A I L S G F K S K C T I K F S A K A Q N Y C I E M L P K A G S K D I I			
UniRef90_H0QIR7	S V N P Y A L I L T S Y K T L F N Y R Y R N G K K Q G E I V L T P R Q K G D I Q			
UniRef90_UPI00028937CB	G A T P E E L A A K M L D K L D G S T E V A V A E D T L V L T P R S D V T L V G			
UniRef90_L8Y0M5	G L T P S K M L T F Y K K G Y V A S M D I V Q N V N V Y V K L V P E Q K S G E I T			
UniRef90_W0GZF6	N Q L L S A L F T M D P K V I E Q Y F T V T E R T E T L V L T P K T A P F N Q I V			
UniRef90_UPI0002EE3879	N R L F L A V L Q G D S S G L Q R D F E L Q L K G D H L T L I P R S L L L Q Q V			
UniRef90_V9R8D1	N S V L F S L L A G D L S Q L D N L F T L R D G H W Q V A L K A R Q P A L A K A			
UniRef90_B3EU14	I N N P I I N F L L S S N I Q N T K D I N I S T V D N K K V I T I Q D Q K T G L Q			
UniRef90_G0JT18	A A S P I Q L M H I H Q Q A L K S I T I D K I E Y D I L E I A S D Q D N F I K			
UniRef90_W7T1S5	V D S I R G V L T G N T E L L E T H F M L S L K G N T N L I L V P K Q N A F A K Q			
UniRef90_Q3IC64	A T D P A Q A A K Q V I A L I S K D S T V K V D G T E V V L T A P K P T E T L L R			
UniRef90_D1Y0L8	V G L L T D L L S V D M S A L A T R F S I K A Q Q N N C L Q L T P K E A Q Q L F S P			
UniRef90_W8W0Q0	S V N P Y S I S I M Y K N G Y T L S M T T K G G Q K V V H M V A K N Q K R S V P			
UniRef90_E6SVQ4	M I N P S N I M T F Y Q K G Y T K E L D I V Q N M N Y V K L K P I K S G S D Y K			
UniRef90_F5YGT4	N I N P Y A F L L S G Y K L K L G K I D N V Q D N S Y K M V F T A T G R K Q D L Q			
UniRef90_UPI00035F00ED	A G A A N L A T A Q G L A L L R R N Y I P S E Q V V K L R L S R R S V S E G F R			
UniRef90_H1ZCT7	G E G N I L I N L L L N N G N L R N I N L I K T T N S H Y L A L I T N Y N S N K			
UniRef90_L9VLZ1	I N T L I V G S I S G N M F D E K E F T I T Y F K N K L V P L S K E I A Q Y I S			
UniRef90_F2IFR2	N D G F A D A F T A D T D A S V E G T D T V A D R D V Y V L T G D G D D A L Y E			
UniRef90_R5SDP3	D D N P K K L L T F K N K Y D K E E T L N G E K V H V I Y L Y P K P K K A N Y H			
UniRef90_UPI0003700780	A N T L V N O I K G D P E T V A A A N N A K E T A E G Y V V T L T A S A A G Y S			
UniRef90_I2N455	N S V L F A L L A G D L A Q L E A L F E V E I D G A N W K V A L K A R Q P A L A			
UniRef90_X0N5W1	A P T P K V L A A E V L K A A E G T T S V T V D G T Q L V V E P K Q S G S T I G			
UniRef90_D7DLY7	G A T P Q E L A A Q Q A L K A A G D T T S V T R D A Y Q L V I K P K Q A A S T V G			
UniRef90_H1Z646	<span style="border: 1px solid black; padding: 2px;">D</span> S I R G T L A G D R K A L E R T Y K L T Q Q D W D L S L P L E D K M K K V			
UniRef90_R7HT10	N A L P L Q I L T F Y K E G Y D L Q W D I L Q N V Q Y I K L I P L D K K S G I K			
UniRef90_UPI000408A594	L Q N P F S V I S N S Q F T A Y T A T L M K G N A S S N I V L K P K N A T S Q F S			
UniRef90_F6GGC2	R A T P A S V A A E L T A L L R E D S G V A V D G T E L V L A P S P E Q S L V R			
UniRef90_D5BG68	E G T P S K M L S F Y E D G F T Y K L D I T Q N V Q Y V K L T P I D S Q A T I K			
UniRef90_E3GAV8	N I T P S K M F T F Y Q D G Y N F D W D I T Q N V Q Y V K L T P K D S E A E V K			
UniRef90_UPI00040E57C3	N H L L R A L F Q A D R R V V L E Q N F R I D K G D D R W T L R L T P T T T P L D			
UniRef90_UPI00036F8A7E	S M N P Y T L L Y M Y K K G F S H K L F R G K A V Y E V K L S A S S K K Q N L S G			
UniRef90_UPI00037FA5D7	Q A I D A I T P T T T V S K P T Q V S V A G H D A W Q I T L T P K S S D T L V G			
UniRef90_Q46U97	K N D L M I H A V Q G N V A D S K E F T I K E N S K T Y L M E M T P A E A T M K			
UniRef90_A6QAC6	I E S I R G T L A G N R T T L E R Y Y K L G L Q G W T L T P A D S R A M V T			
UniRef90_C7R9X1	N L N E I V K Q A K E H K S N I Y V A H Y G G			
UniRef90_UPI00037EC72D	T S T F L A I I L A G D F A Q L E R N F S A Q E E Q W Q I K L Q A K H E D M Q R L			
UniRef90_UPI00037B61A4	G Q F I L D L F N K K K F L T D V K I F N G S Y F Y L S K E I Y D E S L N			
UniRef90_UPI0003F80D7E	S E V F F A I F G G D W D A L E K R F T T I R Q E A S P W R L E L E P K D E L L K			
UniRef90_R0JV80	N A N R F L G L G Q K L S Y L S E Y F Q I R P A G T W L L M T P R S M R K R M Q			
UniRef90_UPI000364F4BF	S G G G L M K V L N S E Y S V S E D L D S S E P G K Y I K L T F S R K A A T I N			
UniRef90_SOUEU5	A Q M R G L I M I G N I S A L G K E Y D L Q S D S E Y F V R T S K A V K A Y I K			
UniRef90_F4H4X1	G A L P G N R F V S V L V V L V Q H N L D K A S S F L S L A T L A P T S Y T			
UniRef90_UPI0003B48DF1	A A R L L Q L A L S T V S I D G A T T V A G R D A Y Q L V V T P K S T S T L V G			
UniRef90_A4CKV4	R A L A L I D P S T T V T T E A T E V V A G R S A Y T L V L T P K D G R S R V G			
UniRef90_I3YTV2	G T S P S R M L T F Y R E G H N Y A W D V L Q N V Q Y V K L T P I D S D S D I R			
UniRef90_V6KEM8	K K L N Q L I V N S N D L D F T V N F F K S S K Y N K A I F I P K D K K G Y I R			
UniRef90_A1SB33	R A L E L A D E S T S V T V D G T A K I A G R D A Y Q L V V I A P R D A H S T V G			
UniRef90_UPI000377E212	A T L L M P M L M G G D M A T L E R H F S L Q E N H W Q L T L A P K D E D A L F A			
UniRef90_U2A358	A H D P V A M S K Q L V G K L R Q S S D L T V D G T E L V L T P K P S E T L V R			
UniRef90_R4LS58	N P S P E A L A D R F L E T M D H D T E V V S R G A Y T L M L V P R S T D T L V D			
UniRef90_B0TPS7	P S T P Q E A A D A A L A A I D P T T A V S T T G Y E L V L Q P R D T S S L I G			
UniRef90_A6W250	P K L L N A L L L S G D I Q Q L E E Q H F S L S Q A P Q Q W Q L G L K P T D P L L E			
UniRef90_B9KGT4	S D I F F G V M T A Q W Q V L E E Y F E V S N G H W K A T L V P I D K N I G G F			
UniRef90_R5EU34	V E L F S A T N S D K I K Q K L N I L S A V V H D G R T F H I E K Q S G A A M V			
UniRef90_N8TJ20	A T V N P Y I L I N N Y K K D F Y L T L K S K S S K A E L T P K K K T N I D H			
UniRef90_UPI00035FF588	A T M F L Q L M A G N E T A L A K N F N V V A A N Y T W D V T T P K S A L F K			
UniRef90_R7WWB1	Q A L A A I D P T T K V T T D A T T T V A G R A Y Q L I L T P R D T T S L V G			
UniRef90_I0HB29	N E W T N A F M I G D T S G L A S Q F A V S V T G T Q I V L T P S Q P Q I A Q A			
UniRef90_A9EBZ6	A S T P Q E A A D A A L A A L D G T T K V T T T G Y E L V L S P K D A N S L I G			
UniRef90_UPI000378151C	S L S P S Q M L T F Y K N G Y S Y A W D I L Q N V Q Y V K L T P I D S E S D I K			
UniRef90_UPI00036C486E	G A T P I L K A S G D T T S T V D G T A Q V A G R D L Q I K P K Q S G S T V G			
UniRef90_L0WYQ7	A A L A A I D P T T T V T T G A A K V A G R D A Y E L V L S P K D A N S L I G			
UniRef90_E1IGQ4	A N I I K S I F T Y D E K T N E S F N Q S S M N G N T A V Y S P K T S K K I I E			
	P N S P A G L D A V N L E V L G E E Q V A G K P T W K V K V T P S A E T S G L I			

130            140            150            160

UniRef90_UPI0003619DE3	V A K I   S I A G S G N A L Q I   D I L Q A D G D S S Q M T I   T		
UniRef90_C9PNU3	F N Q I   T L T G D K I   I K S V L I   Q D K Q G D N T H   L Q F		
UniRef90_I2K682	Q Y T I   Q V D A Q Q K Q L   H S I   A Y F D D L   D N K V Q I L   F K Q M K Y G K   L P A Q		
UniRef90_R7L3U6	S I L L   V P S G D G T V K S I   E F T D S N G D K T V L   T L K I V E N P K N F D S		
UniRef90_UPI00047B0DEC	H I L L   G I D A N T K I   Y N L I E T G K N G T Q T T L   T V S F K T N E P V S K S		
UniRef90_W5SMC9	S F M I   A F T P S G A I   R R V I A Y P T G G G R E   I I I L S V K F N V G I P D N		
UniRef90_U3H978	F S A I   Q I Q G R A L   V E R I E L   R E T Q G D S T V L   R L		
UniRef90_G9Z427	F A T I   D L A G Q T Y L   E S I   Q L N D K Q G D R T D   A L S Q H Q   L T P		
UniRef90_A4X5A9	Q V R I   A I D A T H   L P L R F E V F A A G G D R F E L A   F T Q I   D Y A R P D A D		
UniRef90_W7J170	E V R I   A V V D S E T R L   P L R L E V L   A N G S A E S V G F T E F A T G A Q D A G		
UniRef90_A0A011QXL7	A I K I   S I A G Q G N I   H S I   E Y L   Q A D G D R A V I R I E   H		
UniRef90_UPI0002D95837	R I K I   V Y V N K N N H   T K I   S Q I   G K D G T N Y I   I D I T N E T D V   P V E S G		
UniRef90_A4G8Z3	V K R I   R L S G N S E V R E I   E V L   Q G D G D R S S V I T T I E   K   K		
UniRef90_J0U865	L T A V   V D L Q G N Q F V   Q E V K L   Q E A R G D S S S L   I R I		
UniRef90_R4T3P5	E I R V   A I D D Q T R L   P L R V T V   L A N G T S S E V S F S E   I N F A A Q P A S		
UniRef90_UPI0004763D97	S V T L   A V D K T W   P L Q V T V   M P R T G K A   V Q L G F S A V S F D   V P P A S		
UniRef90_R5URP8	S V V L   F L S E N Y Q P   L Y   T V K L   A S G Q T Q E F R L   D Y Q T G M S Y T N D		
UniRef90_D6B671	A V R I   A V D A E G T   P L K F T V A   P S D G G K A I   V D F S K   D F A R P   P S T G		
UniRef90_B9L9Q9	N K K V   Y F V F D N T L   K K V W Y T D D V   G N K V V I   F N Q S D K N I   K S S		
UniRef90_UPI00047D4785	S V T V   A V D G E T   P L G V T V   V A A G G S S F S S A F T   D   S Y E A P D K S		
UniRef90_UPI0004235BCB	E V V L   G I D A Q T K I   Y T M M E M N K N G S K T T I   T V S F K T N Q P   S K N		
UniRef90_C8PU38	K I E L   V N A D N G Y I   S S V V I T Y S N G D T T E Y I L S V		
UniRef90_V6K6M9	S I K V   A V D R T G T   P L K F T L   P S S G G K A I   D F T K V D F S K P A G S		
UniRef90_L8UHK6	Q I D I   Q I Q G D E   V V K A I   V L N E N R A   K P T F N   L T I F N K I S L		
UniRef90_S6SR80	F K Q I   N I D G G E L   V Q R I   E L   E T Q G D S T V L K		
UniRef90_UPI0003B5FDEF	Q V S I   A V D G E T G   P L Q V T T I   T A R G Q S D Q V G Y T S   D   L T A P D A G		
UniRef90_UPI0003663370	I D A I   I V S G R N D V   E R V R L L   E R G G D R T E   E F Q D		
UniRef90_E4T0Y6	K I E V   Q V N K S S G G   L S S I   K L S N K N G T S S   L V L S N K K G   A A A D N		
UniRef90_R6MPME0	L I T F T   V T S A D Y E   P I Y I   G V K L   S N G K T Q E F N I T S Q T H R N   L N S S		
UniRef90_H0QIR7	S V A V   A V D G E N G M P L S V E   V R A R G Q Q F R T A F S T   L   G A P D A S		
UniRef90_UPI00028937CB	S I L L   G I D S E T K I   Y K Q V L   K Q S N G T E   I Y V T V N F K T N Q P   L S N T		
UniRef90_L8Y0M5	F R S I   T L V   H D Q F   R E V A L   K D Q Q N D V T H   L Y F T H   H A T A D F D A K		
UniRef90_W0GZF6	F K Q I   N I D G G E L   V N R I   E L   E T Q G D S T V L K		
UniRef90_UPI0002EE3879	I G D I   S L A G A A Y V   D K V S M K E A S G D R T D   L S F S G I   K T G		
UniRef90_V9R8D1	A D V I   F N I   H P I   A I   V G L   N I A N P   D S I T Y   I K F Y N I   Q N N V T I T E T		
UniRef90_B3EU14	H   L S   T I   G R K S H   Q I K I K   A F D N N E   L I T H   S F M I   M N V L D V D L E D S		
UniRef90_G0JT18	I K H I   T V S G   I G   M N R S I E I   V K V N H   D W S L I   S I R N		
UniRef90_W7T1S5	E V R I   A V D A E T K I   P L Q L   S V L A N G N   V G Q I   G F S K   L E   I G T Q D P A		
UniRef90_Q3C64	H F T L   C   E S D K T V   H S I   I L Y E   H S G S K T T I E F S		
UniRef90_D1Y0L8	E A Y I   T L S G N   Q L K Q I   K M R Q G S   K W T T I K   T S   I V P K N   L S N S		
UniRef90_W8WQ0Q	S I L L   G I D A N T K I   Y N T I   I T E R S   G T V I T F T I   L S F K T N Q P   L P K S		
UniRef90_E6SVQ4	C I I L   Y V T K D S L   Y P R V S M A R R G G E A I   V I I I N S   S Q T G   L A Y P D G Q		
UniRef90_F5YGT4	E I I L   N I T   P T T L   I R R I   E G R T I   A D V L V R F D F S   D   K N Q G   I P E Q		
UniRef90_UPI00035F00ED	K I V V   S L S K Q P K L   S K I E V I N   P D K S R N   V V I I S   I K N I K N V S P I		
UniRef90_H1ZCT7	E I V L   Y F D G Q H   T V S E   V K L I E   P S A D Y T R I   V F S N K K N S K L   D E K		
UniRef90_L9VLZ1	S A T L   W I D Q E T D Y P K Q E I   T P A V   G E T T T M A F E   E V T F E E I   D D E		
UniRef90_F2IFR2	T V I L   Y I S K D N E L   K K A I   M K S N D G T V   S T Y S   L T K   F T N   P   V I E D S		
UniRef90_R5SDP3	K I V L   T Y R K D C   C V L V K M   I M E T V   G I T N T Y E M K   V K K N T S L   P S D		
UniRef90_UPI0003700780	K A S I   K L D G G A Y V   K N   G I S E A G G D R T G   V F S A I   Q S G D		
UniRef90_I2N455	S V R I   A V D K T G   T P L   K F S V I   P A A G G K V   D I G F T K V D F S A P A A S		
UniRef90_X0N5W1	S I R V   A V D A N G   V   P L K F T L   T P K S G G P   A A I D Y T R   V D F A R P A A D		
UniRef90_D7DLY7	V T S I   N I S G D D N N M L   K   I Q K A D   G D S S V   M I I T		
UniRef90_H1Z646	E V L V   G V D   H A T K Q I   Y T K I   V N K N G S K S I   L T V S   F K T N Q S M S K N		
UniRef90_R7HT10	Q V V V   T I A K K N   L P   K I V A T M R D K S K   L S I T L   S G R T G G N F   P A S S		
UniRef90_UPI000408A594	E V R I   A V D G D T R M   P L   R V S V L A N G T E   T Q V G F T   E   L D   G E Q D E S		
UniRef90_F6GGC2	Y I I L   G I D A Q T K I   Y N L I E   L G R N G T K T T L   T V S   F K T N E P   I S K T		
UniRef90_D5BG68	N I I L   G I D A K E K N I   Y N L I Q T Q P   N G T K   L   T V S   F K T N Q S L A Q N		
UniRef90_E3GAV8	K I S I   D L A G Q Q Y   L E S   K L N D K Q G D K T D   I T L   S Q H R   L T P		
UniRef90_UPI00040E57C3	S L V I   Y V A R D S Y   Q P   L I L A Q Q R D G S R S E I   V I T   D Q P   G Q R Y A D S		
UniRef90_UPI00036F8A7E	A V R L   A V D D Q Q T   G   P L   R A S V   Q A A G A A V   Q V   G F T   S   L   D Y G A P A A R		
UniRef90_UPI00037FA5D7	K V L V   T V S K T D L   V L K V   E M T E K S   G D Y T L   T F V   N R V N T A   L K D E		
UniRef90_Q46U97	Q V R I   E G A   H D G   L   D S V E   I R Q A D   G D R S V   M K   R		
UniRef90_A6QAC6	S Y T I   Q T D G K K R   L   Q S I   A Y Y D D   L   D N K V Q I   V F K   K   Q Y G K   L S R Q		
UniRef90_C7R9X1	L T D I   T   I G N T N   I Q Q   L   I F A E   A N G D S T E L   V F T		
UniRef90_UPI00037EC72D	L I E V   Y F N K   P F Q   L K K L   K V I N E S   G V I S F T I   I N   P   N F   N P   N   L D D K		
UniRef90_UPI00037B61A4	S Y T I   E   L   Q G S E Y   L   E V L   I   L S E S   N G D R T R I   Q L   N D V K		
UniRef90_UPI0003F80D7E	A   L   D   L   W V D K E W   L   P   R Q   V   Q W V E R S   G D S W   L   V E L   G   L   R   V   N   Q   P   L   P   A		
UniRef90_R0JV80	S F I I   I A F A   P   G G   I   I R R   I T   A F   P   T   S   G G   R   I   V   D   L   T   V   K   F   N   V   G   I   L   D   S		
UniRef90_UPI000364F4BF	E   I   G   I   T   F   D   R   Q   T   M   V   R   L   R   M   A   E   N   N   D   D   T   Y   I   F   N   S   Q   Y   N   T   L   Q   S   D   E		
UniRef90_S0EUE5	A   I   H   Y   F N K Q T   H   L   A   G   A   Y   L   K   H   D   T   E   S   V   T   E   E   L   S   D   V   T   N   G   A   V   P   N   D		
UniRef90_F4H4X1	R   V   V   L   A   V   D   A   E   T   S   T   P   L   W   S   A   Q   D   D   E   P   A   L   E   I   G   F   T   D   V   T   F   A   T   P   S   D   A		
UniRef90_UPI0003B48DF1	S   V   R   V   S   V   D   G   K   T   K   V   P   L   R   V   V   V   T   A   R   G   S   N   I   D   V   G   F   T   Q   V   R   F   A   A   P   D   Q   D		
UniRef90_U4CKV4	S   I   L   L   G   I   D   E   T   K   H   I   Y   R   L   I   E   T   G   S   N   G   T   K   T   T   I   T   V   S   F   K   T   D   Q   P   L   S   K   S		
UniRef90_I3YTV2	S   F   E   L   F   F   N   K   D   D   Q   V   Y   V   E   Y   V   K   M   V   E   P   S   K   D   F   T   R   I   V   F   S   N   R   T   N   G   T   I   L   N   D   S		
UniRef90_V6KEM8	S   L   R   I   A   V   D   A   N   G   T   P   L   R   F   R   L   M   P   D   E   G   G   K   V   D   V   V   Y   T   D   V   D   F   A   K   P   D   A   G		
UniRef90_A1SB33	A   I   E   L   S   F   I   G   D   A   G   T   N   R   L   K   L   I   S   P   N   G   D   V   S   D   I   R   F   S   N   Q   S   G   P   L   S   E   Q   Q		
UniRef90_UPI000377E212	E   V   R   V   A   V   D   A   Q   T   R   M   P   L   R   F   E   A   F   G   N   G   S   E   F   G   T   K   L   D   V   G   R   Q   D   P   A		
UniRef90_U2A358	R   I   A   I   N   V   D   S   E   T   G   F   P   L   G   V   T   V   R   A   K   G   Q   A   F   S   A   S   F   S   E   D   P   G   V   P   D   P   A		
UniRef90_R4LS58	Q   V   R   L   A   I   D   G   E   K   H   I   P   L   V   Y   A   K   D   A   D   S   P   A   L   R   I   A   F   Q   Q   V   S   F   G   T   P   D   A   E		
UniRef90_B0TPS7	K   A   Q   M   V   L   A   G   N   E   Q   I   Q   T   L   V   L   F   S   R   N   G   D   R   S   R   I   E   F   F   S   A   L   D   E   S   P   L   A   A   D		
UniRef90_A6W250	N   K   V   V   L   E   G   D   K   Y   L   K   L   V   L   T   Y   E   P   E   G   N   R   T   H   I   E   F   D		
UniRef90_B9KGT4	S   F   A   F   A   G   C   S   S   A   Y   I   S   E   L   S   V   Q   N   L   Q   Q   G   A   M   R   L   E   F   Y   N   V   E   N   N   P   P		
UniRef90_R5EU34	I   I   I   N   T   T   T   W   N   P   S   S   F   K   L   Y   Y   S   D   R   T   Y   S   I   I   N   L   S   K   Y   T   D   Q   N   F   P   D   S		
UniRef90_N8TJ20	K   M   F   V   K   V   N   A   Q   G   Y   V   N   R   I   V   I   T   E   Q   A   N   N   M   T   I   I   N   F   S   Q   Q   T   A   Q   P		
UniRef90_UPI00035FF588	Q   V   R   L   A   I   D   G   A   K   H   I   P   L   Q   V   Q   V   F   A   R   G   A   S   F   Q   V   G   F   T   Q   I   T   F   G   T   P   S   A   D		
UniRef90_R7WWB1	M   R   R   L   T   L   S   G   D   T   V   V   P   R   A   V   T   L   D   T   R   R   G   E   S   V   R   W   Q   F   E   K   V   R   T   G		
UniRef90_I0HB29	Q   V   R   L   A   I   D   A   A   E   H   I   P   L   R   V   D   V   Y   A   K   N   A   T   V   R   V   A   F   E   Q   V   S   F   T   V   P   D   A   Q		
UniRef90_A9EBZ6	S   V   L   L   G   I   D   K   T   K   H   I   Y   N   L   I   E   T   G   K   N   G   T   N   T   T   L   T   V   S   F   K   T   N   Q   P   L   S   K   S		
UniRef90_UPI000378151C	A   V   T   V   S   V   D   K   T   G   P   L   K   F   T   L   T   P   A   S   G   G   A   A   V   V   D   F   T   S   V   D   F   A   K   P   S   A   A		
UniRef90_UPI00036C486E	Q   V   R   L   A   I   D   A   E   H   I   P   L   R   V   D   V   Y   A   K   N   A   T   S   R   V   A   F   Q   Q   I   S   F   A   V   P   D   A   E		
UniRef90_L0WYQ7	K   I   E   V   T   F   S   T   S   G   Y   I   E   K   K   K   M   Y   S   S   N   N   S   T   T   E   Y   I   E   G   M   M   W   V   D   T   E   L   A   M   P   L   K   L   T   L   D   A   F   G   N   G   S   V   E   V   R   S   I   E   V   N   A   G   V   S   A   D		
UniRef90_E1IGQ4			

UniRef90\_UPI0003619DE3  
 UniRef90\_C9PNU3  
 UniRef90\_I2K682 S M K C N Y P D Y D M I Q  
 UniRef90\_R7L3U6 A F T  
 UniRef90\_UPI00047B0DEC L F T F D  
 UniRef90\_W5SMC9 K F K Y D P K  
 UniRef90\_U3H978  
 UniRef90\_G9Z427  
 UniRef90\_A4X5A9 Q F T F N P P P D V Q V  
 UniRef90\_W7J170 L F T F T P P A G A K V T D  
 UniRef90\_A0A011QXL7  
 UniRef90\_UPI0002D95837 M F T F D P D K E V D I I D M R  
 UniRef90\_A4G8Z3  
 UniRef90\_J0U865  
 UniRef90\_R4T3P5 N F E F T P P K G A K V  
 UniRef90\_UPI0004763D97 A F A F T P P K G V K V  
 UniRef90\_R5URP8 T F R F D A K K Y A E V I D M R  
 UniRef90\_D6B671 T F A P P K D A K I  
 UniRef90\_B9L9Q9 I F K P N F P K D I D I I Y Q  
 UniRef90\_UPI00047D4785 L F A F T P P D G A T V  
 UniRef90\_UPI0004235BCB H F T F T  
 UniRef90\_C8PU38 T F D F T P P K G A K V  
 UniRef90\_V6K6M9  
 UniRef90\_L8UHK6  
 UniRef90\_S6SR80  
 UniRef90\_UPI0003B5FDEF L F D F T P P S G T T V  
 UniRef90\_UPI0003663370 I F V F N A A K G V S V N D L R  
 UniRef90\_E4T0Y6 I F R F D A K K N A E I I D M R  
 UniRef90\_R6MPE0 L F N F S P P P G A S V  
 UniRef90\_H0QIR7  
 UniRef90\_UPI00028937CB L F I F D  
 UniRef90\_L8Y0M5  
 UniRef90\_W0GZF6  
 UniRef90\_UPI0002EE3879 E F R  
 UniRef90\_V9R8D1 Y F E F D T T E Y T D I V D L R  
 UniRef90\_B3EU14 L F T F T P P A D A K V V  
 UniRef90\_G0JT18  
 UniRef90\_W7T1S5  
 UniRef90\_Q3IC64  
 UniRef90\_D1Y0L8 M F Q F N Y P K A E I I D L R  
 UniRef90\_W8W0Q0 S F I F D P S K G W D I E E M  
 UniRef90\_E6SVQ4 L F V F D Y P A A E I I D L R  
 UniRef90\_F5YGT4 R F I Y D S P A S A  
 UniRef90\_UPI00035F00ED L F S I K S P K  
 UniRef90\_H1ZCT7 A F T  
 UniRef90\_L9VLZ1 I F T F E P P E D A E I  
 UniRef90\_F2IFR2 K F V F D K S K G Y T V V  
 UniRef90\_R5SDP3  
 UniRef90\_UPI0003700780 A F R  
 UniRef90\_I2N455 T F D F D P P K G A K  
 UniRef90\_X0N5W1 S F S F T P P K G A K V V N  
 UniRef90\_D7DLY7  
 UniRef90\_H1Z646 H F T F T  
 UniRef90\_R7HT10 T F V Y N V P A G T Q V V D L R  
 UniRef90\_UPI000408A594 L F E F D P P A G  
 UniRef90\_F6GGC2 L F T F D  
 UniRef90\_D5BG68  
 UniRef90\_E3GAV8  
 UniRef90\_UPI00040E57C3 F F V F N R K P N V E L I D L R  
 UniRef90\_UPI00036F8A7E L F D F T P P S S A K V  
 UniRef90\_UPI00037FA5D7 E F  
 UniRef90\_Q46U97  
 UniRef90\_A6QAC6 S M T C T A P K E Y D E I R  
 UniRef90\_C7R9X1  
 UniRef90\_UPI00037EC72D I F S L A N P  
 UniRef90\_UPI00037B61A4 V T G F K L P E G I  
 UniRef90\_UPI0003F80D7E K F K Y D P P K S S N K V D  
 UniRef90\_R0JV80 K F T  
 UniRef90\_UPI000364F4BF  
 UniRef90\_SOUEU5 L F T F T P P S D A K L V  
 UniRef90\_F4H4X1 V L A F S P P A G A E V  
 UniRef90\_UPI0003B48DF1 N F T F K P A A G V T I  
 UniRef90\_A4CKV4 L F T F D  
 UniRef90\_I3YTV2 V F S  
 UniRef90\_V6KEM8 T F T F E P P K G A D V  
 UniRef90\_A1SB33 E L Q A F I P Q  
 UniRef90\_UPI000377E212 L F S F T P P Q G A K V  
 UniRef90\_U2A358 L F T F T P P P G A T V  
 UniRef90\_R4LS58 Q F E F N P P A G T K V  
 UniRef90\_B0TPS7 K Q R F S P  
 UniRef90\_A6W250  
 UniRef90\_B9KGT4  
 UniRef90\_R5EU34 T F V F N K K Q K A E L I D L R  
 UniRef90\_N8TJ20  
 UniRef90\_UPI00035FF588 Q F T F S P P P G T K V  
 UniRef90\_R7WWB1  
 UniRef90\_I0HB29 Q F T F N P P P G A K V  
 UniRef90\_A9EBZ6 L F I F D  
 UniRef90\_UPI000378151C T F D F K P S K G T K V  
 UniRef90\_UPI00036C486E Q F T F N P P P D T K V  
 UniRef90\_L0WYQ7  
 UniRef90\_E1IGQ4 L F T F T P P A D A T V L Q

UniRef90\_UPI0003636022  
UniRef90\_V6SPD1  
UniRef90\_B9KFM4  
UniRef90\_UPI0004195616  
UniRef90\_C7M6E1  
UniRef90\_I3CAN5  
UniRef90\_UPI0004782EBB  
UniRef90\_W8KHY5  
UniRef90\_F3ZQN8  
UniRef90\_H1Q2R8  
UniRef90\_K2JQA2  
UniRef90\_K6YFX9  
UniRef90\_F5J3P5  
UniRef90\_UPI000429C9F9  
UniRef90\_A0A009YF21  
UniRef90\_A0A024PYF1  
UniRef90\_A0KS07  
UniRef90\_UPI00036A0D75  
UniRef90\_UPI000226001C  
UniRef90\_B5GCV4  
UniRef90\_F5XNU0  
UniRef90\_UPI00037AE4A0  
UniRef90\_E6SBN4  
UniRef90\_UPI00047CBF52  
UniRef90\_L7WFB4  
UniRef90\_K0NC19  
UniRef90\_I4B6B5  
UniRef90\_UPI000471B481  
UniRef90\_UPI0003B75EA6  
UniRef90\_A7ZZF0  
UniRef90\_L9Z4Z1  
UniRef90\_Q1IUQ2  
UniRef90\_A9GXZ0  
UniRef90\_UPI0002558AFC  
UniRef90\_T0J8X5  
UniRef90\_W5XA26  
UniRef90\_X2GRZ3  
UniRef90\_E1GUU4  
UniRef90\_UPI00037BBEE0  
UniRef90\_Q26CG2  
UniRef90\_UPI0002F14CC7  
UniRef90\_E4NFN9  
UniRef90\_C6XFW8  
UniRef90\_A9KXV5  
UniRef90\_A9HJ09  
UniRef90\_UPI000472A8E9  
UniRef90\_R5CEJ9  
UniRef90\_A6DC17  
UniRef90\_X0S8Q1  
UniRef90\_U5Q980  
UniRef90\_O28352  
UniRef90\_L0HHV4  
UniRef90\_R6U4P3  
UniRef90\_N6W2D4  
UniRef90\_UPI000255C211  
UniRef90\_S3XCK1  
UniRef90\_G2Z1S3  
UniRef90\_UPI000462E52E  
UniRef90\_K6Y8Z7  
UniRef90\_B8CHK7  
UniRef90\_F2KSQ4  
UniRef90\_E6L8Q7  
UniRef90\_A3CWC6  
UniRef90\_I8AN31  
UniRef90\_R7D050  
UniRef90\_UPI00031D7402  
UniRef90\_S0EYM7  
UniRef90\_UPI0003709077  
UniRef90\_F4CKN6  
UniRef90\_UPI00037519E8  
UniRef90\_E6VA37  
UniRef90\_C0GCR8  
UniRef90\_F2F7H0  
UniRef90\_W7Y9N6  
UniRef90\_A3CRN7  
UniRef90\_A0JRW6  
UniRef90\_J9UCQ5  
UniRef90\_H3SAT1  
UniRef90\_A3U7X3  
UniRef90\_A0A037UZC7  
UniRef90\_I3UVU7  
UniRef90\_K6ZX2E  
UniRef90\_D1BIU8  
UniRef90\_G8X4F3  
UniRef90\_Q7MUA1  
UniRef90\_E6SIU1  
UniRef90\_UPI000464B114  
UniRef90\_F7VB84  
UniRef90\_R7JGV4  
UniRef90\_I4LVL3  
UniRef90\_I9ACD6  
UniRef90\_UPI0002D72A0F

1 10 20 30 40

E L L D D V T A K [VK] S Y D N [I] V I N F S Y S V Q N L K Q S K G N V T L K G N Q  
E L D E V Y N K M V A Y N N I Y I D F K Y S L E N T Q E T R G D V S I N G D  
E L D E V Y A K [VK] S Y D N I F I E F K Y A L D N T Q E T K G N V T I A K N K  
V K E V L D K V E S Y N N F V I D F T Y T L E N T Q E T R G E V S I K G E K  
N F N T Y S S H F T Q S V K S K N S Y S G H F T L S Q E  
D N A T A L L Q K E G G I K T S F Y S S T Y K G G I M E G D V L Y L K G E  
G A T A N F T I S G G K Y G R V P G T I S I K G Q K  
G Q F E Q Q L S K P L V S P G R Y G L R D G  
Q G Q F V Q V L S Q P F V T K G N Y H Y Q Q K L  
S [VK] S I E S D F T Q I F N E D I T S K G K F Y Y R Y N D  
L D E V T A K [VK] S Y E S Y N I S I D F K Y A L Q N T Q E S K G S V I L L K K  
A E Q I F K Q L S Q T T L V R A K F E E Q Q L Q K T F V S N G D V V F A K S N  
W R S K D G  
A L L A L S Q K L N L G E T V R G H F V Q V L K K P L V S Q G Q F V F D K A Q  
A L L A R M D A S A P Q F H S M S A N Y T A I L S D S T T E S G D V K M E R S K  
D V A R V E D Y L N G L T S L Q S W F V Q T W P D G S R G S G A L N Y T P  
E S A A D L L A K G K N L P G L T Y D Y I I K A K E G P A M N G K V W L A G K K  
L D E V T A K [VK] S Y D N I Q I D F K Y S L N N N Q E S K G N V I L K G N Q  
L N E V A E K F K S Y D N V S F D Y K L N I K N P K T G T D R M Q G D A K M  
L S E V E Q N M S Q V N T V H A M F V Q K K E M A M I I K G E F Y I Q N P D  
A Y E S L L K G Q V K G L S S F R A T F A V T S S S G Q I Q T G K I M Y Q Y P  
R V F L D G P S  
E V V E T F T N R M S L D T V V M T Y E M N M T R T S S A E R L W L A E N  
V L A S M D K A S A N F K A I E C S F T K V V N D T D T Q A G H M F F R R S G  
D A L A E I T R A R A S V K T L V I A P F T Q E R S I G L K S D G E M T L V L P D  
L N K V S S T L E K Q Q N I S L E F S H T L E N K Q T S K G S A T L Q G D  
A S F D K I D S F D A S F T Q S V T D D K T Y K G H I S A S K P Q  
L A S F G K A L N E A K S V R S T Y T Q T V G S G A E T Y T I A L K K P  
W M K D G  
L D K A T A I I N N K E G L Q V Y F S M S K S D G G G T S G N L A I K G N  
Q Q G V L K G K T E G K L Y L K K E S  
T A R V F L D G P T  
T T A S D G P D  
V K K A I E H F L S I Q T M Q G T F L Q E D A G Y V M K G E F F M A R P S  
A L S Q K L N L G E T V R G Q F V Q V L K K P L I S Q G Q F I F D Q T Q  
D V A R I E R Y L N T T R G L S A H V A Q T W P D G G V G E G T L S Y D P  
I Q Q A I A K L D S S K G L C I E F D M I L P D E E T I H G T Y Y A L K N  
L D R V A D A F R Q A E G V E I A F E V R A P E G T S E G R I R R L K G E  
F S S E F I Q T I N S N D T Y K G K V Y L N N N  
T L A F R K P  
Q M F S K K K M V S Q G V F R Y R R E N  
E I L T K L Y E R Y E E A E S Y K A K I Q E V S D N H V S Y I N V A F K K P  
R K E L M T R T S A V T S I Q T K F I Q V F S R I V K S E G R F Y W Q K P  
S A S L L A A T T V S G E F K Q L F S K P F I S K G E F T L E G E  
D V I N D L N K R Y E K I N S Y S T N A V M T F H N A Q A Y Q V N I M Y K R P  
F K T L Q S D F I Q T I Q N N E E Y S G N F I S T T N  
E L L D Q V T S K I K T Y K N I V I D F K Y V L N N N Q E S K G T V M M Q G N Q  
D I K K L N A V T N S P D Y L Q G K F I Q Q K Y M S I E S N G T F H Y S K N E  
N V L E E A K K K Y N E I Q D M S G E A V I K S G D V E K I V Y F A F K K P  
N Y N E Y T S K F T Q S V I S S K N S Y K G H F V L E K D R  
A D E I A A R F I A A E E Q A T D F T A T V A V T A G S E N R L F R K A P E  
D V V T S L G K K M D N M T G Y K A D A V M T L N K P L K Y S L E I W H K K P  
D V K F R F W T N G N K Q D Q T S G S I A V K G N  
L N R V I Q R Y T A L H S Y E A S Y T E Q V G Q M G Q L Q L K M T L K S I P  
T A R V Y I D G P S  
S S T A Q V W S D G A G  
S G G Q K S L R V W S D G E R  
D L P E L M G L L A K Q K S G E A R F T E Q L E G P L D A S G T L S F E A P D  
E Q V I E E A L G K A E S Y Y A E L E A T V Y S T Q Y Y R I K Q W M E A P A  
E I L N Q A M Q E T S E L D S Y Y G E Y K T T M D D G T E I L S K Q W E K K G  
E V A A K F A E T Y D S L Q D F S A T V T T V S D R G T F C E L V W F K K P D  
M S N R F A T M N S F S T S F T E R N G S K I K T G T L I S K N P N  
S D  
L N E V S A K V Q S Y D N I V L D F K Y S L E N T Q D T R G D A S L L G D K  
D V P S N V K K A I Q N L K T Y A S D V E Q L N N N K N T K R Y T M Q F Y K D G  
S L S G Q F S Q Q D F D M Q A S S G E F D Y T K N Q  
G G S S T V R V W S D G D G  
L D K V A A K [VK] S F K T I Q V D F K Y N L Q N A K E G K G N V T L S G N  
L Q A A A K H L A N P D G T R I D F Q A E T I A P N D M G S S P L I L K D N  
D V V Y A M E Q A V A Q L R S Y H G V L E K R A A N A A G E T W L V R R D  
L N L P K E F K K A K F T Q Y I Y S K D T Y K G I V I L K N  
D D V H R V E A Y L R A V K L Q N V P F S Q T W P N G T T G G G V L T Y H A G  
V L K Q L T A A L G A L E G Y S V V F E V H T D G D V V P G Y Y E V S G D N  
A E A R F M Q V L D R P L V I S G E L A W L G D  
I K E Q L D K L E S Y T A T V E L Y N N K L D N K F A V V Q V F Y K K G  
D V V G D L S N T M E K L T G Y K T D A V Q T G S T P Q K Y D V Q V W Y S K P S

UniRef90\_UPI0003636022 Q|V|WQ T Q Q P|K S T L L I G Q Q T |R Q F N K N D Q P|V M S Q K M S Q |L|  
 UniRef90\_V6SPD1 Y|V|L N F M G|V|T K I F D G K K N Y T I V P E D Q E I T I S K H D D N D  
 UniRef90\_B9KFM4 K A F W N Y T K P N K K Q I Y I N N K E V V I I E P E L E Q A I Y T Q L Q N L  
 UniRef90\_UPI0004195616 K Y L L N L M G T T Q L F D G K K I Y T I I P E D Q E I N I S D Y E D A N  
 UniRef90\_C7M6E1 Y|L|L N Y L G A T K I F D G S K T Y T I I P E N E E V V I S Q E E G E G  
 UniRef90\_I3CAN5 K Y V F N Y L G A T K I F D G S K T Y T I I P E N E E V V I S Q E E G E G  
 UniRef90\_UPI0004782EBB Y|V|L N L M G T T Q I F D G S K I Y T I V P E D D E V T I S K Y D D T E  
 UniRef90\_W8KHY5 Q A Y W S Y D T P S K K E I Y I N K N Q I L V L V E H D L E Q V V F S H  
 UniRef90\_F3ZNQ8 K F V L E T S E M K T W Y D G K Y Q W S L I F E M E E V N V S E P T Q E I  
 UniRef90\_H1Q2R8 F T A S T S A V K V W F D G R T Q W T Y M K S T N E V N I S T P N E A M  
 UniRef90\_K2JQA2 A|L|V W H S L S P F E S T L I I K G S G L Y Q Q L P G Q E P V Q L A S A D N P L  
 UniRef90\_K6YFX9 G|L|V W H T Q Q P I E S E I K I T T E G V S E R Q P D G H F K T L T S N S Q F  
 UniRef90\_F5J3P5 K I S L D Y S S P T K Y L I V I N A D K L K I V S D G K K N V V N L K S N K V M  
 UniRef90\_UPI000429C9F9 L Y Y L N F M G T T K L Y D G K K V Y T I V P E D E E V T I S K I D E K D  
 UniRef90\_A0A009YF21 G V L W Q L Q R P V Q A D L V V T P K K L V Q K T A K M S Q L D V S K S P Y G S  
 UniRef90\_A0A024PYF1 K I R I E T T E K D K V I V V N D G Q T I T T Y D E K E K Q A T I I D D K E I I  
 UniRef90\_A0KS07 G L I W Q Q L S P F E S L L I L K D K Q L I Q K D S Q G R V Q I S Q A M G D L L  
 UniRef90\_UPI00036A0D75 R A L I S F T G N S P R T I A F L D K T V Q I Y Y P N L K L V Q V Y K S S K L L  
 UniRef90\_UPI000226001C Q L R L D Y S N P K G M T L T A G D G H L V L Y N P Q T G A V T R M G L  
 UniRef90\_B5GCV4  
 UniRef90\_F5XNU0  
 UniRef90\_UPI00037AE4A0 M K T E A T M E N Q K I I T F L D G D A N V I Y N Y M P S Q A R I M K P T K A A  
 UniRef90\_E6SBN4 P R T P D E  
 UniRef90\_UPI00047CBF52 Y|V|L N F M G|I|T K I F D G K K S Y T I V P E D E E I S I S S V D D N D  
 UniRef90\_L7WFB4 S G E K Y N V N F E G T N L I F D G K K Q Y A I D K A N E Q V D I S K K D D Q  
 UniRef90\_K0NC19 K F A W I V T D P I E Y T L I L S K Y K V K K W D K S N G T Q E M N P M F K A M  
 UniRef90\_I4B6B5 R|L|R V E T G T G V I A T N G T H L W V H N K S S P L C A R Q D V I S G T G  
 UniRef90\_UPI000471B481 K|L|R L Q V L D D A E R D L I R N G N D V W L Y D S S E N A T R S P E A Y G T  
 UniRef90\_UPI0003B75EA6 G L Y W D T L E P V V S K V F I N K D G I F K N E N G K L E K T S A N F D E K L  
 UniRef90\_A7ZFF0 R V I R T E T N S E M E T I T V R N E S E T V T Y D V E N N Q V S R F D H T D E M  
 UniRef90\_L9Z4Z1 E M A A H I E K P D T K I V V F S N G I V R I Y Q P K I D T E Q R I D A G K E F F  
 UniRef90\_Q1IUQ2 R|L|R W E L L K P P D A I T Y W I T P E G F G F A T P K G A A G A G R G A A G R F  
 UniRef90\_A9GXZ0 K Y V V H Y L N N V I L F D N K N T Y I I S P E N E E V N I T S V T E N E  
 UniRef90\_UPI0002558AFC N A L W S Y K E P I Q K D V F I N S H Q V I I V E P E I E Q V I I R S I G S S L  
 UniRef90\_T0J8X5 L A R I E T P A G T I V A D G K Q V T T Y T K E D N T Y F K R P Q K E F F L  
 UniRef90\_W5XA26 K R M I E M V D G D H V I A V N D G K Q I I S Y S K K E N K A T I I S F E N G E  
 UniRef90\_X2GRZ3 K F M A I T P L V S V W F D G K T Q W T Y T K S T N E V S V F N P T E A L L  
 UniRef90\_E1GUU4 F V I Q T T E M Q T W Y D G K T Q W S L I F E M E E V N V S N P E E L Q  
 UniRef90\_UPI00037BBEE0 G S T Y V F N G D K L Y V I N R E D E Q V T I S T Q S D N E  
 UniRef90\_Q26CG2 Q A R I Q Q D E M A E R N L I L N G D E L W F Y D S E E N S A V H S V I K S A D  
 UniRef90\_UPI0002F14CC7 R Q R F T L A S E S G Y E L V H N G G Q L W A Y D R D S S Q Q A L H F T G T G D G  
 UniRef90\_E4NFN9 K F Y F K Y S S P S S V S L I S D G S N I A V Y N A K L D T W S V Y P L R Y M  
 UniRef90\_C6XFW8 G|L|I W Q Q I K P F E S S L I L K D K Q L I Q R D S Q G R Q V S A A A M G D L L  
 UniRef90\_A9KXV5 Y|L|R L D Y D T P H R M R L V A A G G H L V F R D A V R Q S V T R M N L  
 UniRef90\_A9HJ09 K F Y I E T S E L K A W Y N G K E L W I Y L Y Q N G E I S H P E T E E I I  
 UniRef90\_UPI000472A8E9 K F R L L D T E G I T T W F D G R T Q W T Y L E N S D E V N V S E P E E L Q  
 UniRef90\_R5CEJ9 E I V W K Y I Y P N N K I I W V K D K V Y I Y E P D L E Q K L T I T K R N K L  
 UniRef90\_A6DC17 L I R L E L G K P R N E E F I T D G Q F W W V V S H H N D K Q V E K Y E A A N S S  
 UniRef90\_X0S8Q1 K L E F F Y K T P M K Y R M V I N G P R M M I D N G S K V Q A V V K E M K T L L I  
 UniRef90\_UPI00037BBEE0 R M R I E Y L P E N T V S V F N G S A V K I C S N G S K T I T L N R V D F Y Y  
 UniRef90\_L0HHV4 D Y Q  
 UniRef90\_R6U4P3 S|C|L D Y Q T P A K Y R I T I A G D R I K T V S N G K A N V I S N P M M D Q M  
 UniRef90\_N6W2D4 K L L W Y V K T P V Q S T L L I E N G Q V F V K N K E G E L T P Q P G S E Q F  
 UniRef90\_UPI000255C211 L Y R V D A N K A N K Q M I L K N K E G V Y V L T P E L N K S Y R F D S D W P N  
 UniRef90\_S3XCK1 N A L W S Y K T P N L K D I Y F N Y E K V V I I E P D L E Q A L V T N L K D V  
 UniRef90\_G2Z1S3 Y|V|L N L M G V T K I F D G S K S Y T I N P E D E E V T I S K V N E K E  
 UniRef90\_UPI000462E52E R|V|H W Q T L E P I E N L V V M T P N S I V S S Q G N T Q Q A D T N P V V T L L  
 UniRef90\_K6Y8Z7 G|I|V W Q Q Q S P F S S T L I L Q A G R L T Q I D S Q G Q Q V T Q A Q Q S H L M  
 UniRef90\_B8CHK7 S F M L A G K D E V L T V S N G S V E W V Y Y G K N N S Y V I K S P E R P P  
 UniRef90\_F2KSQ4 A F W S Y E S P S K K E I Y I N K N E I V I V E H D L E Q V S F A R L E K I P  
 UniRef90\_E6L8Q7 N Y R L E F L E P A G T V V V S N G T R K W R Y D P A T R T A Y A E T V A G S L  
 UniRef90\_A3CWC6 F Y R V H N E K K D Q S Q M I L R N K E G V F V L T P A L N K S F R F Q S D W P  
 UniRef90\_I8AN31 K F H L T T P S A I T W F D G K T Q W S Y L P A N Q E V N V S N P E E L Q  
 UniRef90\_R7D050 K T R V E M V T G E E S I T V N D G K T L T S Y S K T T N E A M I F E V E S L V  
 UniRef90\_UPI00031D7402 T Y F D G K T L W T H M I D A E E V N I P D P D D E E  
 UniRef90\_S0EYM7 R F R V H H P A K E G D L V V F D G E T Q W H Y V N A T G E V Y T F S E E Y A T  
 UniRef90\_UPI0003709077 R|F|K L E Y S G G T N S D S I C D G K T L W M I F P R K K V V S E Q T L H Y G D  
 UniRef90\_F4CKN6 R M R L E V T S A D S T V T V N D G H Q F I V W Q D T G G E A F R M S R E Q M K  
 UniRef90\_UPI00037519E8 Y|V|L N L M G T T Q M F D G K K I Y T I I P E D E E I N I S T Y V E E D  
 UniRef90\_E6VA37 K Y R M E I Y K P D K V I V Y D G N R S Y V Y F S K I N Q T F I E D D S E N I  
 UniRef90\_C0GCR8 S|V|N W H T L A P I E N K I T M T P Q S I T S V Q G Q N T Q Q A D S N P V V S V L  
 UniRef90\_F2F7H0 K A R S S L L G D S E Y T V V T D G G S A W T Y S S S D D E A V H Y P Q A V A E  
 UniRef90\_D1BIU8 K Y L L N F L G V T K I C D G T K V Y T I S K E D E E V S I S K V G N E E  
 UniRef90\_G8X4F3 Q F R L S F G S I T A V F D G K K T S Y Y D A S E N T I S H P T N A E  
 UniRef90\_Q7MUA1 G D R Y M T R R D D T G V V T V H D G R R K W Q V R P A E R V V A V L P P  
 UniRef90\_UPI000464B114 E|I|Y W K Y T Y P N I K E I W I K D K V Y I Y E P D L M Q V T I S K K A K L  
 UniRef90\_F7VB84 Y|Y|Y M Y V N G Q E V Y G D A E F R Y E I D P D R K E V V I D R V D L T  
 UniRef90\_R7JGV4 K|L|Q R R V E Q P K A E T F I A D G E V T Q E R A G K K P R H S R A P Q L Q V L  
 UniRef90\_4VLVD3 K F R L E V L K E N G S I I V Y D G K R S Y V Y F A K V N Q V F V A E N T E E I  
 UniRef90\_I9ACD6 N Y R V A L T S K Q R Q I I L R N D E G V F V L T P H L N K S F R F Q S G W P E  
 UniRef90\_UPI0002D72A0F

	90	100	110	120
UniRef90_UPI0003636022	S S T F □ A I L A G D F E K L D N H F S V T E T R W S I E L E A S S N D M K P I			
UniRef90_V6SPD1	A N T P A K M L T F F N S G F K Y S W D I L L Q N I Q Y V K L I P T N T K D N R K			
UniRef90_B9KFM4	P N L Q A I F K N A K L I S H E N Y E A K Y E N I T Y N I K L K N S S L N			
UniRef90_UPI0004195616	N I T P S K M F S F Y E E G Y T Y K W D I S Q D V Q Y I K L T P M D S N A D V K			
UniRef90_C7M6E1	N A T P S K M L T F Y K K G Y K Y K W D I Q Q N V Q Y V E L L K P Q K A N T D V K			
UniRef90_I3CAN5	A I T P S K M L T F Y K E G Y N Y K W D I L K N V Q Y V E L T P I D S N S E I K			
UniRef90_UPI0004782EBB	Q I T P S K M L T F Y Q E G Y R F K M D I L Q N V Q Y V E L I P I D S N N E M K			
UniRef90_W8KHY5	L D N I P N L N E I F K K A K H L N D N Q L I A K Y E N I N Y			
UniRef90_F3ZNQ8	N P Y Q L L K L Y K K G Y S Y S L S G N V K N G A I E V I L K A Q D K T R N Y Q			
UniRef90_H1Q2R8	A M N P Y G F V T M Y K S G Y N L S M K P S G K N T V V H M K A T T A G R S V R			
UniRef90_K2JQA2	V A S L A S L L Q G D Q A A L E T H F V V S Q E A A G L R L V P K D A L L K			
UniRef90_K6YFX9	S E L L L A L F S G E Q G S L R Q Q F E I E F Q Q N E L T L P K A K Q I T R V			
UniRef90_F5J3P5	S E M R S S M L M S G N I S Q L S Y N M E Y F E D T N S Y L I K I K P T N K S V Q			
UniRef90_UPI000429C9F9	E N T P S R L L T F F N N G Y K Y Y W D I L Q D V Q Y I K L V P I S S K D Q R K			
UniRef90_A0A009YF21	V A T L F L Q L M S G N S A L L D Q H S I T A Q G W S I S L R P K S S L F K K L			
UniRef90_A0A204PYF1	Q P S P K E Q A N A I L E M I Q E T H E I T S E G D E L V A K P K E K S S L L G			
UniRef90_A0KS07	P S I L V N A M L G G D I S G L S A N F E L G S A N W Q L G L T P K D P L M K K A			
UniRef90_UPI00036A0D75	D Q Y L L L G F G T S G K D L A R G Y D I K I A G T E L E L T P K E K S E Q L S			
UniRef90_UPI000226001C	S H T P L G L L L A R P I H M Q G A V T V T A P A T L Q V S I A R T G R L S D G			
UniRef90_B5GCV4	A A R A H T S V R A D G T A H V A G R D A Y Q L V I A P K Q S G S T V E			
UniRef90_F5XNU0	R I L T A V G S S T D V S V A T D T K V A G R A A Y E L V L K P K D S R S L I S S			
UniRef90_UPI00037AE4A0	K S P D Q Y S Q E T D A A K V K I L E T V S Y D G V P C K V L R E E K A G Q S			
UniRef90_E6SBN4	A A S A A L A L V G E S T T T T S G T A S V A G Y E L V L T P K D P N T L V K			
UniRef90_UPI00047CBF52	E N T P S K M L T F F N K G Y K Y A W D I T Q N I Q Y I K L T P L S S K D Q R K			
UniRef90_L7WFB4	A I T P S N I L T F Y E K G Y I K T W D I L Q N E G G V K L T P L K S D S E Y K			
UniRef90_K0NC19	I E Q I T F W F S G S Y S S C K N D Y D I K K N P G I L D F A P K K H N P A L T			
UniRef90_I4B6B5	G G L L G I L A S Y E G T I Q G N T Y I F K K K G A H Y E			
UniRef90_UPI000471B481	D P T A Q M L L D G S N V T L E G E S V A V A G R D T W Q L T P K P E T A S Q L			
UniRef90_UPI0003B75EA6	G S T P A Q L I A E K F L G E I D S S T V V T V G T D D L V L T P R S D D T L V I G			
UniRef90_A7ZFF0	F L A I I S L D E S E L R K E F D I K T S G S E W S I E L S P K N L L F K			
UniRef90_L9Z4Z1	G Q Q T L I D R L L N E F T Y D G Q E M I N G E E T Y R L A V T P T E T D T M A D			
UniRef90_Q1IUQ2	E S F L V L G F G G R G H D L S K S F D V Q F G G N E L V L T P K E A K N M F N			
UniRef90_A9GXZ0	G A L L G G D L G K L R A R Y D L S I P S R A D G I T L L A A R P R A E E V A K H			
UniRef90_UPI0002558AFC	D Q T P S K M L S F Y K K G Y T Y Q L L N K N G N I Q I K L I P T E K S E E V S			
UniRef90_TQJ8X5	D F F N M I K N A K E I K K G T Y E A N F E N K I F T I T			
UniRef90_W5XA26	T S D E L G L I F A G F Y D A P R S R A I G Q R Q M N G T P L S V V E A T A G K K			
UniRef90_X2GRZ3	S A K D S A Q V L L N L V K D S H D I T I A A G R D T Y H I T A K K K N T L L G			
UniRef90_E1GUU4	S I N P Y S F I S I Y K N G Y M L S M T I T G N Q K V I H M V T Q N K K R S V S			
UniRef90_UPI00037BBEE0	Q I N P Y R I L L N L Y R K G Y S Y Q L G E K A D R Q E V V L K A Q D K N K E F Q			
UniRef90_Q26CG2	D G S P T N I L T F Y E K G Y R A E W D I E Q N V Q Y I K L T P I K S D S E Y K			
UniRef90_UPI0002F14CC7	G Q T P D Q L A T L L E K A D P T T E V S V G P D Q L I M T P R S N E T L V G			
UniRef90_E4NFN9	G D G H R K D A G G G L G A V T P Q E V A K Q A A Y R L S V K P K Q A G S T I A			
UniRef90_C6XFW8	A F S V I F S N N Q H V I Q E S I Q R V I E S N N S F I T I F F K D D F M G N			
UniRef90_A9KXV5	P N L V R A M L G G D I S G L S E N F E L S P D G Q W L G L T P K D P L M K K A			
UniRef90_A9HJ09	S R Q P L G L L L A T P V H L G E V T V T			
UniRef90_UPI000472A8E9	E I N P L L E L P R I F S E E Y N S T V S T S V G H S I L A K P Q K K N K S I E			
UniRef90_R5CEJ9	S I N P Y A W L S L Y K N G Y M L K M S E Q G N P H K V M M T A S R Q G S E L Q			
UniRef90_A6DC17	S L R D I V K N A K K I K N N L Y F S K V E			
UniRef90_X0S8Q1	N A A A E A S F L Q S S K K I L L E E Y K M T L E G T K F V P R E K D A P A R F A			
UniRef90_U5Q980	Q A S F L G K L H E L G D S Y S I S Y F S E R S G D V V V V V L P K I K S V S I K			
UniRef90_O28352	G H F L E M L K S Y E V T L V G E E K V V V V N N E S K E C Y V L A A K D G G G K G			
UniRef90_L0HHV4	Q M F T W M L G A G P V T M A G N D T M D G T S A W I L E T T P P R E N P D Y N			
UniRef90_R6U4P3	S S L I A A C M T G N L S A M G S G F K V M E S K S D F L I T T P Q S Q T V R			
UniRef90_N6W2D4	V G L L T D L L A L D M K A L Y A R F D V T N Q T G C L L K P K D T K Q L F S			
UniRef90_UPI000255C211	N R S Q A Y L Y H S L A K D I L N D F T A K E N H Y I F N T K T N Y N T A Q L A			
UniRef90_S3XCK1	P N L M N I I K D A N K I D S N V Y E A K F D G V K Y R L N F K			
UniRef90_G2Z1S3	D N T P S K M L T F F N T G Y R T W D I V Q N V Q Y I K L N A N N P K D H R K			
UniRef90_UPI000462E52E	A T P E D L A G K L L A K I D A G T D V T V G P D V L V L T P K S D V T L V I D			
UniRef90_K6Y8Z7	S D L F F S V L T S Q W Q N L E T Y F S L T G E V N K V Q L I P K D A T L A Q A			
UniRef90_B8CHK7	P T L L N A L L S G N L Q T I L Q Q H F K L S I D N W Q L G L I P I D P M V Q K A			
UniRef90_F2KSQ4	F D Y G D I L K N G T A R K E G E Y Y I I E S D			
UniRef90_E6L8Q7	N L N A I F K Q A K E I T P N K L K A N Y E			
UniRef90_A3CWC6	S E Q N A S Y L G S E T I G G R T A Y I L E V T G D S K I F E P T R Y R E A V H			
UniRef90_I8AN31	E N N S Q V Y L F E S L A A D D R A F K A K E N A Y V F H T K T N Y Q N K N L Y			
UniRef90_R7D050	S I N P Y A F G L Y K Q G Y T R K N Y Q G K A I D E I D L Q A E N P K Q E I Q			
UniRef90_UPI00031D7402	Q V L K A A D G T T S V S V D G T A K V A G R D A Y Q L V V A P K K A E T T V K			
UniRef90_S0EYM7	T Q F G L G Q F A G G I V D I N Q L K K L G A K L Y V I L M T L H A P Q P G V V			
UniRef90_UPI0003709077	F P T P E A L A S R F L T A I I D A S T E V S V G N Y K L L L K P R T A G T L V D			
UniRef90_F4CKN6	A T D P A A A A A K A V Q D L R A T S S V D V D G T E L V L R P L P S E T T L L R			
UniRef90_UPI00037519E8	A E N P A E L A R G L V G K L R D S S E V T V D G T T L V L T P D P E R T K L R			
UniRef90_E6VA37	V E A M R G T L S G D G A T L Q R Y F K S T V T G W T L D L T P M D S R A Q V R			
UniRef90_C0GCR8	E V S P P F F L A G Y L N R L L E E G Q Q E K D G Q K Y Y V A S F K G D R D D E			
UniRef90_F2F7H0	R P T L K E Q A L H T L E Q I K N S H D I T I G E E E L I A K A K K Q N T L I G			
UniRef90_W7Y9N6	T L N P A S I F T I Y Q T G F K Y A Y I L G E K E I N S I D L Y P L N R D K P Y S			
UniRef90_A3CRN7	G A F D A L G L I R N L T E D G K M I Y V L E V A N T T R I T P D P R R Y P V Y			
UniRef90_A0JRW6	R L L A A A D P T T E I A V L P E V T V A G R A A Y N L M I T P R T E G T L I G			
UniRef90_J9UCQ5	S G R P V S S F D G S A L N I S G Y S S S Q Y T G D D M L L T P K Q A S T G F P			
UniRef90_H3SAT1	Q M L E K L Q A T H D F E T V G E E K V G E W N T I H F K A I A K K K D D L F Q			
UniRef90_A3U7X3	D N T P S K M M T F Y K E G Y T Y K W D I T Q N V Q Y I K L T P I D S D A D V K			
UniRef90_A0A037UZC7	E V T P F R L L L S E H V D L I N D A N V E E Q G T D A V V L T V E D K K G G S G			
UniRef90_I3VUF7	P A Y S L F T S F I D N F K K A G E I K E S G D R I D V P I L N G N T F M Y			
UniRef90_K6ZX2	S D I F F F S V L T S Q W Q Q L E V Y F T L S G Q L D D V V L I P K D S A I S Q A			
UniRef90_D1BIU8	Q A L A Y A D E T S E V T V L P A T Q V A G R D A Y Q L E I L S P D S D A T L V I D			
UniRef90_G8X4F3	E A T P A K M L T F F N K G F K Y S W D I S Q T I Q Y I K L I P I G S K D D R K			
UniRef90_Q7MUA1	L A N P L I I L T R S E A G Y R T A M I L P P T K G E K V I L T P K T V N G I K			
UniRef90_E6SIU1	D V R P F D L E D Q A R A A L R Y S H Q V A G R D A I R L R I E P P G G L			
UniRef90_UPI000464B114	N L F K I L K N A K K L D K N L Y V A I N N			
UniRef90_F7VB84	A H N P L G L L M G N P L S L T G A V T V K P A G I L Q V S L A R T E N P S Q G			
UniRef90_R7JGV4	S H N L L N N P T R A F D I D G E Y A L S E K G S T I R L L T P R I Q S A V G			
UniRef90_I4VLD3	L D S F V A L L S G D P T H L Q Q V F K I S H D G D T L S L V P R D T K V A R T			
UniRef90_I9ACD6	P Y S M I T S F I K N Y I N S G G E I K E R E M D K F Y L I T V P D K N I F M Y			
UniRef90_UPI0002D72A0F	N N G P L Y L Y E T L V S S L V D D R Q L K M E S N Q Y V F E V K A N Y S G N R			

130                  140                  150                  160

UniRef90_UPI0003636022	I T N I N I S G Q N H I E T L S F T E A S G D S T Q L V L S P S T D P D L   S K N
UniRef90_V6SPD1	E I L L G I D A Q T K Y N L I E M N K N G S K T T I V V N S F K T N Q P I S K N
UniRef90_B9KFM4	N I L L G I D S Q T K I Y N L I E M N K N G S K T T I V V N S F K T N Q P I S K N
UniRef90_UPI0004195616	Q I L L G I D Q T K H I Y N L I E I G K N G T K T T I T V N F K T N Q P I S N N S
UniRef90_C7M6E1	Q I L L G I D A Q T K I Y D L I E V G S N G T K T T I T V S F K T N E P I S K S
UniRef90_I3CAN5	Q I L L G I D K Q T K H I F N L I Q V Q P D D T K I E F K F K T N E P L S A T
UniRef90_UPI0004782EBB	T I T L K D N E I Q S A Y K D E F E N D I L T L N H Q K N P T I N P E
UniRef90_W8KHY5	Q I K V W I N Q T S Y P N L L E V M T K D N R I A K I Q I K E F K G I K L S D A
UniRef90_F3ZNQ8	E M F I T I N R N Y Q P V A I K M L Q N T S W V S I S V S N F R A K N L P D A
UniRef90_H1Q2R8	A A L E A I D V E G Q P P A I R M L E P Q G G Q T L I Q L T
UniRef90_K2JQA2	I V K I T L L E A S K I Q Q I V L Y E P E G N Y T N F L T
UniRef90_K6YFX9	A Y I S G F D K D M S V S K L R I S E N A T D Y T D Y L F Q N K K F N T L T D D
UniRef90_F5J3P5	E I L L G I D Q T K H I Y N L I E V G K K G T K T T L T V S F K T N Q P L S K N
UniRef90_UPI000429C9F9	F V Q V D V Q G Q Y V N Q V I A E Q G R N I T T I H F S Q Q H S Q P
UniRef90_A0A009YF21	K Q E L L W I D K E N N W M V L K M Y S T S G N Q T S I Y T K I D V G A T I P E K
UniRef90_A0A024PYF1	I A H M V L E G S D M L H A L V L L S A N Q D I T R I D F S E L R Q G P L S E A
UniRef90_A0KS07	K V E M W L P L D G Y P V Q Q K F Y N P S G N Y R L A T Y T N E L N P P L G A G
UniRef90_UPI00036A0D75	L L T L R F R D E G V K S G L V I V D D R Q H M T L D F
UniRef90_UPI000226001C	A V R I L V D K T G T P L R A T L T A R E G G K P V E F T K V S F T A P E A K
UniRef90_B5GCV4	S V R I L A V D G A E H V A T R Q V Y V A G A A T E L G F S E V D F S T P P V S
UniRef90_F5XNU0	Q V K M W V R E D G I P A K V E V T E G G I L Q M T A E Y K N I K V G S V P P E
UniRef90_UPI00037AE4A0	S V R I I A I D G Q E R V P L R V Q V Y S T K L T N E V G F T A V D F A Q P D S R
UniRef90_E6SBN4	E I L L G I D Q T K H I Y N L I E T G K N G T K T T I V V S F K T N Q P L S K N
UniRef90_UPI00047CBF52	N V V L L G I D V N T K I Y K A I T D T S G N V V T F F M S L K T N E P L P K N
UniRef90_L7WFB4	N I T L T F Q N D K R Y I S I K L E K N D D I T E L F F N D V L N S K I D K S
UniRef90_K0NC19	E I V V Q V A S G M V R S V R L K H G D E T T T Y S F S G M T D T G I S G A
UniRef90_I4B6B5	R V Q L W I D K A T N L P V K G V I D A L G H L E A T A T T F E I D A P L P P E
UniRef90_UPI000471B481	S V S M A V D D A T A T G L P L R V A V Q A R G E T F E L G F T E L S L D T P G A E
UniRef90_UPI0003B75EA6	Q I S I K I S G D K A V K K I E L D E V S G D K T I N E F S I K
UniRef90_A7ZFF0	S T T L W L D A D T Y F P T K L A H D A S G E N Y E Y E M N V S L N E P I A D E
UniRef90_L9Z4Z1	S I I L W I D P A G I S I Q Q Q F M Q P S G D Y R L A K Y T D I K N Q K L P D D
UniRef90_Q1IUQ2	V R S L E M T S G P E V R V V I E E R N G D R S V I A F K V A R D V S V D P A
UniRef90_A9GXZ0	H I I L G V D T K N Q I T S L L E V G K N G T N T S F T I T S K T N Q N L A D N
UniRef90_UPI0002558AFC	T S E E I I E S I I S Y I D E F E N R V K I V F S Q V Q N K D I N Q E S
UniRef90_TQJ8X5	T K T Y F L D N V A R K S Q I E L N D N N G K L T T I T K S L E L N A D L P D S K
UniRef90_W5XA26	D V E V W I D K K T W L T L K T I T T N A G N V T T Q E Y S F D V N K K M E D K
UniRef90_X2GRZ3	E A Y I T L S M S N Q L K Q V K M R K G G K W T I I K I I R I K T K K L L N D A
UniRef90_E1GUU4	T I T V W V N T K Y E P S S F E V V L K D G T V N K V G I K I K K N L I L K D G
UniRef90_UPI00037BBEE0	Q V L L G I D O N T K I Y N A I V T E V S G T K A T F T L S L K T N Q P L S K K
UniRef90_Q26CG2	S I T V D V D A E G L P L A V S V A A S S G T T P A F S Y T E I S F E A P A P E
UniRef90_UPI0002F14CC7	E V R I A I D A E G V P L A V Q L R T V D G A T A D V R F G T I S Y A R P D A R
UniRef90_E4NFN9	M I S V T F D R S Y R I L L N W K I M D S S R R Y S I I K L K Y K E N T V L D P K
UniRef90_C6XFV8	U N A M V L E G S D V L Q S L V L L S A A P N V T R I D F S A L S Q G T I S E A
UniRef90_A9KXV5	I A N M V L E G S D V L Q S L V L L S A A P N V T R I D F S A L S Q G T I S E A
UniRef90_A9HJ09	
UniRef90_UPI000472A8E9	H V I I R G N K K N P I K T I E V K E K G N N K I T I Q V S V K Q N I N I T P D
UniRef90_R5CEJ9	C L I I L Y V D K Q T L P A K L S L V R K G D R E A V V V L S Y Q T G Q K Y D D A
UniRef90_A6DC17	N K K I Y F I I Y D K T L K K L Y Y K N N I G N K I T I K F F N Q K N D V N K S
UniRef90_X0S8Q1	A I E L E L P D D W L P Q L I V L H E A D G E I V S F R I R D K V N P E L E D K
UniRef90_U5Q980	K I S V T F D S S S F I V S L V I E E A S K S V T T Y Y F K N Q Q I N T I N N D S
UniRef90_O28352	E V E I I V V K G E W Y P A K I Q L R V S F N N T V T L H F S M E L D A T L S D S
UniRef90_L0HHV4	T V I R L W V D K T G M V L R A E M I P A N A T N T I I R F S N I T N Q G F P D E
UniRef90_R6U4P3	K M E I Y L D K D Y S V N R L V M Y E N E T D Y T G Y V F S E K K N E T I P V A
UniRef90_N6W2D4	H F I I L C E E N N Q R V Q S I T L N E H S G S N T V I E F S
UniRef90_UPI000255C211	N Q E I S L S L K K D L T P E A V K I K D K D Q K V V T V T F K N K V N P S I P N K
UniRef90_S3CK1	N D L L D E I S Y T D K L D N H L K I K F K N K K D E F V D E N
UniRef90_G2Z1S3	E I L L G I D Q T K N I Y N L I E V G K N G T K T T L T V S F K T N Q P L S K N
UniRef90_UPI000462E52E	S I A I A V D G E T T G L P L G V E L K A R G Q S F S V A F T S L K L E A P D S S
UniRef90_K6Y8Z7	I T R V E L Q G E K H L K F L K F F E S N G D Y T E I K F
UniRef90_B8CHK7	M P R R L V L S G E T T Q I Q T L I L F S D N Q D R S R I E F F S E L V E Q P L D K A
UniRef90_F2KSQ4	S G S V W L D E F S F L P V K I E R S G V V T E F R Q L N V N T G I N D K
UniRef90_E6L8Q7	N V D Y F I T F N D E V K S I Q Y T D E F N V K L V I T L K P Q K N T K I N P Q
UniRef90_A3CWC6	R F R V W I D A E T W L L L G L E M Y G N E G N L I L S A E A N T G L P D D
UniRef90_I8AN31	Q Q E I T F D K D F A P K L V R V M D K D A K E V I S L K F S N V K N A K F D K G
UniRef90_R7D050	A V K I L Y D K N A Q P L Y L K I T D C N K N I N E I E V T S K K A L L L P D N
UniRef90_UPI00031D7402	D A R I S V D A E G T P L K F T L G A R E G G K P V V D Y S D V D F G K P S A G
UniRef90_S0EYM7	S T K I Y I D K A T Y K V S V S L V Q A Q G T T T M K L L S E K L N P D L P E S S
UniRef90_UPI0003709077	A V A I D V D A E G L P L G I E L R G Q A G P A Y S L E Y T Q L D L T A P D A S
UniRef90_F4CKN6	E V R V A V D S E K R I P L Q L T V L A N G S S D Q V G F T Q L D F G A Q D P A
UniRef90_UPI00037519E8	E V R V A V A G E H R I P L R V E V N T N G S A L S A G F T R L D F G R Q D P E
UniRef90_E6VA37	S I R I S G R A S D V L G L E M E F I G G D R S V M T I S
UniRef90_C0GCR8	L V R L W L D R R S R F P V I V E T F I N D Q L S R V K C T T Q L N D K I S P D
UniRef90_F2F7H0	D M E I W V D K K T W M T L K T I S A S G D M K I T S E F T F E P N S K I D D A
UniRef90_W7Y9N6	R I R L D I K K E A Q I N K I Q Q I G K D G N N Y T I S I D Q E S N T P M D D S S
UniRef90_A3CRN7	A V N A G V E K D S W I R R A D F F N A R G E T V V L I E Y H N V T N T G I P E S S
UniRef90_A0JRW6	S I A I A V D G Q S G L P L S V E L K A R G Q E F K L A F T T L S L Q A P D A S S
UniRef90_J9UCQ5	T I H L W I A E D G M I R I R L G I S T T N V P V E Y L F K S I R N V Q Y D N K
UniRef90_H3SAT1	R M E L W I D P K T W M M L K T V F E S G P V R S E I Y T K L D M S P S F D E D
UniRef90_A3U7X3	S I L L G I D K Q K N I Y N L I Q T Q D N G T K I T T V S F K V N Q P L S Q T
UniRef90_A0A037UZC7	R I R L M F S K D M V L K E W I I T D A Q G L S T K I E V A N E E N K E P A P D
UniRef90_I3UVF7	N E S V E F S K D Y K P V S M K I Y D I N G K V A E I K Y R N F V N P D L D D G
UniRef90_K6ZXE2	V S K I E L Q G D A Y L R H K F I E N N G D Y T D I T F K D L R
UniRef90_D1BIU8	R V L V A V D A E T S V P L W S T Q D P V T P A V E L A F T D L S Y D T V D P T
UniRef90_G8X4F3	Q I L L V G V D S T Q L V Y N T I T V N K N G T K V T L T V N S K T N D A L P K N
UniRef90_Q7MUA1	Q I E L Q V D R D S R P T G A M I T L E D G T K I V T K I T G S R T K A S P G
UniRef90_E6SIU1	P Y D L W V D W D A E T H L P R L R T A M Q N G L Q T E T F R F E A N A P V D L A
UniRef90_UPI000464B114	K K E I I Y F I Y D K T L K K A W Y T D D I G N K V E I Y F K K T K N S I P P L
UniRef90_F7VB84	L V T L I F R D D G A L Y E I R L V D
UniRef90_R7JGV4	Q I D V E V D T A R S L P T A V I Y E I D G D R V R I D I R S V T V H E A S P R
UniRef90_I4VLD3	I A A I T I N G Y A T V S R M Q M H E A D G D
UniRef90_I9ACD6	K E Q M A F S K D L T P K E L T I F D I N N E I S K I T Y K D K Y N P E I N D K
UniRef90_UPI0002D72A0F	S L T I W M S E D F K P A K A E I M D S N M N T V E I T F S N F T N P T F E K D

UniRef90\_UPI0003636022  
 UniRef90\_V6SPD1  
 UniRef90\_B9KFM4  
 UniRef90\_UPI0004195616  
 UniRef90\_C7M6E1  
 UniRef90\_I3CAN5  
 UniRef90\_UPI0004782EBB  
 UniRef90\_W8KHY5  
 UniRef90\_F3ZQNQ8  
 UniRef90\_H1Q2R8  
 UniRef90\_K2JQA2  
 UniRef90\_K6YFX9  
 UniRef90\_F5J3P5  
 UniRef90\_UPI000429C9F9  
 UniRef90\_A0A009YF21  
 UniRef90\_A0A024PYF1  
 UniRef90\_AOKS07  
 UniRef90\_UPI00036A0D75  
 UniRef90\_UPI000226001C  
 UniRef90\_B5GCV4  
 UniRef90\_F5XNU0  
 UniRef90\_UPI00037AE4A0  
 UniRef90\_E6SBN4  
 UniRef90\_UPI00047CBF52  
 UniRef90\_L7WFB4  
 UniRef90\_K0NC19  
 UniRef90\_I4B6B5  
 UniRef90\_UPI000471B481  
 UniRef90\_UPI0003B75EA6  
 UniRef90\_A7ZFF0  
 UniRef90\_L9Z4Z1  
 UniRef90\_Q1IUQ2  
 UniRef90\_A9GXZ0  
 UniRef90\_UPI0002558AFC  
 UniRef90\_T0J8X5  
 UniRef90\_W5XA26  
 UniRef90\_X2GRZ3  
 UniRef90\_E1GUU4  
 UniRef90\_UPI00037BBEE0  
 UniRef90\_Q26CG2  
 UniRef90\_UPI0002F14CC7  
 UniRef90\_E4NFN9  
 UniRef90\_C6XFW8  
 UniRef90\_A9KXV5  
 UniRef90\_A9HJ09  
 UniRef90\_UPI000472A8E9  
 UniRef90\_R5CEJ9  
 UniRef90\_A6DC17  
 UniRef90\_X0S8Q1  
 UniRef90\_U5Q980  
 UniRef90\_O28352  
 UniRef90\_L0HHV4  
 UniRef90\_R6U4P3  
 UniRef90\_N6W2D4  
 UniRef90\_UPI000255C211  
 UniRef90\_S3XCK1  
 UniRef90\_G2Z1S3  
 UniRef90\_UPI000462E52E  
 UniRef90\_K6Y8Z7  
 UniRef90\_B8CHK7  
 UniRef90\_F2KSQ4  
 UniRef90\_E6L8Q7  
 UniRef90\_A3CWC6  
 UniRef90\_I8AN31  
 UniRef90\_R7D050  
 UniRef90\_UPI00031D7402  
 UniRef90\_S0EYM7  
 UniRef90\_UPI0003709077  
 UniRef90\_F4CKN6  
 UniRef90\_UPI00037519E8  
 UniRef90\_E6VA37  
 UniRef90\_C0GCR8  
 UniRef90\_F2F7H0  
 UniRef90\_W7Y9N6  
 UniRef90\_A3CRN7  
 UniRef90\_A0JRW6  
 UniRef90\_J9UCQ5  
 UniRef90\_H3SAT1  
 UniRef90\_A3U7X3  
 UniRef90\_A0A037UZC7  
 UniRef90\_I3VUF7  
 UniRef90\_K6ZXE2  
 UniRef90\_D1BIU8  
 UniRef90\_G8X4F3  
 UniRef90\_Q7MUA1  
 UniRef90\_E6SIU1  
 UniRef90\_UPI000464B114  
 UniRef90\_F7VB84  
 UniRef90\_R7JGV4  
 UniRef90\_4VLD3  
 UniRef90\_I9ACD6  
 UniRef90\_UPI0002D72A0F

H F T F T  
 I F I P K I P S H F D I I Q  
 L F S F N  
 I F K F D  
 L F T F N  
 H F E F Q R S K Y A D  
 V F K P K F P N Y Y D M V R  
 L F R F N D Y P D A D I I D L R  
 M F R F D F P R T E V I D L R

K  
 Q F T F D

K F A L H L A E D V E I  
 S L K L N T P P D V K V

T F S F T P P K G T E I  
 T F E F S P P K G A K V  
 T F A L P Q G V P V I D M  
 Q F E F T P P A G T T V  
 Q F T F V  
 S F T Y D P S K  
 V W E

M F N Y K P A G A Q I V E  
 V F S T P P A G A E V I D L  
 L F A F T P P P G A T V E E Q

R F T I D I P A D A E  
 A F K I N T T R K T K V V  
 R M K A P K

T F V F N R Q K Y I D L D  
 I F I P K Y P L D F D I I R  
 T F T F V P P A D A  
 L F T F D I P K D A T V  
 I F K F N Y P K A E I V D M R  
 L F K F H E S P D A E I I D L R

C F Y F D  
 I F D F T P P A G A T I  
 T F E F T A P K G A K V  
 V F E

T F I Y T S D K N V K V I D L R  
 L F T F D A Y P T A E V I D L R  
 V F K I N L P K D I D I I Y Q  
 D F T Y E V P R G Y N V

L F E  
 T F M F T P P A G I A V K N Q  
 V F D

T F D  
 L L T P I I P A N F D L I  
 Q F T F V A S K  
 L F N F T P P A G A T V

R F S P A I A D N L R E T Q  
 D F T F V P P M D A E  
 I F K P K F P Q N Y D I L R  
 I F V F D P P A G V E V  
 A F D

R F I F D T K P N A E V I D L R  
 S F D F K P P K G T D V  
 I F H F T P P P G A K E V Q  
 L F E F V P P Q G A S V  
 L F A F T P P P G S T V T D  
 L F Q F T P P E N A R V

L F Q F  
 K F S V D I P E D A V V  
 M F V Y D A N P N V D I I D M R  
 L F Q Y S P L E E A I V K P M R  
 L F A F S P P P G A T V  
 T F V P V I P E E M Q V L  
 T F K L D I P E G I S V L D L  
 L F T F D  
 V F K F  
 L F

V F D F T P P P G A T  
 Y F T F V  
 L F R L K D Y P G V E V V D L R  
 R F R F E V P A G Y R V E E E  
 N F P K D I D F I Y Q

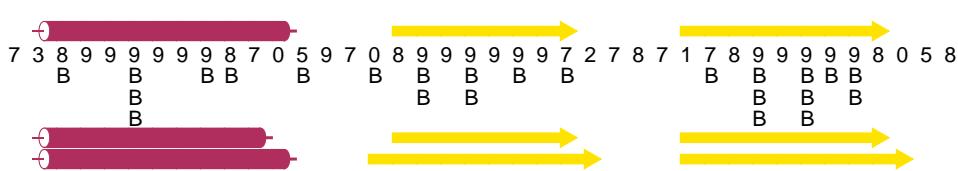
T F D A E N Y A G Y E W I D F R

L F T  
 A F D

UniRef90\_A7HQ60  
 UniRef90\_UP10004796327  
 UniRef90\_UP10004625B3E  
 UniRef90\_B5EPJ6  
 UniRef90\_I0XCG4  
 UniRef90\_UP100035DAA34  
 UniRef90\_H8GV13  
 UniRef90\_C5BQ22  
 UniRef90\_F0IFE6  
 UniRef90\_UP10004690483  
 UniRef90\_B3T1X9  
 UniRef90\_UP10004766E09  
 UniRef90\_X0VV09

1                    10                    20                    30                    40  
 D A   K N F   A A Q Q Q H V N F V Q R P R P L V S E G E L T T A T  
I D H L M Q S L A H T K P G R A T F V E K L E K P I E S S G R L R F I A P D  
I S G D F L Q K R T R S L K S S G I F T V G K G  
 M D A A A A A K F Q S T Q A D F K Q S V V N E D I Q S G T V Y F E R H G  
Q N  
L D E V Y K K V S S Y K N I Y D F R Y S F E N S K E T R G N V T L S G E K  
D L Q K D L I N K L T A I K T L S F D F K Q K I S D K E E I G N C F I K Y P L  
 S A R I Y V D G K D

lupas\_21  
 lupas\_14  
 lupas\_28  
 jnet  
 conf  
 sol25  
 sol5  
 sol0  
 jhmm  
 jpssm

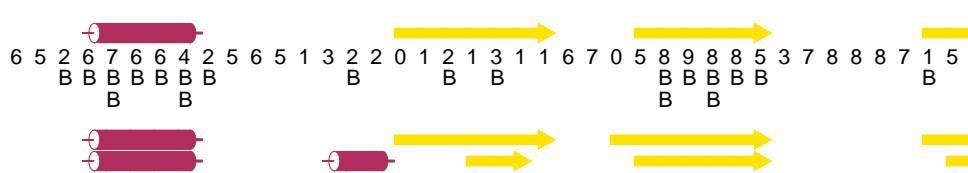


Sequence logo showing the conservation of amino acids at positions 50, 60, 70, and 80 across UniRef90 entries. The x-axis represents positions 50, 60, 70, and 80. The y-axis lists UniRef90 entries.

lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm

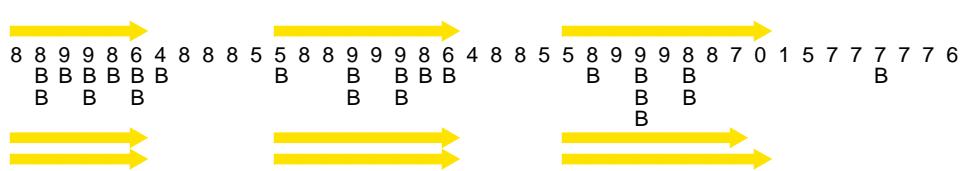
UniRef90_A7HQ60	N Y G <b>V</b> E K   L   G G <b>V</b> E A E E   I   G R E T   V   E G E A T T K Y R   V   L   P   G Q T A Q K G
UniRef90_UP10004796327	A Q   L   L   A V L   Q G D A E E A   L   A Q S F S Y Q Q T E <b>H</b> C   L   A   L   Q   P   K A A Q   L   Q Q F
UniRef90_UP10004625B3E	G A S <b>P</b> D K I L L   G D A M A A W Q   V G T A E   V D G   E   C R   H   L   F   F S Q K   S G   D
UniRef90_B5EPJ6	L   D   S   I   R G T   L   T   G N Q Q M   L   K   Q F F R   L   S E G N W T   L   T   M   L   P   R   Q K K   L   A D   L
UniRef90_I0XCG4	S K M M A S   L   F   A G K R S E L   E E Y F   L   I   D   F   D   G   W   K   M   T   L   T   P   R   D   S   T   I   S   Q   T
UniRef90_UP100035DAA34	G Q Y E S F   L   F   G G S G K   D   L   Q   S   N   W   T   V   T   C   Q   G   M   E   L   D   L   K   P   K   Q   Q   S   N   M   F   S
UniRef90_H8GV13	Q   G   A   G   L   G   G   L   F   S   N   T   A   S   L   L   K   G   Y   D   V   K   L   L   G   T   S   Y   Q   L   E   A   T   P   R   S   G   S   T   D
UniRef90_C5BQ22	G R I I   N   A   L   I   D   G   D   W   K   Y   L   E   R   Y   F   N   V   T   P   E   G   Q   R   I   T   L   T   P   R   N   K   Q   V   A   K   Q
UniRef90_F0IFE6	M   I   M   P   S   Q   M   L   T   F   Y   K   K   D   F   S   Y   K   W   D   I   V   Q   Q   V   Q   Y   I   E   L   K   P   I   K   Q   S   S   D   I   K
UniRef90_UP10004690483	G   S   S   A   Q   A   L   A   E   K   L   I   A   A   V   D   P   S   T   A   V   T   R   D   A   Y   T   L   V   L   T   P   R   T   D   A   T   L   V   G
UniRef90_B3T1X9	S   T   P   L   F   F   I   L   K   K   E   K   L   I   R   K   N   L   P   T   E   I   N   A   G   L   I   E   F   E   F   I   D   Q   K   T   N
UniRef90_UP10004766E09	G   P   A   P   D   D   L   A   Q   Q   L   L   S   K   V   D   P   T   T   A   V   T   V   G   P   D   V   L   V   I   E   P   R   T   D   A   T   L   V   G
UniRef90_X0VV09	N   H   F   P   T   V   A   L   S   C   D   R   K   D   Y   S   R   V   Y   H   T   D   V   R   I   P   G   I   D   Q   S   M   Y   I

lupas\_21  
 lupas\_14  
 lupas\_28  
 jnet  
 conf  
 sol25  
 sol5  
 solo  
 jhmm  
 jpssm



UniRef90_A7HQ60	D A T I   W V T E D G I P   V K A E G S S A Q G N F S M R L T N   Q R G P Q D P G
UniRef90_UP10004796327	I R E I   T S C G S A G I E Q V T I   E E T Q G N R S V I T F T
UniRef90_UP10004625B3E	L E L W V E K N T T P H R L I V T Y P Q G Q R F I A E F T S K T Q P P L S D S
UniRef90_B5EPJ6	V Q Y I   Q V N G N N T V T S I   E T L K T N R D R S L I T I T
UniRef90_I0XCG4	V S R I   I L T G N D Y M L S M E S I L A S G D S I   L Y E F L N
UniRef90_UP100035DAA34	H V I T V W I D P A R S L K Q V F Y E P S G D N R T A T Y T A I   K Y N E K I A A D
UniRef90_H8GV13	R T R V W I T E A G W P T R V Q L V S T A G K T V A D L T I K T N S G L S A A
UniRef90_C5BQ22	L T Q L E F T V E S H   T G Y R L E L A N G E W Q S V R F S K V T E N T L N
UniRef90_F0IFE6	L I L L G I D T T T K I Y N L I Q V G K N E A K T T I T I N F K T N Q P L S G N
UniRef90_UP10004690483	S V R I A V D G T G I P L R V Q V I A R G A G A P A F E F T S F S T D R P A A S
UniRef90_B3T1X9	K V K I L F D K N S E F K G W K T K D V Y S N N V S F T I N N K I N N Q I I D D
UniRef90_UP10004766E09	K V A L A V D G Q G M P L S V Q V T A R G A D K P A F R F T A F S L D T P D Q S
UniRef90_X0VV09	R E C S N F D S Q G F P H N I T E I D I D G N K S V Y K I K V E L N P S I P D E

lupas\_21  
 lupas\_14  
 lupas\_28  
 jnet  
 conf  
 sol25  
 sol5  
 sol0  
 jhmm  
 jpssm



UniRef90_A7HQ60	L F E	L P A G V	170
UniRef90_UPI0004796327	E F T F D P P A G V K E V D		
UniRef90_UPI0004625B3E			
UniRef90_B5EPJ6			
UniRef90_I0XCG4			
UniRef90_UPI00035DAA34	I F K P K D K G Y T V I R		
UniRef90_H8GV13	T L R N L P K D A Q V I R Q		
UniRef90_C5BQ22			
UniRef90_F0IFE6	E F V F N		
UniRef90_UPI0004690483	V F A F R P P S G A K V T E Q T		
UniRef90_B3T1X9	F F K I P K E E D L		
UniRef90_UPI0004766E09	L F S F T P P P G S T V K D		
UniRef90_X0VV09	V F E F Q P P E G Y K V Q D F R		

lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm