



QUERY UniRef90\_UPI0004778CBA UniRef90\_B7KA43 UniRef90\_L8M620 UniRef90\_K1WLS8 UniRef90\_UPI000360805D UniRef90\_B7K1Y2 UniRef90\_A0YYL5 UniRef90\_K9TOW8 UniRef90\_M1X0F0 UniRef90\_D7DZ64 UniRef90\_K9XPB2 UniRef90\_UPI0003005998 UniRef90\_E0UED1 UniRef90\_K9SN65 UniRef90\_UPI000347B227 UniRef90\_BOJPI0 UniRef90\_UPI000349AED UniRef90\_T2JE49 UniRef90\_U9W3M1 UniRef90\_B1WSG3 UniRef90\_D4TNJ9 UniRef90\_K9TNI8 UniRef90\_Q8DIH2 UniRef90\_K9YJL1 UniRef90\_D8FV27 UniRef90\_K9X7G9 UniRef90\_UPI00047BF185 UniRef90\_R4KDK4 UniRef90\_K9YYG9 UniRef90\_P74192 UniRef90\_L8LFS2 UniRef90\_K9RRE6 UniRef90\_B4VMR1 UniRef90\_C9RA09 UniRef90\_K9UAM8 UniRef90\_K9VUN8 UniRef90\_UPI000466F166 UniRef90\_K9Y7Q1 UniRef90\_A8UWH4 UniRef90\_Q10ZF9 UniRef90\_K9XDF9 UniRef90\_D3EQC3 UniRef90\_I7LKB3 UniRef90\_K9WL84 UniRef90\_D3DKJ6 UniRef90\_L0K7P5 UniRef90\_Q7NNL0 UniRef90\_K9SAF9 UniRef90\_B1XQL5 UniRef90\_C4V3G1 UniRef90\_K9VJS0 UniRef90\_B11P2 UniRef90\_UPI0003677C15 UniRef90\_UPI00034D891A UniRef90\_UPI0003466DD8 UniRef90\_S3XCX0 UniRef90\_A8MLS6 UniRef90\_X1LNV6 UniRef90\_Q5N517 UniRef90\_UPI000345444B UniRef90\_K8DZR8 UniRef90\_W2BPJ8 UniRef90\_K9Z0V8 UniRef90\_R7CQ88 UniRef90\_K9PY61 UniRef90\_K9SWH2 UniRef90\_X5JCN1 UniRef90\_A6TWP8 UniRef90\_G4HP30 UniRef90\_E6S9V2 UniRef90\_A0A011VQY7 UniRef90\_E3PX96 UniRef90\_UPI0003813471 UniRef90\_A5D5U6 UniRef90\_D7GG66 UniRef90\_J9HFR3 UniRef90\_O67728 UniRef90\_E9UNE0 UniRef90\_UPI000376DD88 UniRef90\_U2LQS8 UniRef90\_R5A6E2 UniRef90\_F2NHN0 UniRef90\_UPI000376F61A UniRef90\_K9EZE4 UniRef90\_UPI00047DF7A0 UniRef90\_UPI00040A5F47 UniRef90\_F5RPD0 UniRef90\_U5DQH1 UniRef90\_UPI0003A26CD9 UniRef90\_W7Z0U3 UniRef90\_UPI00035FE34A

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

QUERY	N	L	G	K	G	K	V	L	K	R	K	E	R	W	L
UniRef90_UPI0004778CBA	T	L	P	G	G	A	I	A	E	V	A	G	E	W	L
UniRef90_B7KA43	S	L	P	G	G	K	I	T	E	V	Q	G	G	E	W
UniRef90_L8M620	S	L	P	N	N	A	I	A	E	A	E	G	E	W	L
UniRef90_K1WLS8	P	F	P	G	G	A	I	A	Q	V	E	G	G	E	W
UniRef90_UPI000360805D	T	F	P	G	G	A	I	A	T	V	Q	G	G	D	W
UniRef90_B7K1Y2	S	L	P	G	N	F	S	A	E	V	Q	G	D	W	L
UniRef90_A0YYL5	P	F	P	G	G	A	I	A	K	V	D	Q	Q	W	L
UniRef90_K9TOW8	P	F	P	G	G	A	V	A	E	V	Q	G	G	D	W
UniRef90_M1X0F0	P	F	P	G	G	A	I	A	K	V	Q	G	D	W	L
UniRef90_D7DZ64	P	F	P	G	G	A	I	A	Q	V	Q	G	D	W	L
UniRef90_K9XPB2	T	L	P	G	N	I	V	V	E	V	E	D	W	L	
UniRef90_UPI0003005998	S	L	T	G	G	L	W	A	E	V	E	G	S	Y	I
UniRef90_E0UED1	S	L	P	G	T	I	T	I	E	V	Q	G	E	W	L
UniRef90_K9SN65	P	L	P	G	D	V	W	A	E	V	E	H	S	W	L
UniRef90_UPI000347B227	P	F	P	G	G	A	I	A	C	V	D	Q	D	W	L
UniRef90_BOJPI0	S	L	T	G	K	I	R	V	E	V	Q	Q	N	W	L
UniRef90_UPI00034C9AED	S	L	S	Q	G	K	F	A	Q	V	R	E	D	S	I
UniRef90_T2JE49	S	F	P	G	K	I	M	L	E	V	E	E	N	Y	I
UniRef90_U9W3M1	P	F	P	G	G	R	I	A	R	V	E	H	D	W	L
UniRef90_B1WSG3	S	F	P	G	N	L	I	L	E	V	E	E	N	C	I
UniRef90_D4TNJ9	P	F	P	G	G	S	I	A	L	V	E	N	A	S	I
UniRef90_K9TNI8	P	F	P	G	G	A	I	A	R	V	E	G	D	W	L
UniRef90_Q8DIH2	S	L	P	G	G	Q	H	L	R	V	C	G	D	W	L
UniRef90_K9YJL1	S	F	A	K	V	G	A	I	A	V	K	D	D	Y	I
UniRef90_D8FV27	P	F	P	G	G	A	I	A	I	V	E	G	Q	W	L
UniRef90_K9X7G9	P	F	P	G	G	A	I	A	Q	V	I	D	D	W	L
UniRef90_UPI00047BF185	P	F	P	G	G	A	I	A	I	V	D	G	E	W	L
UniRef90_R4KDK4	N	L	P	R	G	I	T	F	K	K	Y	Y	E	V	L
UniRef90_K9YYG9	S	F	P	K	N	L	Y	A	V	V	E	S	D	L	I
UniRef90_P74192	S	L	P	G	Q	G	L	V	R	V	E	G	D	F	L
UniRef90_L8LFS2	S	F	P	G	G	G	Y	F	E	V	K	T	D	V	I
UniRef90_K9RRE6	P	L	P	K	G	I	V	A	W	V	D	P	P	W	L
UniRef90_B4VMR1	S	F	P	G	G	A	S	A	Q	V	E	G	D	W	L
UniRef90_C9RA09	S	L	P	K	N	V	K	V	V	R	E	Y	D	S	L
UniRef90_K9UAM8	T	F	S	Q	G	L	A	A	E	V	E	S	G	R	W
UniRef90_K9VUN8	S	L	P	G	G	A	I	A	E	V	E	G	N	W	L
UniRef90_UPI000466F166	S	F	P	G	N	I	Q	L	Q	V	V	G	H	W	L
UniRef90_K9Y7Q1	S	F	P	G	N	V	Y	A	E	V	K	E	N	L	I
UniRef90_A8UWH4	D	L	P	G	E	G	L	R	A	V	R				
UniRef90_Q10ZF9	P	F	P	G	G	A	I	A	K	V	K	H	P	W	L
UniRef90_K9XDF9	P	L	P	G	G	A	I	A	Q	I	K	Q	N	C	L
UniRef90_D3EQC3	S	F	S	V	Q	V	V	L	E	V	Y	D	D	Y	I
UniRef90_I7LKB3	S	L	P	K	N	L	I	A	E	I	S	Y	D		
UniRef90_K9WL84	S	F	P	A	G	M	T	A	V	V	E	G	D	W	L
UniRef90_D3DKJ6	E	L	G	D	G	K	R	L	K	A	E	G	D	Y	L
UniRef90_L0K7P5	E	L	P	G	D	L	I	V	R	L	N	Y	N	Q	L
UniRef90_Q7NNL0	P	L	A	H	S	L	L	V	E	V	Q	G	E	W	L
UniRef90_K9SAF9	P	F	P	G	G	A	I	A	R	V	Q	G	E	W	L
UniRef90_B1XQL5	S	L	P	G	K	I	Q	L	Q	V	M	G	E	W	L
UniRef90_C4V3G1	S	L	P	H	G	W	T	A	V	L	R	Y	D	M	L
UniRef90_K9VJS0	P	F	P	G	G	A	I	G	R	V	E	H	P	S	I
UniRef90_B11P2	D	L	P	R	G	I	R	V	E	R	Q				
UniRef90_UPI0003677C15	P	F	P	G	G	A	I	A	Y	V	E	R	P	W	L
UniRef90_UPI00034D891A	P	F	P	G	G	A	L	A	E	V	A	G	E	L	I
UniRef90_UPI0003466DD8	T	L	P	G	G	W	W	G	I	V	E	D	D	W	L
UniRef90_S3XCX0	D	L	P	G	G	L	C	V	V	R	R	G			
UniRef90_A8MLS6	A	L	P	L	G	L	I	A	K	I	S	Y	E	N	L
UniRef90_X1LNV6	S	L	P	G	G	L	I	F	S	V	E	Y	D		
UniRef90_Q5N517	S	L	P	Q	R	R	V	A	V	V	A	G	D	W	L
UniRef90_UPI000345444B	R	F	P	G	G	S	W	A	E	V	D	R	A	W	L
UniRef90_K8DZR8	E	L	P	A	G	T	T	V	R	L	T	Y	D	R	L
UniRef90_W2BPJ8	D	L	P	G	S	V	R	L	R	R	A	Q	G	R	L
UniRef90_K9Z0V8	T	L	I	K	N	K	I	A	Q	V	K	N	R	E	I
UniRef90_R7CQ88															
UniRef90_K9PY61	S	F	S	G	D	L	K	F	I	V	N	A	E	Y	I
UniRef90_K9SWH2	P	L	A	G	G	W	Q	A	E	V	E	H	P	F	I
UniRef90_X5JCN1	P	F	P	G	G	A	I	A	K	V	Q	G	D	W	L
UniRef90_A6TWP8	H	L	P	Q	G	L	I	V	K	K	G	Y	E	T	L
UniRef90_G4HP30	S	L	G	G	G	I	T	C	I	R	E	Y	G	R	I
UniRef90_E6S9V2	H	V	P	G	G	L	A	V	A	R	T	G	D	A	I
UniRef90_A0A011VQY7	N	V													
UniRef90_E3PX96	N	L	P	K	G	L	M	I	Y	K	T	T	D	G	L
UniRef90_UPI0003813471	P	F	I	E	K	T	I	A	E	V	N	A	D	Q	I
UniRef90_A5D5U6	S	L	P	G	S	V	S	A	I	R	S	Y			
UniRef90_D7GG66	D	L	P	G	G	H	R	V	V	R	R				
UniRef90_J9HFR3	S	L	P	G	N	V	L	L	R	N	S	G	R	I	I
UniRef90_O67728	N	L	G	K	G	K	V	L	K	R	K	E	R	W	L
UniRef90_E9UNE0	D	L	P	G	H	I	R	A	R	R	T	N	S	S	I
UniRef90_UPI000376DD88	A	L	P	A	G	L	V	V	I	T	R	S	Y		
UniRef90_U2LQS8	D	M	P	H	H	W	Y	A	S	S	R	Y	G	V	L
UniRef90_R5A6E2	D	L	P	G	G	V	R	A	R	M	S				
UniRef90_F2NHN0	S	L	P	G	G	W	R	L	V	R	Q	Y			
UniRef90_UPI000376F61A	D	W	P	A	G	V	V	L	T	K	R	Y	G	R	L
UniRef90_K9EZE4	P	F	P	G	G	L	I	A	R	V	E	H	D	W	L
UniRef90_UPI00047DF7A0	Q	L	P	M	G	I	T	A	K	K	N	Y	H	K	L
UniRef90_UPI00040A5F47	F	L	P	G	G	V	A	V	R	R					
UniRef90_F5RPD0	E	M	P	H	G	W	Q	A	R	V	R	Y	G	V	L
UniRef90_U5DHFQ1	R	S	S	G	R	A	W	A	E	V	A	G	D	W	L
UniRef90_UPI0003A26CD9	D	L	P	G	R	V	G	A	R	R	R	G	R	L	I
UniRef90_W7Z0U3	D	L	G	G	G	L	A	C	I	R	E	Y	D	M	I
UniRef90_UPI00035FE34A	H	V	P	G	G	I	A	V	A	R	T	G	G	A	I



UniRef90\_G3BMR2 UniRef90\_C7R119 UniRef90\_I9KSP2 UniRef90\_E3J7C0 UniRef90\_UPI00047D6F50 UniRef90\_G5GS30 UniRef90\_B6G0G4 UniRef90\_X1GR51 UniRef90\_R7Y2U6 UniRef90\_D9TIT2 UniRef90\_UPI0003658F2F UniRef90\_UPI0003808CF2 UniRef90\_UPI00041EE0EB UniRef90\_E4L7Z1 UniRef90\_F4A001 UniRef90\_UPI000477E46A UniRef90\_UPI0002D54ECE UniRef90\_D0L4G5 UniRef90\_UPI000237A4C6 UniRef90\_K4LLM7 UniRef90\_Q2JJ74 UniRef90\_H3SJQ1 UniRef90\_Q6AJ19 UniRef90\_B4U6A2 UniRef90\_L1MVM2 UniRef90\_B8D063 UniRef90\_T0IGJ8 UniRef90\_A0A017RTJ0 UniRef90\_I0LDQ7 UniRef90\_F6CP10 UniRef90\_B0CBA2 UniRef90\_UPI00037A6C11 UniRef90\_Q83MT2 UniRef90\_E9SBX1 UniRef90\_A4J0S2 UniRef90\_L8TQF1 UniRef90\_X4R096 UniRef90\_Q8R7K9 UniRef90\_R6QHI8 UniRef90\_D6Y9V7 UniRef90\_W4D9Z8 UniRef90\_W2EWY2 UniRef90\_UPI0004708EDF UniRef90\_E6U186 UniRef90\_A9RN39 UniRef90\_R6Y401 UniRef90\_V6L417 UniRef90\_C8W3S7 UniRef90\_A5CP81 UniRef90\_UPI0004705CCE UniRef90\_W4E3Y7 UniRef90\_A0A010YGJ2 UniRef90\_E7N2T1 UniRef90\_UPI00045EC0ED UniRef90\_U2SZ60 UniRef90\_UPI0003B3C801 UniRef90\_Q6ACP8 UniRef90\_L8MW68 UniRef90\_D5WRL2 UniRef90\_B0TBN4 UniRef90\_R6J304 UniRef90\_G5H4D8 UniRef90\_UPI00037F1F22 UniRef90\_K7RZY9 UniRef90\_E5WT34 UniRef90\_UPI00047E2101 UniRef90\_UPI00046F6043 UniRef90\_F7NH60 UniRef90\_E0NY99 UniRef90\_C9KMW7 UniRef90\_L0IEQ9 UniRef90\_UPI0004661632 UniRef90\_A0ZA38 UniRef90\_UPI0003682F7D UniRef90\_R5XF4 UniRef90\_A1R149 UniRef90\_UPI000289B78A UniRef90\_L7K551 UniRef90\_UPI000479318C UniRef90\_F8K2B4 UniRef90\_R5ACQ3 UniRef90\_H0R298 UniRef90\_X0S5N5 UniRef90\_Q2RM96 UniRef90\_M3VJT3 UniRef90\_R5SPD9 UniRef90\_X1NWS3 UniRef90\_UPI00047C1EE8 UniRef90\_F6DMT8 UniRef90\_UPI0003769E38 UniRef90\_D9QXS2 UniRef90\_C7PWZ4

50 60 70 80

G K L T E M P P G I Q R R S V T R R F L D D L Q F N H I E D I R L C R G G E K F P T  
T A L A A L P T A I R R R R V L R L A V D G A P S L R H I H A V L D H L T H H Q Q S K P T  
K K L R A Q L P S A I Q R R R V L R R L A M Y Q K L G E A E H V V E D V L S E L L V D T R Q S K P T  
E A L G S L P S A L Q R R R V L R R A A L J A L G A E H V W A M E L L V L L V T R Q Q N P T V  
K R I C A L H P S L Q R R R R V L K I L L E D W T S F A N D V E E G T L R A L I I K D T G Q T N P L  
A A L R A M H P A M Q S R R V L R R L F W Q D F N F Y K H E E E D V L R A L I I K D T G A K T M R A  
E K L S G Y H E A M Q S R R V L R R Y A L G D T N F A K H I E E D V I Q L I L K D T G A K T M R A  
R K I V A L P P A L Q R R R V L R R A L A A D L E A N H I E A V I R S L L L S T K G K K R T  
P L T S A Q P P A L Q R R R V I R A P P A E L F H E V L E A V D A L S T G S Q S K W L  
E K T K N L P V F L Q R R R V I R K M I L E C F N M K E L E E L F S L G S S Q S K W K K  
R G L A A D P A A L Q R R R V I R L V V S A L T R A H T L A V A A L I H G S Q S G P V  
P D L L R L P R P G I S I L V L G H F S L R H I E A I L D L L G G S Q S G G E L  
E P L A A L P A P I Q R R R V V R T W L N H H L D A V E A L V A A W H G G S Q S G P T  
E E F K S V M P A L Q R R R V I R Y I F S E Y N N E H V E R F R E L T Y E S G G K T G  
P D F K T L H K A L Q R R R L R Y L I S K L E Y L H I E E Q L M A Y I I E K T G S Q S K L  
E E L L D L D L A I Q R R R I R E S Y N Q K Q K H V E L V L E L L I K T G S Q S K L  
S P L Q A A P L A L R R T V L Q R V T V A Q V S F E H V E K L V A L L L N G G S A S D  
A V L A E A P A A V R R V L R R W L T E P T T R V I T A R A D D L V H H G Q Q G A V  
V A L Q E V P P A L R R R R V L R V W L E R G H L R A A D A L V R G G S Q S G P  
E D F L S L P P A V C R R R V L R R A L K D L G Y R H I T N C L E F L R K G S G E L  
D P L R A A P L A L Q R R V L M F Q F L H H P T F F D Q V V E A G I Q L L K K G R S P S  
R A L L Q A H V A L Q R R R V I K L I L E A Q P S F F T H I E N I C R L A T E N A G K T L  
R S F S G G H Q A L Q R R R V I E L L C A Q P S F F T H I E N I C R L A T E N A G K T L  
K S L K Q E P R A L Q R R R V L R K T F G D T K T F Q K T E E R L R A L L T E N A G K T L  
E V L R A R P P A L Q R R R V I R L F W Q D F S Y L H E E R L R A L L T E N A G K T L  
E K L F K L P L V I R R R R I T S L V L K G E D S R K H Y E E M V E N L I K T S G S R F  
E G L A E L P I A L Q R R R L R Q A I E K K S F E H V I E E K L L T M V L S G S L L  
D N F N E L H L A L K R R R I R T L L N G T E V E H I E E C L I E L I N T S G S S I  
P V L A D L A P A V R G R V L H S W A R E L S H R H V V A L D A L L H H G Q Q P T  
T E L L S S P P A L V R R R V L R R A W R H L T G E Q V I E S L M A L L N H G G K R V  
D A L Q S A P A L Q R R R A L R H F L R Q A N T F E Q Q I E S K L M A L V N H S R T V D  
K D L E R L P K A I R T R V L R L A I G S L S A E H I A S A E A L I H G S Q S K E V  
N T I R G K T P V P L R R R V I M R L A A L Q Y S F K H T R Q L T E R Q L V C H V  
K T I R G L D Y P L R R R V I M R I L A K N D I D K I E L E Q L V N N G G K A  
K S L M N Q P L V L R R R I M R I A Y Q E V T F A H V E N L I S H I M R D G P T  
E A L R A L P A L R F R V L A K A A Q Q P S Y Q R L L A A E A L L R R D G R E L  
K E L A R Q P R A L R T R V L R E L L A E V G Y R H I D A L D R L V L D N N R P V  
D A L K S Q H T A I K R R R V L R R M Y G E T D Y G H V E D V L N L L D T N S S K I  
E K L L D L D K V I L K R R V I R L G L H D V S Y E H I K S V E S L L K N G K K V  
D V L E S V P A A V R R R V I R R A A S A L G A V H I E E A E R L V H G Q K G V  
A S F A A I P S A L Q R R R V I K L L L N A L D F P K I E T V R R G T P T T W S L  
S V L A A V P G A V R R R R V L Q R A A V E A G A N H I E E A E R L V H G K S A  
U N I R E F 9 0 U P I 0 0 0 4 7 0 8 E D F D E F L A R P I A V R R R R V L R M A A K E I G A N H V E D I L D M A T T G G A M L  
K M I R K L D Y P I R R R R V I M R L A K Y D V E K I E M I E H L I C N G G K I L  
M I L Q S L P V A I Q R R R V L K Q F V E N F T F D H V E R L R R S A S N G V S Q V  
A K L R Q A H P A V L A S R R V L R V W Q A L E K H V L D A L L H C L E G G Q V  
A R L F A L P P A V R R R R V L R R A A G A P A A R H V E E M D R L V T G Q R A I  
K G F Q Q V P L A L Q R R R V L R L A W R E I T S F E Q L G K A V L L L T G S G S  
A S L L J A P P A L Q R R R L R L A A R E L S R T V L E V A R L V H H G Q G P V  
P A F R R L T L A L Q R R R V I K L I L E N A D F H K V E A V R R G F P T T W S L  
A A F A A L P S A L Q R R R V I K L L L N Y L D F S A K I E A A V R R G T P T R Q W T L  
R A L A D A H S A L Q R R R V L R R W A G T L S A A H V E A D A L V I T R Q G S V  
A V L C G L H P A L Q R R R V L R L Y W Q D F S Y L H E E Q M R S L I R G V A Q I  
V V L A A A P P A L R H R R V L R A A L G A L H R V H I E A V D A L V H G G A G S A  
R R L G A C E V A L A R R R V V R R A L L E L E A R H I E R V L A L V G A G G S A  
S S L V I G V P I A R A T R V I R A W L V T P S R E Q V L A V H D L V H G Q A G V  
R G L A A G P P A L Q R R R I R L V V S A L S R S H T L A V A A L I H H G Q S P L  
Q H L Q Q Q P L A L Q R R V I A R Q F L H Q V L S F E D I E R F L N L N R S G S A  
P R F S D L P A A L Q R R R V L T L L L D Y P S E R Q V E A L R N L A R R S G S E L  
K G L E A T P R A I G R R R V L R R F L E A P G F G K T E A M L R L T A R R G K S  
A V L T A A P L P R R R R V L T A F L E A Q N R F G H L T Q L D E L L A S G G R L  
P A L R A L H P A L Q R R R V L R I F W Q D F S Y L H E E R M R A L L E G T A R I  
G P F A S V H A A L Q R R R V I K L L L N E S D F V K I E H V R Q G G A P T T W R L  
R P L A A A P T A G L A R R R V V K A W L D A A T F A H V E A V R G L C R G G S G V  
D A F E A M P M P L Q R R R G I Q L L L N S L S A S H I E E S I F S L M K S S G N L  
E K Y T N L H D A I K A R R V L R H I L G D T N F K H I E A D L T E L E N E N K I  
A A F A A V H S A L Q R R R L K L I L E N E T D F P K I E A A V R R G I P T A W S L  
N R F H D L H P A L K R R V I R L L L E K K S F D H V E E Q M V D C W Q V I G T N Y  
G V L N T L H T A M V Q R R R V L R L F W Q D L S Y S H E E E R M R R L L M L G T A  
T T F Q R R H P A L Q R R R V L R R L Y R D L S F S H V E E R L R L A A T G K T A  
D E I K K L H D S L K K R L I R M A Y N E L T Y K H V E E D A L K L I D T S S K I  
S L L A G L P T A I R R R V L R L A I G S I S A A H I E A A F V S D W R G Q Q H T  
R V L Q K P L A L Q R R R V M R Q I L Q Q I S F E H I E K L T A L I N R S Q T D  
R R F R S L H V A L Q R R R M I K L I L N A N D F G Q V E V V A Q A I T A G Y R A  
S A L T A Y P A A R T R A V K L L L G E P S E R H I S A V D R L L F S S A H V  
D A V R E L P A A L R T R F V I A K A A Q Q P S G Y G R L S A A E A L L R R S Q G P V  
K A F L T L H V A L Q R R R V I K L L L N S V D F A A I E S M R L A L G R N A P S  
A P L L E V P P A V R T R V L R R W A T E P K Q R V I A A V D R A L A M E S G T  
D H L V K L P P A V R R V R V L R R A A T D L T A G H V A A V D A L V T G O V G V  
A K L R A L P V A V R R R R V L R A A A G S P S A R H V E E T D R L I T G G G P I  
E G L N A L H P A M R R R R V L R Q A V G Q I S A K Q L A A L E D L L E S G K Q L  
E T V A A Q H P S L R R R R V L H R W L T E P T A R V D A A D A L V R G G K P V  
E K V A P L P I A L Q R R Q L I R L A I R D I E A N H V E A I R S A L L A R G G K T V  
Q G W Q D D L A P A L Q R R R V L R L A A A T A V S F N Q V I K A R A V A R E G G G T V  
V A L D D A P A A I R T R V V R L W L R E P T Q R V I A A V D R L L A V G G Q V  
A Y F F A L H I A L Q R R R V I R K I C R I P S F E G T E K F I F L I D A G K T G  
E G F L K L P S A L K R R Y L R R R A L K D I E S R H I E E I L D A L T K G K R T  
S E F E R Q D J A V K R R L I R K M V E D V E F K H I E E Y I M E F I K G G Q T V  
Q A L S L Q T R A L A R R R M I R L A W E E I T F D H V E D L E R L E K G G P L  
R A L S G H P S A V R R R V L R N W L S E R G V S H I R Q A D A D L V R G G G H  
E G I K D L D J A I Q R R R I F R Q A L T K R D Y K H I R Q A M V E L S E T G N L  
S E I S V L P T A V R R R V L R L A A S D L A A V H I E E L D R L L T G Q G P L

UniRef90\_G3BMR2 D L P G E I R V R K S Y R N L  
UniRef90\_C7R119 Y L P G A I S V R R Q  
UniRef90\_I9KSP2 D L P F E I E A L K S Y N N L  
UniRef90\_E3J7C0 P L P S G V T A R R R G D R I  
UniRef90\_UPI00047D6F50 H L S G T L R A R R E Y G L L  
UniRef90\_G5GS30 E M P Y G W V A H S R Y G V L  
UniRef90\_B6G0G4 N L P R G V F A Y R R A N S I  
UniRef90\_X1GR51 S L P H G L V C W N E Y D  
UniRef90\_R7Y2U6 D L P G H L R A V R R D A L L  
UniRef90\_D9TIT2 K V Y K N L V V E K Q N D S L  
UniRef90\_UPI0003658F2F D L P G V R V V R Q N G  
UniRef90\_UPI0003808CF2 N L P G G L T V T R V Y D R  
UniRef90\_UPI00041EE0EB F L P G G V E V R R E R G R I  
UniRef90\_E4L7Z1 N I  
UniRef90\_F4A001 T L P A D I M A E  
UniRef90\_UPI000477E46A D L P Q D I S V R L N Y N E I  
UniRef90\_UPI0002D54ECE P F P G G A I A R V E G D W I  
UniRef90\_D0L4G5 A I G G D D T A R R E  
UniRef90\_UPI000237A4C6 A L P G D F V L R R  
UniRef90\_K4LLM7 Q L P H G V R L K K G Y D  
UniRef90\_Q2JJ74 D Y P G G H W L E V K G D H L  
UniRef90\_H3SJQ1 T V P G V E F R R E Y D R L  
UniRef90\_Q6AJ19 Q L G S G L R V K K E  
UniRef90\_B4U6A2 K L S K D K S L V V K H G K I  
UniRef90\_L1MVM2 H L A E M Q G G W  
UniRef90\_B8D063 D L P D G V V V I E K S Y D K I  
UniRef90\_T0IGJ8 T L P G G Y I A R K T Y  
UniRef90\_A0A017RTJ0 S L P D D I E C V I I Q Y D  
UniRef90\_I0LDQ7 D L P G G R R V L R R A D R L  
UniRef90\_F6CP10 E L P R G V R A S R Q G Q V L  
UniRef90\_B0CBA2 P F K K Q W V A E V I K P W I  
UniRef90\_UPI00037A6C11 S L P G N V K L L R N S G R I  
UniRef90\_Q83MT2 N L P R L I T A Q R V G N Y I  
UniRef90\_E9SBX1 S V  
UniRef90\_A4J0S2 E M P G A V K V R L T P D L L  
UniRef90\_L8TQF1 Q L P G G V G V Y R  
UniRef90\_X4R096 D L P G A H A S R R A D L L  
UniRef90\_Q8R7K9 D L P F E I E A L K M Y N N L  
UniRef90\_R6QHI8 Q L P H N L R A S R I N N C I  
UniRef90\_D6Y9V7 V L P G K K R V V R R Y  
UniRef90\_W4D9Z8 D L G G G L T C V R Q Y D S I  
UniRef90\_W2EWY2 G L P G G V V V R R C G T L I  
UniRef90\_UPI0004708EDF T L P N D I K A L K D Y D N L  
UniRef90\_E6UI86 S V  
UniRef90\_A9RN39 A L P G N A S V K  
UniRef90\_R6Y401 D L P G G V R A Q  
UniRef90\_V6L417 N L P G R V E V R R Q G G R L  
UniRef90\_C8W3S7 E F P R D V K V V K R Y D  
UniRef90\_A5CP81 D L P G V R V V R K D G  
UniRef90\_UPI0004705CCE D L G G M A V C I R E Y D  
UniRef90\_W4E3Y7 D M G G G Y V C V R Q Y D T I  
UniRef90\_A0A010YGJ2 H L P G G I R A R V R G  
UniRef90\_E7N2T1 D M P H G Y T A V C Q Y G R L  
UniRef90\_UPI00045EC0ED A V P G G G Q V Q R R Y G R L  
UniRef90\_U2SZ60 S M P R G L D A R V E Y G L L  
UniRef90\_UPI0003B3C801 D L P G A S V R R R G G  
UniRef90\_Q6ACP8 S L P G V R V V R Q N G  
UniRef90\_L8MW68 P F K G Q I F A L V D H P W I  
UniRef90\_D5WRL2 R L S G G W R A R R V Y D E L  
UniRef90\_B0TBN4  
UniRef90\_R6J304 Q L P G G  
UniRef90\_G5H4D8 E M Q G G W Y A  
UniRef90\_UPI00037F1F22 D L G G G L Q C V R R E Y D T I  
UniRef90\_K7RZY9 D L P G V R V T R R G H E L I  
UniRef90\_E5WT34 D F P G G L H I V R S Y R  
UniRef90\_UPI00047E2101 T L P R G I L A Y R R K N L I  
UniRef90\_UPI00046F6043 D L G R G I T C I R Q Y N T I  
UniRef90\_F7NH60 I L P G G L R V K K D Y R  
UniRef90\_E0NY99 Q L P H G W R A R L R Y G V L  
UniRef90\_C9KMW7 K L P G G I E A H F T Y D R L  
UniRef90\_L0IEQ9 D L P F E I E V I K S Y N N L  
UniRef90\_UPI0004661632 S L P G G V K V R I T S G R  
UniRef90\_A0ZA38 P F P G G A I A Q V Q G E W I  
UniRef90\_UPI0003682F7D D I G G G W I V A C E Y D  
UniRef90\_R5IXF4 S L P G G F T A R R E Y D R L  
UniRef90\_A1R149 E L P G H V S V Y R  
UniRef90\_UPI000289B78A N L T R N L S F F K E Y D R I  
UniRef90\_L7K551  
UniRef90\_UPI000479318C D L P G G L R A V R R  
UniRef90\_F8K2B4 N L P G G V E A R R G N G R L  
UniRef90\_R5ACQ3 D F P E G L R A E N R Y  
UniRef90\_H0R298 A I G G N V V V R A G  
UniRef90\_X0S5N5 S L P H G L V C Q  
UniRef90\_Q2RM96 T W P G R L S I R A R G  
UniRef90\_M3VJT3 A I G G D S V V E R S G Q T L  
UniRef90\_R5SPD9 S V  
UniRef90\_X1NWS3 S L P G S L V F S I E Y N R  
UniRef90\_UPI00047C1EE8 D I P G G I C V G L Q Y G K I  
UniRef90\_F6DMT8 E L P C G V K A K M S  
UniRef90\_UPI0003769E38 A L P G G Y E L I R A R D T L  
UniRef90\_D9QSX2 Q L P Q G L R L K R S Y N R L  
UniRef90\_C7PWZ4 H L P S A V A A A R R Y G K L

UniRef90\_H5UDZ1  
UniRef90\_UPI0003F9E3EE  
UniRef90\_I3VTV6  
UniRef90\_S9UB00  
UniRef90\_R7D7U9  
UniRef90\_R5YHU5  
UniRef90\_UPI000478D829  
UniRef90\_R6IHR7  
UniRef90\_R5MT08  
UniRef90\_HOQJ14  
UniRef90\_UPI000464B965  
UniRef90\_UPI00036A5135  
UniRef90\_L7LJ56  
UniRef90\_D5X9M1  
UniRef90\_UPI000465D9C4  
UniRef90\_Q181G3  
UniRef90\_E2ZBS7  
UniRef90\_X1EPL0  
UniRef90\_UPI00037C07A4  
UniRef90\_N1V715  
UniRef90\_G7VWV4  
UniRef90\_UPI0004776BF6  
UniRef90\_U4WD66  
UniRef90\_V9GMG6  
UniRef90\_K8GMU7  
UniRef90\_G7H2X2  
UniRef90\_R6GVD3  
UniRef90\_D4LBH6  
UniRef90\_UPI00041A135D  
UniRef90\_G9YGV8  
UniRef90\_UPI00047DF21D  
UniRef90\_K7W5M5  
UniRef90\_D3E770  
UniRef90\_R6CF42  
UniRef90\_UPI00047A8E62  
UniRef90\_A0A015MDR8  
UniRef90\_E8LFP7  
UniRef90\_U2TEJ3  
UniRef90\_L0J463  
UniRef90\_UPI000364474C  
UniRef90\_UPI000416FDC1  
UniRef90\_R6N1F9  
UniRef90\_H6RPW1  
UniRef90\_UPI000381C656  
UniRef90\_UPI000366BD35  
UniRef90\_R6IB45  
UniRef90\_E0QHS3  
UniRef90\_UPI000371D798  
UniRef90\_T0CAN0  
UniRef90\_UPI0003688F18  
UniRef90\_M1P518  
UniRef90\_D5P8R1  
UniRef90\_UPI0004776942  
UniRef90\_I0V3N8  
UniRef90\_R6NHF8  
UniRef90\_F4FHW7  
UniRef90\_UPI00034DA6D9  
UniRef90\_K9PGR1  
UniRef90\_K0B1K9  
UniRef90\_UPI0002D7C9F8  
UniRef90\_C6J5B9  
UniRef90\_L7L3W5  
UniRef90\_A8M813  
UniRef90\_R5JN92  
UniRef90\_K6WQZ1  
UniRef90\_UPI00046F5D52  
UniRef90\_F6EG66  
UniRef90\_UPI00047E565A  
UniRef90\_F5LD76  
UniRef90\_UPI000363A52E  
UniRef90\_R5SCP52  
UniRef90\_UPI0003FBF817  
UniRef90\_Q744A3  
UniRef90\_M1ZHR4  
UniRef90\_U1X2J6  
UniRef90\_UPI00047B0ED7  
UniRef90\_UPI0004707FA8  
UniRef90\_H6MVP1  
UniRef90\_UPI0003B6CA23  
UniRef90\_J4TI27  
UniRef90\_W1SRN7  
UniRef90\_J9RR33  
UniRef90\_UPI0003632B24  
UniRef90\_R6TBA3  
UniRef90\_R5BAB1  
UniRef90\_UPI000371E087  
UniRef90\_UPI0004643A4A  
UniRef90\_UPI0004767A86  
UniRef90\_UPI000363ACE7  
UniRef90\_A1TG49  
UniRef90\_V4J8F2  
UniRef90\_A3DHM8

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

UniRef90\_H5UDZ1 G P L L D A P P A V R T R R R V L R A W L T E P T H R V I S A V V A D L L D T A T A T A  
UniRef90\_UPI0003F9E3EE D G L A E L P R N S I V R T R R R V L R T S A V I E A G A F V H V S D A V D R L L D T M A T T H R V I  
UniRef90\_I3VTV6 D E I L K K L H V N S I V R T R R R V L R L L A L N Q Q I G A F F E A V H V S D S A R V D R L L D T M A T T H R V I  
UniRef90\_S9UB00 N T F L G L H V A I R K Q R R R V L K L L L N Q I G A F F E A V H V S D S A R V D R L L D T M A T T H R V I  
UniRef90\_R7D7U9 D R L A A A E V A I A R R R M L R L A I R M I D M R A V H V E A V L S V A S D L L E A R K S G R R A  
UniRef90\_R5YHU5 Q G L V K L P K A A L R Q R R V L H E T V A E Q L I T S G A H H L M M V V S A S D L L E A R K S G R R A  
UniRef90\_UPI000478D829 G G L V T Q P A A L R Q R R V L C R I V A E Q L I T S G A H H L M M V V S A S D L L E A R K S G R R A  
UniRef90\_R6IHR7 A W L L S L P A A L C S R R I R M M W K K L T S F Q Q T Q Q V I G L V H K G K R S L I  
UniRef90\_R5MT08 E K L S G Y P K A L R R R I L M K F L K D P S Y Q R L J A A E A L T V G R R A K S P I V  
UniRef90\_HOQJ14 S A L T D L P A I R R R R V L A M A A Q Q P S Y Q R L J A A E A L T V G R R A K S P I V  
UniRef90\_UPI000464B965 D A L A S L P D A I R R R R V L R G W L L A L T D K H I V R A V D E L L V T R R Q A G G V I  
UniRef90\_UPI00036A5135 P P L E R A E P S A L R R T R V L R R A A L L E L N A R H V R R A V D D R L L V T G G Q G H I  
UniRef90\_L7LJ56 Q P L R S A P A A L R R T R V L R G W L N D P V Y R V V R A V D D R L L V T G G Q G H I  
UniRef90\_D5X9M1 D R F W E W P R A V L Q R R R I L K A W E A V T Y T N I E N L E E F L K E T G G G Y I V  
UniRef90\_UPI000465D9C4 D A L R A L P P S L I R R R V L R L G G E Q D T S F F R I E D A T E T S L L E D N S G K P V  
UniRef90\_Q181G3 D D F V C L H D A I K V R R V L R H I L G D T S F F R I E D A T E T S L L E D N S G K P V  
UniRef90\_E2ZBS7 P L T D L L H E A L Q R R R V L R L A V Q E P D F F A A V E R I L M S G L L A T S G S K Q I  
UniRef90\_X1EPL0 K D F S N Y P R A S L R R R V L R E A A L Q G F T F Q H Y E N I L D R L L T T K S G Q A H I  
UniRef90\_UPI00037C07A4 P P L E R A E S S L R T R R V L R R A A T D L T A R H V R E L D R L L T T K S G Q A H I  
UniRef90\_N1V715 H A L A E L P A A M K H R R V I A C A A A E P S Y E R K I L J A A E A L L L Q R E A G P V  
UniRef90\_G7VWV4 A S F R K L P V A L Q R R R L V K L L A E N D L S F R K I E T V D R L L T T E Q R W S I  
UniRef90\_UPI0004776BF6 G A L E G E P T A L R R T R V L R Q A A N D L S F A G H H V A V A L L I T T G Q R W I  
UniRef90\_U4WD66 K C L K T F D L A L Q R R R M I P L T L S E W S L Q H V I E A S V L R Q L I N P S A V L  
UniRef90\_V9GMG6 P S F L S L H V A L Q R R R A I K L L L N D A D F F V K I E K L V L Q G I R S G A W R L  
UniRef90\_K8GMU7 Q M L R Q A P I A L Q R R R A I R Q I L H S P N F F E H I E K L V L Q L N G S A W T D  
UniRef90\_G7H2X2 G P L E Q A P A A L R T R R V L H R W L G Q P V V A A V D A L V S D W R S G G Q P V  
UniRef90\_R6GVD3 S G L Q N L H P A M E R R R V L A G F L R E P E A V H L R A R A E A L L A R Q T G G A W K Q  
UniRef90\_D4LBH6 S G L Q N L H P A M E R R R V L A G F L R E P E A V H L R A R A E A L L A R Q T G G A W K Q  
UniRef90\_UPI00041A135D E G L E G L P R A V R T R R V L R M A A G T L A A V H V D A M D R L L V T G Q R R H V  
UniRef90\_G9YGV8 A K A A R L H K A L Q R R R L V R R I C A S D L T A D F D F T E K I F A L M R K G R Q V L  
UniRef90\_UPI00047DF21D K P F L D M P L P L Q R R R G I Q L I L N S L S A V H I E K I T A L I N R S R T D  
UniRef90\_K7W5M5 C L L K K V P L A L Q R R R V M R Q L L Q E P N F F E H I E K I T A L I N R S R T D  
UniRef90\_D3E770 P S F L G L H V A L Q R R R A I K L L L E N T S D F F V K I E A V R E H G I L N D G Q R I  
UniRef90\_R6CF42 E A L A A A H S A L S G R A V M R L L K E T S R E M E K R V R L C T T G Q R I  
UniRef90\_UPI00047A8E62 P S T K D L P G A L R S R R V L K Q W A E S Q L T A E H V E T L D R K L R E T P G P V  
UniRef90\_A0A015MDR8 Q A L L D L P V A L Q R R R L V K L L L E S I S F F E R I R Q Q A A P T T W S F I  
UniRef90\_E8LFP7 T Q L T A L H S A V R R R V L R R A Y E E L S F F E R S Q A L R D S L T T G G K F I  
UniRef90\_U2TEJ3 T P F C A L P L A L Q R R R A L R R L W Q D L A F A H V E A L R M L F L T G K T L  
UniRef90\_L0J463 A R L A S L P E A V R R R R V I R G W L T D K Q R G V D T L V T A W R G S S G P V  
UniRef90\_UPI000364474C A E L L N A G L A V R Q R R A I T L L L R E W E A K H I E A V R Q I R L A A R S S G P I  
UniRef90\_UPI000416FDC1 R A V E G A P V A V R R R R V L R G W L R E L T S D L H L R A V D D L V R G Q G G V I  
UniRef90\_R6N1F9 E D L N K T D L A I K R R R V L R L M L N D I S T Y V A D I S L A D K G Q G V I  
UniRef90\_H6RPW1 R P L E P L A A V R R R R V L R G W L Q A V H L R A V L V T R W R G Q G P V  
UniRef90\_UPI000381C656 E L L A S Y H P A V Q R R E L W R Q V L E K K R F V H V E N L L K L A A E G G R T G  
UniRef90\_UPI000366BD35 E H L S T L A R A I R S R R V L R A A L G S T G A D H V E A L V T S W H G G A L L  
UniRef90\_R6IB45 E A L K T A F A A V S R R R V L R M M W E E L G F E H V E A V L G L K N G K L L  
UniRef90\_E0QHS3 K L L E S M D T A I K T R R V I R L A I Y D L N I E H I K D I L S L L K K G K M I  
UniRef90\_UPI000371D798 S V F N E L H V A L Q R R R L I K L L L N E S D S F F V K I E A V R Q I R Q G T P S T W S L  
UniRef90\_T0CAN0 K A L I A A H V S L Q R R R L I K L L L N E S D S F F V K I E A V R H L A E T D G S V  
UniRef90\_UPI0003688F18 A R L A A L A A P I R T R R V I R T W A A D L T H Q H I L J A V D A L A E T G Q G P I  
UniRef90\_M1P518 T G F L Q Q P P G A I R R R R V L D R L C S K P S Y K K I K S L L A A E T G Q K E I  
UniRef90\_D5P8R1 Q A L A A L P P R V R R R R V L R G W L T D K Q R G V D A L V T A W R G Q G G V  
UniRef90\_UPI0004776942 R T L Q Q A P V A L Q R R R V M R Q L L Q A P N F E Q I E K L T A L T N R S Q T D  
UniRef90\_I0V3N8 E V L A T V P S L R R R R V L R T W L R E L T D A H L R S V D E L V E R T G G S A  
UniRef90\_R6NHF8 Q V L A E A H P S V A R R R A L A M T L E E P E R E A V E R L L S L L V E R T G G S A  
UniRef90\_F4FHW7 K T L A D L A G A V R G R V L R A W A H E L S H R H I A A L D A L V T G Q G A A  
UniRef90\_UPI00034DA6D9 K L L K T A P L A L Q R R R V M R Q V L Q A P N F E H I E K L T A L I N R S Q T D  
UniRef90\_K9PGR1 L Q K A A L A L Q R R R V M R Q V L Q P S F F E H I E K L T A L I N R S Q T D  
UniRef90\_K0B1K9 E K L H S L H Q S I K T R V I R Y A I E R H G K H I K D I L N L V S T G K K I  
UniRef90\_UPI0002D7C9F8 R L F Q K A P V A L Q R R R V M R Q L L Q S P N F E H I E K I R Q G T P T T W S L  
UniRef90\_C6J5B9 P L F S G L H V A L Q R R R V L K L L L E D R D F V K V E A I R Q G T P T T W S L  
UniRef90\_L7L3W5 A P L H D L P R A V R T R V I R R W L T E P T H R V I G A V D R L L V V G P A A  
UniRef90\_A8M813 G G L A G L H A V R G R V L H V W A R E L S H R H V D A L E A L L V T G G S G A A  
UniRef90\_R5JN92 D Q V R D Q H E A V R S R M V I L A I Q D F D S K K H F D D V L G L L D T D S K Q I  
UniRef90\_K6WQZ1 G P L Q D V P R A V R T R V I R R W L T E P T N R V I A A V D R L L E N G G A Q V L  
UniRef90\_UPI00046F5D52 A L E T G L P S A L Q R R R L I K L L L N S L N D G F P K I E A V D R R G T P T V W S P  
UniRef90\_F6EG66 A V L S E A P A A T R R R R A I R L L W L D N G A R Q L R A I D A L V T R T G G P V  
UniRef90\_UPI00047E565A D D V A A L P T A L R R R R V L R G W L R A P D L Q H L G A V D A L L T R Q G G R V  
UniRef90\_F5LD76 G D F V H L H V A L Q R R R L I K L L L E N V D Y A R L E A T R T A A V Q D S P S  
UniRef90\_UPI000363A52E K T F C N T H V A L Q R R R L I K L L L E Q I D F D V I D T L R N A A A R E H P S  
UniRef90\_R5SCP52 S K L L G L P P Y L R K R T L Y L L L S E L T S E H V A L L E K L L E G S H S V  
UniRef90\_UPI0003FBF817 D A L D G R P D A L R R R R V L R R W L V I E P G H R T V S A V D A L L V H G Q  
UniRef90\_Q744A3 A A L A G L D A P V R R R R V I R A W L J A T D K Q I R S G V D N L V T  
UniRef90\_M1ZHR4 A K W R E T P F P L Q R R R A I K L I C E E V P Y F H V E A I R K I F D H P K E W  
UniRef90\_U1X2J6 I T I R Q H H L A L Q R R R M I K L L L K E I G Y A R H I E N I R Q L I H P A A C T  
UniRef90\_UPI00047B0ED7 R T L E V Q P A A I R R R R V I A R A C A S V S A R H I E A V M R I A E G G A V L  
UniRef90\_UPI0004707FA8 E E W R H L H E A L R R R R V L K N L L I E F S Y R H V D A V M R I A E G G A V L  
UniRef90\_H6MVP1 E R V R D L A A A V R R R V L R R W L T E P T S R V I G A S D A L V  
UniRef90\_UPI0003B6CA23 T A L T D Q P P A L R R R R V I R Q A A G A L A V H V C S L D Q L V T G Q G P I  
UniRef90\_J4TI27 Q A L A T L D P P V R R R R V I R A W L T D K Q I R G V D A L V T G W H G Q G G V  
UniRef90\_W1SRN7 K R F L E V P L P L Q R R R G I Q L L L N S L T S A I H I D Q V F F L T H S S G K L  
UniRef90\_J9RR33 G P L R D A P L A I R T R A L R A W L T E P T H R V V T A V A G L L D S A A V A  
UniRef90\_UPI0003632B24 E K Y I N L H K S L K S R I R L V L G D T N F K H I E E V L G L E C E N K K I  
UniRef90\_R6TBA3 L C L R Q L H E S V R R R A I M H L L E K E V S H G D S I E D S I D R L L T D V G K A  
UniRef90\_R5BAB1 A A L S K L H E S V R R R A I M H L L E K E V S H G D S I E D S I D R L L T D V G K A  
UniRef90\_UPI000371E087 N L F N S Q H P A L Q K R I R Q A L R S L S V R H V L Q I M K L A N G V K E I  
UniRef90\_UPI0004643A4A E E L F V E E R A I T R V I R K S L S E Y D F F H I K E V I E L K D M G K R I  
UniRef90\_UPI0004767A86 T V L S T L P T P L Q R R R V I H L W A A S E L T A I H T E A V F N L F H P S G R L  
UniRef90\_UPI000363ACE7 P A F K R A P L P L Q R R R G I H L L L K E L T A I H T E A V F N L F H P S G R L  
UniRef90\_A1TG49 A V L T P L P A A L R R R V I R G W L N G L T D K Q I R A V D D L V H G Q G G V  
UniRef90\_V4J8F2 H G L A K E P L S L Q R R R V I H H F D H T P T F A H I R R R L V K G G G E L  
UniRef90\_A3DHM8 N L L K E C H L A A R K R I I R N S I K Q I K G D H I D S I T D L I E N G K T L

UniRef90\_H5UDZ1 D  
 UniRef90\_UPI0003F9E3EE D L P G G L R A F R R Y G K L  
 UniRef90\_I3VTV6 D L P F E I E V I K S Y N N L  
 UniRef90\_S9UB00 D V A Q D I V F A R E Y E R L  
 UniRef90\_R7D7U9 T L P G G I D A R M E  
 UniRef90\_R5YHU5 D L P Y G V V A K R E Y D S I  
 UniRef90\_UPI000478D829 D L P G I R V E R A E G R L L  
 UniRef90\_R6IHR7 M L P G G  
 UniRef90\_R5MT08 T L P G G K I I L  
 UniRef90\_H0QJ4 E L P G G V S V Y R  
 UniRef90\_UPI000464B965 A V P G G W P R E R  
 UniRef90\_UPI00036A5135 D L P G G V R G R R T A G R I  
 UniRef90\_L7LJ56 A V G G D E R A R  
 UniRef90\_D5X9M1 E L P K G I V A Q K T Y N  
 UniRef90\_UPI000465D9C4 Q L G G F I S V H R Q V R  
 UniRef90\_Q181G3 T L P R N I F V Y R K K D S I  
 UniRef90\_E2ZBS7 R F K D L I V Y R R G R G L  
 UniRef90\_X1EPL0 D L P H N L I V Q K D Y  
 UniRef90\_UPI00037C07A4 D L P G G V R G R R V A G R I  
 UniRef90\_N1V7I5 Q L A G K V S V Y R K V R  
 UniRef90\_G7VWV4 D L G G G A V G V R E Y D  
 UniRef90\_UPI0004776BF6 D L P Q G V R A V R R A G F L  
 UniRef90\_U4WD66 H L P S H I F V E R V Y E  
 UniRef90\_V9GMG6 D L G H G L T C V R E Y  
 UniRef90\_K8GMU7 P F P G G M L A Q V K G D W I  
 UniRef90\_G7H2X2 A V G G D Q S S R V  
 UniRef90\_R6GVD3 A F P G G L L L G R Q Y E R L  
 UniRef90\_D4LBH6 N I A A G V Y L  
 UniRef90\_UPI00041A135D D L P G R L R A V R R Y G K L  
 UniRef90\_G9YGV8 H M K E I T V Y R S G A Y L  
 UniRef90\_UPI00047DF21D N F P N G L M V I R S Y E T I  
 UniRef90\_K7W5M5 P F P G D W T A I V I Q G D W I  
 UniRef90\_D3E770 D L G D G I T C V R E Y G V I  
 UniRef90\_R6CF42 S A G G G V E A  
 UniRef90\_UPI00047A8E62 D L P G R V V V S K V G D S L  
 UniRef90\_A0A015MDR8 D A G Y G I R C L R E Y E T L  
 UniRef90\_E8LFP7 Q L P Q G L  
 UniRef90\_U2TEJ3 D L P H G R R A E V S Y G R L  
 UniRef90\_L0J463 A V G S P L R S Q R  
 UniRef90\_UPI000364474C D L P G G I R A W R E Y G F L  
 UniRef90\_UPI000416FDC1 W L P G G L V V E R A H G R L  
 UniRef90\_R6N1F9 N L P Y G L V A K N E Y G K I  
 UniRef90\_H6RPW1 D L P G G A V A R A S G  
 UniRef90\_UPI000381C656 A L P G G W Q V R K D Y D C L  
 UniRef90\_UPI000366BD35 H L P G G V K V E R  
 UniRef90\_R6IB45 A L P G  
 UniRef90\_E0QHS3 H L P K Y L K V F K Q G D K L  
 UniRef90\_UPI000371D798 D L G G G I Q C L R E Y G I  
 UniRef90\_T0CAN0 Q L P H G V E A W R S Y E N L  
 UniRef90\_UPI0003688F18 P L P G N V S V T R R N G R L  
 UniRef90\_M1P5I8 H L S N G L R A V R E A E I I  
 UniRef90\_D5P8R1 A V G S A L R D E R  
 UniRef90\_UPI0004776942 P F P G G A I A Q V Q D D W I  
 UniRef90\_I0V3N8 F L P G G V E A R R A H G K L  
 UniRef90\_R6NHF8 Q I N G G V T V R V R H G L I  
 UniRef90\_F4FHW7 Y L P G G L R V V R Q A D R L  
 UniRef90\_UPI00034DA6D9 P F P G G A I A L V Q G D D Y I  
 UniRef90\_K9PGR1 P F P G G A I A Q V E G D W I  
 UniRef90\_K0B1K9 N I I N N I V V K I S Y N N L  
 UniRef90\_UPI0002D7C9F8 P F P G G S I A F V D D D W I  
 UniRef90\_C6J5B9 D L G G G V K C V R E Y D R I  
 UniRef90\_L7L3W5 G G A Q V A I G G D  
 UniRef90\_A8M8I3 Y L P G G L R V R R A G R  
 UniRef90\_R5JN92 D L P R G L I V Y R K K D Y L  
 UniRef90\_K6WQZ1 A I G G D T V V E R S G Q T L L  
 UniRef90\_UPI00046F5D52 N M G G S L I C M R Q Y D T I  
 UniRef90\_F6EG66 A V P N G G S G Q A E G A R L  
 UniRef90\_UPI00047E565A D L P G G A V V R T S G R  
 UniRef90\_F5LD76 N L T G R I A L I R E Y E R I  
 UniRef90\_UPI000363A52E D V S R D V A F V R E Y D R L  
 UniRef90\_R5SCP52 D F P G G I R A E K S Y D E L  
 UniRef90\_UPI0003FBF817 A V G G D L V V E R V G  
 UniRef90\_Q744A3  
 UniRef90\_M1ZHR4 N L P W G I T V I A R Y  
 UniRef90\_U1X2J6 H L P G G V Q V H R E Y Q R V  
 UniRef90\_UPI00047B0ED7 S L P S G Y Q A F R Q K H V I  
 UniRef90\_UPI0004707FA8 D M P F R V R V G R E Y E T L  
 UniRef90\_H6MVP1  
 UniRef90\_UPI0003B6CA23 H L P G A L E A V R E Y G R L  
 UniRef90\_J4TI27 A V G S S L S D E R  
 UniRef90\_W1SRN7 D F P N G L K V I R S Y  
 UniRef90\_J9RR33 D  
 UniRef90\_UPI0003632B24 V L P R G L F V Y R Q K N K L  
 UniRef90\_R6TBA3 N V K G G V F A  
 UniRef90\_R5BAB1 E I P G  
 UniRef90\_UPI000371E087 H L P G F L T A V C E N G K L  
 UniRef90\_UPI0004643A4A D L P N N I F A E N I Y G K I  
 UniRef90\_UPI0004767A86 A L P G R V F V E R R D G Y L  
 UniRef90\_UPI000363ACE7 D L P G G L K V L R N Y E R  
 UniRef90\_A1TG49 A V P G G L A R E R  
 UniRef90\_V4J8F2 H L P G R L R A  
 UniRef90\_A3DHM8 H L P H G V R A V K S Y N T L

UniRef90\_UPI00036DA17E 1 GV S E A L A R T A 10 T A D Q L R R D D G Y V L 20 D E L A A A L Q R E A A R P A G L D T 40  
UniRef90\_MOQI58 GV A E A L A R T G D A L R R D D L D A L L D E I A A E E L F T Q A V A G S A G L A S V  
UniRef90\_K9CM19 P S I G A A L T R L S A L A Q E E D D F L S G L A A D A L A Q A D S A E T A G L S Q  
UniRef90\_UPI0004027BA1 P Q A A R M A A R F A E V V Q E E D A W L E A E A Q R A L A Q C A W E K T K I L D R  
UniRef90\_K9TU27  
UniRef90\_A2CI51 P Q I D K S T I A Q L A E L L H A E D T V Y L M E N I A A D L I R R K A H K K D D A L L D D T  
UniRef90\_A4F6R8 GV V A S A L A R T A Q T A V Q L R A E D A D A Y L N G E S Q R L F Q S V D N G F Q L V L A R R  
UniRef90\_X8H3U9 P N V V D A L A C R T L G D I L A Q V D E A D A Y L N G E S Q R L F Q S V D N G F Q L V L A R R  
UniRef90\_UPI0003755FC9 E Q I V K A L N R R T A D L R A D E S D Y L E S Q E A S E Q L K R T V K G G Y Q L A R R  
UniRef90\_F6B4J4 P G L V P I L S R R M T K Q I R A D E S M F L E S J A V Q A Y S R V V A A V V L H R  
UniRef90\_R6RAI8 P S I E E A F L R F S K S M K E L D E F L E K S A Q T A L S E S K I E N G Y S C  
UniRef90\_F1T6P3 P H L T E R I C S T S D I L R D E D N N Y M D N G V A R R H L E S L I R R K T L S D A  
UniRef90\_B8FMB5 P A I V P G L N R L S N I L R E E H L W M D G M A R R D F L E S D I K N G L E L S L  
UniRef90\_UPI0003640E3F P G V S N A L A R T A S V L N A D A D F L D E Q A A E Y F R R A R L D Q A L L D C  
UniRef90\_D1BDA3 P G V V E A L A R T A D Q L D E E S D T A L G T D R A A D L L E S A R R A G L D D V  
UniRef90\_A0LHQ5 P R L V R T L S R H A R L V A D E E S W W S L D R M R A M W P E I S G R V A G L D R  
UniRef90\_L1PJK1 P R L V P A L A R T A E L S A A D D E A L D D Q W A N Q V W T C A W E A G I L K I  
UniRef90\_W2EAX8 E H L P E A L N R L A E M V K G E D D Y M D Q A R R E M S S L V D S Y S F N G R A  
UniRef90\_F2N6X8 N L V R T V A A S C D I L L A R E D A D A Y M Q K J A A T A L R S C T R R S E G L L A  
UniRef90\_X5DV52 E H V G D A L A R S A S C D I L L A R E D A D A Y M Q K J A A T A L R S C T R R S E G L L A  
UniRef90\_A4AFQ5 P G I R D A L V R T A D Q A R E D A E A L E E M A E D L A E I S E A G T S L P V  
UniRef90\_V9HK48 N I K Q L S R T A N I R E D A Y N F I E N V A K E N Y E L I K N G L E T V L D I  
UniRef90\_H5TGG9 G V V I Q A L A R T A T A L Q S D V A A L D E I A D D A F S R S A R G G G L D V  
UniRef90\_D2S794 G V A P A L A R T A D L R E D D L D A L D E L A A A E L A R L A G A G E V E L L A A  
UniRef90\_G8M070 S L V K S I L D R M S R L L K E D D M D F I D G K V R K A Y R K E N G A D E L L  
UniRef90\_W7B9T1 P R V A E H F A R F S S E L Q E D M A F L D E L A L Q K F V K F S A G V E L Q I  
UniRef90\_L0EJA1 P N V S A S L V R L A E I S R A E D D F L T R E A E R A M A G L V R R E A M E R  
UniRef90\_UPI00047BF926 E G I I D S T C R M A N L M E V D G E Y L N E C A K R S Y K E V L E E R L N I  
UniRef90\_UPI0003B57EC8 P H V Q K A V C T L S D L V R E E E K V W S E W V E D A L G K V L L E R G L D D T  
UniRef90\_A0R594 G V A E A L A R T A T A L R E D T E T L D E I A R Q A L E S A R T P P G S L D T  
UniRef90\_Q4JXM9 E H I G A N M A R T A R M L R E D V E L L D E I A G R E L Q A A E E G A S L A V C  
UniRef90\_K0UTF1 G V A E A L A R T A T A L R E D T D A L D D I A A A A V V P A G E A G L A V  
UniRef90\_X5L657 N V A E A L A R T A T A L R E D T E T L D A L A A E A L T G A R S E G G L D P  
UniRef90\_D7CIR2 P N I V A S L C Q L A T V A R D E D M V L E E M A V K A F K E I A R P D V L N L  
UniRef90\_X1J1T6 Q I S K I L L Q M S K N L R E D A D F I R K K G E K E F G K V L R K E R L A R  
UniRef90\_R4M1P2 G V V I G N L A R T A S L L A T D A D F L D S L A A S A L T D A L D E G G L A V  
UniRef90\_H1CZV4 P S L V T G L T H M A S L L R E D A D E D F M E E E A K A F R Q R G R L L A Y P  
UniRef90\_G0HBX7 P R V D A L T R S A R M L R E D A D L L D D Q A A G A L E S V V P G D Q L P V  
UniRef90\_S7VYE2 P G I R E A L A R T A D Q A R E D A E A L H F A E E M V E D L A D G E L S P V  
UniRef90\_R6AQS7 S C E K V I C R N A K L N E D E K Y L N G V A K E A Y L N A K T E N G V L D A  
UniRef90\_UPI000372F85B P G V A E A L A R T A E L L A R A D A D L L D E L A A E H A E A G A E G L S C  
UniRef90\_T2RCN2 N V V E S I C R M G N N L K L D S E Y L E Q E G I N K F S E I K E Q V E R L  
UniRef90\_K9R633  
UniRef90\_UPI000368B915 P E L R E A L C R L G E M A S Q E E D D L L Q S Q T E Q C Y K R L V R P E S M D R  
UniRef90\_Q01QT2 P A L V E T L A R T A E F A R A E E A Y W A G E I D R L A E S G L A R G D G L T R  
UniRef90\_R4MDU6 G V A E A L A R T A T A L R E D T D I D T I A A Q A L P G A A R G D S T  
UniRef90\_T4W064 N V T J E S I C R M G N N L K L D N D Y I E E E G N K K F K E V N T S V I E I L  
UniRef90\_U5QJ7 P Q I E A A L V Q T A E V L R A E S D C L E A L A P L Y A S L I D N Q Q L N R  
UniRef90\_E6TSE5 P S L H K T F Q R Q S E I L S T E E N F L Q S L A K M E V E K A I D E C I S N  
UniRef90\_R6I8A9 F E E N A S H F S Q N A A L D E D F L E C E T K S L L A S A K K D G G F S C  
UniRef90\_UPI00018507EA P K V H E H F L R F S K E Q R E D D D Y L W E L T S L N V K K C T N R V E L Q L  
UniRef90\_G6FNT5  
UniRef90\_B4D0P9 I R R S I W R S A E I L R A E D D L F A D L L G N T P P E L S V  
UniRef90\_I3EC51 P Q V H E H F Q R F S E D L E C D E K Y L Q E L T V J E K M N T V I D R V I T I D L  
UniRef90\_E8RG38 P G I R Q A L K T A A N L R E D E D L L Q L L A A R W E A V V T I E R L D R  
UniRef90\_A0A010NQZ6 S I R E S L A R T A Q I A A E D A D Y L D Q Q A K D R F A Q L L H D P G M E L  
UniRef90\_I4BQ72 G V A E A L A R T A T A L R E D T D T L D A M A E E F L A G A G A G R L Q P  
UniRef90\_F4XMA4  
UniRef90\_UPI00042832E5 P G V P A A L A R T A D Q L R E D L T A L D A I A A D A L L K A T V G D D L D V  
UniRef90\_Q1NNTV3 N I V G D T L R R A T E I L L A R D E E E L L A Q Q A T A A Y R Q A R Q P G G L D L  
UniRef90\_S0EYF3 I G Q D A L R R M A T E L L A A D N E V L E S L A R E A K L K E L A E T P G A L S V  
UniRef90\_M8CUV1 V H E H V Q Q F S E I V S E D E A F L E S Q L T K E K L K H V M N E Q R V D V  
UniRef90\_R6A5R3 S V C K T I G A A C E I L G D E D A F L S Q L S A Q A F R S C L R K E V L D A  
UniRef90\_R9BXR8 A K H F Q R F S E E L A D D E A Y L M E Q A E L V E K R E Q E A V D I  
UniRef90\_M4RSZ3 P E I V R H L A Q Y T D I A A R D R D Y L E S K A L V A Y D S V V T P E S L D A  
UniRef90\_R5AGZ5 P R L R E T L C H T A S T A L A E E E A Y L Q S V A D K A K R K A E A Q G G Y D R  
UniRef90\_D6YZR7 P S F E Q A V G R M T H L L A E D E D C L S S L A A Q A V R E A R T P D G W R I  
UniRef90\_J1H0M7 P Q A H V H F Q R L R S E W K Q D D E T F L L Q L A E Q S L S E A T Q K M T I D R  
UniRef90\_UPI00034A9B75 N I K D T M L R L R S I V S E V S A Y L N Q E T E L L F K E V T R R E K I D L  
UniRef90\_X1SM40 E H L L Q L A E A A R I D D Q C L N R L S R D Y L E E V I N K I V I A R  
UniRef90\_UPI00030BC213 G V A E A L S R T A G A L R E D V D A L D G M A R D V L D G L A G E T L D T  
UniRef90\_X5LA45 P R M Q H F F Q Q Y A D W L A D E R A Y L E R R A E Q K W K Q Q I H S V T I S V  
UniRef90\_UPI00040DE682 P G V A E A L A R T A D Q L R E D D E M I E E V I E D I C E P A E A G I A V S V  
UniRef90\_UPI0003B74CC3 P Q V E Q A I A Q T A E L L Q A E V D Y L E A Q A Q A L L A Q V S T E R G L N R  
UniRef90\_R5XX92 P S L E K A F L R L I S N A E E N D F M D G F S R E L L G K V R L A E G Y D A  
UniRef90\_UPI00031A35C4 P G V A R A L A R T A S V L G A D A D Y L E E Q A A A A Y D D A R V Q V E L D G  
UniRef90\_UPI0003B70A84 N V K E C L K R T A L L V A E E E F L G C L A L E R L A K Y G R L E G L S V  
UniRef90\_W7T0S6 G V A D A L A R T A A Q L R E D N D A L D A I A A E M L V G D P E E L D T  
UniRef90\_E0I8Y9 P Q L P V S L N R L A E L A S A E D Q W M N D E A S R V F K Q L V T D C E L H R  
UniRef90\_D1VTP3 P P I V N T L N R L S L N A R E E D K I Y L D T I E K E Y R N S F K D D D F N V  
UniRef90\_A3THT6 P G I V A A L G R S A D Q L R E D A D F L D S L A D D A V A A L G P G P V E V  
UniRef90\_UPI0003794875 P G I A A A L A R T A T M L R E D A D T L D G L S A G L Y P G A A G P E L S V  
UniRef90\_W4RSU7 F H E H F Q R F S E E L A Q M D E D Y L T E L T S K E L N K V M K K E G V C  
UniRef90\_C0E9D3 R F E R H A A A L M D S L A Q M D E Q N Y L E Q Q A S A Y E R A E R D G R L D A  
UniRef90\_D5USC8 G V A Q A L A R T A A S L R D D N D A L D A L T P A P S G D E L P V  
UniRef90\_UPI000372DF1B P V M P A A L C R S A E L I G D E H D F I N E S A K M L W K D I V R E L V L N R  
UniRef90\_UPI0003B2F035 P G V V A G L A R T A E L L Q D D A L D T T A G T A Y L A L G P P P W A V  
UniRef90\_G1WL13 N L E K T V G A A C D I L G D E D A F M S Q L A S Q A F R S C V R R Q V L D A  
UniRef90\_Q1ACK8 N L D R S I A Q F A E I L H S E S L F L E T L T Q I L R N K I K N Q K I L D I  
UniRef90\_S7ULF1 P R I S H T I A N R L A D I L R A E E E W L D P L V R E M F R C V D S V V L S V  
UniRef90\_A9WUR6 P G I A E S F Y R S A S I L A Q D A D F L D Q L A Q A E F D R I A E Q V L S E

UniRef90\_UPI00036DA17E A T L L P Q P A A I R R R V I R S W L 60 R A V N D V Q V R A I D R L V T G Q G G V 80  
UniRef90\_MQI58 G D L M S A P R A L I W T R R R V L R R W L R E P T S A V V G A V D A L L T A G G G E V  
UniRef90\_K9CM19 A A F L Q T L H A R P L Q R R R I V K L L Y L Q N D W S L T H I E D A M R A Q L L A T A K Q S R A  
UniRef90\_UPI0004027BA1 P A F L Q L S L A R P L Q R R R I V K L L Y L Q N D W S L T H I E D A M R A Q L L A T A K Q S R A  
UniRef90\_K9TU27 R L T Q T A H I A L L Q R R R V M R Q Q L L Q Q P N F T E Q I E K L M L A L L I N A G T Q T D  
UniRef90\_A2C151 S L L K T P L A L L Q R R R V L R G W F L Y R H F T F T E I L E R A L R L L  
UniRef90\_A4F6R8 A A L S A G P P A V R R R R V L R G W L R E V S D A H L R E R A D A L V K G Q G P H  
UniRef90\_X8H3U9 R R M R A L P L A M Q R R R L W Q L M I P S V S L A H Q E Q L A H L I R T G  
UniRef90\_UPI0003755FC9 T D L T N T Q P V L A L L Q R R R F I K L L L S S F D Y E K I V E A L I R  
UniRef90\_F6B4J4 Q K L L A H Q P T V M A R R R V L R V A W Q Q D L T F D H I E E A L I N H L K G G G P F  
UniRef90\_R6RAI8 E K L K K L D K P T L A R R T I E I L C N K E N I E H I E E L I E K A I K A N S G S G A V L  
UniRef90\_F1T6P3 L R L S S E D V A L A R R R M V L R L A L M Q L E D T A H I E A I L R C Y A A S G S Q V L  
UniRef90\_B8FMB5 V H L V K Q P L A L Q R R R V L L Q A M A E T S W T H V H E A D V L K L A K S G A G S P L L  
UniRef90\_UPI0003640E3F H A L Q A A P A A M R R R R M L A Q A C D T P T F E R V L S A V L E E F A L G A G S P L L  
UniRef90\_D1BDA3 A A V R E Q A V P A V R R R R C L R L A A A G E R L L S T R A H V L L G L D G L L T A T G G K E I  
UniRef90\_A0LHQ5 E A L R T L H P A L Q R R R V L R H A V E R L L A H L C G R L A A S G A G S P L L  
UniRef90\_L1PJK1 E H L Q Q I P E A V L Q M R R V L H R A L G A P S Y V L H V L Q E A R A L I N G Q G P I L I  
UniRef90\_W2EAX8 T A F L S L H L A L R R R R V I K L L L E K I D D M D I T V E Q R V L E C V I A H A S N G V R I  
UniRef90\_F2N6X8 D R L A A T Q I A L A R R R M V L R L A V K R I L L A V Q Q R V L E C V I A H A S N G V R I  
UniRef90\_X5DV52 G A V A G R P A P L R R R R V L R Q W L G A R T S R H L L E A L D A L V I A H G Q G G A V I  
UniRef90\_A4AFQ5 R A L A A N P A S I K R R R V L R L A V A S L D S R T H T L E I A R L V T G G Q G G A V I  
UniRef90\_V9HK48 E L L K N T D K S I K R R R V L R I L L K D L D T V H I L N D L E L M D N G G K M I  
UniRef90\_H5TGG9 D S V A R L P D A V R T R V V R R W L T E P T T R V I E A A D D V V R R G G Q G V V  
UniRef90\_D2S794 R E L G A L P A A L R R R R V L R G W L Q A V V H L R A V E E K I L E M I N S S S A S I  
UniRef90\_G8M070 R K I K K M H I A I K R R R V L R G K A I E E V E S V I E E K I L E M I N S S S A S I  
UniRef90\_W7B9T1 S G V K S A A F P L Q R R R L I H L L L N E E V S A K H V I D D I L A L V K S S A S I  
UniRef90\_L0EJA1 G A F L S L H V A L R R R R V I T L L L G S I P E F E R I D A S I R E A A A S T G K T I  
UniRef90\_UPI00047BF926 Y K F L S L H N A I K G R R V L R H A L E C I F E R H I R S I R E L V A E S T G K T I  
UniRef90\_UPI0003B57EC8 S S F L H L P I A L Q R R R V V K L L L S Y V S L D A V E K V R K L V A D G G S S S  
UniRef90\_A0R594 E V L A G L P G A V R R R R V L R A W L T D L T D V Q I N G V D R L V T G Q Q G G A V  
UniRef90\_Q4JXM9 T E L Q Q Q P A A L R R R R V L R Q W L A D K T S A H L N A I D A L V T G Q Q G G A  
UniRef90\_K0UTF1 A D L A P L P T A V R R R R V I R G W L L E L T D R Q I R A V D A L V T G Q Q G G V  
UniRef90\_X5L657 A Q L A P V L P D A L Q R R R V I R A W L L D L D T D T R A V D R L V T G Q Q G G V  
UniRef90\_D7CIR2 E T M Q V L P D A V L Q R R R V I L L A L K Q L G G E Q V Q S V L E L A Q K A G S I  
UniRef90\_X1J1T6 E K L F R L H P A L Q K R R V I R R L K E I G S D H L D S V L D L K R G T K Q L  
UniRef90\_R4M1P2 P A L A K L H P A L L G R R V I H A W C A A L S H R H V A R A L E A M I H G G H A  
UniRef90\_H1CZV4 H R L Q A L H P A M Q R R R L I R R A V H T P D A E G V I A R M R K L A L E G G R K  
UniRef90\_G0HBX7 T V L A D R P A P L R R R R M L R D W L A S V H L V R I D A L V A D W H G Q G P V  
UniRef90\_S7VYE2 R A L A A N P A A L R R R R V L R A V L V S L S R T H T L E A V A R L L T E G G G P I  
UniRef90\_R6AQS7 E K L L H L P V P I K S R A V I M H M L R E N G V Q I E A L M K L L L E G G A K I  
UniRef90\_UPI000372F85B R R L A D L D A A L R S R V L R A W L R E V T A S G V E A A V S E L L V H G Q R W I  
UniRef90\_T2RCN2 D K Y L N F H K A I K T R R I R N L I G N D T N F K H I E D V L D L E D D S K T L  
UniRef90\_K9R633 Q I L R K A P L A L Q R R R T I R Q I L N A P F E H I E K L V G L I N R S Q K T D  
UniRef90\_UPI000368B915 Q D L L G L H V A L Q R R R L I K L L L D S T S Y E R V E A M R M A V Q T T W R T  
UniRef90\_Q01QT2 E S L K A L S L A V R R R R V I R R A I Q M V D F G Q I V E R V V E L A T G R  
UniRef90\_R4MDU6 S A L T A L P D A V R R R R V L R G W L J A L T D R Q I R A V D R L V T G Q Q G G A  
UniRef90\_T4W064 D K Y I D L H K A I K S R R I R N L I G D T N F K H I E D V F D L E N E N K K L  
UniRef90\_U5QJ7 R Q L A L L P L A L Q R R R V A R H W L A T P N F D Q I R A V A L C L I N H T R T A  
UniRef90\_E6TSE5 Q R L L Q M P T T L Q R R R A L H L L L N E I T V H H F T D S I L E L I K K S G M L  
UniRef90\_R618A9 E A L L S A H P A I R R R R A L L G A V K N V D F K T V N V V E N I L Q G G G K I  
UniRef90\_UPI00018507EA D A Y R S M P I A L Q R R R G I H L L L N T L S A I H I D D V L D L I H P K S Q S T D  
UniRef90\_G6FNT5 R V L Q K A P I A L Q R R R V M R Q V L Q Q P T F E Q I E K L T A L I N K S Q T D  
UniRef90\_B4D0P9 P A L A A E P I A I Q R R R L R A W L A D T G F E E V E A V R A L L K G G A K A  
UniRef90\_I3EC51 D A F R S M P M P L Q R R R G I Q L L L V S L S A V H I D H V E S L L H P S G T L  
UniRef90\_E8RG38 S P F R G L P P A L Q R R R V R E R L L W T L G Y D H I J A V L E A A R T G S E L  
UniRef90\_A0A010NQZ6 P A L L A V P P A I R R R R V I A L A V V A P S F E R I M A V E K L L G K A G P I  
UniRef90\_I4BQ72 A T L A P L P P A L R R R R V I R G W L L A L T D F K Q I R A V D A L V  
UniRef90\_F4XMA4 L V L Q Q A P L A L Q R R R V I R G W L Q E L S F E Q I E A V T G L I A A S R T S  
UniRef90\_UPI00042832E5 A E L T T L H P A V R R R R V L R S W L A E L T D A H L R A A D T L V H G Q R G I  
UniRef90\_Q1NTV3 A V E S A Q P R A L R R R R L L E K A L W E P L T R Q I E A F L L Q G A A K P G I A  
UniRef90\_S0EYF3 E R L R A L P I G L Q R R R V L R Q A L Q D V D F A T I E A F L E  
UniRef90\_M8CUV1 P S F M R M P K P L Q R R R G I Q L L L N T L S S I H I E Q A L R F F E R S G M L  
UniRef90\_R6A5R3 R R L A A E V V I A R R R V R L A I A R P E M R H V I E R Q V L S C L V A E S S G S V  
UniRef90\_R9BXR8 N R F L S A I A I P L Q R R R C I Q L I L A S L S A L H T E Q V M M I L I H S S G N I  
UniRef90\_M4RSZ3 K A M F S L P A A I R R R V I A M V C A A A S Q H I E S T E R L I L H G Q G V V  
UniRef90\_R5AGZ5 N A L R C L P R A V Q R R R V L L T L L R E T R R K D V E R L E L L A G A V C L  
UniRef90\_D6YZR7 P F F A A Q P R A L Q R R R L E M A L L E P A G R Q L L H G A D R G G K G  
UniRef90\_J1H0M7 A P L S G L P P I L S R A L R Q I A E E L T R E R T E A A M R L A G S G K I  
UniRef90\_UPI00034A9B75 V L F L T S L P L A L Q R R R M I H L L L N Y H T S I H I E R L E L N L N G S K E I  
UniRef90\_X1SM40 K K F T S L P L A L Q R R R I R K S I E S T F R H N N E L N L T E G E K E I  
UniRef90\_UPI00030BC213 K K L Q T C D L A L Q R R R M I T L L L S E W S A Q H V E A V L H V A D G G E N P L  
UniRef90\_X5LA45 E A L A E L P D A L R R R R V I R G W L T D V Q V T R G V D R L V T D W R G Q G S L  
UniRef90\_UPI00040DE682 N G V K A L P L P L Q R R R G I H L L L K E L S V V H V I D Q F L A L L H P S G F S L  
UniRef90\_UPI0003B74CC3 R A L E A N P A A L R R R R T I R H V V V A L I E R V H V L A V A R L V H G Q K A L  
UniRef90\_B8HTL8 S S L Q A V P L A L R R R R V V K G F L Q T P N F D Q V E K V V A L I N G S G R T D  
UniRef90\_R5XX92 G L L N K Q H R A V R K R R V I F E I L N T P E A V H I E Q V D G L I N S G S G R T  
UniRef90\_UPI00031A35C4 A G L Q Q M P A A L R R R R V L A R A C E T P T F E R L G A L E D F A L G A G P V  
UniRef90\_UPI0003B70A84 R R L K A V P L V L R R R R M Y L E A L K A V G L N H I E Q I E S L L K T R G G N I  
UniRef90\_W7T0S6 R S L A D T P A A V R R R R V L R A W L R E L T D A Q L R D V D A L L I R G O G G V  
UniRef90\_E0I8Y9 A D F A G L P V A L Q R R R L I K L L L E T V D F D R I E S M R T A A L A S S P T  
UniRef90\_D1VTP3 T Y L K T L D K F I C Q E V I K K F L E E P S F K I T D T Y M L N S G S T S  
UniRef90\_A3THT6 T Q L A A L P R A V R S R V W R R L G Q V L E S T R H T D A C V E R L N S L V R G O G A  
UniRef90\_UPI0003794875 G P L A E A P P A L R T R V L R R A A S A L T A R H V R Q V E A A V D A L V H G Q G P A  
UniRef90\_W4RSU7 S S F E E M P M P L Q R R R G I K L L L A S L S A I H I E K I E S L I R N S G T R L  
UniRef90\_C0E9D3 R Q V A R L P P A L Q R R R V L R L F L E S H Q I E V S A I E V A R L D G A G R Q  
UniRef90\_D5USC8 A D I E H L P P A L R R R R A L R A W L A A L T A A H L A A A V D A L V H G Q G P A  
UniRef90\_UPI000372DF1B S R L Q G L H I A L Q R R E L C R L A L E G L F L H I E Q M I A F A K A G K T P L  
UniRef90\_UPI0003B2F035 T D L R Q H P R A V R R R R L W R R L A T D L T S D H I J A V D G L V T G O G P L  
UniRef90\_G1WL13 R R V A A S E I A I A R R M V R L A V K M V D M R H V E S V L A R V G A G S S L  
UniRef90\_Q1ACK8 Q F I R V I P F A L R R R R I K Q F L E R H F D F C H I E K I R I L I N K S D I  
UniRef90\_S7ULF1 P E L D R I G L A P R R R R I R M A L R R R E L A H I D R V E M L A R T K T I  
UniRef90\_A9WUR6 A E L N Q L A P A L R H R V L A L A V T Q P S F E R L R A A E A L L R R A G P V

UniRef90\_UPI00036DA17E A V P G  
UniRef90\_M0QI58 A I G G D L V V R V V D G R L  
UniRef90\_K9CM19 D M P R G Y T A R C R Y G Y L  
UniRef90\_UPI0004027BA1 T L A G G F A A W R E Y E R L  
UniRef90\_K9TU27 P F P G G A I A T V D K D W I  
UniRef90\_A2CI51  
UniRef90\_A4F6R8 A L P G G F V L R R T H  
UniRef90\_X8H3U9  
UniRef90\_UPI0003755FC9  
UniRef90\_F6B4J4 Q L P D G T A A R L A Y E T L  
UniRef90\_R6RAI8 S I K N G I M A  
UniRef90\_F1T6P3 S L A N S L S V R V E H  
UniRef90\_B8FMB5 H L P D G L E A R R V Q R K L  
UniRef90\_UPI0003640E3F Q M A G K V T V W R R  
UniRef90\_D1BDA3 H L P G G V E A R R  
UniRef90\_A0LHQ5 H L P G G L R A V A E G H R I  
UniRef90\_L1PJK1 S V P G G T L L R R  
UniRef90\_W2EAX8 N L P E E L L F I R E Y E A I  
UniRef90\_F2N6X8 T L P G G I S A L V E  
UniRef90\_X5DV52 A L P  
UniRef90\_A4AFQ5 D V P G V R V V R R E N  
UniRef90\_V9HK48 N L P R G L K V Y V N Y G K L  
UniRef90\_H5TGG9 A V G G G L V A V R V D D V L  
UniRef90\_D2S794 D L P G G A G A L R T S G R L  
UniRef90\_G8M070 D L P G I K A G R T Y E S I  
UniRef90\_W7B9T1 N L P K G L K I R R V Y D R I  
UniRef90\_L0EJA1 E A G R G V R F L R E Y D V L  
UniRef90\_UPI00047BF926 D M P Y G L K V Y I S Y E  
UniRef90\_UPI0003B57EC8 H L P G G I V A E R E Y E  
UniRef90\_A0R594 A V G S N L S R Q R  
UniRef90\_Q4JXM9 A V P  
UniRef90\_K0UTF1 A V P G D R S R V R  
UniRef90\_X5L657 A V G S G L R K Q R  
UniRef90\_D7CIR2 C V G K N I W A N K S Y G R I  
UniRef90\_X1J1T6 S L P G N L V T Q K Q Y E  
UniRef90\_R4M1P2 V L P G G L A V A R K D G L L  
UniRef90\_H1CZV4 T S S G A M M E R A G Q F L  
UniRef90\_G0HBX7 A V P H  
UniRef90\_S7VYE2 H L P G V R V E R R E N  
UniRef90\_R6AQS7 E M S T V I I R K S F G R L L  
UniRef90\_UPI000372F85B D L P G L R V R R T G D H L  
UniRef90\_T2RCN2 V L P R G L Y V Y R N N D H I  
UniRef90\_K9R633 P F P G G A V A V V I E G F I  
UniRef90\_UPI000368B915 D A G D G I R F A R E Y E R L  
UniRef90\_Q01QT2 Q V P G L D V R R S F E W L  
UniRef90\_R4MDU6  
UniRef90\_T4W064 V L P R G L F V Y R N N D S I  
UniRef90\_U5QI7 P L A Q G L L I E V R G E W L  
UniRef90\_E6TSE5 H L P K G I F V E K V Y D  
UniRef90\_R6I8A9 Q L S P D I F A V S N G D I  
UniRef90\_UPI00018507EA D F P R K L T V E K S Y N C L  
UniRef90\_G6FNT5 P F P S G A T A I V I E S D W L  
UniRef90\_B4D0P9 N L P R G W H A R R R A K R L  
UniRef90\_I3EC51 D F P N N L T V I R S Y N  
UniRef90\_E8RG38 H L G Q G L R V R V R R D S L  
UniRef90\_A0A010NQZ6 E L E G G V R A H R  
UniRef90\_I4BQ72  
UniRef90\_F4XMA4 S F P G G V T A L V E E E W I  
UniRef90\_UPI00042832E5 V L P G G L V A R R A H G R L  
UniRef90\_Q1NTV3 H L S A G V T V R K Q G Q I L  
UniRef90\_S0EYF3  
UniRef90\_M8CUV1 H F P N G L K M I R Q Y E  
UniRef90\_R6A5R3 T L P A G I D A R V I E  
UniRef90\_R9BXR8 D L P N G L K V K K S Y H Y L  
UniRef90\_M4RSZ3 S L P S G Y Q A F R K K H V I  
UniRef90\_R5AGZ5 E L R Q G K H A  
UniRef90\_D6YZR7 H L A G G V T V Y K D A K S L  
UniRef90\_J1H0M7 D A G G G  
UniRef90\_UPI00034A9B75 H L P E G L V V K R V Y E R  
UniRef90\_X1SM40 Y L P D D L R A K K I Y N K I  
UniRef90\_UPI00030BC213 H L P K Q V V V R R V Y D A I  
UniRef90\_X5LA45 A V P S A L R R Q R  
UniRef90\_UPI00040DE682 D W P G N I C V K R E Y D  
UniRef90\_UPI0003B74CC3 D L P G G V R A S R A G G H I  
UniRef90\_B8HTL8 P F P G G A I A T V S D A W I  
UniRef90\_R5XX92 E I I G S T V V I E V K N G I L  
UniRef90\_UPI00031A35C4 Q M A G K V A A W R  
UniRef90\_UPI0003B70A84 N L P G G F I A R R E P G R I  
UniRef90\_W7T0S6 L L R G S L V A Q R A H G R L  
UniRef90\_E0I8Y9 D A G S G V V F V R T Y D V L  
UniRef90\_D1VTP3 D I S K N I R A R L S Y D K L  
UniRef90\_A3THT6 H V P G P L R V S R T D G R I  
UniRef90\_UPI0003794875 D L P G G I R V R R  
UniRef90\_W4RSU7 D F P S G L R I I R S Y  
UniRef90\_C0E9D3 S V P G N R L V Q L R K G F L  
UniRef90\_D5USC8 A V P G G S A G R R  
UniRef90\_UPI000372DF1B E L P K Q F V F V C D Y E  
UniRef90\_UPI0003B2F035 H L P G G V R A S R T G E R V  
UniRef90\_G1WL13 T L P G G L D A R M E  
UniRef90\_Q1ACK8 Y L P G G N R L T I S K K Y I  
UniRef90\_S7ULF1 H L P D R I R V T R T  
UniRef90\_A9WUR6 Q L A G K V S A Y R Q A R

UniRef90\_E3IIF3  
UniRef90\_R7PMP3  
UniRef90\_E2SC57  
UniRef90\_B1VHL5  
UniRef90\_UPI0004629803  
UniRef90\_R7ESL9  
UniRef90\_UPI0003B719A9  
UniRef90\_UPI00036FFABE  
UniRef90\_W1U5R8  
UniRef90\_UPI00037FE671  
UniRef90\_V6IV75  
UniRef90\_W4CH10  
UniRef90\_E4RJG5  
UniRef90\_B6G7Q1  
UniRef90\_F7Z159  
UniRef90\_D7UUH6  
UniRef90\_R5RVU7  
UniRef90\_UPI000381F935  
UniRef90\_Q9KGH8  
UniRef90\_A4XIS6  
UniRef90\_C1DWT6  
UniRef90\_C0GJ06  
UniRef90\_UPI000471CEA4  
UniRef90\_E0E119  
UniRef90\_R7IVZ5  
UniRef90\_W4V2Q4  
UniRef90\_R7FX93  
UniRef90\_K6DI99  
UniRef90\_D8K281  
UniRef90\_UPI0003B7A13C  
UniRef90\_E1YDX2  
UniRef90\_M8DVR8  
UniRef90\_UPI0003636B59  
UniRef90\_UPI0003699F6B  
UniRef90\_R6NUJ7  
UniRef90\_UPI0002FC7FD0  
UniRef90\_UPI00036A27AB  
UniRef90\_UPI000375ACA2  
UniRef90\_W4LQX4  
UniRef90\_UPI0002EC88B5  
UniRef90\_M3UXH7  
UniRef90\_L7LDG1  
UniRef90\_B5YKG8  
UniRef90\_I9C694  
UniRef90\_D3FR25  
UniRef90\_UPI00030E30D0  
UniRef90\_R5RH50  
UniRef90\_S3YDS8  
UniRef90\_W5T7C5  
UniRef90\_U1LAC7  
UniRef90\_L7KZD87  
UniRef90\_F4EZR8  
UniRef90\_H5X232  
UniRef90\_R5GYD2  
UniRef90\_G9QGL4  
UniRef90\_D3SL48  
UniRef90\_UPI000407A861  
UniRef90\_UPI000479D7EB  
UniRef90\_K9V2R8  
UniRef90\_F5LA08  
UniRef90\_UPI0003767C62  
UniRef90\_UPI0001C4F30F  
UniRef90\_G0VRB8  
UniRef90\_E3DQ80  
UniRef90\_UPI000379CBAF  
UniRef90\_UPI00042A65ED  
UniRef90\_A0A022LE17  
UniRef90\_Q2LTJ2  
UniRef90\_E0XU14  
UniRef90\_UPI000363E1D3  
UniRef90\_UPI0003B60F70  
UniRef90\_F3NM22  
UniRef90\_UPI00030CEB99  
UniRef90\_I0GSZ5  
UniRef90\_M5DX14  
UniRef90\_K9EEM4  
UniRef90\_D6ZBQ8  
UniRef90\_R9LSQ7  
UniRef90\_B7GFJ4  
UniRef90\_J9HWU6  
UniRef90\_UPI00047022A3  
UniRef90\_M9VF25  
UniRef90\_UPI000365F733  
UniRef90\_U7UDG0  
UniRef90\_UPI00035C8B4C  
UniRef90\_D7BM59  
UniRef90\_I0HJ39  
UniRef90\_D9S0F4  
UniRef90\_G5F222  
UniRef90\_D5MFU5  
UniRef90\_Q3Z6M0  
UniRef90\_A1AR85

UniRef90\_E3IIF3 K P F Q A M P K P L Q R R R G I Q L T L N S L S S V H I H N L L A F L H P S G R L  
UniRef90\_R7PMP3 K A F N R L T P L A F K R R R V L L R R V M Q N T I S F D G I E V L R D L I E H G S G  
UniRef90\_E2SC57 A D L A G L P S D A L R R R R V L L R R A A G G E L A A V H V D A R L D D L V I E H G S G  
UniRef90\_B1VHL3 A P L A E L P S D A L R R R R V L L R H W L G P L T Y S H L S R L D L D L V T G G Q G  
UniRef90\_UPI0004629803 K K L K S F P P A L R R R R V L R A A M T E L T A A H L K A M D A L V H G Q G P A F  
UniRef90\_R7ESL9 R Q L A A N P P A L R R R R V L R R L A C V E T L S R V Q T L E V C R L V H G Q G  
UniRef90\_UPI0003B719A9 R Q L A A N P P A L R R R R V L R R L A C V E T L S R V Q T L E V C R L V H G Q G  
UniRef90\_UPI00036FFABE T P L M A V P D A L R R R R V L R E W L  
UniRef90\_W1U5R8 D A F N D L P N A L R R R R V L R K L L W R E L S F A H T E R L V A W F A T G G E T  
UniRef90\_UPI00037FE671 K Q F S E Y H E A L R R R R V L C L V L L L Q E L S Y D R V V S A T Q F L I E T G G K F  
UniRef90\_V6IV75 P R L L S L H P A L Q R R R V L H L L L L Q P L H Q H I E Q L L Q L I R S G G G T  
UniRef90\_W4CH10 P S F L K L H V A L R R R R V L K L L L L N Y V D F T R I E T I R R  
UniRef90\_E4RJG5 K K F N N Y D K V I R R R R V L R I A L E D L Y L E H I L E I E K L L N T G R G I  
UniRef90\_B6G7Q1 S R L A A A E V A I A R R R M V R L A V R E L D M R H V E A V L S C V A M G G S V  
UniRef90\_F7Z159 R K F K E M G P M P L Q R R R V L H L L L K D V T A I H T D A V L K L A N Q P S G A  
UniRef90\_D7UUH6 V L L K K A G P L P L Q R R R V L L L L L N E T S Y Q H I K Q I L C L C J O P G K N P L  
UniRef90\_R5RVU7 A A V T Q V P A V L R S R V L R L A L K D F T A A H Y D A L A A L C A G G S G T L  
UniRef90\_UPI000381F935 A E L E S A V P A L R R R R V L H R A A G D L N A G H V R E R L D R L V T G G S H I  
UniRef90\_Q9KGH8 D A F L N V G P L P L Q R R R M I H L L L K A N G F I H I E R I R L I R T G T K L  
UniRef90\_A4XIS6 N P V T A L P P F L Q R R R V L K R T F K E F D L E V E D V L K L L P S G K K K  
UniRef90\_C1DWT6 N Y L N T L H P A V K Q Y R V I T N S W I Y E P S Y Q K M L N I V L K L K M S G T L  
UniRef90\_C0GJ06 N K L H A L P P A V L Q Y R V V R S A L W Q P G R L H V E Q V A L T K K S Q L  
UniRef90\_UPI000471CEA4 S K F E N M P L P L Q R R R G I H L L L N Y I N S E H T D A I F R L I H P S S G E I  
UniRef90\_E0E119 D Y I K D T H P A I K T R R I R S R L L G N V T S K H I D E V L E L M P G G K K L  
UniRef90\_R7IVZ5 E K L N E Q D I V I R R R R I C R R R L K D I V L S V H I D I V L D I I T T S G S I  
UniRef90\_W4V2Q4 P A L K E C H I A A Q R R R L I R N S I K K V K G D H I D S I L D I I T T S G S I  
UniRef90\_R7FX93 S E L A D C H P A L A L R R G I S M L L S P T L D F E H Q Q N I L A M I K S S G G K L  
UniRef90\_K6DI99 N E F K R I P S L Q R R R A I S L L L K Y L N D F A H I H L L S L D H S G G L L  
UniRef90\_D8K281 A G L A G L H P A L R R R A V L R G S A K D I E A G H V E D M L D I A T G G R M I  
UniRef90\_UPI0003B7A13C P E L S R L H P A L A S R V L R A A L K K I S M A H I R E L R D F M A S D S K H L  
UniRef90\_E1YDX2 S E I K A L H P A A R N R I S R I A L R R R L S L S H I E L M S A Q L E S D S S L L  
UniRef90\_M8DVR8 D K F Q S C D V A L Q R R R M I T L I L S E W S S Q H V E A V L R M I E S S A E L L  
UniRef90\_UPI0003636B59 D P F K T V P L P L Q R R R A I H L L L N A S F S F L H I Q H T L Q L Q K G K L  
UniRef90\_UPI0003699F6B N L F D S Q H P A L Q R R R L I R Q A L R S A R H V L T Y M M K H E K E M  
UniRef90\_R6NUJ7 R A L Q S Q D I A L R R R V I V R S L A E A G R Q V E G L D R L T H G Q K G V  
UniRef90\_UPI0002FC7FD0 Q T A Q L P P A L G R R R V I Q K W L H Q Q V S A E F E R L L A G A W S A L N G A Q P V  
UniRef90\_UPI00036A27AB L E L R A L P T A L R R R R V L A L A T E Q P F E R L L A V E L L N G A G P V  
UniRef90\_UPI000375ACA2 T S F V I G A H V A L Q R R R L I K L L L E Q Q F D F T K I E L I R L Q Q I L T S W N L  
UniRef90\_W4LQX4 Q A Y E S V P L A I Q R R R L I R R L L T D Q Y R F H H I E E R L R L L L H G S R R L  
UniRef90\_UPI0002EC88B5 K A F E S M P P L Q R R R G I Q L L L N S S A L H I E K I V S I L H P S S S L  
UniRef90\_M3UXH7 G D I G D A P P A V R T R A V R F W L Q T P S H R N V T A V D A L V R G Q G P I  
UniRef90\_L7LDG1 H K L A A A P A A V C R A V R S W L G A R T V A Q V E A D I A D W K T G G P V  
UniRef90\_B5YKG8 N P M E V L N I V I L R R A L R F A L K G L T F D H I H I E A D I N L I K T G G K T V  
UniRef90\_I9C694 K Q L K L I H I A V T R E T I R L A I E K K S F Y H V E T L I E M L R V G S I L L  
UniRef90\_D3FR25 E A T E R L R F P L Q R R R V I H L L L R Y L T S I E H I E S Q I F R L N R S G K E L  
UniRef90\_UPI00030E30D0 S S F L M M S K P L Q R R R A I Q L L L N Y L Y F E H I E S I F E L I H P S G E I  
UniRef90\_R5RH50 E E M K K L H I V L Q R R E T F M R M I E D I T A R H I D S L M R L L N T G R K I  
UniRef90\_S3YDS8 Y S L A P L D R A L R R R R V L K R A I A H A S R R Q I L H V D S L I R G Q  
UniRef90\_W5T7C5 E L L A T A P G A I R R R R A L R S W L K A L T R D K H L R A V E T L I T  
UniRef90\_U1LAC7 G G L G A N P P A L R R R R V I R L A V Q A L T R Q Q T L E V S R L V H G Q G P I  
UniRef90\_L7KD87 S A V T G S P D A V R R R R V L R W L R E P T T R V I V A V D E R V R R G G Q S W  
UniRef90\_F4EZR8 T A F R A E P P A L Q R R R V L R L A A H D W G W R Q V Q V M M R G G L S W  
UniRef90\_H5X232 E V L E P A P A L R R R R V L R G W L P E L T D A H L R A V D E L I R G Q G G V  
UniRef90\_R5GYD2 E A L A K L P T P L Q R R R A I R M I E S A G G L E  
UniRef90\_G9QLG4 E E F A Q M P P L S L Q R R R G I H L I L N Y F T N V H I R Q I L Q L I H P S G S L  
UniRef90\_D3SL48 K A F L K L H P A L Q R R R V V M E J I Y G V R N F R L V E Q I L N S I K K G E E L  
UniRef90\_UPI000407A861 S K F L S A M P P L Q R R R M I T L L L N S S V H I E R A H F L T L L T S S G T L  
UniRef90\_UPI000479D7EB Q L L K T A P L A L Q R R R V M R Q I L Q E P N F Q Q I E K A L T A D L I N R T Q T D  
UniRef90\_K9V2R8 P A L R Q L P P P L Q R R R V I L L L L S Y L S H A H I D S V L D R V I H K R E Q Q L  
UniRef90\_F5LA08 A R L J E L P P A V R R R R V L R R A A V S A G A H I E E V D G L V I H G G O G P L  
UniRef90\_UPI0003767C62 S A L T A L P D A V R R R R V I R G W L T D R Q I R G V D R E L V T A W R G Q G G V  
UniRef90\_UPI0001C4F30F K G L L A Q P L A M Q R R R L I R R L W Q E G T F H E Y V E T I R D L A A K G A G K  
UniRef90\_G0VRB8 N S L L A L D Q V I Q R R R I Y R Q I Y K R L N L E H I V E F I E K L I K T G R G V  
UniRef90\_E3DQ80 A G L A E L P A A V R R R R V L R R T A G S P S A R H V E A V E K L V H G Q G P I  
UniRef90\_UPI000379CBAF K A L L E M P N S L V R R R R A I Q L L L N D L N A K H L S A Q L V D L F D N S A E L  
UniRef90\_UPI00042A65ED S V L E P L P T A V L T R V L R R W L P S P T Y A H L S A L A A L V I T  
UniRef90\_Q2LTJ2 S R L H E L D E A L Q Y R L V K S L L E R V A F T H I Q A V A N L C R E E K S V  
UniRef90\_E0XU14 D A I A R L P T A L Q R R R V S K R V L E H V S F D Q T N R L F S L I R T S S Q V I  
UniRef90\_UPI000363E1D3 E R L R A L H P A L Q R R R V L R A A A E Q L T F D Q T E A V L R E L A E K S G R I  
UniRef90\_UPI0003B60F70 H P L R T A S A A I R R R R V L A L G V A H P S S E R L A A V L R L T T G S G G P V  
UniRef90\_F3NM22 A K L D V L P P A V R R R R V L R R A V L D A G A R H I E S I D R L V T G S G G A I  
UniRef90\_UPI00030CEB99 S Q F L L L P P L S L Q R R R G I Q L L L K Y I T T I H N S Q L S L L H P S G M L  
UniRef90\_I0GSZ5 K T V A G L H P A L Q R R G L I R R L W A E V T Y V Q T E R L R S L L L T G Q T S  
UniRef90\_M5DX14 N K F R N I D Q V L R R R R V I Y R L I Y N K I N F D H I L E E K L I D T G R G I  
UniRef90\_K9EEM4 P W L S L D G A L R R R R V L R A L A E L S A R H L S A I E K L I T G P G G A  
UniRef90\_D6ZBQ8 T D V A G L P G P I R R R R V L R L W L T E T Q I R S V D A L A S A W R G Q G P V  
UniRef90\_R9LSQ7 E Q L R A L D P A L R R R R V I A G L L E S Q G A E R S S D R I A L V D G  
UniRef90\_B7GFJ4 P S F I R M P K P L Q R R R G I Q L L L S L S I H I N Q A L F L K R Q G M L  
UniRef90\_J9HWU6 E A F A A L H V S L Q R R R V I H I L L Q D W L F S H V E P T R K L A L R Q A A V  
UniRef90\_UPI00047022A3 E V I T A L D D A V L S R R V R K D W V Q N L G A V R V A E L C A L I R R G R L  
UniRef90\_M9VF25 G L R G V E S G L R R R R V V K K W L P E A T M V H V D A V L G L L D G G A G V  
UniRef90\_UPI000365F733 E Q F S L L P F A L Q R R R L V K L L L E E T D F A K V D V R L L S R G W T L  
UniRef90\_U7UDG0 D A L M A Q P V A M R R R R V L R I L G V S K I T F Q Q V E T I A L A A K A T G K  
UniRef90\_UPI00035C8B4C A H L T P Q P P A I R R R R V L R M W L P E L T D A H L R A V D D L I H G Q R G T  
UniRef90\_D7BM59 E S L K D V P E A V R R R R T L K Y A V E E S G V R H I A G L D K L V T N K R G L  
UniRef90\_I0HJ39 P V L A G L A A A I K Y R R V L R W A R E L F G Y R H V A M D A L I H G Q G R V L  
UniRef90\_D9S0F4 K K F N E L H E A L K Y R V V R K A L R D F E Y R H A R M T V E F I A T G S R L  
UniRef90\_G5F222 R R L G A A D V S I A R R R V V R L A L A R I E S A Q V A R V L R I V A Q G G S C  
UniRef90\_D5MFU5 P K M T L L S A L R W R I R R S A E E L T F Q H T L A I D R L M T K G A I  
UniRef90\_Q3Z6M0 E K M Q R T H P A L K R N L R Q M L E E I E A R H I E S I Q T L D K G R I  
UniRef90\_A1AR85 T R L E G E P Q A L K R R L V R R L E H V T R R H I Q A M E D L M D S P R T L

UniRef90\_E3IIF3 D L P H G L K V V R S Y D  
UniRef90\_R7PMP3 N L P G G V T C V R S V D R V  
UniRef90\_E2SC57 S V P  
UniRef90\_B1VHL3 H V R G G K A W R A A G R A I  
UniRef90\_UPI0004629803 S L P G G V R A S V S D G V L  
UniRef90\_R7ESL9 A L P G V S A S R D G D R L  
UniRef90\_UPI0003B719A9  
UniRef90\_UPI00036FFABE  
UniRef90\_W1U5R8  
UniRef90\_UPI00037FE671 D L G Q G V L L Y N G K E W  
UniRef90\_V6IV75 F F P K G L T A R K S Y D W I  
UniRef90\_W4CH10  
UniRef90\_E4RJG5 D L P A S I R V E I S Y E N L  
UniRef90\_B6G7Q1 T L P S G I D A R I E  
UniRef90\_F7Z159 D L P G G L K A V R D Y  
UniRef90\_D7UUH6 Q L P Q S L Q V R R S Y E  
UniRef90\_R5RVU7 D L P G G V T A R R A D G V L  
UniRef90\_UPI000381F935 D L P  
UniRef90\_Q9KGH8 H L P M G I T V E R V Y R W V  
UniRef90\_A4XIS6 V F D D L I V E R Q N D A I  
UniRef90\_C1DWT6 H L Q E N L Q L I K E Y D K L  
UniRef90\_C0GJ06 T L P D E V R A W R Q Y H R L  
UniRef90\_UPI000471CEA4 D L P L G L K V Y K T Y N  
UniRef90\_E0E119 D L P R G L H A Y R F A D Y I  
UniRef90\_R7IVZ5 D L P Y G L E V Y R E Y G K I  
UniRef90\_W4V2Q4 H L P H D V R A E K S Y G I L  
UniRef90\_R7FX93 S V P E G K Y A E S D G  
UniRef90\_K6DI99 H F P K G L I V I T K S Y N  
UniRef90\_D8K281 D L P Q G L V F R A G Y  
UniRef90\_UPI0003B7A13C D L P G R I R I Y K T R D R L  
UniRef90\_E1YDX2 D L P D R I R V T R T G E S L  
UniRef90\_M8DVR8 D L P G A V T V A R A Y R  
UniRef90\_UPI0003636B59 N L P S S L T V Q K I G D  
UniRef90\_UPI0003699F6B H L P G S L T A  
UniRef90\_R6NUJ7 N L P S G Y S A Y R Q K H V I  
UniRef90\_UPI0002FC7FD0 S M P S G M S L E R T D R  
UniRef90\_UPI00036A27AB Q L A G K V I T  
UniRef90\_UPI000375ACA2 D V G D R V I C V R E Y E D I  
UniRef90\_W4LQX4 T L P G R W Y V E R H Y D  
UniRef90\_UPI0002EC88B5 D F P N G L K V V R S Y Q  
UniRef90\_M3UXH7 A V G G D D E A R  
UniRef90\_L7LDG1 A V G G D A E A R  
UniRef90\_B5YKG8 Y L P K G I R A I K G Y  
UniRef90\_I9C694 Q L P G G L T I H K T Y D G L  
UniRef90\_D3FR25 H L A N G L F V Y L S Y D  
UniRef90\_UPI00030E30D0 H L P A G L K I K K S Y D  
UniRef90\_R5RH50 D L P Y D I I V A K Y Y D F V  
UniRef90\_S3YDS8 P L P G K L E A V R D E G L I  
UniRef90\_W5T7C5  
UniRef90\_U1LAC7 H L P G I R V S R E G R R L  
UniRef90\_L7KD87 A I G G G  
UniRef90\_F4EZR8 D L P G C V R F F L D G K R  
UniRef90\_H5X232 W L P G D F E A R R S  
UniRef90\_R5GYD2  
UniRef90\_G9QGL4 D L P E G L K V I R Q Y Q  
UniRef90\_D3SL48  
UniRef90\_UPI000407A861 H F P E G L L V I T R S Y E  
UniRef90\_UPI000479D7EB E L P G L K V G R A G N R L L  
UniRef90\_K9V2R8 P F S G N A L A F V I Q R D W I  
UniRef90\_F5LA08 H L P A E I D V E R Q Y D V L  
UniRef90\_UPI0003767C62 H L P G G V E A R R C G R  
UniRef90\_UPI0001C4F30F A V G S T L R G Q R  
UniRef90\_G0VRB8 Q F Q C G R  
UniRef90\_E3DQ80 D I A S G I R V E I S Y S N L  
UniRef90\_UPI000379CBAF H L P G G V E I R R R G R L L  
UniRef90\_UPI00042A65ED H F P S G L L V K K S Y D  
UniRef90\_A0A022LEI7  
UniRef90\_Q2LTJ2 F L P G N V L V R R E Y D N L  
UniRef90\_E0XU14 D F P G S R L I R S S N R  
UniRef90\_UPI000363E1D3 E L G G G L A A E R T P R E L  
UniRef90\_UPI0003B60F70 Q C E G G V S V Y R  
UniRef90\_F3NM22 N L P G R V V V R R Q G G R L  
UniRef90\_UPI00030ECB99 N F P K G L V V I T R S Y D  
UniRef90\_I0GSZ5 S L S H H Y V A R L A Y G Y L  
UniRef90\_M5DX14 D I A S E I R L E I S Y S N L  
UniRef90\_K9EEM4 D L P G V R A V R N G P R L  
UniRef90\_D6ZBQ8 A V P G G R R A R R S Y G R L  
UniRef90\_R9LSQ7  
UniRef90\_B7GFJ4 H F P N G L K V I R Q Y E  
UniRef90\_J9HWU6 S L S H G L G A W R E Y G R I  
UniRef90\_UPI00047022A3 S L P G D M E V V V G G  
UniRef90\_M9VF25 D V P G G R V E M R R G  
UniRef90\_UPI000365F733 D L G Y G R T C T R E Y D R  
UniRef90\_U7UDG0 E F R K G V R V V C S Y R E L  
UniRef90\_UPI00035C8B4C A L P G G L V A R R A H G R L  
UniRef90\_D7BM59 D L P G V R A W R E R N L L  
UniRef90\_I0HJ39 F L P D G I V V G R R A D R L  
UniRef90\_D9S0F4 D L P G G L T G V K S Y E  
UniRef90\_G5F222 N V S L G I D A R V E Y G L L  
UniRef90\_D5MFU5 H A P G G L R A R R V G N S L  
UniRef90\_Q3Z6M0 D L P Y K L V F Q V D Y E  
UniRef90\_A1AR85 N L F R G I R A V R E Y

UniRef90\_K0NCB8  
UniRef90\_F5SHY1  
UniRef90\_R5P1L1  
UniRef90\_U2KC96  
UniRef90\_R5AWS3  
UniRef90\_R7H0E8  
UniRef90\_R6Q0K5  
UniRef90\_W7VIR8  
UniRef90\_R7F103  
UniRef90\_UPI00036CC31C  
UniRef90\_UPI0002891FDD  
UniRef90\_UPI00046309C2  
UniRef90\_UPI00047DB69E  
UniRef90\_UPI00047D0CC8  
UniRef90\_UPI0004785BE1  
UniRef90\_B8G4Q4  
UniRef90\_UPI000381C8EE  
UniRef90\_S0FZZ5  
UniRef90\_H5XK75  
UniRef90\_UPI0003B609BE  
UniRef90\_X1TL90  
UniRef90\_UPI0001E30140  
UniRef90\_D0WMC7  
UniRef90\_A6CS84  
UniRef90\_A0A024PP63  
UniRef90\_UPI00038F2F84  
UniRef90\_E2MVB4  
UniRef90\_E3D8X8  
UniRef90\_E1QXV9  
UniRef90\_D6B7L3  
UniRef90\_T0PBK8  
UniRef90\_M1ZF44  
UniRef90\_S0FKR7  
UniRef90\_K0Z182  
UniRef90\_UPI000479F105  
UniRef90\_W7DGZ7  
UniRef90\_N9WBF3  
UniRef90\_R5Y566  
UniRef90\_H8MLY1  
UniRef90\_UPI0002486162  
UniRef90\_U1PRR5  
UniRef90\_I4M2F6  
UniRef90\_B8I4B7  
UniRef90\_W8TGX0  
UniRef90\_R5QGR9  
UniRef90\_R7NIT0  
UniRef90\_F2RA62  
UniRef90\_UPI0003656400  
UniRef90\_UPI00036755DC  
UniRef90\_E1ICA9  
UniRef90\_B8FZC9  
UniRef90\_UPI0002FF3C48  
UniRef90\_K2AQ39  
UniRef90\_K2FL75  
UniRef90\_R4T515  
UniRef90\_H5SC58  
UniRef90\_COZNS6  
UniRef90\_UPI0004077814  
UniRef90\_E6J8R2  
UniRef90\_D2RBZ8  
UniRef90\_R5EIP5  
UniRef90\_F8IJP8  
UniRef90\_UPI000407C96E  
UniRef90\_E1LOV9  
UniRef90\_R5CTD2  
UniRef90\_D3LWV6  
UniRef90\_Q8M9Y1  
UniRef90\_D1NV12  
UniRef90\_R6C6L2  
UniRef90\_M2XKQ9  
UniRef90\_Q3A5W0  
UniRef90\_B2V6K8  
UniRef90\_UPI00037A44BB  
UniRef90\_D1A549  
UniRef90\_UPI00046C9AEE  
UniRef90\_UPI000464A123  
UniRef90\_UPI0003B52E30  
UniRef90\_U5WBS7  
UniRef90\_UPI00047B33F3  
UniRef90\_U5E524  
UniRef90\_UPI00034AC6F7  
UniRef90\_UPI000248C981  
UniRef90\_R6ETB0  
UniRef90\_R6C357  
UniRef90\_Q81VX7  
UniRef90\_D2NQQ4  
UniRef90\_K6CGP4  
UniRef90\_C4FR11  
UniRef90\_UPI0004754C17  
UniRef90\_S2VYE4  
UniRef90\_UPI0003FAB5DD  
UniRef90\_R6HH79

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

UniRef90\_K0NCB8 N L M S E L H P A L 50 N R R V I F R K A I L 60 K R I C F A H I E D M I Q L F C P S G G S L S 80  
UniRef90\_F5SHY1 R A F L I E L G V A L L Q R R V I K L L L E T V T L D G V I E R D T R R L A D P S S G G E T  
UniRef90\_R5P1L1 K A L A C E K E E L I Q K F R A M L L K D E T R K H L I E R D V L A R D L C Q Q T Q G G R Y G  
UniRef90\_U2KC96 S G L E T L H E E A L I Q R R V I A M L L K E E A G L S C H L I E R D V L A R D L C Q Q T Q G G R Y G  
UniRef90\_R5AWS3 A E L L A L P R P V L R V R A L Q Q A A G E E L S R R H L L E A L L E A R L C D Q G G E G Y A  
UniRef90\_R7H0E8 T G L S A L H P A L R Q M R V L C L A R Y A F L H D L K R L L E Q D V L Q E A L L L A H R K E Q G K Q T  
UniRef90\_R6Q0K5 E K L S A L H P A L R Q M R V L H T W A R E L S H S H V V A A L D A L L V A T K G Q Q S P V  
UniRef90\_W7VIR8 D G L A G L P A A V R T S R V L H T W A R E L S H S H V V A A L D A L L V A T K G Q Q S P V  
UniRef90\_R7F103 K K Y Q E L E P L I M Q S R R L H T I L L E S K N D R T H V V E T A I Q K L L L Q S R S G K S I L  
UniRef90\_UPI00036CC31C P S F L Q M P L P L Q M R R G I Q L L I L N S L S A V H V I D N L I T F L E S S S G E L  
UniRef90\_UPI0002891FDD S P F L A M P K S L Q Q R R G I Q L L I L N S L S A V H V I D N L I T F L E S S S G E L  
UniRef90\_UPI00046309C2 Q T Y S K L Q N A M K S R R V I R K V L G E D T N F V H I I D D V L M S L E S S S K S I L  
UniRef90\_UPI00047DB69E S V L S S A P R A L M G S R V V R R M L G E E P S W V H L I N G I L A I E S S S K S I L  
UniRef90\_UPI00047DOCC8 N D F V I S R A S A L Q R R R V I H L L L K D I T Y V H E E Q L L S L L A K D  
UniRef90\_UPI0004785BE1 Q A F A A L H P A L L Q R R Y L R R Q A A V L L G L R  
UniRef90\_B8G4Q4 A A L R V L H P A L Q R Y A L R R A V E E P S L A Q L D A A L Q M L K G Q  
UniRef90\_UPI000381C8EE Q E L A S L H K A L F L R V V L L A V E K L G N V H L E A A T Y N L V Q T G K T I L  
UniRef90\_S0FZZ5 P G L V A L H P A L I P R R V I R H G L R R R I T H D H M T A S V I Q D D L A A D G Q G K H L  
UniRef90\_H5XK75 D V L G Q A P P P V R R R V I R R W V L T D A H L R S A V D A L V H G Q G G A V I  
UniRef90\_UPI0003B609BE P G L A D E H E A L R R R R V I V R A A S T V S S R H V A A I D A L V H G Q G G A V I  
UniRef90\_X1TL90 K K F T S L H P A L K R R I I R K S I K V V S F K H N S E R V I L K L T E D G E R K I  
UniRef90\_UPI0001E30140 G K I K K M H J A V L K R R I I R K A L N E K G I E H I I E N M I D N G R R L L  
UniRef90\_D0WMC7 R E L A G L P P A L R T R I L R R R A G E L T S W H I A T L D S L I V R N G R S S L L  
UniRef90\_A6CS84 E A F R K M P L I A L Q R R V I H L L L N S D L S S I H E A Y F F S L I L E K G G K Q I  
UniRef90\_UPI00024PP63 T L F L K K H P I A L Q R R R A Y L L L L L S D L S S I H E A Y F F S L I L E K G G K Q I  
UniRef90\_UPI00038F2F84 A D L A G L H V A L Q R R L I K L L L K E P T F E E V E N I R A L A A E P S R I V  
UniRef90\_E2MVB4 R G V A E L D D A I A V R I L A R W L A E A P S S K Q I E D M V I M A L V H H G Q G P V  
UniRef90\_E3D8X8 S P L T K Q H T S I A R R R V I A R A L A T A A G I R H V I D E L V H H G Q G P V  
UniRef90\_E1QXV9 G R L G A A E V A I R R R R V V R Q A I A R L E A R H V I D R V L G L V A G G G G S A  
UniRef90\_D6B7L3 A R L Y A L P A L R R R I L R R A L V A A G A R H V I E N V D R L I T T G G Q R A  
UniRef90\_T0PBK8 K D A F N L H P A L L N R I L R K A L E G A S K H V I E N V L D I T T T G G K S I  
UniRef90\_M1ZF44 S L F L K E D R S I Q Q R I I R N S L Q G F T Y R H V I L D T L T L F G T T G K S I  
UniRef90\_S0FKR7 R V L A S P L H P A L V G S R R V L R Q A F T D A S Y A T H V E K A L D A L V R T G G A G L V  
UniRef90\_K0Z182 N A L A S H L P A L R R R R V L R Q A F T E L T A T H V Q A L D A L V H G Q G P V  
UniRef90\_UPI000479F105 R D L R E A P K A I L R A R L L A R A V E Q P T Q E R I V E A A E T R L A G R A S A T P V  
UniRef90\_W7DGZ7 K Q L E N M A P I A L Q R R L I H L L L Q L T K R H V I E A I E R V I H G T N S A T K I  
UniRef90\_N9WBF3 K I L F K E N K A I I N R V I R K A L T E Y D F K E H I E E V I N L I G T N A T K I  
UniRef90\_R5Y566 P I F V I D L H N S I K Y R V L R Y A L G D T N F K H I L E I V E L E P E G G K K L  
UniRef90\_H8MLY1 V G L R A L H P P L W R R R V L A R L L G R V D H A T L E R A R E V L A R G G V M  
UniRef90\_UPI0002486162 G Q L A G L H P G A V R R R R V L R Q W L G P L T S A H L A M L E A L V H H G Q G P V  
UniRef90\_U1PRR5 D G L R S L P Q A V R T R I L R S A A G E L T S W H I I R L D E L V R S G G A C L  
UniRef90\_I4M2F6 K K L S Q Y H P A L R R R R V I A R A L T A F S S H I K A L I D E L V H H G Q G P V  
UniRef90\_B8I4B7 N V L D E I H Q S V R R R V L R I A I E K T G Y I H L D K L N E L I E N G G R T I  
UniRef90\_W8TGX0 D A L T A L H N A I S S R R V V R M A I G A V Q Q V H I E Y V I E L A R G G K R I  
UniRef90\_R5QGR9 A A L T S L H E A V L K E A I R M Y G D R Q N F K H I E E V L T I I E N G G K K T  
UniRef90\_R7NIT0 N K L K D A N I V V L K E A I A I L F R Q N N F K H I E E V L T I I E N G G K K T  
UniRef90\_F2RA62 A K L H G L P P V L R R A V I A E G A P A G S L R H I E E V D R L I I E N G Q G A I  
UniRef90\_UPI0003656400 S Y L Q G L P R A I L R R R I R R A I G S V T A E H V G A V A E L I N G S G P A  
UniRef90\_UPI00036755DC P A F E S M P I P L Q R R G I Q L L I L N S L S V H I D K V I E F F K R S G V L  
UniRef90\_E1ICA9 A R W Q T L H P A L R R Y A L R R A V E E L S F A Q V E A A R A C L D A A T Q Q V  
UniRef90\_B8FZC9 T I F E L P K A I L S R R I L R R A A G E P A F Q Y I E Q V M A C K S Q E S G N A T I  
UniRef90\_UPI0002FF3C48 R P F Q K E P L A L Q R R I L L L L N Q P S Y S K I L E L C K S Q E S G N A T I  
UniRef90\_K2AQ39 Q A F L N L H I A I Q R Q A L R N I C R E L S T S Q V A E I I K L I N S S D K K K  
UniRef90\_K2FL75 E K F L Q L H P S I Q R Q V L R N L F Q D V E N K Q I E E I L K V V K S V K S K  
UniRef90\_R4T5I5 A V L A T E P P A L R R R V L R R W V R E L T D A H L R S V D A L V R G G V G G V  
UniRef90\_H5SC58 K R F L J A L P E Y L Q A L V L R R A V G E L E A V H I E A V V E W A R G E G E L  
UniRef90\_COZNS6 D T L A E A P T A I R R R A L R A W L K A L T D K L R A V D A L V  
UniRef90\_UPI0004077814 K G F L D L P I P L Q R R G F H L L N Y L S T K H K R A F M D L L H P S G H L  
UniRef90\_E6J8R2 G R L E R L P A A V L T R V L R R W L T S P T Y A H L T A V A A L V T G Q G G V  
UniRef90\_D2RBZ8 E K L A Q Y H P S I R K R I V R A L S E L G L R H I S A V D E L W H P Q Q R F  
UniRef90\_R5EIP5 Q T L R A M P K A Q R R S R C I E K F L K E P E D S H I S A V E G L K P S A R V  
UniRef90\_F8IJP8 S R L G E L H V I S L Q R R V I H I L L N E W T L A H V E A V R R L A L S G G E V L  
UniRef90\_UPI000407C96E K L F K T Y A F A L Q R R A F H L L N D L S Y V H E E Q F F A L L H R K A Q L  
UniRef90\_E1LOV9 G R L V R L D J A L A R R V V R L L A C L E L D A D H L N A I L S H V K G T G S V  
UniRef90\_R5CTD2 P E L A A L P K P V A A R V L R K I C G R L T A G H T K A L F D I M Q S  
UniRef90\_D3LWV6 T R L A E Q P T A L Q R R I R R A Y E A L L E Q V E E I R H L L D K  
UniRef90\_Q8M9Y1 S L F K I L P L A L Q R R I R F F E N H D F R D I E E I R  
UniRef90\_D1NV12 D V L L E A H P A L R R R V L A R V F A Q L N I R H V T A A L N L I E N Q Q S V  
UniRef90\_R6C6L2 E K F S R Y H S F L Q R R M L L Y A L E Q L T A V H V D Y L L S L F Q R P R E I  
UniRef90\_M2XKQ9 G I L G A A H P A V L R R R A V R E W L  
UniRef90\_Q3A5W0 Q G L T G L H P A L R S R V L R G A L R G I G A K H L A S L D D L L D A P R E A  
UniRef90\_B2V6K8 S F I N K L D N A L K Y R V L K W I Y E P S Y K Q I L N D L M E L D K G G E L  
UniRef90\_UPI00037A44BB S A I N K L D R A L G A R V I R A A L R R I N I H I R D I L Y F A E S G K S L  
UniRef90\_D1A549 A A I G E L P R A V R T R V L R G A A V I E A G A V H V E E L D R L I T G Q R H V  
UniRef90\_UPI00046C9AEE S E L S A E D G A V R V R L R L W L S E V T H R H L G A V E S A L V H G Q G E V  
UniRef90\_UPI000464A123 A V L A G E P P A L R R R A L R W W L K G L T D A H L R S V D A L V R G G V  
UniRef90\_UPI0003B52E30 T R L A T Q P Q A L R F R V I A R V L A I C G T A H V D A V E A L I H G Q G P V  
UniRef90\_U5VBS7 P A L A A L P P A L R S R V L H A W A K E L G H A R H V V A L D A L I H G Q G P T  
UniRef90\_UPI00047B33F3 E T F A K F P I A L Q R R A F H L L N D L S Y A H E D R F S L I S S K S V  
UniRef90\_U5E524 E L L A T A P A L R R R V I R A W L A E Q G V A H L Q A I D E L V H N  
UniRef90\_UPI00034AC6F7 G A L A G L P R A V R T R V L R R A A G A L N A G H V A E L R L V T G Q A H V  
UniRef90\_UPI000248C981 K W F T G V H V A L Q R R L I K L L N Y L D F L K V E Q F R T A V L R R E R P S  
UniRef90\_R6ETB0 K P L L K L H R A V R M R V Y T I A L G K V T Y A Q A E G I D S I L R S K S P S  
UniRef90\_R6C357 D K F K S L D P V I Q T K L I Y N I L E K V S N A H V D L I E G L I S S S N K S V L  
UniRef90\_Q81VX7 P T F E S M S M P I Q R R G I Q L L L N S L S I H I D K V I E F F K R S S L  
UniRef90\_D2NQQ4 A Q V A A L H P A L R L R V L A A A C K A P G F E R L Q A L D S F T A E A G P V  
UniRef90\_K6CGP4 K G F L E M P L P L Q R R G I Q L L I L N S L S A D H L D Q V L D I M Q N T S A K L  
UniRef90\_C4FR1 R A L R K E P L A L Q R R L W Q R L V S S L D S D H Q E Q L Y I V H T G  
UniRef90\_UPI0004754C17 A E L E R L P D A V R R R V L R R A A G A L S A T H V M A V D R L V H G Q K P A  
UniRef90\_S2VYE4 E D L A G L P L A V R T R I L K D A A E R L T Q A H I S A L D K L V E G G D P I  
UniRef90\_UPI0003FAB5DD A P L R E L P T A V R T R I A G A R A G E V N A G H I E A L D A L V T G P  
UniRef90\_R6HH79 K K F N K E E K V I K S R V I K L F D S T K G I E H I E D I I K L C E N

UniRef90\_K0NCB8  
UniRef90\_F5SHY1  
UniRef90\_R5P1L1  
UniRef90\_U2KC96  
UniRef90\_R5AWS3  
UniRef90\_R7H0E8  
UniRef90\_R6Q0K5  
UniRef90\_W7VIR8  
UniRef90\_R7F103  
UniRef90\_UPI00036CC31C  
UniRef90\_UPI0002891FDD  
UniRef90\_UPI00046309C2  
UniRef90\_UPI00047DB69E  
UniRef90\_UPI00047D0CC8  
UniRef90\_UPI0004785BE1  
UniRef90\_B8G4Q4  
UniRef90\_UPI000381C8EE  
UniRef90\_S0FZZ5  
UniRef90\_H5XK75  
UniRef90\_UPI0003B609BE  
UniRef90\_X1TL90  
UniRef90\_UPI0001E30140  
UniRef90\_D0WMC7  
UniRef90\_A6CS84  
UniRef90\_A0A024PP63  
UniRef90\_UPI00038F2F84  
UniRef90\_E2MVB4  
UniRef90\_E3D8X8  
UniRef90\_E1QXV9  
UniRef90\_D6B7L3  
UniRef90\_T0PBK8  
UniRef90\_M1ZF44  
UniRef90\_S0FKR7  
UniRef90\_K0Z182  
UniRef90\_UPI000479F105  
UniRef90\_W7DGGZ7  
UniRef90\_N9WBF3  
UniRef90\_R5Y566  
UniRef90\_H8MLY1  
UniRef90\_UPI0002486162  
UniRef90\_U1PRR5  
UniRef90\_I4M2F6  
UniRef90\_B8I4B7  
UniRef90\_W8TGX0  
UniRef90\_R5QGR9  
UniRef90\_R7NIT0  
UniRef90\_F2RA62  
UniRef90\_UPI0003656400  
UniRef90\_UPI00036755DC  
UniRef90\_E1ICA9  
UniRef90\_B8FZC9  
UniRef90\_UPI0002FF3C48  
UniRef90\_K2AQ39  
UniRef90\_K2FL75  
UniRef90\_R4T5I5  
UniRef90\_H5SC58  
UniRef90\_COZNS6  
UniRef90\_UPI0004077814  
UniRef90\_E6J8R2  
UniRef90\_D2RBPZ8  
UniRef90\_R5EIP5  
UniRef90\_F8IJP8  
UniRef90\_UPI000407C96E  
UniRef90\_E1LOV9  
UniRef90\_R5CTD2  
UniRef90\_D3LWV6  
UniRef90\_Q8M9Y1  
UniRef90\_D1NV12  
UniRef90\_R6C6L2  
UniRef90\_M2XKQ9  
UniRef90\_Q3A5W0  
UniRef90\_B2V6K8  
UniRef90\_UPI00037A44BB  
UniRef90\_D1A549  
UniRef90\_UPI00046C9AEE  
UniRef90\_UPI000464A123  
UniRef90\_UPI0003B52E30  
UniRef90\_U5VBS7  
UniRef90\_UPI00047B33F3  
UniRef90\_U5E524  
UniRef90\_UPI00034AC6F7  
UniRef90\_UPI000248C981  
UniRef90\_R6ETB0  
UniRef90\_R6C357  
UniRef90\_Q81VX7  
UniRef90\_D2NQQ4  
UniRef90\_K6CGP4  
UniRef90\_C4FR11  
UniRef90\_UPI0004754C17  
UniRef90\_S2VYE4  
UniRef90\_UPI0003FAB5DD  
UniRef90\_R6HH79

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

UniRef90\_L5NCX9 1 P K L H E H M Q A W S E R A R E E E R T Y L 20 R K Q A E E V L K N V E K F V Q L S 40 V  
UniRef90\_F7V321 N M V T L L S R G A T E H L I A V E D Y L A G Q V I R E A R R Q A V A V R G S A E I L S C  
UniRef90\_S4GGX5 R I D V Q A L L S R W G A T E I V H A Q D D E T L D Y L A N A Q V I R E A R R Q A V A V R G S A E I L S C  
UniRef90\_A0A024B479 P K V V T A I C N S A K I L I A Q E N D F L I N Y Y V E N S F Y R Q G R K S I K I L S D I  
UniRef90\_R6MFP4 P P G I A E A L V R T A A Q L R E E D A E A F D E N A F I D Q Q A W N Q C V L E Q S S V R  
UniRef90\_A0A031FS71 P P R V E E A I V R T A S T L L A R E E D D E F L E G Y T K S R L F E L V A S Q Q V L D E A  
UniRef90\_E8N3J93 P S F I K V L G E H S Q L L Y R E E E D F L E G Y T K S R L F E L V A S Q Q V L D E A  
UniRef90\_X0XDM3 P K I D E A L L R T A D R T L T S E L J A F F E G Q Q V S R L W D K V V S E S E G I L A V A  
UniRef90\_UPI00037BDD00 P E I S R R L A V T A D L L A V D E E V L E T V A D E A L K R T A R E H S L D V  
UniRef90\_Q39UF4 P L V H K K F Q Y F S E T L L E D E D A A A I D E T I E D I V E H A E A G I A V M S V  
UniRef90\_UPI000478EB0A P G V A E A L A R T S D Q L R E E D T D V L D A L A A E A V A P G D A D L D V  
UniRef90\_A0A111U2P0 P R A A A H M A Q T S L D L L E E T D Y L E Q Q T D Q G A Q T A S A E K N A V L R  
UniRef90\_A4T5P4 G V A E A L A R T A T A L R E E D T D L I D T I A T G A Q T A S A A T T G A S G L D T  
UniRef90\_R7JST8 P G V A D S L A R T A R L R E D D A D A L D A L A A D A L G P A R D G E G L A V  
UniRef90\_X7Y5N9 G I D R N L A R W V E L L H G E E S F L H S L A E N I R S K A E T A S M K L S I D V  
UniRef90\_UPI00036D86D3 P A L T Q T L C R T A E N L R R D E M C L S A W A Q R E T E P G N R I S A  
UniRef90\_X0RC02 P R I M E S L N Q L A G I A R D E N D Y L E K Q L H F S W D K L L G V I L D K  
UniRef90\_B8LL25 N I H T T I Q H L S E T L H A D L S Y L L K Q Q A E K L F D K K N K L L S F S I  
UniRef90\_UPI0003B5C830 G V A P A L A R T A A Q L R E D D A D A L D D Q W A A Q A E R T A A D A D D G L D V  
UniRef90\_Q0B0Q3 G V V I E A L A R T A Q L S R D D A D A L D D Q W A A Q A E R T A A D A D D G L D V  
UniRef90\_X1VH18 P L L V Q T V C Q L A D L M T E D D Y L E A K A E A R K L R Q T L R K G L D A  
UniRef90\_A0A024Q628 P E I S R V L C Q L A E V A A E E D F L E A K E V D R C W S A Q Q D G R A L V Q  
UniRef90\_C0ZHF7 N I H T T I Q H L S E T L H A D L S Y L L K Q Q A E K L F D K K N K L L S F S I  
UniRef90\_D9V523 E H I L A T A E A Q L R E D D E A L M R L A N E Q L K K V M I E K K M D N  
UniRef90\_UPI000363562B G V A P A L A R T A A Q L R E D D A D A L D D Q W A A Q A E R T A A D A D D G L D V  
UniRef90\_C8W8V4 G V V I E A L A R T A Q L S R D D A D A L D D Q W A A Q A E R T A A D A D D G L D V  
UniRef90\_UPI00041ED0E8 P L L V Q T V C Q L A D L M T E D D Y L E A K A E A R K L R Q T L R K G L D A  
UniRef90\_S4GLG1 P E I S R V L C Q L A E V A A E E D F L E A K E V D R C W S A Q Q D G R A L V Q  
UniRef90\_UPI0002628A0D Q L R E D D S E A L D A L A A D F L A R H G K P D I  
UniRef90\_UPI000368C16D P A V V A N L A R S A G Q I A A D N A A L D A L A A D A R Q S A Y G E Q G L E V  
UniRef90\_F8FA97 L P E A L V R L A E T A G S E D S F L E E Q T R L L Y E A N I G R Y V W S A  
UniRef90\_R5YFR3 N V H E K F L L K Y S K T L Q M Y N E Y I N K Q E T K L I K K V V K R D N K L D I  
UniRef90\_U1WVY7 R L S T T L S A T C D I L S D E D E Y L T Q E L A A R A L R E L T R R Q A L D A  
UniRef90\_W1TJS2 A L A R T A A L L Q A D L D A L D S L A A D W F A K T Q R G E G L E T  
UniRef90\_S6FPY9 I I D T I N R M A S L L Q K A E D E F I E K T A N K V Y K E A V C F E E N L  
UniRef90\_UPI00047D93FC E H L S R A A I K F A E A D E Y I R S V S D K L Y K E A Y C K D V I D  
UniRef90\_C4FC27 P G V A R S V G A A C D I L G D E D A F M S Q L A A T A L R S C T R R E G L D A  
UniRef90\_L7VVU7 I T A K L F R M H E L L R N D R D S F L E N R Y A E E K F S E I L G R V L R R  
UniRef90\_R6VBK3 H L A R T A Q Q M Q E V Q V V A R V A R M W A D E H G V N A N E L  
UniRef90\_UPI0003B6E443 P N I K G V L A R M A E L L A R I Q E D Y L D E K M V A A Y K A C L I H E D L D K  
UniRef90\_B2UXU2 I V K L L N R M S L L L Q K D N A F I E R L C K A Y N E Y C K K N T L L K  
UniRef90\_W4TGP9 P E V A A S L A R S A T L L A G E D E V V A R V A R M W A D E H G V N A N E L  
UniRef90\_F4XE85 P G F L S R I S Q T C A H L R E D E D Y L S S L A A Q A V E S A R R E G I L P A  
UniRef90\_R6GEK2 P E F E S V A E R T M F F L K S D N E Y L N N L A A K K F L E S C I L S K G V Y D L  
UniRef90\_UPI000474A612 N L A E S I L H T T E K M E D D V A Y L T N Q A E M L Y H E Q A K E V S C Q I  
UniRef90\_D9PEZ4 G I E K T L S N L A N I A A D Y E Y L N L Q G Q K A F N K T K R K I I T N L  
UniRef90\_F4LRD7 P H L G Q S L R R L S E I A A R D L S F M E Q E T E K A H A N V I R K V I I D V  
UniRef90\_R7MP88 S L F S A I S R L S Q S V S D D D R Y L D K I A S E L M E K A R T D N K Y D V  
UniRef90\_R6SAI2 N V L E G I N R L S N I A R E E E E Y F D K V I A K E Y E E L K Q N E I L D L  
UniRef90\_R6R9F6 P M V H T H I Q R K Y E W E K D E H D F L M V L A E K V L E E S E Q N V T I S Q  
UniRef90\_W4Q7N2 Q A H V H F Q R F S E E L R G D E Q L L Q E L T A R E M N T V M K E I T I D A  
UniRef90\_U5L448 I T N T L V R L S D T V K K D N E Y L E A I A N E K Y K E V R E N K V I S  
UniRef90\_D9SXF4 G V V G A L T R T A E Q L A R D N E L L D A L A A E W I D A H P H A D G V E V  
UniRef90\_UPI00037CE58 P Q L N H S L R R I A D V A G A E D D W M E L E G Q R L F T S L V T E C K L N A  
UniRef90\_C6CRM5 G V S A A L A R T A R Q L R E D C D A L D A V A A D V A R A E A G R D L S V  
UniRef90\_UPI000464872B P Q I K A S L G R L A D L S A E D K A Y F Q E E V A Q L Y Q N L V G E L L G V  
UniRef90\_F9MRR3 P D V H K M F Q K V S E A L T E D E Q Y L Q S L T K E R M N K V I T S K S V S  
UniRef90\_E1UJD5 P G I V R L L G Q T A E I M G N E N R W M E K E A M G W I E G A V T D N S V P L  
UniRef90\_D8F9N9 V V S R L S I G A G L A Q T D R D Y L N K R A Q E I A E R A V T Q V R F S V  
UniRef90\_D2Q8T0 V D N A I A T A A M T R T D D D Y L A Q R A T D A L K E C E C H G G L D I  
UniRef90\_C4LKM3 I T A N L A R T A E L C A R A D A D C L D E L Q T K E A A A G R C I R A I A V  
UniRef90\_UPI0001BC2CAD G C V A H M N Q T A E L L A E T E D Y L E L Q T K E A A A G R C I R A I A V  
UniRef90\_R6VB09 P Q V L S A I S G A C D I V S D E D A Y V S G V A A R C L R K L T V R E V L D A  
UniRef90\_B9CMA2 I I Q T L S R M S V L L Q K D N E F L E N L A L D L Y N C C I Q S Y I L K K  
UniRef90\_G7LXJ8 P R V R E H L A Q M A E L A R E E S W W A E L A R L A P L L I Q S G K M D V  
UniRef90\_E6QIW9 P Q I T A A L T R T A R I C A E D Y D F I Q T M L A D Q W P N L I D K V V F E R  
UniRef90\_A9WEI8 I T E T L N R M T N L L Q I D N D F I E K Q C N N S Y K K C S N K N S I S K  
UniRef90\_V9H4L9 P K I D L A R M A E L V Q Y E N I Y F E R L V R Y L L D K L Q L S S K L E V  
UniRef90\_A0A024B4X9 P L V K D A I T R M S N A V R H Q H N Y L R N V S M E Q F S K L V D S T V I N R  
UniRef90\_UPI00036D3B5A Q I D E N L A R T A D L A R P D A E H L D G E A G E L L A D L R R D G G L D V  
UniRef90\_UPI00026297C1 P S L R K S I L R L S E T A A C D D A Y M M Q A A E D A F A R K C E V H Y R I  
UniRef90\_X8IS60 V H E K F Q Q F S E N L H E D Q A Y L E E L T T D V M N K V Q N E I L I D R  
UniRef90\_D5D980 V P A L A R S A Q L C A D D D F A L R Q W A R Q L T R G A R S G D S L S V  
UniRef90\_E6KS60 P N I K E T L A D F A Q I A A D D D A F I D S F S A K K F I K I T T G V A F D C  
UniRef90\_K2FXG4 A L A R T A T L A A R D D D A L N Q W A D R E W A R V K Q T V A L T V  
UniRef90\_K0YSY0 P A F E E A V G R M A Q S L R E D D G C L C E E A R E L L G R A L E K G G W S C  
UniRef90\_R6N559 I I D A L G R M A Q L L Q K D N E F I E N L A L S L Y N K Y C I E D S I K K  
UniRef90\_M1MG54 P N L Q Y N L C K F L E L C Q D D N E Y I K E N T I K L Y I K S R H R Y S L N L  
UniRef90\_M4IV87 P G V A E A L A R T A D Q L R A D M D L D D A A E A A Y Q R L R D P D G L D A  
UniRef90\_A1SDU8 G V V I E A L A R T A R L F R D D A D A L D D Q W A A L A E R D L R T P D G L D A  
UniRef90\_E4NF83 E H I T D N M A R T T R L L R D D A D A L D T V A T T A L T G L T E K T A L N C  
UniRef90\_W5WMP4 P G V A E S L A R S A A L L A G E D Q Q V V A R A R A E V W A D E H G V S S D E L  
UniRef90\_F3NX74 P H I R Q A V Q R T A E L C S E Q E Q L D E L L A R E V Y Q C I C D D D G L  
UniRef90\_F9T5L7 P Q F H K H M Q A W S E R V R E E R S Y I N E Q A Q K V L E T V H F S Q Q F S K  
UniRef90\_A0A024PLU6 M D K E M D R L W S K I V Q K Q G L D K  
UniRef90\_X1R2M3 P R V L S A I A G T C D I V S D E D A Y L N G V A T R R L R E L L I H E S L N A  
UniRef90\_S3A8Q4 S L F S T M N R M E Q S L R E D S D F L D D M A R Q A L S E A E T T V R L S A  
UniRef90\_R5L1J1 P N A V I Q K L T E L A D S V L Q A E E Y I E Q Q A A G L Y E K A V I S V K L S V  
UniRef90\_R7HBF6 N V V D S L V R L G E L A R H A R E D F T A E R V D E V G E I K G G L C F N R  
UniRef90\_M1P0N2 P S I K S T L A D W S Q I V A E D Y E F I N Q K A E R F S S K V C K N K C F L A  
UniRef90\_K1ZRL5

UniRef90\_L5NCX9 R T F K T F P P A L 50 Q R T A F H L I L 60 N Y L Y V K Q T E D I L L K G E K S 80  
UniRef90\_F7V321 R A L E T L H P S V I R Q R E M I H Q L L L G E T S Q R R H I D G V L D E L A Q T G R Q L  
UniRef90\_S4GGX5 E Q L A Q A H P S L R Q R R V I I A R A L T E A V S L L D H V E V Q A Q V D E L W H G Q K P F  
UniRef90\_A0A024B479 V L V Q A Q L P L V L R Q R R V I I K E F L E N T S F V H I V E V Q A Q V D E L W H G Q K P F  
UniRef90\_R6MFP4 K V L K Q E H K A I R R R Y I I K E F L E N T S F V H I V E V Q A Q V D E L W H G Q K P F  
UniRef90\_A0A031FS71 A A L A A N S P T A L R R R H R I R R H V A S L D T R T Q T L E J A R V A R L V T N G G H T P L  
UniRef90\_E8N3B1 E R V Q A S L P P A L Q R R E V L R P A L R D L D T V N R A M Q F V T G Q S R P H I  
UniRef90\_F2JR93 K L L K S Y H P Y M Q K R R L F F M A L K D F S S K H L E S A L A L M E G G K E I  
UniRef90\_X0XDM3 K E L K S L H P A L V R R R H L L R Q Q V L E D L E N F W K H L E K M R D A L A K G Q K R V I  
UniRef90\_UPI00037BDD00 A D L V D L P P A V L R Q R R G I K L L L N S S T I H L E S V I Q S R L T H P S G S P I  
UniRef90\_Q39UF4 A G L L R E P P R G V R Y R T Y R R A L R G L S S Y K H V L L Q I D G L V R S P K P I  
UniRef90\_UPI000478EB0A K G F L S L P P L L Q R R R G I K L L L N S S T I H L E S V I Q S R L T H P S G S P I  
UniRef90\_A0A011U2P0 P A L A A N P P L P A L Q R R H R I R R H V A S L D T R T Q T L E J A R V A R L V T N G G H T P L  
UniRef90\_A4T5P4 T A L A D L P T A L R R R R A V R G W L R D L T D K H L R A V D A L L H G Q G G V  
UniRef90\_R7JST8 D A V S S E A P L L R R R R V I R R R V L E Q L T R E H L E S V R E L F E K G K S V  
UniRef90\_X7Y5N9 A A L T A L P P V R R R R V I R S W L  
UniRef90\_UPI00036D86D3 P V L A G L P P A V R T R V L R T A A G T L N A A V H V I D A V D R L V T G Q R H V  
UniRef90\_X0RC02 D S F Q S L H P S L R Q R R V I L L L N Y L N I D H I E E Q V M S L L I H H Y G Q K L  
UniRef90\_B8LL25 S I V E S L P V A L Q R R R V I K Q F I L E S H T F D T I E E K V L R L L A Y A S A Q S  
UniRef90\_UPI0003B5C830 K R L A A M P E S I A L R R V I E N L A E S A G G G A V E G V L A L A Q A S A Q S  
UniRef90\_Q0B0Q3 K A L G E E H P A L Q R R L L E A L A R W E L K K D V Q E R I L L D Q Q S A G S  
UniRef90\_X1VH18 E R F L Q L P V A L Q R R L L L E M S L K D I E M R H I E E I M G V L P K G K R I  
UniRef90\_A0A024Q628 P T F K T Y A F A L Q R R R A Y H L L I L N D L S Y V H E E Q F F S L L H H Q T R R L  
UniRef90\_C0ZHF7 D K F Q T C D V A L Q R R R M I T L L L S D E W S S Q S H V E T V L H M L G G S P P L  
UniRef90\_D9V523 A V L A A E P P A A L R R R R V L R R E L L T D A L V A R W R G G Q G G V  
UniRef90\_UPI000363562B A R L L I T L P A A V R R R R V L R R A A V A A G A R H I E E T D R L L T G Q K P L  
UniRef90\_C8W8V4 L K L S S T D V V I A R R R V V R I V A R Q L E F Y Q H V D A V L R L L A G A S V A  
UniRef90\_UPI00041ED0E8 Q T A A T L H P A L Q R R G L I R R L W E D L T Y Q T E S I R R L L T T S G S Q Q  
UniRef90\_S4GLG1 A T L E N S H I S L R R R R I V A R A L S A A G I R S V E S I D E L L H G Q K P T  
UniRef90\_UPI0002628A0D G E L A P L P A S L R R R I L R N W L T A H G L R S V D A L V A R W R G G G V  
UniRef90\_UPI000368C16D S V L S G L P P D A I R R T R V L H A W A K E L S H R H R V E A L D A L V H G Q G P V  
UniRef90\_F8FA97 R W F A G V H I A L Q R R R L I K L L L N S M D F L H I E S V R L A I L S E E P V V  
UniRef90\_R5YFR3 E K Y K K L D D V I K N R R V I Y F Q V I E E K N D K H I N A L N N L I Y S S R S V  
UniRef90\_U1WVY7 G R L A A S E V V I A R R R V V K Q V I A R V E A R H I N A L Q L V A S G S V  
UniRef90\_W1TJS2 K G L L A Q P A A I R K R V W R L A A L K A G A R Q L D A V D F M A T G T G P I  
UniRef90\_S6FPY9 K K L F E L E D S I T R V I K S A F K H T N F E H I Y E V I E L A K I G S K K I  
UniRef90\_UPI00047D93FC N V L S K E S D V I K E D V I L K C F K E E T Y R H V D M V M R L S N G S A S V  
UniRef90\_C4FC27 A R L A A A E V A I A R R R M V R L A V K R V E M R H V E A V L A C V A A G R S V  
UniRef90\_L7VUW7 D E K L T E L H P A V S G R E V I R I A W E K I T G S H V E A A L S A V E G N R T A  
UniRef90\_R6VBK3 E E V Q K L P A A L S Q R E M I T E A A G D L S N R H M E A L L E L V E T K R L  
UniRef90\_UPI0003B6E443 N E F M D Y H K V L K Q R T V R H C L R K T D D R E E I E N I L K L F T R R G G S A  
UniRef90\_B2UXU2 K E L F K E D Q A I V T R I V R T A L S H Y D D F E H I Y D A I L L S K T G G K G T  
UniRef90\_W4TGP9 P G L R G V E V G L A R R V I K E W L P Q A R M V H V D A V L G L L D G G A R L V  
UniRef90\_F4XE85 A A L A D Q P Q S V A I R G A R M L I G S M T A G H L E G L L N L C R G S A R G L V  
UniRef90\_R6GEK2 T S V K C E P L P L L S R F L L L A V S N Y L T A R H I E M L N L I K D S G A V  
UniRef90\_UPI000474A612 N E L K K H P R A L Q R R L F H L L N Y L S Y R H E Q Q F F T L L I D S G R S V  
UniRef90\_D9PEZ4 K A F N N Y H D S L K R T I I R L S L E K I T L K H M L E I E D L I S N R S K V L  
UniRef90\_F4LRD7 K K F S K L H E A V K Y R L T R L A V E V K D F E H A K L L V D F I E R S G K L L  
UniRef90\_R7MP88 T G L R V Y H K A V R R H R C I A K L L S S Y S Y E R L E Q I D K L F S D G K I  
UniRef90\_R6SAI2 G I L R T A D E C I L R R T V T I I F K D P N M K A V E S C V G I L R A G Q  
UniRef90\_R6R9F6 K K F N K L E K V I K S R V I L Y T I N K T N G N H I E E D I I K L C E N  
UniRef90\_W4Q7N2 N A F L R I D L P L Q R R V I H L L L S Y L T S I H I E Q V L D L L H R E K P L  
UniRef90\_U5L448 E R F M L M P M P L Q R R R G I Q L L L S L S A I H I E K I F S I L L N N S G S L I  
UniRef90\_D9SXF4 K N A F N E P E S I T R T R V L R K A Y N T V N F E H I Y A D I K L Q N S G K S R I  
UniRef90\_UPI00037EC58 A A L A G Q H A A I R T R V L R A A A G E L S A R H V A E L D R L L T T G R S I V  
UniRef90\_C6CRM5 G A L I G L H V A L Q R R L I K L L L N Y L S F D A I E T M R L A A A P A A P S  
UniRef90\_UPI000464872B A D L A G V P P A V R R R R V L R T W L G D L S D A H L R S V D A L L V R G G G V  
UniRef90\_F9MRR3 R D L E K L P P A L R R F R L Y R E V C K D L A Y A H L J A I D Q L L T S G K G I  
UniRef90\_E1UJD5 S Q L L A L P P L Q R R R G V Q L L L N S F S A R H I Q Q F L E W A E N G G V L  
UniRef90\_D8F9N9 E D F G K L A P A L Q R R R L Q G G L R R Q A H L R H I D A V K G L T R G Q K R L  
UniRef90\_D2Q8T0 G V L Q S Q H E A I R R R V I A H H A L G L R H V R Q I D R L I H G Q H G V  
UniRef90\_C4LKM3 A T Y L R Q P Q A L R G R I I K Q W L H H R T R A H V T A I D A L W H G Q G G V  
UniRef90\_UPI0001BC2CAD S E V A D L H E D A L A S R V L R E W L Q S F G A A R I S E L L A L L T R D P G R L I  
UniRef90\_R6WB09 E P F L A L H P V I A R K R L L Y E E V K Q I T Y Q A H I S E L L L T L F T R G Q I V  
UniRef90\_B9CMA2 A R L A A T D V V I A R R R V I R L A V K R L E A R H V I E S V L A V A N G R G A V  
UniRef90\_G7LXJ8 E T F K K E E A I V N R R L R H A L S A D Y D F E H I Y E K I L Y L S K N K I V  
UniRef90\_E6QIW9 L R L A S Q P I A L Q R R R L R H A A A A P G F E A T E K L R H L A L K G R P  
UniRef90\_A9WEI8 A A L M S T H P A L R R Y A L R R A I E E P G L A H L D A A L H L I G G Q S  
UniRef90\_V9H4L9 E A F L L E K A I T R R I K K S F V E F T M K S I Y E V I E I A K N S K V  
UniRef90\_A0A024B4X9 K I V S S L P V A L Q R R M I K K J F D Q Y N F S I E Q I R L M I  
UniRef90\_UPI00036D3B5A K Q F C E L H P S L Q R T L I R G S T K D L K Y K H I E N L K I A T S P K Q I V  
UniRef90\_UPI00026297C1 H A L A A P T A L R T R V L R R L A E Q A G R R H V L A A D A L V H G S D S A A V P S  
UniRef90\_X8IS60 G P L I G M H A A V R R R V A A I L E E P T Y D V N A I V S I V E S D S P S  
UniRef90\_D5D980 D C F L R I R K P L Q R R R G I Q L L L N T L S S A H V D M L V G F C E S S G T L  
UniRef90\_E6KS60 S A L A Q A P P A V R A R A V R E A I G A L S L A N V E A V D G L V R G Q G P I  
UniRef90\_K2FXG4 K K I L L L P V S I R R A Q C L R R A I R E V D L E H E E A V E K I L N K S Q Q S  
UniRef90\_K0YSY0 E P L K S L P Q A V R T R I R R F L S K L A M T H I D R V D N L V H G Q K E T  
UniRef90\_R6N559 S V L S R G R K P V R I R A I R L L A S R P E A R H L E E I D R I I A S Q G G V  
UniRef90\_M1MG54 E I F I E E E P I A T R V L R N A L S N Y D F E H I Y E I F H L A N S G K L I  
UniRef90\_M4IV87 N L I K K Q H V I L Q R R V L Q L F F H Y N F N Q  
UniRef90\_A1SDU8 D G L L A E P P I A A L A A G A P A S E L F H E V L A M D A L L H G Q K V P  
UniRef90\_E4NF83 G K L A E L P P A V R R R V L R R A A L R A G A R H L E T V D L L V T G Q G P L  
UniRef90\_W5WMP4 A K L S Q H P A A I R R R I Y Q R W L G E L T S T H I D A L V E R W K G Q G V  
UniRef90\_F3NX74 S G L C G V E A G L A R R R V I K E W L P E A R M V H V D S V L G L L E G G A G V  
UniRef90\_F9T5L7 A M L E S A S T L I R R R V I R M W L E Q N H L R  
UniRef90\_A0A024PLU6 R T F K T F P P A L Q R T A F H L L L E D T S Y L H E E M F M N L L N D E K P L  
UniRef90\_X1R2M3 E G V L E L P V A L K R Y L L R R A L K D I E S R H I E E S V L E A V A T K G K R L  
UniRef90\_S3A8Q4 A Q L A V E L V A L A R R V V I R I A A K L T D D H I E S V L E A V A T A G G S V  
UniRef90\_R5L1J1 E K L A K L P K P V Q Q S R A I K L I L Q E P S A L R V I N T A R E I I A S G K  
UniRef90\_R7HBF6 K A L V S A P P V L Q Q Y A I R R Q A I E V A A R V H V G A V Q E L L E H G K C V  
UniRef90\_M1PON2 K K L L K F P P Y L Q R A T I R R L I G E V S F S H V E E V L D K L R K S A R L  
UniRef90\_K1ZRL5 D D F L R L H P S I Q R Q A L R N L I T K K D I E Q I E E I L K I V R S T K K K

UniRef90\_L5NCX9 D F P G G L K V V R A Y D  
UniRef90\_F7V321 I L P Y G M T A R R S Y D T L  
UniRef90\_S4GGX5 S L P N H Y E A V R R N H R I  
UniRef90\_A0A024B479  
UniRef90\_R6MFP4 Q L P K N L Q V K I N Y D R L  
UniRef90\_A0A031FS71 D L P G C R A R R I G A M I  
UniRef90\_E8N3B1 H L V A G L G L R L E G E H L  
UniRef90\_F2JR93 H L P K Q V T L R K I Y D Q L  
UniRef90\_X0XDM3 I L P R G L T F Y V E G R Y  
UniRef90\_UPI00037BDD00 D L P G G L Q A Q R  
UniRef90\_Q39UF4 P V P G G V G V V R A Y  
UniRef90\_UPI000478EB0A D Y P N G L K V I K S Y Q  
UniRef90\_A0A011U2P0 D L P G C R A H R R G  
UniRef90\_A4T5P4 A V P G G L T R E R  
UniRef90\_R7JST8 C L P Y G I T A V R G Y E T L  
UniRef90\_X7Y5N9  
UniRef90\_UPI00036D86D3 D L P G G V R A F R R R D R L  
UniRef90\_X0RC02 H I G A G V F V Y R D Y N  
UniRef90\_B8LL25 N G N K R V R V S  
UniRef90\_UPI0003B5C830 S L S G G L T A R R E Y D Q L  
UniRef90\_Q0B0Q3 Q L K Q G L R V  
UniRef90\_X1VH18 K L P G G L T F S I E Y D  
UniRef90\_A0A024Q628 D F P E G L K I E K S Y D Q I  
UniRef90\_C0ZHF7 H L P N D L V V D R V Y E R I  
UniRef90\_D9V523 W L P G N L E A R R R R G R L  
UniRef90\_UPI000363562B N L P G G V A V G R R N G R L  
UniRef90\_C8W8V4 N L P Q N L E A R V R  
UniRef90\_UPI00041ED0E8 E L S H G Y T A H L A Y G Y L  
UniRef90\_S4GLG1 A L P G G Y E A S R K  
UniRef90\_UPI0002628A0D W L P G G L V V T R T H G R L  
UniRef90\_UPI000368C16D H L P G A I R V A R  
UniRef90\_F8FA97 N F R Q D I M L A R E Y D R I  
UniRef90\_R5YFR3 Y L P N N V K V V R S Y N  
UniRef90\_U1WVY7 Q V V E G I D A R V E Y G L L  
UniRef90\_W1TJS2 Q L P G K V T C T R  
UniRef90\_S6FPY9 D L P N E I E A E  
UniRef90\_UPI00047D93FC D L P Y G L I A K R E Y E F L  
UniRef90\_C4FC27 A L P E G V D A R I E  
UniRef90\_L7VVU7 E L P K R I K V I S E Y D R V L  
UniRef90\_R6VBK3 D L P Y G L V A G R D Y D R L  
UniRef90\_UPI0003B6E443 D V T A K V K C G V E G R Y  
UniRef90\_B2UXU2 N L P K N I Y V I E  
UniRef90\_W4TGP9 D V P G G R I E I S Q G  
UniRef90\_F4XE85 D L P G G L T A R R R Y  
UniRef90\_R6GEEK2 I L P H N I K V G V N K R L L  
UniRef90\_UPI000474A612 D L P S A L K M V K S Y Q T L  
UniRef90\_D9PEZ4 N L P K G I I C T K K P D N L  
UniRef90\_F4LRD7 D L P K N L Q G L K E Y E  
UniRef90\_R7MP88 N I S G D L Y I I S R G N K L  
UniRef90\_R6SAI2  
UniRef90\_R6R9F6  
UniRef90\_W4Q7N2 H F S N D V N V R R D Y D  
UniRef90\_U5L448 D F P N G L K I V R S Y  
UniRef90\_D9SXF4 D L L H G I I A Y N S Y G H I  
UniRef90\_UPI0003C7EC58 E L P G A V T  
UniRef90\_C6CRM5 D A G S G V R C I R E Y S S I  
UniRef90\_UPI000464872B F L P G G A E V S R A H D K L  
UniRef90\_F9MRR3 D L H G L R L E K T Y D  
UniRef90\_E1UJD5 D F P K G L K V V K S Y Q  
UniRef90\_D8F9N9 N L P N G V V V I R T Y D T L  
UniRef90\_D2Q8T0 A L P S G Y S A N R Q K H V I  
UniRef90\_C4LKM3 A I P  
UniRef90\_UPI0001BC2CAD S L P G D T E V I I T G Q V L  
UniRef90\_R6VWB09 C L P F G I R G R R Q Y E  
UniRef90\_B9CMA2 N L P Q D I Q A R I E  
UniRef90\_G7LXJ8 D L P N G L Y A E  
UniRef90\_E6QIW9  
UniRef90\_A9WEI8  
UniRef90\_V9H4L9 D L P N G I V A E  
UniRef90\_A0A024B4X9  
UniRef90\_UPI00036D3B5A N L A Q G L I V Y V R G N  
UniRef90\_UPI00026297C1 P L P G R I E V A R R D G L L  
UniRef90\_X8IS60 S L P G G V I A E R R Y  
UniRef90\_D5D980 D F P N G L R I I R S Y N  
UniRef90\_E6KS60 D L P S G S A S R V  
UniRef90\_K2FXG4 S F K G L R I T R K G D  
UniRef90\_K0YSY0 E V P S L A I F R  
UniRef90\_R6N559 S V P G G L  
UniRef90\_M1MG54 H L P N G I Y A E  
UniRef90\_M4IV87  
UniRef90\_A1SDU8 D L P G K V R C R R A D G R L  
UniRef90\_E4NF83 H L P G G V E A V R R  
UniRef90\_W5WMP4 A I P W G  
UniRef90\_F3NX74 D V P G G R V E V R R G  
UniRef90\_F9T5L7  
UniRef90\_A0A024PLU6 D F P E G L K I T R A Y D E I  
UniRef90\_X1R2M3 S L P G G L I F S I E Y N R  
UniRef90\_S3A8Q4 N L P R D I Q A R V S Y  
UniRef90\_R5L1J1  
UniRef90\_R7HBF6 S L P Y G L V A V R G Y D E I  
UniRef90\_M1P0N2 D L P G  
UniRef90\_K1ZRL5 S F I G G L K I T K N G D K I

UniRef90\_U7JM47  
UniRef90\_Q67JG9  
UniRef90\_R5HBD3  
UniRef90\_R6GLI9  
UniRef90\_A5UQ50  
UniRef90\_I0GJQ2  
UniRef90\_UPI00029CBBAD  
UniRef90\_Q47KU2  
UniRef90\_R8VUD6  
UniRef90\_W9AQN9  
UniRef90\_D4J6D9  
UniRef90\_F1YLP8  
UniRef90\_UPI00036831EB  
UniRef90\_UPI0002DEDCEE  
UniRef90\_X1M514  
UniRef90\_Q97EB0  
UniRef90\_UPI00037BF0B8  
UniRef90\_N6X3D1  
UniRef90\_J8TLG3  
UniRef90\_R6EMH1  
UniRef90\_R6EEQ2  
UniRef90\_UPI000289403D  
UniRef90\_R5KSU1  
UniRef90\_UPI000289EB8A  
UniRef90\_D8TSC1  
UniRef90\_Q1IVN3  
UniRef90\_S2ZG38  
UniRef90\_D4YMQ4  
UniRef90\_H1PMX5  
UniRef90\_R6CND4  
UniRef90\_R5Z629  
UniRef90\_R6U8P4  
UniRef90\_V6M8R2  
UniRef90\_I8AFM4  
UniRef90\_U2VIN7  
UniRef90\_A7NHN4  
UniRef90\_UPI000464C890  
UniRef90\_A8HSR3  
UniRef90\_K5BAE2  
UniRef90\_Q5WAE0  
UniRef90\_I4ECQ4  
UniRef90\_UPI00037629A5  
UniRef90\_W3Y2J5  
UniRef90\_I0RRL1  
UniRef90\_R7MCL8  
UniRef90\_UPI0004013CC1  
UniRef90\_K2EPW2  
UniRef90\_B2HJ66  
UniRef90\_UPI00037AB07A  
UniRef90\_R9CHM7  
UniRef90\_R6K1B8  
UniRef90\_E8MOD1  
UniRef90\_B2A3Q2  
UniRef90\_F4CLV0  
UniRef90\_UPI000348D751  
UniRef90\_G8NAX6  
UniRef90\_UPI00047ADDEB  
UniRef90\_L5MXG0  
UniRef90\_U2EAK2  
UniRef90\_F0Z2L2  
UniRef90\_C0QHR3  
UniRef90\_W1WKE7  
UniRef90\_X1V542  
UniRef90\_UPI00037B82E  
UniRef90\_Q8EU18  
UniRef90\_UPI0003112482  
UniRef90\_D3PQN6  
UniRef90\_R1AWW2  
UniRef90\_C0VYV6  
UniRef90\_R6YTD1  
UniRef90\_UPI0002627453  
UniRef90\_W4R176  
UniRef90\_E4L0U3  
UniRef90\_E3EQD9  
UniRef90\_UPI00037C6A15  
UniRef90\_A6NYG0  
UniRef90\_K1ZEE8  
UniRef90\_UPI00041C0F4A  
UniRef90\_UPI00029A05D9  
UniRef90\_B1R1S7  
UniRef90\_T0MS33  
UniRef90\_R4ZZ04  
UniRef90\_R5PP31  
UniRef90\_R5P0Q2  
UniRef90\_R6NKM1  
UniRef90\_R6Y0D6  
UniRef90\_H5U429  
UniRef90\_UPI00037F6871  
UniRef90\_R7N7Z9  
UniRef90\_UPI00046504F4  
UniRef90\_D7B842  
UniRef90\_UPI0003FD1457

UniRef90\_U7JM47 S K L H A L P D G L 50 A G R R V V K A W L 60 H R D V H H V Q A V L G L V D G G A R W L 80  
UniRef90\_Q67JG9 T L L V I Q E P L A L A R R V V R K M A V E Q R P G L V S A V V T R Q A L E L A E G S H W L  
UniRef90\_R5HBD3 R T L A A L P H P A V I V V R V V K K R A F A K E V D S R V H I E D Q V I D L A A N R G G K A T S I  
UniRef90\_R6GLI9 D L F I K E K E A I V V T R V I K Q R A L K E V D S R V H I E D Q V I D L A A N R G G K A T S I  
UniRef90\_A5UQ50 R R W R D L H P A L I Q H A A I R R A Y D T L G Y D D V M R A C E E S V G E N R G K R R I  
UniRef90\_I0GJQ2 N L L K P L S L S I K R R R I I K E S W L G E A N Q Y E R V N D M I A E F R W R N K G K Q F  
UniRef90\_UPI00029CBBAD A L L V L S A P P V I R R R R V I R S W L G D R Q L R A V N D M I A E F R W R N K G K Q F  
UniRef90\_Q47KU2 A G L A G L P R A I R T R R L L R R I A G A L T A E H V F A L D R L V T G G Q S H V  
UniRef90\_R8VUD6 A A F D Q L P A I Q Q S R M L T A L L Q Q V L S Y E R H I G L M T G S L L A P G G C C  
UniRef90\_W9AQN9 N S F K Q Y P R A L S Y F V H E A H F F S L L L Q S E K K Q I  
UniRef90\_D4J6D9 A A F V G Q D I A I Q R R E L L R Q V L E R K D I R H I G T L R A L L F H A G G K K A  
UniRef90\_F1YLP8 E P L E S A P T A L R T R V L R E G L Q E P S Y R V V V A S I G A L L V H H T Q Q A E I L  
UniRef90\_UPI00036831EB Q A L L D A H P A L Q V R L R E G L R Q V R G D H A D A L S R L L V H H T Q Q A E I L  
UniRef90\_UPI0002DEDCEE S E M K K L H K F L A Y E I I K T Y L E K L N R D N I L N L Y D L I E S G R L I  
UniRef90\_X1M514 A A L L S L P P A L Q R R H L I R R R V L G E V L A D H I D E K M M E A L P A G K K Q I  
UniRef90\_Q97EB0 E A F S N D T A I L S R L I R R R A V S K Y N L A D H I D E S I I G C Q L P A T G K Q I  
UniRef90\_UPI00037BF0B8 P L S E Q S P A V I R R R Y V T R A L T D A G L E H V E R S L A A L G A G K E T A  
UniRef90\_N6X3D1 L P M M E L P M A I R T R I R R R F C G A L S S R L I D E Q I D A L L H G G K Q I  
UniRef90\_J8TLG3 E R F Q V L R P L R R V I H L L L N Y L S I L I H I D E Q I D A L L F N G G K Q I  
UniRef90\_R6EMH1 E P F L A L H P V I R K R L L R L S P G Q K D Y Q H I T E L L T L F T Q E G R T I  
UniRef90\_R6EEQ2 E P L S Q Y P E L L Q N K V I F R C L T E T G S Y V H V E R D V R A L L E K T N S E V  
UniRef90\_UPI000289403D N R L Q L H S L A L Q R R I I Q L L L K Y L S Y T L L E R D V L K L A S T K N S E V  
UniRef90\_R5KSU1 G E F L H P A V K N Q V I R V L K D I M D V H V R D V A T L F K G Q K K I  
UniRef90\_UPI000289EB8A I G F R R Q P V A L Q R R I I Q L L L N Y L S Y T L T E N L Q L L V E G N S T L  
UniRef90\_D8TSC1 H E L R R R L P L A M Q R R V V R K K A G A R A G Y E D V A R C L A L L H R S N S D  
UniRef90\_Q11VN3 S R L S E L P Q A F R R R R V L R E D W A Q N E A G G F R H V V D A I D D L L V R G G A R T  
UniRef90\_S2ZG38 A S L R G A P R A V R T R V I R E G A Q A G A G F F R H V V D A I D D L L V R G G A R T  
UniRef90\_D4YMQ4 H T A A E L P A A L R R R V I R D W A L K K G F F A H Y K A C D D I L I S S S V S V  
UniRef90\_H1PMX5 V D I S E L D P S L R R R V I A Q Q A L K K G F F A H Y K A C D D I L I S S S V S V  
UniRef90\_R6CND4 K E F L K L H P A M Q R R I L H M M Q E P D F C K V R E S I I N L L E V S K S V  
UniRef90\_R5Z629 K A F E L H P A I A K R I V R K G L K D V T A A H V E S I I N L L E V S K S V  
UniRef90\_R6U8P4 K S L C S A H L V V A K Q A V I N I L N K K S Y E H I E L I M Q A L K D G S G A V L  
UniRef90\_V6M8R2 D K F Q S C D P V A L Q R R A I T L L L S E W S S Q V E S V L H M S R S S S E L  
UniRef90\_I8AFM4 S T Y L H M P I P L Q K R A I T L L L S E W S S Q V H K E S F L A L L N S S G Q L  
UniRef90\_U2VIN7 A K L A A M D V A I A R R V L R R A I Q T V E A Q H I H R V L S I V A Q G G S A  
UniRef90\_A7NHN4 R R W R D P P A L Q R H A A L R R A Y A L L G D D V V R A D A V G R G K R R I  
UniRef90\_UPI000464C890 E T F W K I P Y V F R E E V I R A V L A E K D L V H V R D I L E L M E K G R R I  
UniRef90\_A8HSR3 S A L R K L P L A L Q R R V L H S W L A R V G F D D V A R C L K L L Q G A V S D  
UniRef90\_K5BAE2 R R L E T L D P A L Q R R V L R G W L T D D L T D K Q I R A V I Q A F L I T  
UniRef90\_Q5WAE0 Q A L C L A P P L R Q R R M I H L L N Y L H L D A I R A V I Q A F L Q T S A P L  
UniRef90\_I4ECQ4 E P A R R L H P A I Q R R I T M A A A I I R L S F D R I E A L R G A V Q G G S R I  
UniRef90\_UPI00037629A5 N A V L A L P H S L S R R L V R E F L R G I S F F E D I E S V L N L S E G K K C  
UniRef90\_W3Y2J5 R R L R Q Q P M A L Q R R L W Q M M V R V D F A H Q A S V S D I V Q T G  
UniRef90\_I0RRL1 A G L A L L P E A L R R R V I R R W L T D K Q I R G V D A L V T A W R G G G V  
UniRef90\_R7MCL8 N R F K E L D Y L L G N K V I Y N R L E K V T S T H V N Q L I Y N L T I N G G K S V  
UniRef90\_UPI0004013CC1 R L I S H E H E S I R N K V I V R A L S I L D I E H V Q A I D Q L I H G Q G P V  
UniRef90\_K2EPW2 K J I T S L Y P A I Q K R I I I N F I A S E K M D H I E E I D K A L K S T K T I  
UniRef90\_B2HJ66 S V L A T L P D P V R R R V I R S W L T D K Q I R G V D A L V T A W R G G G V  
UniRef90\_UPI00037AB07A S V L A D A P A A V R R R V F R R W L M D H G V R H L R A V D E L V R G G G A V  
UniRef90\_R9CHM7 K A F I L D K A V L T R L I K R A F V I E F T M K H I Y E V I D L S T T N K K V  
UniRef90\_R6K1B8 S V L K S A D M V L V K R V I Y R C L V E V N V S D I A A L M D M Q T G R T I  
UniRef90\_E8MOD1 T K L A T Y S D A V R S R L I R M W L A G Q D V R  
UniRef90\_B2A3Q2 K T L Q K S P K V L R R R L L T A V E N V S K K H I I D A V A K M I E T G K E I  
UniRef90\_F4CLV0 A T L S P A P Q A V R R R A L R E W L T S G V S H L R A V D D L I V R G G G V  
UniRef90\_UPI000348D751 E A F I E R P H A L R R R A L R Q V L E A L G L R P E A R L V E L L E R G R A A  
UniRef90\_G8NAX6 P A Y R A I P L A L R R R A L R Q V L E A L G L R P E A R L V E L L E R G R A A  
UniRef90\_UPI00047ADDEB E A F S Q P E A I L T R I I R L S I S T Y N F E H I F D I I D I L K T G T V L  
UniRef90\_L5MXG0 D K F Q T C D V A L Q R R M I T L L S E W S S Q H V E T V L H M L G G S R P L  
UniRef90\_U2EAK2 E A F I E A E A I L T R V V R L A L K D V N L K N I E K I H D L I E T G K K I  
UniRef90\_F0Z2L2 D E Y R S L H Q V L Q G R L I R K C L G D I T M A H V E A V T G L F D T G K S R  
UniRef90\_C0QHR3 D G F N G L P A L Q R R L V R K A I Q A V T L P H V D A V A L A A A G R S L  
UniRef90\_W1WKE7 R A L R Q E P L A I Q R R L W Q R L V S T I D S D H Q E Q L D I V N T G E K K  
UniRef90\_X1V542 K K F S S L P L A L K R R I R K S L E S I S F R H N N E L L K L  
UniRef90\_UPI0003B7B82E E A L A A L P E A L A T R V I H R M A G D L S A G H I E E K F F A L I E R Q E G I  
UniRef90\_Q8EU18 Q A F I E R P H A L Q R R A Y H L T L N D L S Y I H E E K F F A L I E R Q E G I  
UniRef90\_UPI0003112482 Q D F L R M R K P L Q R R R G I Q L L I N A L S S A H I D Q Q L F A F F K E S G A M L  
UniRef90\_D3PQN6 A P L L Q A P T G L R R R R A L Q I L E H P E M G W V V Q L E R A L H H G E A F  
UniRef90\_R1AWW2 N K L V D M H K S I K A R V I R L C I E K I N K D H V S Q V I E L I D T G K R V  
UniRef90\_C0VYV6 D A L E K E A K A V I R M R I W K L F A Q H S H R Q L Q E L D R L I T G Q K A V  
UniRef90\_R6YTD1 K E F I E R P H A L K N R L I E L M G S T Q G I E H I E D I I K L  
UniRef90\_UPI0002627453 Q T F L S Y P Q S L Q R R V F H L I L E K M S Y V H E E Q F F K M L N A S H R I  
UniRef90\_W4R176 T S L L N S S V A L Q R R V I H L L L S A T S I H I E Q V L S I L K T S A E L I  
UniRef90\_E4L0J3 S E I K K L K K F I G Q R R V I K K Y L E S R S N I J A I Y D L C I D S S G R Q I  
UniRef90\_E3EQD9 K A L A R E P R A L Q R R V I A H A L A E A G F H H V D A V D R L I H G Q G A V L  
UniRef90\_UPI00037C6A15 V G L Q S F S H A W A P R A R R W L E S P S A K Q T E Q L L A L T E A A G P L  
UniRef90\_A6NYG0 H Y L L A D A P T A I A P R A A R R L E D C S A A H L E A V N L C H G D D P S  
UniRef90\_K1ZEE8 D L F G G L H L A I R R R I L K C F W H R P T Y G Q I D T L T L L M E N G K E T  
UniRef90\_UPI00041C0F4A K S F R G C D E A I K A N I I R R S L E D T S A H V D S I A L L S C G S A S V  
UniRef90\_UPI00029A05D9 G H L E L P A A V L T R V I R R W L E P T Y A H L T A V A L V I  
UniRef90\_B1R1S7 K K M F D N K E A V L T R V I R Y A L T H Y D F E H I Y E I C N L A N S G K A I  
UniRef90\_T0MS33 Q K F Y S L D N V L K R N L V R Y S W T N L T F K Q V D R V L D L V E T G K R V  
UniRef90\_R4ZZ04 D K F V Q L D K V I Q N K I Y N L E R L D L A H V D L I F N L I S S N K S V  
UniRef90\_R5PP31 K K F N L L D S I I K A R I I R L F K T T K G I E H I E D I I K L  
UniRef90\_R5P0Q2 A E L Y K V G P V L Q E H I W E A I G Q V T R R I Q A V A L L I D S G S S V  
UniRef90\_R6NKM1 K K F N K L E K V I K S R I M S I F G T K G I E H V D D I I K L C D N  
UniRef90\_R6Y0D6 K K F N N L E L V I K R R L I L Y T I N E L T T E G I E K V  
UniRef90\_H5U429 A S V A D L S D A V Q R R V V R R W L R E P T T R V I E A V D E L L R R P G Q V  
UniRef90\_UPI00037F6871 A R L A N L S L V V T R R R L R G D I R G I S T F A D V I E S V L Q L D R G K E F  
UniRef90\_R7N7Z9 E Q L G Q A D E V L G K R V I Y K A L V K L A G R N V Y D V Y K L I N T G R K V  
UniRef90\_UPI00046504F4 R E F L G Q P K I I R K L V L K C I V K D I S F A H I S A V L S L A E T E G A S A  
UniRef90\_D7B842 A P L E R A P E S L I R T R V L R R A S A L T A R H V R E L D R L V T G A H I  
UniRef90\_UPI0003FD1457 R A L A K E D A A L R F R V A A R T I A L C G R R H V E A V E A L I H G Q R G V

UniRef90\_U7JM47 D L P G G A V R K E H  
UniRef90\_Q67JG9 D L P Q G V R L S V A Y  
UniRef90\_R5HBD3 N L P D D L F V W R E Y D Q L  
UniRef90\_R6GLI9 N L T N S I I A E N T G D I I  
UniRef90\_A5UQ50 E L P G G V A L V T D Y D  
UniRef90\_I0GJQ2 S I G K D L Y V A K T G N  
UniRef90\_UPI00029CBBAD A I G G G  
UniRef90\_Q47KU2 D L P G A R R G R R  
UniRef90\_R8VUD6 N L P A G F R A Y R E Q G R L  
UniRef90\_W9AQN9 D F P H H L K L E K S Y  
UniRef90\_D4J6D9 D L P Y G L R A E S T Y R  
UniRef90\_F1YLP8 A V G G D A T A R  
UniRef90\_UPI00036831EB D L P G S W A G R R  
UniRef90\_UPI0002DEDCEE Y L G S N T I S R K S Y D  
UniRef90\_X1M514 S L P R G L V F H V  
UniRef90\_Q97EB0 N L P N N M R A  
UniRef90\_UPI00037BF0B8 H L P A A R D V T V T G G R L  
UniRef90\_N6X3D1 D L A G V R V R R G R D  
UniRef90\_J8TLG3 D V G Q G L V V Y R D Y  
UniRef90\_R6EMH1 C L P F G I R G R R Q Y E  
UniRef90\_R6EEQ2 D L P A R V R A V R E Y E  
UniRef90\_UPI000289403D P L P E G F V A R R H Y D E L  
UniRef90\_R5KSU1 N L P Y N L I A V K E Y D  
UniRef90\_UPI000289EB8A H L P K D F K M H R Q Y D Q L  
UniRef90\_D8TSC1 S L C G G M V A S V R D G H L  
UniRef90\_Q1IVN3  
UniRef90\_S2ZG38 H L P G G L A F R V  
UniRef90\_D4YMQ4  
UniRef90\_H1PMX5 N L P N G Y V I C K E Y E D I  
UniRef90\_R6CND4 E L  
UniRef90\_R5Z629 N L P Y N I K A K K Y K G I  
UniRef90\_R6U8P4 N L P K G Y T A  
UniRef90\_V6M8R2 H L P N K L V A S R V Y  
UniRef90\_I8AFM4 H F P Q A L H V V R S Y D  
UniRef90\_U2VIN7 T L P M D I D C R V I E  
UniRef90\_A7NHN4 E L P G G V A L V T D Y D  
UniRef90\_UPI000464C890 S L P Y G V R A F R G Y E  
UniRef90\_A8HSR3 Q L C G G L V A V V D G E W L  
UniRef90\_K5BAE2  
UniRef90\_Q5WAE0 D L P G R V Q V K R S Y  
UniRef90\_I4ECQ4 E L G N R F T A Y V D Y E  
UniRef90\_UPI00037629A5 H M K K N L F L K R E N G Y V  
UniRef90\_W3Y2J5  
UniRef90\_I0RRL1 A V G S S L R R Q R  
UniRef90\_R7MCL8 H L P N N V K V I R S Y D  
UniRef90\_UPI0004013CC1 T L P S C Y S A F R K N H V I  
UniRef90\_K2EPW2 S F E G L K I I R K  
UniRef90\_B2HJ66 A V G S N L K A R R  
UniRef90\_UPI00037AB07A W L P G G L V V I E R A H G R L  
UniRef90\_R9CHM7 F L P N E I I A E I Y G D I L  
UniRef90\_R6K1B8 H S V Y G I Y A I R E Y D D I  
UniRef90\_E8MOD1  
UniRef90\_B2A3Q2 T L P G K I  
UniRef90\_F4CLV0 A L P G G L L V R R D G R  
UniRef90\_UPI000348D751 D F P L S L R V E N S Y G K I  
UniRef90\_G8NAX6 T L P G G Y L A R R K G  
UniRef90\_UPI00047ADDEB S L P S G I E A Y N N Y G N I  
UniRef90\_L5MXG0 H L P D N M A V R M Y G R V L  
UniRef90\_U2EAK2 M L P E N T I A Y N N Y G S I  
UniRef90\_F0Z2L2 D L P Y S V R A V R E Y D  
UniRef90\_C0QHR3 D L P G R V R I F K Q  
UniRef90\_W1WKE7 T F  
UniRef90\_X1V542  
UniRef90\_UPI0003B7B82E A L P G A V A N R A G R  
UniRef90\_Q8EU18 D F P L S L R V E N S Y G K I  
UniRef90\_UPI0003112482 H F P K G L Y V I R S Y E  
UniRef90\_D3PQN6 T L P E G W Q V R R R  
UniRef90\_R1AWW2 N I S N N I N V S I S Y D  
UniRef90\_C0VYV6 S L P G N W Q A R R  
UniRef90\_R6YTD1  
UniRef90\_UPI0002627453 D F P N R L K L E R S Y Q  
UniRef90\_W4R176 H L S N T L K V R R D Y D  
UniRef90\_E4LOU3 D L G K N I S A R R S Y D K I  
UniRef90\_E3EQD9 A L P S G H S A F R R K H V I  
UniRef90\_UPI00037C6A15 L L L Q G W Q V R R Q G R W L  
UniRef90\_A6NYG0 A L P G G R L A R V Y G E L L  
UniRef90\_K1ZEE8 H L D D G V R A E  
UniRef90\_UPI00041C0F4A D L P Y G L I A N R S Y D E L  
UniRef90\_UPI00029A05D9  
UniRef90\_B1R1S7 D L P N K I Y A E  
UniRef90\_T0MS33 N L K N G Y W A E  
UniRef90\_R4ZZ04 H L P N N L V V I K S Y N  
UniRef90\_R5PP31  
UniRef90\_R5P0Q2 Q L P Y G I H A R R N Y  
UniRef90\_R6NKM1  
UniRef90\_R6Y0D6  
UniRef90\_H5U429 A I G G  
UniRef90\_UPI00037F6871 H L E K G L V L K N E  
UniRef90\_R7N7Z9 D S V Y G I K A V R E Y E Y I  
UniRef90\_UPI00046504F4 D L P Y G I I A R R V Y D R I  
UniRef90\_D7B842 D L P  
UniRef90\_UPI0003FD1457 Q L P R K R T A N R Q K H V I

UniRef90\_N4WND6 1 P S V H R N V Q Q I T E R L T E D E S Y L Q G E A K K A F D N I M R Q A S F H 40  
UniRef90\_B0PF93 P G A L E A V G R M T A A L R T R E D E A D Y L L S G E A A R E A G A R A A R G E G Y D L  
UniRef90\_UPI000289F5AB P N I S T E R I L T E D E R F L G G E L A S E K A L K T V I E L V K I S T  
UniRef90\_A6LPK8 P G I V Q T L N R M S T L L L A D D A A Y L L Q A A A E A A G A D I V G R A G V A R  
UniRef90\_D1C1U5 P N I V S H L A A M A Q L L A L D D E K E Y L D M Q A D H V A A S A V L S G A W S V L  
UniRef90\_UPI00040C1DE5 P N I J E T L D R L S E L V A L D E E Y M Q M N V T E S A F T E I L T K I V L G L  
UniRef90\_R6BZJ3 P S I R E S L A R T A A I A A E D A A H L E A E A R E T F A R L L E D P R L A M R  
UniRef90\_UPI000255CE60 P R L Q E A L G R M G E L L R W D A D D L L A Q E V A Q Q D W R Q Y C G D H T H L N L  
UniRef90\_G2FK21 P Q M Q S A L A R N A Q L L M Q D A D D L L A Q E V A Q Q D W R Q Y C G D H T H L N L  
UniRef90\_V2VXJ1 P K I L L E A I G R T A E T V L R Q A D A D F L D A S A A E A V A A V R G R R E L R L L  
UniRef90\_B5JGZ5 P A C V T D I S H M T T I L Q A E E T W I Q T M V Q T S A R H I V Q R Q G E D I  
UniRef90\_W0E4R9 P A V Y N H F E R F S E E T S E D F Q D L E D D L A N E L L K K N V E Q T T V L L L  
UniRef90\_F9MPW6 G V R D A L V R T A D L M A D D L A A L D D L A A D A L A G A R S G D A L L I  
UniRef90\_K9ARP1 P G V I E A L A R T A S E F L L S R D E D E L A L D D L A A D A L A G A R S G D A L L I  
UniRef90\_E3ZCF4 P N A V J E H I A R A A E K L A R Q N M Y V E K Q A K K R Y M K I V R M D G F D C  
UniRef90\_G4HRC6 P V V P H L A A F T R L L A R E D E A L L A R M A D E A W G R L L L P D G L D A  
UniRef90\_C8XA92 P G I T A A L A R T A G M L R D D A D A L D A L A V I E L R E R A R D G G G L D V  
UniRef90\_Q65PF4 P G V A E A L A R T A L S L A D D D G A A L D A Q A R A A F P G A R G L L A I  
UniRef90\_S3ANQ2 P Q L L D T L C R T M L I A D E D D F M E S L A E D A L A E Q A R E G Y T L L L  
UniRef90\_UPI0001E89698 P I K T L N R M S R V I N E D N E F V E D F S K K I F K K Y C Y K K Q D R V  
UniRef90\_UPI00047C9C3B P Q A V R H I D Q A G R R L R Q D A J A F L E E V A E E W L Q K H A P D G K A D A  
UniRef90\_S9P558 P G I A Q A L L R T G Q I A S D D J A F L D K E V A R L W D E V A Q E A G L D K  
UniRef90\_J7L6R5 P Q V D Q S L L R L A T G A A E C R E Y V L E T Q A S Q L L R E T D E S V T L D A T  
UniRef90\_R4UPE8 P G V A E A L A R T A L A R L Q E D V D T L D A L A A D A L A G A R T Q G G L D C  
UniRef90\_R7B5T9 E Q A V E H L G W L C E D I Q E V S Y L S I Q I E M A F S R C I N G F K I C C  
UniRef90\_UPI0002889A93 P K V H L K F Q Y E S E R I T E D E S L L N D L A K S Q L K S V T L K Y A L S I  
UniRef90\_R7B312 P S F R Q A V Q R S A E L C A E Q E T L I E E L L A E K L A N M I N S D G L S I  
UniRef90\_X0U6R2 P V E E G L A R S A T L L R D E S D Y L E R V A A R V F D R V V C R L K I D R  
UniRef90\_A3ZPZ0 P G V A A L A R T A D Q V R E A D A L A K K E L Q A V A S G A S L N C S  
UniRef90\_A0A024M502 P A E N S V R M A A A L Q E D E F L E R L A K E Q L E G L L T D K G V P V  
UniRef90\_R7C2J5 P N I V A V L A R L G E H V S A D E T Y L T A E T E R R F N E L K A A D N G L K R  
UniRef90\_UPI000255C779 P N I S R T L S R S A K I C A G S N N I L Q K L L N E K L Q K I S K D N G L F I  
UniRef90\_C9P327 P G V A D A L A R T A M L A R D D A D L L D A L A A E A D P G T A A L D C  
UniRef90\_R6M048 P R V K Q T L S R Q W S L V V A F I E Q Q C L K F F D C S N R G A D F S A  
UniRef90\_R7Q7Z9 P K A A Q N M A R A A G L L A A E D A V L D A L A E E L L A R A N V S Q G L E W  
UniRef90\_F8E1Y9 P N V V R N V G A A C D I L G D E D A L L S K L A A Q A L A R A C T R R Q V L D G  
UniRef90\_UPI00037D0AB9 P G V R A G L V R T A A L A R Q D A D Y L D A L A A D A R R A L G D L P W E V  
UniRef90\_UPI00046FA9A3 P N M N R A A Q E L F L A N E F V E R K T R E A L S C V R E Q A K D R  
UniRef90\_K9D459 P K V D K V I A Q F A E I H D E S F Y M E N V T Q I T E K Q L F F G S K I Q Q  
UniRef90\_F8GC82 P E I Q K N A L R S A E L C F E Q E Q L L D E L L Q H Q Y Q A L N D N S L S M  
UniRef90\_F5XFC5 P V I E V L N R S A S D T V K V D N E Y I N N V A K E E Y S E I S E E K I I L K  
UniRef90\_K2FAE8 P D I V A T L N R L A Y S C S K D V E F I Q E E V E K R F P K L E N H S I I L K  
UniRef90\_G4KX85 P I L N T L N R L S D T I K V D N N Y L D S L A K E K F K C P E K V I I S K  
UniRef90\_UPI00034DA1E8 P S V Y E H S R S I S E Q L S E D E A F F N L Q V D Q L M N E V S E L K G V S R  
UniRef90\_W6JVE3 P D R H V A E T A A Q L S R I L D D Y L D E Q A R L L V E S S K D E V L D C  
UniRef90\_R6ZEN0 P V E H M N R S M D Q Y L R E I L W D Y M E R Q T E S A Y Q I C T A Q N G I H A  
UniRef90\_Q9MUR3 P N L T E T I L H M T D K I A E D S Q Y L N I Q A K K L S Q E L L T K V I T V R I  
UniRef90\_V5F1N3 P N V V N A I V R L G N S V C E D G V S L I S N L T D M V F D E L V T G A F I S R  
UniRef90\_A0PX6 P K I D Y V L N S C T E V M Y T E T L Y L D S I A R Y V L S K A Q T C V K L D F  
UniRef90\_Q0TMI0 P N I T K G I N N L S E I V T E E Q N Y L E K L V N N I Y S Q I K I E E T L D L  
UniRef90\_W6N6Q3 P L T E H I V S L E I V E E W S R Y L E E Q L S E A W K A C V K Q E G I D T  
UniRef90\_D4W685 P G V A A T L A R T A E Q L R P D M E F L D D F A V R L F G E A R E G V R V R I  
UniRef90\_V5X102 P K F H S H M Q A M S Q R M R E D Q S Y I R E Q A R E V L D N M K K I V H F S L  
UniRef90\_UPI00036241D P G V A H A L A R T A Q R M R E D A D A L D G H A E A L G A L R P G V V D V  
UniRef90\_UPI0003812090 P V H L H V Q E M T E R M T E D E E F L Q A Q T K A M R H E V V T C E K F N I  
UniRef90\_B3E688 P A I A E R L S A T A S L L G E D E T L L H C T E T A F R Q L A C S N A L A L  
UniRef90\_UPI0002F37C41 P G V I E A L A R T A Q L L S R D D A E A L D A W A E A E R T V R V G S L D T  
UniRef90\_UPI0003032D89 P L A R T A D L L R E D A D H L D A E A G R A W A A V V A Q V I G L P V  
UniRef90\_UPI00041FB284 P Q A D K H V I A E T A D Y F A K I D D F L E S A M A D E I V S R K D G E V I L D C  
UniRef90\_UPI00047B25EC P L V T V I N R M A D T L K E D N E L I E S V I D E Y Y C V K V E K D Y L I R  
UniRef90\_S6B JL5 P G A D K A L A R S A A L L G E T R D L L D D C V A G A L A G C R A G S G L S V  
UniRef90\_UPI00034D1695 P G V A D A L V R T A A L A R E D A D A L D D M A T E V A Q G L V E G L S I S V  
UniRef90\_UPI000262A217 P G V S A A L A R T A D L A R E D A E A F D A M V A E Q I E E I V E G L A V S V  
UniRef90\_UPI0003B7B167 P G V T R A L A D T A D L L R R D N D A L D M I A G Q E L E R M K N E G S Y Q R  
UniRef90\_A5F623 P S I R Q A V L Q R S A E L C A E Q E A L L Q E F L A E A L K A A I T E G G L S I  
UniRef90\_UPI00035E83AC P N I Q S V L N Q T A E L V Q I V E S D Y L E T I A H D A F Q A C R N T V V L D R  
UniRef90\_D7BFF1 P S L A R F A E V R Q A E D P L L E E G A A Q R L L P D R R W P V  
UniRef90\_L1QB3C P I I E T L N R M V L L L R Q K D A N E F I E E Y S K K C Y D K K N D A R I T R K  
UniRef90\_UPI000362AF6A P G I V D A L A R T A A L L R Q A D A D A L D D S A V S L E M S S P E R G L D C  
UniRef90\_R5L3U4 P Q F E K H T S R L L E S I Q R D E D F L E K H T D R I Y N G L F S D H K L I T  
UniRef90\_W5Y432 P D R E L D E L A A G A F A E A S Q G E G L V V  
UniRef90\_M9PRV3 P Q F E E K S C V L L S S L I A L D V D F L E Q E A L R I Y S L I L H E H L I A  
UniRef90\_D4M067 P I E H F V K L S E Q A E I I Y E Y L E K Q T D Q A W N I C A E Q T D L R A  
UniRef90\_P51383 P N L E E R C Y S L S L V K Y D T D F L E Q E A L R I Y F I L I H Q D A I N S H  
UniRef90\_UPI000471D691 P N L E E R C Y S L S L V K Y D T D F L D Q L A R E A L D A R K S A S L P  
UniRef90\_A1HRS0 P A I G E N L A R L A E I M A D Q Y D F L K Q C A A D V Y T R V A D E L A L D S  
UniRef90\_R6N1N8 P S F E A S L K R L C D D A K L L S V Y L D K Q T D K A V R A D S R L A F G Y S A  
UniRef90\_UPI00036B645D P G V A S A L A R T A A Q L A D D D A A L T A L A E E V R A A E D D G L A A  
UniRef90\_E3H1W7 P V A L S L A R T A A V A G P D A E Y L D A L A T A E Y T R L K L P A G L N R  
UniRef90\_UPI00047956AD P R I H E H L Q L F H E Y I G E D F T Y L M G E A E A L F Q S A V G R I S F S R  
UniRef90\_R6T316 P N V H K K F Y K F S E N L I C A S E F I E K E R N K A V S K V L I N G K V I  
UniRef90\_UPI0003471D0E P G I A P A L A R T A D L L R D D A D A L D D W A D A A R A D L G G L D V

UniRef90\_N4WND6 S E W L G Y P N A L R Q R R V I A A L L N E E R S A Q R I E A S F L S L I A K N K A Y  
UniRef90\_B0PF93 G A L R A L H P A L L R A R R M I H L L L Q M Y P P L F H H I E N F M K L L E G S G R R G L V  
UniRef90\_UPI000289F5AB S A L L S V S L P L Q V N R V L R H H A L S N Y D F F E H I Y E I S C L L A R Q K G K L V  
UniRef90\_A6LPK8 E P L R N L H P A L Q R R R V L I L A A R E P T A E R V E A L R R A A V E G R V I  
UniRef90\_D1C1U5 D V L R G E H A A I R R R V I K H G L S A L G I G H V E A I D R L L H G Q G P V  
UniRef90\_UPI00040C1DE5 K E F N K L E Y V I R K T R I V I K I L F G T S N K K H V E D I I K L  
UniRef90\_R6BZJ3 E A L D A E P P A I L R R R V L K I L A V A N P S S E R I V A A V E G L L A R S G P V  
UniRef90\_UPI000255CE60 D V F T E P A A L L S R Q L L R R A A Q E P G F T Y S L T A K I M G S K G R S G K Q  
UniRef90\_G2FK21 D T L Q Q L T P A R Q R R L L S A W A G E L T Y R S L D A V L R L  
UniRef90\_V2VXJ1 T E V A T V P V A L Q R R R V L H R L V G E L G A K A L E A C L E A L A G G T R L  
UniRef90\_B5JGZ5 E V F Q E P K A I F S R R L V R R A A A R V T S G E  
UniRef90\_W0E4R9 A P F L A C P V A L Q R R L V R Y A Y E T L S F T H V I E T L R A L F K E T G K Q  
UniRef90\_F9MPW6 A E L A D L D D A L L T R V L R E W L Q S F G A V R I A E L T S L I R Q Q S G S G L  
UniRef90\_K9ARP1 S S F K N E A N P L Q R R V I H L L L R Y I T T A N Q H I Y A Q I T Q M I Q S S G S G L  
UniRef90\_E3ZCF4 G T L T E L P T A R R R R V L R R W L R L R L T A N K Q I R A V D A L V H G S G Q G L V  
UniRef90\_G4HRC6 E P L T E P P A L Q R R R V L R A W L G P L T Y D H I S R A V L D R Q L T G S A G S Q V L  
UniRef90\_C8XA92 E R L L A L P M P L Q R R R V L R A W L G P L T Y D H I S R A V L D R Q L T G S A G S Q V L  
UniRef90\_Q65PF4 A R L Y A L P P A V R R R R V L R R A A V D A G A R H I Q V F L D W I T G S G S L L  
UniRef90\_S3ANQ2 K P L L F M A K P L Q R R R G I Q L T L N Y P S L S H I D N L L S L L E S S G R L  
UniRef90\_UPI0001E89698 K D F L K C D E Y I C Y E T I R L T L E E V H Y K M I A D L V E M D T G G K M V  
UniRef90\_UPI00047C9C3B V G V R A L E P A L R R R V L V R L M A E V D G P F T H V I E T L R A L F K E T G K Q  
UniRef90\_S9P558 S L E R A E A A L R R R V L R A A A L D A G A R H V R E L D R L V T G Q S G H I  
UniRef90\_J7L6R5 S D L R G L T P A V R R R R V I R L W L Q D L N D N Q I R A V E A L V T G Q S G V  
UniRef90\_R4UPE8 P S F R G M L A P L K R R V I R S V L G R L E S T A I E A V L A F D K D G S P  
UniRef90\_UPI0002889A93 I T Y K D A H K S I V S R V L R M A I M Q Y N T E H I N D I K L Y N T G K T L  
UniRef90\_R7B312 G A L A E Q A E T V K G Y I V R R L L R D V T E T H V Q A V R E L L H T G K S I  
UniRef90\_X0U6R2 E R F D S L P P T L K R Y I F R A A E  
UniRef90\_A3ZPZ0 K K L G T A P P F L A K E A C V L L W K Q H S R E K W E A L W T L I T G D S P A  
UniRef90\_A0A024M502 T R L A S L P D A L R R R V I R A W L T D Q R S V D R L V T A W R G G V  
UniRef90\_R7C2J5 N E L G K E N P W I L Q K Q V L K K V L E K T E R R H I E D L M R L L H T G K G L  
UniRef90\_UPI000255C779 P N L L A V H P A L Q R R T I H L V L L Q P M H Q H I E G L Q F L H A G R S S  
UniRef90\_C9P327 Q G L K E C S D A M R Q L I R A W L A K P S R Q H T E M V A L A E A G  
UniRef90\_R6M048 G P F D K L D J A M K S R V I R L A V E E L G F D V K K L R L I E K G K S L  
UniRef90\_R7QZ79 E L L R K V Q R R V R R A L R E G L G V K H F K H V E A V R A L V A G S A A A  
UniRef90\_F8E1Y9 A K L A E L P V A V R T R I Y K L W L T D V T S A H I G A I D N L V K G Q Q P T  
UniRef90\_UPI00037D0AB9 P D L A R W P V A I R R R V R G W L T E P S A T I E A V D R L V  
UniRef90\_UPI00046FA9A3 A A F R T M H P A L Q K R A V P L L L K Y P A I Y N V D L L N Q L I T G S A S I  
UniRef90\_K9D459 H E V A S L P D A L F Y R L W R Y F G T F S S A H I E E L R Q V I K G Q K R  
UniRef90\_F8GC82 S E L L T L D N D I Q K S L H H W F K E T T I E H I H K A L S N I H T G C Q F  
UniRef90\_F5XFC5 L Q L E S L P P A L Q R R M L A R W L G D L S A G H L F A V D A L L H G S G V  
UniRef90\_K2FAE8 S E F E Q L S A S M Q R Q L L R N I G T T D T E Q I E E L I K V I R S T K S K  
UniRef90\_G4KX85 A V L D S A P E A V R G R L M E R A C G H R S A A H V K A A L E L E K G R E C  
UniRef90\_UPI00034DA1E8 A R L A S A E V A I A R R R M V R L A V R Q L D L R H V E V L A L V A A G A G S T  
UniRef90\_W6JVE3 G D L T Q L D P A L R T R V R A A L G A L G R N H I A E C E R L L T G Q G P I  
UniRef90\_R6ZEN0 P L F L K Q D P Y L K R I L L S L Q L T S A H V E I R R L L F E G K G R L  
UniRef90\_Q9MUR3 E F I E N L P I A I E R R I I K K M I E K K N F L N I E Q I R  
UniRef90\_V5F1N3 Q R L S A V S E A I R H R L I R Q W F K Q H N  
UniRef90\_A0PXM6 G Q L F K E H E A I L T R V I R I A L N N L E K N H I Y D I I D I Q K T G K Y I  
UniRef90\_Q0TMI0 E E A F N E K E A L L T R I I K K A L K H N N F E H I Q D I I A L K D T G K Q I  
UniRef90\_W6N6Q3 E A F L E D E A I V S R R L R L S L R D Y D F E H I Y D I M R I Q K T G K Q I  
UniRef90\_D4W685 S F I N S L P K S L R R I K R I L Q Q F M I K H I E E V L S V M Q S S K P V  
UniRef90\_V5X102 S A L A V L P S A V R R R R V I R V W L N D G Q L R A V E A L I T R W R G Q G G V  
UniRef90\_UPI0003B6241D G S L A A Q P E I I R K E L I T N G I K D I Q A V H I R E L T R L T D G S A K R L  
UniRef90\_R6LQK9 E A Y H R R Q E R L I R K M I L R K A L A E K D L E H V E R E L G L F E K G K R L  
UniRef90\_K0I207 N D L T K H P R A L Q R R L F H L L L E R L N Y R H E N Q F F D L I N H H Q S I  
UniRef90\_K0ELS2 E T L A T A P A A L R R R T I R A W L K A L T G K H L R A V D E L V T  
UniRef90\_D1BLC8 R E L R K E P L A I Q R R L W Q R L V S I L D S E H Q E Q L L D I V N T G E E K  
UniRef90\_Q32RJ9 E L L R A V P L A I Q R R I L K Y F L D S V S F K H V E Q V R  
UniRef90\_R7F8K7 K E F N K Q D T I K R R L L R I F G T S K N T E H I E D I I K L C E R  
UniRef90\_R6QIF8 G R F L E P E P L R R L L A K Q V I E Q T A G R H I Q S F C D L A E T G K S I  
UniRef90\_UPI00036E95FE D V V E P M G W S M R T R V A R L A A L E A G A V H I N A V A D L L S G R Q I  
UniRef90\_I0JH51 S T F K T F P L A L Q R S A F H L L L E D S T Y L H E E M F M N L L K P N A K L  
UniRef90\_F8A4Q9 C A L E G V P L R R A A V A A G A P A G S L T R T H V E A I M D R L L H G Q G P V  
UniRef90\_UPI0003812090 E A F R S Y P I A L Q R R A F H L L L N D L S T Q H E K A F F A L L D Q E K T L  
UniRef90\_B3E688 A G L R Q Q P P H A L R R L Y R M A I Q R F E L R H Y Q L L D R L L L E G S T L  
UniRef90\_UPI0002F37C41 A R L H A L P P A V R R V M R R A I E V G A V H V E E M D R L I T G Q R A L  
UniRef90\_UPI0003032D89 E S L A Q L G P A V A G R V V R T W L S D L T A D H V R D V R E V A A S G E A  
UniRef90\_UPI00041FB284 N V L A S K H E V V R E R L I K G I Q D I Q D V H I N T I S R M V E G S K E Q  
UniRef90\_UPI00047B25EC S D I I J A K S V I N R V I R K A T S I S A K H I A S R K L L N L G K R V  
UniRef90\_S6BJL5 A A L R E L A V P M R A E V V R A W L R D  
UniRef90\_UPI00034D1695 S E L A G L A P P V L Y R V I R V L A Q L R F V H T L A I A E L V T G Q A V  
UniRef90\_UPI000262A217 A A L A A N P A A L R H R I R R V A E E L S R E H T L A I A A L V T G Q G P L  
UniRef90\_UPI0003B7B167 E S L L R L H P A L S T R I L R L R A G E L S R T H I E K I T R G Q H G H R Y A  
UniRef90\_A5F623 A V L A E G S E G M R R Q L I R A W F A H P S R Q H T E R L  
UniRef90\_UPI00035E83AC R L F R Q H H L J A L R R R A V I F G K V R D L Y F N H F E S M L T L I D G E S T L  
UniRef90\_D7BFF1 P A Y R A T P P G L R R R A I R Q L L E H P E Y R L I A D V I E T A L L E G Q P R  
UniRef90\_L1QB3C E I E K D E L E A I N T R V V K M A F K K V S M K H I Y K I E I E L S N T G K Q I  
UniRef90\_UPI000362AF6A A K L A E Q P A A I N T R V L R S A A G D L T A G H V E A L D A L V R G Q R W V  
UniRef90\_R5L3U4 D R F N K L S A S E K Y R V I A R W L N E V N D N V I S G V V A L S V S H S R F  
UniRef90\_W5Y432 D K L R K L A P A L R R R V L A A Y L H E R K L K V S A A L Q S I D G Q G G V  
UniRef90\_M9PRV3 N Y L Q L L H P S I Q T R I L K L F F A S Y N S K Q I S D M I F F I N Q S N N I  
UniRef90\_D4M067 E E M K H L D P V I K K F L I Q R A V A Q K D I E H I Q A T L Q L F E R G R Q I  
UniRef90\_P51383 T A L R L L H L S V Q S R L F K I F F I A P N S R Q I E D V I L F I K  
UniRef90\_UPI000471D691 Q A L A A L P R P L R E R V C L A L W I E D P D R Q Q L N Q L L S L N H P G  
UniRef90\_A1HRS0 A A L A A L P T A L R R E V L R L A I E K K S F W H V E K L L E M A L D G K V G  
UniRef90\_R6N1N8 K K I C E Q D K I R Q N V I K K L C V E N G A D H I E L I D N A L F E S G C V  
UniRef90\_UPI00036B645D P V V G K E P A A V R R R V L R A W L A E A Q L R A V D A L V A R W R G Q G P P  
UniRef90\_E3H1W7 A E T A A L H P A L R M R V L A L A T R A P G F E R L Q A L D E F V A T A G P V  
UniRef90\_UPI00047956AD Q D F L R L S R P L Q R R S F H L L L N D V T Y H H W E Q Y I Q L M E G K S F  
UniRef90\_R6T316 S K F L Q I D D F L Q R E I L Y F L M E L Y N D R H V E L L Q E L I G E K T I  
UniRef90\_UPI0003471D0E R A L E R L P R A V R T R V L R R A A G A L T A R H V A E V D R L V R G Q A R V

UniRef90\_N4WND6 D F P Q G L Q M Y K S Y D  
 UniRef90\_B0PF93  
 UniRef90\_UPI000289F5AB C F P G G L S A R K S Y  
 UniRef90\_A6LPK8 H L P N G V C A E V Y G D  
 UniRef90\_D1C1U5 E V G G G V G A W V D Y A S L  
 UniRef90\_UPI00040C1DE5 S L P S G Y T A I R K K H V I  
 UniRef90\_R6BZJ3  
 UniRef90\_UPI000255CE60 Q L E G G V V A C R  
 UniRef90\_G2FK21 D L P G M T V K I T D E G I  
 UniRef90\_V2VXJ1  
 UniRef90\_B5JGZ5  
 UniRef90\_W0E4R9  
 UniRef90\_F9MPW6 F F T R Q W R A V R T Y D  
 UniRef90\_K9ARP1 R H G G G A  
 UniRef90\_E3ZCF4 N L P K K L V V K R S Y N E L  
 UniRef90\_G4HRC6 A V G S D L R A R R D G R  
 UniRef90\_C8XA92 R V P G G L D V S R R D G A L  
 UniRef90\_Q65PF4 D F P N G L K V A K S Y  
 UniRef90\_S3ANQ2 N L P G R V E V A R Q G G R L  
 UniRef90\_UPI0001E89698 H F P N G L Q V I K S Y N  
 UniRef90\_UPI00047C9C3B C L P G G L F V E K R Y D  
 UniRef90\_S9P558 T L R G G H V  
 UniRef90\_J7L6R5 D L P G G V R G R R A A G R I  
 UniRef90\_R4UPE8 A V G A D L R Y Q R  
 UniRef90\_R7B5T9 Q S G Y V V N I Q G D  
 UniRef90\_UPI0002889A93 M L P E G I R V  
 UniRef90\_R7B312 S L P H G F R A  
 UniRef90\_X0U6R2  
 UniRef90\_A3ZPZ0 E L P G G I R A E K K G E Q L  
 UniRef90\_A0A024M502 A V A S G L R K Q R  
 UniRef90\_R7C2J5 S L P Y K M K A E K S Y Q Y I  
 UniRef90\_UPI000255C779 T L P G G L T A S V S Y E  
 UniRef90\_C9P327  
 UniRef90\_R6M048 D V P G H V R L  
 UniRef90\_R7Q7Z9 S L V W G S E A K V S D R W I  
 UniRef90\_F8E1Y9 A L P  
 UniRef90\_UPI00037D0AB9  
 UniRef90\_UPI00046FA9A3 S L P E K W S L Q R E Y  
 UniRef90\_K9D459  
 UniRef90\_F8GC82 D I S K Q Y Q I S V E Y N Q L  
 UniRef90\_F5XFC5 D L P G G V R V R R  
 UniRef90\_K2FAE8 S I I G G L N I S K K G D K I  
 UniRef90\_G4KX85 S L P Y G L L A R N S G A A L  
 UniRef90\_UPI00034DA1E8 T L P D G L D V R M E  
 UniRef90\_W6JVE3 P L P G G Y A V T R R  
 UniRef90\_R6ZEN0 D L P Y G I T V Y K S Y D  
 UniRef90\_Q9MUR3  
 UniRef90\_V5F1N3  
 UniRef90\_A0PXM6 M L P S G I R V T N N Y  
 UniRef90\_Q0TMI0 N I T N G V I A L N E Y  
 UniRef90\_W6N6Q3 M L P N R I I V S N D Y  
 UniRef90\_D4W685 T L P N Q I C C V I A Y D  
 UniRef90\_V5X102 A V P D E V P A E R  
 UniRef90\_UPI0003B6241D S L P Y G I Q A I R T Y D K L  
 UniRef90\_R6LQK9 D L P Y A V C A C R T Y E G I  
 UniRef90\_K0IZ07 D L P  
 UniRef90\_K0ELS2  
 UniRef90\_D1BLC8 T F  
 UniRef90\_Q32RJ9  
 UniRef90\_R7F8K7  
 UniRef90\_R6QIF8 D L P Y G L I G R K T Y  
 UniRef90\_UPI00036E95FE Q L P G H I T A  
 UniRef90\_I0JH51 D F P Q G L Q A V R A Y D  
 UniRef90\_F8A4Q9 A L P G R L V A R R  
 UniRef90\_UPI0003812090 D F P K S L K V T K N Y Q E L  
 UniRef90\_B3E688 N L P G R L T A L L T A D R L  
 UniRef90\_UPI0002F37C41 N L P G R V E V S R A G G R L  
 UniRef90\_UPI0003032D89 S V P G A G T V R R A G  
 UniRef90\_UPI00041FB284 D L P Y G I K V I R V Y D K L  
 UniRef90\_UPI00047B25EC D L P N G L Y A E V Y G D  
 UniRef90\_S6BJL5  
 UniRef90\_UPI00034D1695 Y V P D I S V T R R A G W L  
 UniRef90\_UPI000262A217 E V P G L T V S R A G G R I  
 UniRef90\_UPI0003B7B167 D L P G A Q C E R R G K L I  
 UniRef90\_A5F623  
 UniRef90\_UPI00035E83AC D L P N G G V F R R A Y N R I  
 UniRef90\_D7BFF1 T L P G G V V R R K G  
 UniRef90\_L1QB3C S L T N N I V C E I Y G D V L  
 UniRef90\_UPI000362AF6A D L P G A V R A L R S  
 UniRef90\_R5L3U4 Q I C G N V Y A  
 UniRef90\_W5Y432 A V G G N S R E R L E  
 UniRef90\_M9PRV3 N I K N Y I V G I D G T W L  
 UniRef90\_D4M067 D L P Y S I T A K R M Y E  
 UniRef90\_P51383  
 UniRef90\_UPI000471D691  
 UniRef90\_A1HRS0 S L P G G L S F V R T Y D G L  
 UniRef90\_R6N1N8 D L C G N F R A V V K Q G I L  
 UniRef90\_UPI00036B645D S L P G G L E V I R T R G R L  
 UniRef90\_E3H1W7 Q L P G H V S A Y R R R R  
 UniRef90\_UPI00047956AD D L P N G L Q V V R S Y N  
 UniRef90\_R6T316 N L P N D V I A V R E Y D Y  
 UniRef90\_UPI0003471D0E D L P G G L S A R R G G G A L

UniRef90\_UPI00047E80B2 1 10 20 30 40  
UniRef90\_UPI0001744DC4 V K H L C R A A S D F A L A D D F I C K V T G E L F D K A C T F D G I E L  
UniRef90\_I3IE6 N I K N S L T Q L Q R F A R L A G A R D E D E F L Q S L T D H Q L L Q A D R S L T V N D T R  
UniRef90\_UPI0004732A62 L H E K F L Q A F C S E N L L A Y E D N Q A Y L E E L E A K K L K D S T R K Q Y R S  
UniRef90\_R7FZS1 P E A E K S I G R F L K I T E S E N D F L E E L A K K S L T R D G N A Y F I  
UniRef90\_UPI0002D67D40 P N V A E V I T H W T Q N Q Q E N D Q L L E E K L A V K E A M T N C R N G D L I L E I  
UniRef90\_UPI0004654242 P R V E E A L A G F A R R A R R E D D L A L E A W A E A E W E R L V S E V V I N D R A  
UniRef90\_E0XU81 P G I A E A L V R T A E Q L R E D D E A F A E V I E E L C D S P A E A G I A I S A  
UniRef90\_UPI0003B5C494 I E H I N E S A G Q L A V M N D F Y E Q Q L K E A C L D S M V G R V I L E I  
UniRef90\_C4ZC34 L P N A P G Q P G V I D L D L  
UniRef90\_W9GQN9  
UniRef90\_X1DQF8  
UniRef90\_D0YRH7 A P A L A R L A E Q A Y S D E M Y L Q V E A A E V L D K V F M D E R L R L D L  
UniRef90\_R6B2C1 P K I H E K F I K F S H T I S E Y N D Y L V E K E V I S L L D R L Y S N N R L D L  
UniRef90\_Q1ATZ7 P G A V R N M A R A A A L L R E A D L A A Y L E E L A A G V V R E E G G E A G M S A V L  
UniRef90\_R6K347 N I V I N N F Y K T S T V A A E A D E Y F E D S A K K F C E K N L R G S Y T L K L R  
UniRef90\_H1LS05 N V I N N F Y K T S T V A A E A D E Y F E D S A K K F C E K N L R G S Y T L K L R  
UniRef90\_A9KR60 P N I V A T L A R L S G E H M L G E V A N Y L L D Q V E T E R F F K R L Q E S V I T L D L  
UniRef90\_R5BP89 P G I A E A L A R T A A Q L R E D D A A A F D E M I D E T I E D I V E G I S V S A  
UniRef90\_UPI000367CEDF P E I Q A N A L R S A Q L C F E Q E Q L L D E L L E Q Q Y K V L R N D D S L I H K A  
UniRef90\_UPI000301D059 G V A E A L A R T A E H L R E D G E V L D T L A E R A V A S A R D N D L V I  
UniRef90\_E4WCP5 R H L V E L A E D C R A W W E Y I E R Q M L E Q Y E R L V Y R D C F S V  
UniRef90\_R5SKD8 N V T R H F A E S A R L A R M D K E Y L D Q R S D E V M G E A V T G M I G L E I  
UniRef90\_B3DR08 G V I D A F A R T A S L A R D D A D A L D E W A A R A E S A A R A G D M I E I  
UniRef90\_UPI0002D6AEF1 P N I E E S L S R T S L L A K E N D F L V E Q Y A K K E Y E S I E N E V I E I D L  
UniRef90\_R5N5D4 P G V A V G L A R T A E L A R G D A D L D E L A E L A L V R A A R D D A L D V  
UniRef90\_I6Y2A4 E N A P S N I T R F A E N I S Q D N N A Y L E E S L A A D D S Q V K I Y G D S A E I P  
UniRef90\_X1PX25 V A H F S E T M E R I S W E L Q D Y M E E S E A E R R Y D R V E N K T I V L K  
UniRef90\_R5VW40 D R H V A E A A E Y L A R I D D F I D E Q A G K L I E S M K D E V V L D C  
UniRef90\_F3BDE7 G V I A G A L A R T A G A Q L L V R D D L A A L D E E A A D L Y T P S P D A G L A V D  
UniRef90\_UPI00026C7587 E Q I L D E N L A R S A D L Q R P D D V H L D E E A R A L L P A L R R S D A G L A V D  
UniRef90\_R6RHN3 P R A V R H I T Q A A D T F L A I E E Y L R G Q A D R L Y R E Y V N G Y W I Q K  
UniRef90\_R5V7R1 P S L E Q T S I G M L Q V L R S E S Q D F I K E C A E K A V H D C K M T A A G T L  
UniRef90\_D4L7J5 P S F E R T A L G L S E N A G S E A D F I K E C A E K A V H D C K M T A A G T L  
UniRef90\_D2RLK3 P Q I R K Q L A Q A A A L A A S D E A Y L E K L A G R Y I D A Y G R E V F D T  
UniRef90\_UPI0003B792D7 S A V I E H I Y R A T K D F A M A E D Y I R D Q A V K V F E E V S E K D R I D L  
UniRef90\_B9M5K8 P A L T E R L I Y R A T T A V A L S E D E K L E A D V I A T A F A N G S E K G V S I S V  
UniRef90\_G5GFY0 S A I D N I N K A A E I I S D T F D Y L D R I I D R H M L E E E E R I S I P I  
UniRef90\_Q3AFJ9 I E E R L F N R L A L I K Q E E N Q Y L D N Y L N K L W Q E V K E G Q Y I K V  
UniRef90\_D6MD35 I I K V L N R L S D T I K I D N E Y L E T V A K E K F K K Y C D I Q G I S K  
UniRef90\_K2FR49 P S I K K T L G D W S I A V A D D Y D F I D S S A E R F A L S V C K N K C F S A  
UniRef90\_R9M4K6 P P R A V E H I C G T A E R L R S I D D S A I E R D A A E R T A H V E V R E G L V A C  
UniRef90\_W0Z5V7 P G V A E A L A R T A E Q L R S E D T E A I E D E T I E D I V E H A E A G I S V S V  
UniRef90\_R7IUU9 N I I T E T I T R L A D V V S S E D D F I E N V S N E N Y K K L K N R I E L K L  
UniRef90\_D4MP94 G A V E H I L R A G E I I G E A D Q F F R E R A G K F L K K I A W K E S C L E K  
UniRef90\_I0K180 S V K K S L W K F C E I L R E E K K W L M Q L T Q E I A S G S P L R F  
UniRef90\_UPI0002889E18 P N I L D S V I R L S E N A S D A N D F I E D V V K E N Y E K L V T D N Y F V A  
UniRef90\_W6FEA0 V T Q H I A N G A R L A R R D E K E Y L D Q Q A D K T M I E A L G S L V I A V  
UniRef90\_UPI00046D2C75 P G A K R A L V R A A L L I R R D E E A L T A W A R R A L D R A V E G A R L R V  
UniRef90\_I0QZU7 P G F A S A I A R T A E L A S E S D D V L L S M A R E L V A E A T N E T K L S I  
UniRef90\_D1CGB1 V V K N I A L T T S I L Q Q E K R L L D S R A L D F L A Q I T R H N F I S V  
UniRef90\_R6JN20 N I I E S L N R L S E I I K Y E E E F L Q G F V D D I N S H Y K D K R F S I  
UniRef90\_R7RUJ7 P G F K T A A A R S I E L I A E A E T L R D Q A A M D D F N Q A S E N D G L R I  
UniRef90\_R5E3J7 P T A K E N I F R M S A S I R E D S Q Y L E Q N A M S F F E E L I N S N T L E L  
UniRef90\_D6GSH2 P N F G A G I A R L K S Q A E L D E E F W T T E V N K V L N N V Q T T E N L H C  
UniRef90\_L0RG64 I V A V L N R L S D I T K I D N D Y L N Y I S R E K F K K Y C E I K A Q K V  
UniRef90\_B9DY65 P A Y R E A L S R S A T H L A D A A L I D E I A Q A D L M Q I A S A D G L D V  
UniRef90\_UPI0004681BA6 P A A D S A L M R L A S L V Q E E D R F I S G M A A A L E Q S E V I E V Y F D R  
UniRef90\_UPI00036991BA A E H L S R A A T D F A R A D E Y I R G Q A S E L F S R I V T I T G G K E  
UniRef90\_W5X8R4 V R R L A L G A D M A R M D Q D Y L D T Q V D G L F Q R L V A R P C L D A  
UniRef90\_UPI0003B417AE E H M A E T A R Q M R L L G A Y L D S Q A A E Q E K A C V D T D G L L K  
UniRef90\_C0C570 P E L R A T V L N R L S R I A A D T E E F L C A L L D L P L E I S K D S V G I D V  
UniRef90\_UPI000365B2A4 V S T A A A R T R Q L L E A D D A D A L E Q F M R A S F R E V L A A D R L S R  
UniRef90\_R6WDDW4 H A L E A L A R F S Q A Q Q A D D W A L E A L S A R H L I P D R R W P V Y R A  
UniRef90\_D5EK21 V I Q H M A R T M E E M T G V K A Y V E R E V E R Y A G E C V S E V S L K E  
UniRef90\_UPI00036B8EDF P G I A E A L A R T A D L L R A D D A Y L G D P A Q A A L R P A R V I E L D V  
UniRef90\_B0TYH9 P N I L S R T L S R S A K I C A E S N I L Q K L A N E K L K I S Q N S L I I  
UniRef90\_D3RPR1 P S A S A T L A R S A R H C A E A A E L V D Q Y A E R A L A E V V Q P G A L S L  
UniRef90\_A1UMJ4 Q D D N D T L D A Q A D A L A E V T A G A G L D T  
UniRef90\_UPI0003700F50 P G I A A A L A R T A G M L R A D A D T L D V F A D G L Y A E S T D N G L A V  
UniRef90\_F4A7X5 V I E V L N R F S D T V K I D N D Y L N K I S L E K Y N K S E K D K I I M R  
UniRef90\_Q7UA26 P G C S Q R M A N L A E R T S Q L R D T Q E E L S Q L A L Q P L R T S T G L D R  
UniRef90\_R7LPP4 N I I J Q T M D R L S D L V K E E D E Y L E K L V E T K Y N D Y V E Q E I M N L  
UniRef90\_W4VLY1 V H Q H V Q M L T E R V A E D Q V Y L E T K A Y E M V K E T V N F T G F D I  
UniRef90\_UPI0003B3E33C P G V A E A L A R T A E Q L R E D A D M I D E T I E D I V E H A E A G I S V S V  
UniRef90\_R5YXP4 E Q A V E H I G W L C A E D I K E V T T Y L T D Q I L E S F L R C A K P I G I N C  
UniRef90\_R5T2P6 N V H M H F L K F S K L L F E Y D N Y V E K E T Q N K L K V Y A N N K L N I  
UniRef90\_UPI000255EDEE P G V A A A L A R S A E I A A E D A D A L E Q W S R R E Y D R L I G H V I L P L  
UniRef90\_V8D2Q6 G V I E S L G R T A S Q L Q D D D V L E D M A D D A A G V I A G D E I V C  
UniRef90\_UPI000422A30D P R A D L H V A E T A E Y L A K I D E Y L E G Q A N L L I E N S R E E V I M D C  
UniRef90\_F9SD55 P S F R E S V S R S A Q L C A E Q E M Y L D E L L A S H L Q R A L G D D S L S I  
UniRef90\_R5IUD8 V H R K F L K F S E S V I E C A N Y L D K M A M K E Y E K L Y I N S N S L N I  
UniRef90\_E3BLM5 P H I Q Q S V Q R S S E L C A E Q E A L I E E L I S E K Y R Q C L R Q D S L S I  
UniRef90\_Q5L3T3 P R L H E R F Q Q Y S E M M A E D E Q F L E E L A A D A L N K V M E K Q A L S I  
UniRef90\_K2FIN7 P K A K E T L A N S A S S I A D D Y D F I F Q S A Q L I F K K I K N I Y S F D S  
UniRef90\_E6SL56 V I E T L A R V A T L L A A E A D L L D R R T R R L E A R L V A W A C R V

UniRef90\_UPI00047E80B2 K[V]L[K]S[V]D[L]F[ ]50 Q[K]N[V]I[L]R[C]F[ ]60 ED[ ]I[V]A[S]H[V]D[A]V[I]T[D]M[V]S[E]S[G]T[V]
UniRef90\_UPI0001744DC4 S[A]L[K]T[A]H[P]A[L]Q[ ]Q[S]R[L]L[R]W[W]L[R]E[V]G[A]N[A]E[I]E[S]A[L]E[L]L[P]R[V]S[R]V[ ]
UniRef90\_I3IE6 H[F]L[T]K[ ]Q[S]Q[L]L[ ]Q[ ]Q[R]R[L]M[L]R[A]S[L]K[E]D[ ]I[V]G[A]N[A]E[I]E[S]A[L]E[L]L[P]R[V]S[R]V[ ]
UniRef90\_UPI0004732A62 G[S]F[L]N[ ]I[S]K[P]L[ ]Q[ ]Q[R]R[L]M[L]R[A]S[L]K[E]D[ ]I[V]G[A]N[A]E[I]E[S]A[L]E[L]L[P]R[V]S[R]V[ ]
UniRef90\_R7FZS1 P[T]G[T]P[D]C[ ]S[A]R[A]A[V]L[L]A[M]K[S]L[S]G[S]T[G]H[V]D[A]V[I]T[D]M[V]S[E]S[G]T[V]
UniRef90\_UPI0002D67D40 Q[L]F[ ]Q[D]E[F]A[L]Q[ ]K[R]V[ ]L[L]L[L]N[Y]L[S]H[S]L[E]E[E]H[N]Q[C]D[ ]C[ ]G[S]R[E]I[ ]
UniRef90\_UPI0004654242 G[L]D[G]Y[S]A[V]I[R]K[R]C[L]S[R]L[L]T[E]K[S]H[K]R[L]E[E]A[D]K[V]L[V]N[S]G[S]R[E]I[ ]
UniRef90\_E0XU81 H[S]L[Y]E[L]P[ ]Q[A]V[A]M[R]T[L]R[R]A[G]K[ ]Q[L]G[L]A[D]S[S]Q[L]E[A]L[W]N[A]S[S]T[S]
UniRef90\_UPI0003B5C494 G[A]L[A]A[N]P[A]A[L]R[R]Q[R]V[R]H[V]V[ ]Q[S]L[S]R[T]Q[T]L[E]A[L]V[T]R[L]V[H]G[ ]Q[ ]G[ ]P[ ]I[ ]
UniRef90\_C4ZC34 S[R]F[E]C[L]H[P]A[L]K[R]E[C]I[H]L[A]L[K]D[I]T[S]T[H]I[G]A[L]V[K]L[A]Q[S]G[ ]Q[ ]G[ ]P[ ]I[ ]
UniRef90\_W9GQN9 D[A]L[A]A[N]P[A]A[L]R[R]T[R]V[R]I[L]L[A]D[V]S[A]A[H]V[E]S[L]D[A]L[H]H[G]G[ ]Q[ ]G[ ]P[ ]I[ ]
UniRef90\_X1DQF8 K[K]F[S]S[L]P[L]A[L]K[R]R[I]V[R]K[S]L[E]V[V]S[F]R[H]N[E]I[L]K[L]T[E]G[ ]G[ ]K[ ]E[ ]P[ ]I[ ]
UniRef90\_D0YRH7 G[K]A[R]I[V]P[R]P[L]R[R]V[M]Y[R]A[A]G[D]V[T]M[E]H[L]E[S]V[T]D[L]V[H]G[ ]Q[ ]G[ ]P[ ]I[ ]
UniRef90\_R6B2C1 D[G]F[N]S[L]P[L]L[L]K[K]H[L]L[C]T[L]L[S]E[I]N[D]K[H]L[N]I[F]N[L]I[D]G[ ]G[ ]K[ ]G[ ]Y[ ]V[ ]
UniRef90\_Q1ATZ7 A[E]L[D]G[L]P[P]A[L]R[R]Y[A]V[R]R[A]Y[A]A[L]P[R]R[L]V[E]A[V]L[E]A[L]A[R]M[ ]Q[ ]T[ ]G[ ]G[ ]K[ ]I[ ]
UniRef90\_R6K347 D[K]L[N]K[A]D[M]L[V]K[R]V[I]R[L]A[A]G[A]K[D]V[N]V[A]D[V]L[E]A[L]M[ ]Q[ ]T[ ]G[ ]G[ ]K[ ]I[ ]
UniRef90\_H1LS05 N[E]L[T]E[H]P[H]I[L]G[T]Y[I]R[Y]A[I]K[D]I[G]M[V]H[I]E[D]V[W]Q[L]A[H]G[ ]G[ ]K[ ]K[ ]L[ ]
UniRef90\_A9KR60 R[E]F[T]A[L]E[D]L[I]K[R]E[L]R[K]A[L]K[L]I[S]L[K]D[I]E[S]I[H]L[V]D[G]G[ ]K[ ]E[ ]P[ ]I[ ]
UniRef90\_R5BP89 N[E]V[A]A[L]P[A]A[L]R[R]F[Y]R[L]W[R]Y[V]F[G]L[F]D[L]K[H]V[A]E[L]R[ ]Q[ ]V[ ]V[ ]D[ ]G[ ]K[ ]K[ ]R[ ]
UniRef90\_UPI000367CEDF A[A]L[A]A[N]P[A]A[L]R[R]N[R]I[R]L[V]V[ ]Q[S]L[S]T[R]S[ ]Q[T]L[E]V[A]R[ ]L[A]T[ ]G[ ]Q[ ]G[ ]P[ ]I[ ]
UniRef90\_L7EHG8 E[A]F[L]E[H]K[A]I[A]R[R]I[R]K[S]L[N]T[Y]N[F]E[H]I[L]D[I]N[L]L[H]K[T]G[T]L[ ]
UniRef90\_UPI000301D059 E[S]L[C]E[S]E[A]I[R]N[R]L[L]R[R]W[F]A[ ]Q[ ]
UniRef90\_E4WCP5 E[Y]L[V]D[V]P[V]A[ ]
UniRef90\_R5SKD8 D[E]W[K]K[V]D[P]Y[L]R[G]Q[L]L[M]H[L]M[E]Q[V]G[R]V[H]V[D]A[L]L[R]L[A]E[T]G[K]R[L]
UniRef90\_B3DR08 R[R]I[A]R[E]P[E]A[V]R[R]R[V]I[R]R[A]A[V]A[A]G[A]R[H]I[A]A[E]T[D]R[L]I[H]G[ ]Q[ ]G[ ]V[ ]
UniRef90\_UPI0002D6AEF1 A[A]L[A]G[L]P[A]V[R]R[R]V[L]R[R]A[A]V[A]A[G]A[R]H[I]A[A]E[T]D[R]L[I]H[G]Q[ ]R[P]L[ ]
UniRef90\_R5N5D4 K[K]F[N]Q[E]N[S]I[K]Q[I]I[R]T[A]I[E]K[L]T[ ]
UniRef90\_I6Y2A4 V[T]L[A]G[ ]Q[P]D[A]L[R]G[R]V[L]G[W]L[R]N[H]G[S]E[H]V[A]A[V]D[D]L[V]R[G]Q[G]P[V]
UniRef90\_X1PX25 A[G]F[D]Q[M]P[P]T[L]K[R]Y[L]F[R]A[S]V[E]
UniRef90\_R5VW40 S[Y]L[L]Q[P]K[P]I[A]Y[R]V[L]K[K]V[L]R[L]N[L]F[H]F[D]A[V]I[ ]Q[L]M[A]D[G]G[K]R[ ]L[ ]
UniRef90\_F3BDE7 E[E]Y[E]K[L]P[P]I[L]R[G]M[V]I[K]K[A]I[K]D[I]H[A]V[H]I[P]R[E]E[V]V[ ]Q[L]M[A]D[G]G[K]R[ ]L[ ]
UniRef90\_UPI0004795E0C N[V]L[A]K[ ]Q[P]D[I]L[R]R[E]R[L]I[T]N[G]I[H]V[K]D[F]Q[H]I[R]E[E]V[A]E[L]T[D]G[S]E[K]M[ ]
UniRef90\_W7IZN5 D[R]L[A]G[A]P[A]A[L]R[R]V[L]R[R]W[A]P[E]L[T]D[A]R[H]L[V]A[D]T[L]V[H]R[ ]Q[ ]G[ ]A[ ]V[ ]
UniRef90\_UPI00026C7587 H[A]L[A]A[V]P[A]P[V]R[R]R[V]L[R]R[A]I[D]A[G]D[R]R[ ]Q[L]J[A]V[D]A[L]V[H]G[ ]Q[ ]A[ ]V[ ]
UniRef90\_R6RHN3 E[L]F[L]E[K]E[L]M[ ]Q[S]Y[V]I[R]M[V]L[E]Q[V]T[A]A[H]V[E]S[I]L[S]L[G]R[T]G[A]S[V]
UniRef90\_R5V7R1 S[G]L[L]E[E]H[P]A[M]Q[ ]Q[R]C[L]I[ ]Q[L]L[E]Q[F]Q[D]R[I]A[R]L[ ]Q[R]L[ ]Q[R]T[ ]G[ ]G[ ]K[ ]V[ ]
UniRef90\_D4L7J5 K[K]L[L]S[L]D[S]A[V]L[K]E[M]L[F]I[L]L[K]S[P]E[R]K[T]I[L]L[L]C[E]E[L]I[R]N[G]G[S]C[ ]
UniRef90\_D2RLK3 W[D]F[A]A[L]P[L]A[L]Q[S]R[V]I[R]I[L]V[A]E[L]S[Y]D[H]V[R]K[I]L[D]M[I]A[R]G[K]S[L]
UniRef90\_UPI0003B792D7 K[K]L[A]N[T]P[E]L[I]K[K]Y[V]L[R]C[F]E[D]I[T]A[R]H[V]D[A]V[M]S[L]I[E]G[T]S[R]V[ ]
UniRef90\_B9M5K8 A[G]A[D]M[E]P[R]G[I]R[R]M[Y]R[ ]Q[A]L[ ]Q[ ]Q[I]S[A]V[H]L[N]D[V]L[L]K[E]P[S]G[K]V[ ]
UniRef90\_G5GFY0 E[V]L[K]K[ ]Q[P]H[I]L[T]A[H]I[R]L[M]L[K]D[I]A[S]V[H]I[D]G[I]E[A]L[M]D[M]G[K]S[I]
UniRef90\_Q3AFJ9 P[V]L[ ]Q[N]L[S]R[A]E[A]G[L]L[R]K[F]W[E]Q[A]T[ ]Q[E]H[I]E[N]L[A]F[I]K[G]T[R]Y[F]
UniRef90\_D6MD35 E[A]F[L]E[N]E[A]I[T]R[L]I[R]K[A]L[Y]E[V]N[F]E[K]L[H]I[Y]D[I]I[N]T[G]K[N]I[ ]
UniRef90\_K2FR49 K[E]F[L]R[L]N[I]A[I]Q[R]Q[A]L[R]I[T]F[R]Q[Y]D[E]Q[A]E[E]L[L]K[V]I[K]S[T]K[N]K[ ]
UniRef90\_R9M4K6 E[A]I[F]G[A]P[E]A[V]R[R]M[L]R[L]E[V]R[D]I[G]A[A]H[V]N[A]L[L]D[M]C[R]H[R]T[G]R[ ]I[ ]
UniRef90\_W0Z5V7 A[A]L[A]A[N]P[A]A[L]R[R]R[V]I[R]H[V]V[ ]Q[S]L[S]T[R]S[ ]Q[T]L[E]V[A]R[ ]L[V]H[G]Q[A]P[ ]I[ ]
UniRef90\_R7IUU9 K[E]F[N]L[L]D[E]V[L]K[N]R[I]I[K]L[F]G[S]T[ ]Q[G]I[E]K[I]E[D]I[K]L[C]N[N]
UniRef90\_D4MP94 S[R]M[L]A[V]P[V]A[L]Q[G]Y[V]I[R]E[A]F[S]E[D]A[S]I[E]S[L]S[L]L[D]T[G]A[G]A[ ]
UniRef90\_I0K180 S[D]L[E]K[A]P[L]G[K]Q[R]L[A]I[G]L[W]A[D]I[S]F[E]D[I]E[S]I[R]K[M]I[G]K[ ]Q[ ]K[ ]C[ ]
UniRef90\_UPI0002889E18 D[E]I[L]N[I]H[K]F[L]A[C]E[I]K[K]Y[L]E[E]N[F]Y[D]K[N]I[L]N[R]D[L]F[N]S[G]K[E]I[ ]
UniRef90\_W6FEA0 K[P]L[ ]Q[S]A[H]E[A]I[R]L[R]A[L]H[A]L[S]R[A]G[I]A[ ]Q[I]E[A]V[N]R[L]V[H]G[ ]Q[ ]G[ ]A[ ]V[ ]
UniRef90\_UPI00046D2C75 S[D]V[G]A[W]P[E]A[V]R[R]F[R]A[Y]L[A]L[W]E[R]D[L]A[H]L[E]A[V]D[G]L[L]G[P]P[G]P[A]
UniRef90\_I0QZU7 A[L]L[S]G[V]L[P]G[L]R[R]R[V]I[A]A[G]A[K]T[V]S[R]S[ ]Q[V]I[G]I[D]E[L]I[H]G[ ]Q[ ]N[K]L[ ]
UniRef90\_D1CGB1 E[V]L[V]M[P]R[S]L[I]T[R]A[L]K[M]A[L]S[ ]Q[F]G[A]R[H]L[E]A[L]Y[L]L[A]K[S]G[N]S[I]
UniRef90\_R6JN20 E[V]F[L]G[E]P[E]L[S]R[S]Y[V]V[M]S[L]L[K]E[L]G[V]H[V]S[ ]Q[V]M[E]L[A]G[R]G[K]Q[V]
UniRef90\_R7RUJ7 S[L]F[N]K[ ]Q[H]V[A]L[K]R[R]I[R]R[I]S[G]I[E]Q[K]H[I]D[E]C[I]E[L]I[H]T[G]K[Y]L[ ]
UniRef90\_R5E3J7 D[D]F[L]A[L]P[A]G[R]A[R]V[L]R[L]W[L]D[R]V[F]R[L]L[E]M[I]R[ ]Q[L]K[E]T[T]K[ ]Q[ ]L[ ]
UniRef90\_D6GSH2 D[D]F[F]D[M]D[L]A[I]Q[K]R[S]V[R]H[S]L[K]G[I]E[T]V[H]L[D]S[V]I[ ]Q[L]A[K]E[R]Y[ ]Q[ ]L[ ]
UniRef90\_L0RG64 S[L]H[K]C[H]P[A]L[R]L[R]T[Y]K[R]M[I]E[M]L[G]A[G]H[V]L[A]T[I]T[L]L[D]R[G]T[T]F[ ]
UniRef90\_B9DY65 I[V]L[E]K[A]D[K]A[L]V[R]I[R]M[S]L[E]E[G]N[L]K[D]I[E]K[I]F[S]I[N]T[G]K[E]I[ ]
UniRef90\_UPI0004681BA6 V[A]L[I]A[L]S[E]P[V]Q[R]A[V]L[R]A[W]L[A]E[E]A[G]M[R]R[L]E[D]L[R]Q[L]I[D]G[A]L[R]I[ ]
UniRef90\_UPI00036991BA A[T]L[A]A[D]P[A]A[L]R[R]T[R]K[V]A[R]W[L]N[D]L[S]Q[S]S[L]I[S]D[V]L[A]L[W]H[G]Q[ ]G[ ]P[ ]V[ ]
UniRef90\_W5X8R4 G[R]L[S]G[L]P[P]V[L]F[R]R[A]I[R]L[A]V[E]A[L]E[A]S[L]D[H]E[ ]Q[T]S[ ]
UniRef90\_UPI0003B417AE V[S]F[N]V[T]E[F]G[L]P[G]I[I]R[E]Y[L]K[D]I[T]R[A]H[V]E[A]V[E]L[E]T[D]T[G]G[C]L[ ]
UniRef90\_K4IPS5 R[G]L[A]D[C]H[ ]Q[A]L[R]T[R]L[A]Q[V]L[T]K[L]G[I]R[ ]Q[V]R[A]L[D]D[L]I[H]G[ ]Q[ ]K[ ]G[ ]P[ ]
UniRef90\_C0C570 K[E]F[A]R[V]P[E]V[L]R[P]Y[V]I[H]R[L]R[S]K[N]L[E]H[V]R[L]I[T]E[L]M[H]R[ ]G[R]R[L]
UniRef90\_UPI000365B2A4 K[ ]Q[L]G[K]Q[S]D[R]V[S]R[Y]I[R]M[W]F[E]N[S]R[H]L[E]L[W]K[ ]Q[V]A[N]A[ ]Q[ ]Q[ ]L[ ]
UniRef90\_R6WDDW4 T[R]L[R]A[S]P[A]L[S]R[R]A[L]S[A]V[L]G[N]H[G]L[ ]
UniRef90\_D5EK21 P[L]L[R]A[S]P[E]A[L]S[R]R[A]I[R]G[V]L[E]A[L]G[V]R[P]E[A]R[L]V[A]D[V]E[G]G[R]A[ ]Q[ ]
UniRef90\_R2NP91 E[A]Y[R]Q[V]P[E]E[L]R[N]Y[V]L[ ]Q[L]V[L]K[D]L[ ]Q[A]V[H]I[E]A[L]A[E]L[F]D[R]G[R]M[L]
UniRef90\_R6WFD4 Q[A]L[A]P[L]S[R]A[V]G[R]V[L]R[S]S[A]S[L]R[A]S[H]I[W]A[V]E[E]L[V]T[R]Q[K]P[V]
UniRef90\_UPI00036B8EDF S[E]L[L]S[L]D[K]R[V]I[ ]Q[S]L[I]H[H]W[F]K[E]T[T]N[K]Q[T]E[E]I[H]K[A]L[N]N[ ]
UniRef90\_B0TYH9 A[A]L[G]R[L]D[R]P[L]R[K]A[V]V[R]H[W]L[V]Q[R]G[F]R[ ]
UniRef90\_D3RPR1 A[R]L[A]E[L]P[A]A[L]R[R]R[V]I[R]S[W]L[T]D[T]Q[ ]Q[R]V[D]A[L]V[S]A[W]H[G]G[ ]G[ ]V[ ]
UniRef90\_UPI0003700F50 A[P]L[A]E[A]P[A]A[L]R[R]T[R]V[L]R[R]A[A]S[A]L[T]A[R]H[V]S[E]L[D]R[L]V[I]Q[S]G[F]I[ ]
UniRef90\_F4A7X5 A[E]V[F]N[E]H[E]A[L]T[R]I[R]I[R]I[A]L[K]D[H]N[F]D[H]V[Y]D[I]D[I]Q[K]T[G]K[F]I[ ]
UniRef90\_Q7UA26 R[R]L[G]A[L]Q[P]S[T]R[R]Q[L]L[V]I[W]L[A]Q[ ]Q[G]L[E]Q[L]T[D]R[L]A[L]S[A]A[G]S[C]
UniRef90\_R7LPF4 K[D]F[N]K[E]E[K]V[I]K[S]R[L]L[R]L[G]T[K]G[L]E[H]I[E]D[I]K[L]C[E]K[ ]
UniRef90\_W4VLY1 N[G]F[V]I[T]Y[P]I[T]L[ ]Q[R]R[A]F[H]L[L]Q[D]I[T]Y[ ]Q[H]E[A]D[F]F[S]L[L]R[ ]Q[ ]E[ ]K[ ]S[ ]L[ ]
UniRef90\_UPI0003B3E33C A[L]L[A]A[N]P[A]A[L]R[R]N[R]I[R]Y[V]V[G]A[L]T[R]A[ ]Q[T]L[E]V[A]R[L]A[T]G[ ]G[ ]P[ ]I[ ]
UniRef90\_R5YXP4 D[ ]Q[L]L[L]E[N]H[A]W[L]Q[K]Q[V]L[K]Y[V]L[E]E[T]R[R]H[I]E[L]L[L]V[E]T[G]G[K]R[ ]
UniRef90\_R5T2P6 E[E]Y[K]K[L]E[N]L[I]K[Y]K[V]I[C]K[L]L[E]D[I]N[D]S[H]V[A]L[I]E[S]L[I]N[C]K[K]S[V]
UniRef90\_UPI000255EDEE E[E]L[A]A[L]P[A]A[L]R[R]L[R]V[L]G[L]A[V]G[R]P[S]R[E]V[L]A[V]E[G]L[V]A[T]A[G]P[V]
UniRef90\_V8D2Q6 S[E]M[T]S[I]P[A]V[R]R[R]L[R]R[W]L[T]E[P]T[G]S[V]V[N]A[V]D[L]L[R]G[ ]G[ ]P[ ]V[ ]
UniRef90\_UPI000422A30D I[V]L[A]G[V]P[D]I[R]R[E]R[L]I[K]G[I]K[D]I[ ]Q[A]V[H]I[K]E[L]S[A]I[V]D[G]S[A]M[L]
UniRef90\_F9SD55 E[V]L[S]E[ ]Q[S]A[L]L[R]R[A]L[L]R[M]W[L]G[H]
UniRef90\_R5IUD8 N[E]F[N]Q[D]E[L]K[K]R[I]I[S]Y[L]L[K]E[K]K[D]D[H]I[K]I[L]L[L]I[N]D[K]K[P]V[ ]
UniRef90\_E3BLM5 S[K]L[T]G[H]S[E]N[V]R[R]S[I]R[M]W[L]S[N]E[S]I[K]
UniRef90\_Q5L3T3 G[P]F[L]E[L]P[R]A[L]Q[R]Q[V]L[ ]Q[L]L[L]L[T]L[T]S[V]H[I]G[H]I[L]M[L]C[E]R[G]G[M]I[ ]
UniRef90\_K2FIN7 K[K]L[A]R[N]H[R]P[L]L[ ]Q[K]Q[V]L[R]R[L]L[S]D[I]E[S]A[H]L[D]E[I]K[I]K[S]D[K]N[K]
UniRef90\_E6SL56 A[D]L[A]R[L]A[V]A[D]Q[R]R[L]L[R]R[A]G[R]P[L]P[W]A[R]C[E]A[V]R[T]L[V]R[T]G[R]V[ ]

UniRef90\_UPI00047E80B2 D L P Y G L V A K R E Y D I L  
 UniRef90\_UPI0001744DC4 N L P S Q L R L R R K A G R L  
 UniRef90\_I3IE6 Q L P G K L Y L W H E H G I L  
 UniRef90\_UPI0004732A62 H F P N K L T I S R S Y D  
 UniRef90\_R7FZS1 S L P R N V Y A A R E Y D K I  
 UniRef90\_UPI0002D67D40 H L P K G R K V L R  
 UniRef90\_UPI0004654242 N I S G D V Y L

UniRef90\_E0XU81 E L P D G V R A T R A G  
 UniRef90\_UPI0003B5C494 N L P Y G I I A E K S  
 UniRef90\_C4ZC34 H V P G G I A V A R D D G A I  
 UniRef90\_W9GQN9 Y L P D D L R A K K I Y N K I  
 UniRef90\_X1DQF8 D L P G V Q V S R E N G Q  
 UniRef90\_D0YRH7 C L P N G V K V Y K Y N S L  
 UniRef90\_R6B2C1 D L P G G V V A  
 UniRef90\_Q1ATZ7 H S V Y G I Q A E R E Y D Y I  
 UniRef90\_R6K347 D L K Y D I K V Y N D Y K Y L  
 UniRef90\_H1LS05 H L P N H I I V K R G Y N T I  
 UniRef90\_A9KR60 Q F  
 UniRef90\_R5BP89 D L P G C R A R R V I G G R  
 UniRef90\_UPI000367CEDF D L P K N I K V  
 UniRef90\_L7EHG8

UniRef90\_UPI000301D059 D L P Y H M R A G K D Y D K I  
 UniRef90\_E4WCP5 S L P R G Y S A N R K K H V I  
 UniRef90\_R5SKD8 N L P G R V E A A R Q G G R L  
 UniRef90\_B3DR08 A V P G G S V R R I A G R  
 UniRef90\_UPI0002D6AEF1

UniRef90\_R5N5D4 S L P F N L T A V N D Y D  
 UniRef90\_I6Y2A4 H L P Y G V C A C R C Y E G I  
 UniRef90\_X1PX25 D L P Y G I K A L R I Y D R L  
 UniRef90\_R5VW40 A V P G G L V A R R A R G R L  
 UniRef90\_F3BDE7 P V P G R I E V A R R D G L L  
 UniRef90\_UPI0004795E0C S L P G G V L A Q V Y G N L L  
 UniRef90\_W7IZN5 N L  
 UniRef90\_UPI00026C7587 E L S K Q R T A  
 UniRef90\_R6RHN3 D V P G N V R L  
 UniRef90\_R5V7R1 D L P Y N L T A I R S Y E  
 UniRef90\_D4L7J5 N L S R G I T V M R R Y E K L  
 UniRef90\_D2RLK3 D L P Y N L R A E R T Y E S L  
 UniRef90\_UPI0003B792D7 L L P R G M R A K L S Y G K L  
 UniRef90\_B9M5K8 D L P N H V V V S N K Y  
 UniRef90\_G5GFY0 S P G G L K V L K K G D N I  
 UniRef90\_Q3AFJ9 S L P H G V T A R Y C R R R L  
 UniRef90\_D6MD35 D L P G C L A E R R G A R  
 UniRef90\_K2FR49  
 UniRef90\_R9M4K6  
 UniRef90\_W0Z5V7

UniRef90\_R7IUU9 D L P G G V R A E R V Y E N L  
 UniRef90\_D4MP94 N L S R S L A V I F K N D E L  
 UniRef90\_I0K180 D L G K N M V A R K S Y  
 UniRef90\_UPI0002889E18 A L P S G Y S A K R Q K H V I  
 UniRef90\_W6FEA0 P V P G P L R V C R S G E  
 UniRef90\_UPI00046D2C75 V L S G I T V I E R  
 UniRef90\_I0QZU7 D L P G G I R A I K  
 UniRef90\_D1CGB1 D L P Y G L A A I R E Y E G I  
 UniRef90\_R6JN20 V L P H N I V C K I E Y D  
 UniRef90\_R7RUJ7 M F S D G L E I R K Y G S R L  
 UniRef90\_R5E3J7 N L P K N L T V Y K K  
 UniRef90\_D6GSH2 Q F P G N K V A R R E G  
 UniRef90\_L0RG64 M L P H N L L A L N D Y G N I  
 UniRef90\_B9DY65 Q L P T G E V R R Y R G  
 UniRef90\_UPI0004681BA6 Y V G G G L Q V R R E G R  
 UniRef90\_UPI00036991BA I L L S G I A S Q E R G  
 UniRef90\_W5X8R4 N L P Y D L L A E R N Y N  
 UniRef90\_UPI0003B417AE R F P S S H T A I R K G Q V I  
 UniRef90\_K4IPS5 C L P Y G V T A V R C Y E G I  
 UniRef90\_C0C570 N L P H G Q V R R  
 UniRef90\_UPI000365B2A4 D M P Y G V V V T K E Y D K I  
 UniRef90\_R6WDW4

UniRef90\_D5EK21 T L P G G V V V R R Q  
 UniRef90\_F2NP91 H L P Y G M T A R R C Y E G I  
 UniRef90\_R6WFD4 P L P S G V L A R R T G G R I  
 UniRef90\_UPI00036B8EDF

UniRef90\_B0TYH9 A V P S A S V R Q R  
 UniRef90\_D3RPR1 D L P  
 UniRef90\_A1UMJ4 M L P E N I R V  
 UniRef90\_UPI0003700F50 D L P G G W R L Q W Q G D N L  
 UniRef90\_F4A7X5  
 UniRef90\_Q7UA26  
 UniRef90\_R7LPP4

UniRef90\_W4VLY1 D F P G S L K V T K N Y D  
 UniRef90\_UPI0003B3E33C D L P G C V A R R V G G R  
 UniRef90\_R5YXP4 S L P Y N M V A E K N Y Q Y I  
 UniRef90\_R5T2P6 Y L P N D V I A I K S Y N E L  
 UniRef90\_UPI000255EDEE E L P G G V T A R R  
 UniRef90\_V8D2Q6 A V G G N  
 UniRef90\_UPI000422A30D D L P Y G I K A V R N Y D K L  
 UniRef90\_F9SD55

UniRef90\_R5IUD8 N F P K N I V V S K Q Y D K L  
 UniRef90\_E3BLM5  
 UniRef90\_Q5L3T3 D L P K G L K V I R S Y D R  
 UniRef90\_K2FIN7 S Q S K G L K I T K K G D I I  
 UniRef90\_E6SL56 D L P G G W R A R C D G A W L

UniRef90\_H7CQB6  
UniRef90\_UPI00036FOFA3  
UniRef90\_UPI0003B3ED4F  
UniRef90\_K0JTW3  
UniRef90\_N9P114  
UniRef90\_E1QEZ7  
UniRef90\_UPI000465D71E  
UniRef90\_K6T810  
UniRef90\_F0LUK0  
UniRef90\_QORBH6  
UniRef90\_R5XJS4  
UniRef90\_UPI00046D446B  
UniRef90\_U2DQ65  
UniRef90\_U5MK56  
UniRef90\_K4KSN7  
UniRef90\_G2LJ49  
UniRef90\_C8P4L4  
UniRef90\_A41JE3  
UniRef90\_UPI0004678E85  
UniRef90\_I4D067  
UniRef90\_UPI0003A480BE  
UniRef90\_Q1XDA4  
UniRef90\_K6ZL99  
UniRef90\_R5QQF2  
UniRef90\_UPI0003B33FA4  
UniRef90\_UPI0003641137  
UniRef90\_X1ATS1  
UniRef90\_UPI0003B37D7B  
UniRef90\_W4QJE5  
UniRef90\_C3KVU7  
UniRef90\_J7SGR0  
UniRef90\_R7B098  
UniRef90\_UPI00037F4CA1  
UniRef90\_D2PY99  
UniRef90\_F0SW95  
UniRef90\_UPI00036F462D  
UniRef90\_F9DVC0  
UniRef90\_H1HTY7  
UniRef90\_A0A0231872  
UniRef90\_G4QI05  
UniRef90\_R6U4G4  
UniRef90\_U1LSA5  
UniRef90\_F2LTR0  
UniRef90\_Q74C65  
UniRef90\_K7REF2  
UniRef90\_R4KC42  
UniRef90\_UPI00037042C2  
UniRef90\_X8GYT9  
UniRef90\_UPI00037322F6  
UniRef90\_E6M0W3  
UniRef90\_U5A490  
UniRef90\_D8HK20  
UniRef90\_R9IV48  
UniRef90\_E8M7R0  
UniRef90\_U7G4M6  
UniRef90\_R7BGR4  
UniRef90\_R9MR79  
UniRef90\_D8JG52  
UniRef90\_A0A037ZD72  
UniRef90\_C4RE53  
UniRef90\_R9J670  
UniRef90\_C6BV57  
UniRef90\_B3E103  
UniRef90\_UPI00037F5CA4  
UniRef90\_E8T3S3  
UniRef90\_E8WVPV5  
UniRef90\_A0A010Q968  
UniRef90\_C2BHQ0  
UniRef90\_F4APQ5  
UniRef90\_C0VPPQ1  
UniRef90\_F9N421  
UniRef90\_R5NPG9  
UniRef90\_R7KPM3  
UniRef90\_K6HBI8  
UniRef90\_C0DBI7  
UniRef90\_E3H9Y6  
UniRef90\_B9XGF3  
UniRef90\_UPI0003B2E462  
UniRef90\_A6C2F8  
UniRef90\_C5EFL1  
UniRef90\_U2CH50  
UniRef90\_K2G9D0  
UniRef90\_F3AF50  
UniRef90\_X0QUM4  
UniRef90\_F0RZZ4  
UniRef90\_R5YAR7  
UniRef90\_F0GUZ3  
UniRef90\_N9FP26  
UniRef90\_R5FL30  
UniRef90\_UPI00036D3879  
UniRef90\_F8AVA8  
UniRef90\_R6E6U2

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

UniRef90\_H7CQB6 T S F K N E A N P L V Q R R R A I H L L L R Y I T V N H I Y Q I I Q M I Q S S S S I 80  
UniRef90\_UPI00036FOFA3 A A L A G D H P A V L R R E R K I A A W L H E P S A S S I S E I A R L W R G Q G P I  
UniRef90\_UPI0003B3ED4F T A L S G R H L L A I R Q S R A L K R W A E Q A G A Q H V R R E L C K L L R G Q G P I  
UniRef90\_K0JTW3 H P A L R R R R V L R Q L W L L S A G W V P E L S D S H L R R V D A L V R G Q G G V  
UniRef90\_N9P114 N K L S Q L S T A R Q R R Q L L S A W V K R P S F D M V Q R R L  
UniRef90\_E1QEZ7 G W L L A Q P P F L I R T Y V M M R H A I Q H L L F D H V A G L E R L L T A G K S Q I  
UniRef90\_UPI000465D71E E G L I L E E D I L R T Y V L R A M I K D I S M T H V E G T K A L L Q S G K Q I  
UniRef90\_K6T810 K E I F K E E E P I V S R A L R H A I T K F S M K H I Y I I I D L A N S G K V L  
UniRef90\_F0LUK0 A M L T S H S D A L R R Q L L R Y W L A A Q G L  
UniRef90\_Q0RBH6 A T L A A L P A A I R G R V L R R A A L D V G A E H V W A V E E L V T R Q K P V  
UniRef90\_R5XJS4 D A L K K Y D K A I I N R V I A K W L D E  
UniRef90\_UPI00046D446B T N L L N T S N A I L K R I L N M A V K R L S F H N T E R L L E V L T K G K S L  
UniRef90\_U2DQ65 A A F A A L H P A L Q G R V A R L F L  
UniRef90\_U5MK56 K K M F E E D E V V I N R V L R N A I T K Y S M K H I Y E I L Q L S N S G K I I  
UniRef90\_K4KSN7 E A W K E P P E A I L S R L L R K A A S Q V S G E  
UniRef90\_G2LJ49 S E L L V L P P A I L R R R V L H A V A Q Q A E Y R H I T A I E Q L L P G G K C V  
UniRef90\_C8P4L4 D K W G Q L P P E T A Q R R V L Q R W L E Q Q P N I K Q L D E V V G L L K N Q R S L  
UniRef90\_A4IJ3 A P F L A L P R P L Q R R V I P P V L T S V H I G H I L M L C E R D H P S G M L  
UniRef90\_UPI0004678E85 A D L G H S P L G R Q R V V H L W L R D I S L A D V E S V R G L A Q K G R E Y  
UniRef90\_I4D067 E A F K E P E A L L S R L R Q A  
UniRef90\_UPI0003A480BE A A L T P M S A A R R F A L L R R W L A E Q G V R  
UniRef90\_Q1XDA4 N Y L K L L H P S I L Q S R I L K I F I S N L D L N Q I S D I L L I N Q S  
UniRef90\_K6ZL99 S G L C P L P D A L L S E V I R L W  
UniRef90\_R5QQF2 P V E D T L H P Y M K G V V L L T C L A E M S G S H V Q A L L S L C E K G S S L  
UniRef90\_UPI0003B33FA4 A V L A G L D R P R S R W L R A W L K Q R G F R A T E A V T A A T D R Q P S P R I  
UniRef90\_UPI0003641137 A Q L A R D P Q P V R L R R I A A W L H D Q G G L E D V D K L A A A W H G Q G P V  
UniRef90\_X1ATS1 I Q E L K N L P P A L N R R V L R L A L E E K S F N A V E D I I D S L K N E T E F F  
UniRef90\_UPI0003B37D7B A Q M Q G L K P A I L R R V L A L A A Q P S A E R L A A V Q R L V S S P G P V  
UniRef90\_W4QJE5 S S F V V E N M P L Q R R M I H L L L N T V T S I H I E Q V I H M I Q R S S G E H  
UniRef90\_C3KVU7 R A F L E H E S I S T R I L R E A I L Y I N M R N I Y D V L E L S T T G K F V  
UniRef90\_J7SGR0 R A F L E H E S I S T R I L R E V I L Y I N M K N I Y D V L E L S T T G K F I  
UniRef90\_R7B098 V R L S Q Y D R I L R K Y V V H M A I A D I C A V H V E S V E A L I E T G S S V  
UniRef90\_UPI00037F4CA1 S K I S T E P V M Q A Y V V K R V L A D I T S V H V E E A L E L L R T G R K K  
UniRef90\_D2PY99 G M L E A E P E A I R T R A L R Q A A L E L T A G H V A A I D A F V T G Q R W I  
UniRef90\_F0SW95 E A W Q E P N A V L S R L L R L A A E K I N  
UniRef90\_UPI00036F462D F K K L H K G L Q R E L M R R A L V K P E F T W L E R L R L A L S G S L E  
UniRef90\_F9DVC0 Q A F L A I P Q A L Q K R A I Q L L R S P E I D K T E R V E E L L Q H I K A L  
UniRef90\_H1HTY7 A L L N R E P S I V R S Y L L W Q L L Q N F T A R H T E A L Q A L A R G K R L  
UniRef90\_A0A023I872 N Y L R L L H P S I Q G R I K I F F  
UniRef90\_G4QI05 S G L S I L P N A L A E V I R L W  
UniRef90\_R6U4G4 R V I L N S H K A I S L R C I R Q I L N E I S N V H V N D I Y K L L K S  
UniRef90\_U1LSA5 S R L A Q F A P L R Q K N L V R A W L A E P S F K Q L D Q I L A R A D A Q M T V  
UniRef90\_F2LTR0 N N I N T S K A I L K R V L N M A I K R L S F R N T E R L T K V F E T E D K N L  
UniRef90\_Q74C65 R E P R G L R R R L Y R K A I A L A L A R L S F D H V D A I D R L V N P S G R L  
UniRef90\_K7REF2 K K L T S L S R P W A M V I R A W F K A P S K A Q A E Q V L L M L E A K H E V  
UniRef90\_R4KC42 I I H K K A H R A V T R I R K S I S T Y N F E H V L D I N I I H T G T T L  
UniRef90\_UPI00037042C2 E T L A T A P V A V R R R A V R A W L K A L T D K H L R A V D A L V T  
UniRef90\_X8GYT9 G D L T E L D P F L Q R E I L R L A L E T A A G E H V Q A L A L D L L R G R R L  
UniRef90\_UPI00037322F6 E G A A G T P A V A G R R V I R R F G A H L S R E H T S A I A L V T G G G P V  
UniRef90\_E6M0W3 D R L I R Y S A P V L R R V V R K A V D S L T A A H L R G V V N L I H G Q G P L  
UniRef90\_U5A490 E A L S Q H S D L L R A R L L R M W L N H C N  
UniRef90\_D8HK20 A T L A P E P S A V R R R V L R R W R E L T D A H L R A V D A L V R G Q G G V  
UniRef90\_R9IV48 D L L E E R P L L Q T S L L H Q A L E E V A Q N H V E K L R E L F E K G K R L  
UniRef90\_E8M7R0 A G L T S L T E L M R G R L R M W L S Q P S R D H L D K I  
UniRef90\_U7G4M6 R G L A A L T T A R Q R N L R W W L G A P S A A V L E Q I R L L  
UniRef90\_R7BGR4 A G L V G E H P V I C R A V I K R L C G A K D L E H V M L C V D L F Q S G K R I  
UniRef90\_R9MR79 P E F L K E D E Y L R S Q L L L C I E Q P T A A H I K S M E A L F K G S K E I  
UniRef90\_D8JG52 T K L L D L S V A R Q R Q L L S V W M K R P A F E M V E R L  
UniRef90\_A0A037ZD72 E G F L I E H S T I T R V I L L G I N N I N F E H I D D I N L Q N T G K E I  
UniRef90\_C4RE53 T A L A G L A P A V I R T R V L H A W A R E L S H R H V A A L D E L L V H G Q G E V  
UniRef90\_R9J670 E K L G K E E P A F I R K Q V F L Q C L E D I T S S H M E S L E D L L K E S K Q V  
UniRef90\_C6BV57 S I L N K Y H S A L R L R I Y K K I L D D L G F D S I T L L D Q G F K S G S T F  
UniRef90\_B3E103 A D L E N T P R G K Q R L I S L W L A D L S F F E D I Q S I R S L L E K P G K  
UniRef90\_UPI00037F5CA4 E S L V S L S R P R R N N I L R Y W F K Q A G F R Q I E S I V S L Q L V N R Q P E L  
UniRef90\_E8T3S3 E E L L K L P E V L Q G E L L R L T G K G L S F R K V E K C L E L I K K G S R Y  
UniRef90\_E8WVPV5 G A L L Q E H R G L Q R G D L M R L A L T H L E A I D R L A S S S R P L  
UniRef90\_A0A010Q968 Q K L A A L S L P W Q A M V I R A W F K E P S K A Q A D Q I L A M L D A T P E V  
UniRef90\_C2BHQ0 D H F E K T D P A L L R R I L R K A V G  
UniRef90\_F4APQ5 K G L L A L T E A W R L Q V V R L W L D E Q N I  
UniRef90\_C0VPQ1 E Q L A Q L S A A R Q R Q L L S A W I K R P S Y E M V K R L  
UniRef90\_F9N421 R G L M G E H D A L V S R L W K R V L E Q L N Q A V I D G L C S L V K G P K G K  
UniRef90\_R5NPG9 D A F F E K P D I L V R E Y A V R L S G K R K D F T H V R Q V F S L Q K T G R Y I  
UniRef90\_R7KPM3 Q R L C E Y A P S L R K R Y I R R L S E N N I D R I E E L D A A V I S G R K T  
UniRef90\_K6HBI8 T L L A G L H P A L R A R L Y A R A L G Q P G L A L E A A Y A R R D T G R L F  
UniRef90\_C0DBI7 E A F E R P E L L R A Y V I F Q V M K D L T S G H V D Q V M G L M Q A G R S Q  
UniRef90\_E3H9Y6 K K L E E L H E Y Q K R K V I N E F L K E I T R E K L E N I L D L K K G G S R V  
UniRef90\_B9XGF3 F G N L A V A V Q R R V I Y R Q L L E L D F E L V E K L R L R A S R P V  
UniRef90\_UPI0003B2E462 D A L R E A P E A L R F R V L D Q A L A N C D P H I E A I D Q L I  
UniRef90\_A6C2F8 L V L Q D S P D Y L V R Q C F L K I W Q K M N F D H W Q R L Q E L L T L S G Q K L  
UniRef90\_C5EFL1 D L L Q A E P E I I R S Y V V M E L L K D L G L I H V Q Q V L A L A G R G K E V  
UniRef90\_U2CH50 R Y I A Q L P A A I A P R A V R R L L E M M S A A H L K A V V E L A R G S A V V  
UniRef90\_K2G9D0 S S L Q R Y P I A L Q R A F H L L L E N I T Y V H E D L F L R L M G N S T V  
UniRef90\_F3AF50 E C F S E K E I M Q S Y L I M R V L E Q L T A T H I E A V R R L F K T G A S V  
UniRef90\_X0QUM4 N A L Q K L P M Y R Q R Q L L H Y W L G Q  
UniRef90\_F0RZZ4 E K L K K L E P V L R K E L L K V F K T I T Y K K L E F I E N V I  
UniRef90\_R5YAR7 K S F E T F P E L I K K M V I R K G M E Q V S H K H V D V M M E L M N K G R T L  
UniRef90\_F0GUZ3 K S F D K L D N S L R K Q L R R A I K D L S K E N I E T F L E I I N N G K T I  
UniRef90\_N9FP26 I E L S E L S D A R Q R Q L L S L W I K R P S Y D M V Q R I  
UniRef90\_R5FL30 P E F G S I A R P L Q R R V V L A V L E T F V G R E I E A L L S A F D T G K P I  
UniRef90\_UPI00036D3879 D A V L L V P P A R P W L V R Q F L R E V T R G Q I E D L L H L V E R R G E V  
UniRef90\_F8AVA8 A G L V T L S E A E R T R V L R R A A L A V G A D H V R A M D D L V T R Q K P V  
UniRef90\_R6E6U2 S D F V Q L P S V M Q K E L I M K L F E Q T A G R K V E E T V K L G E T G K K A

UniRef90\_H7CQB6 D L P N K L I V N R A Y E E L  
UniRef90\_UPI00036F0FA3 P V G G G L A V V R E G G R L  
UniRef90\_UPI0003B3ED4F D L P G G Y R V K R S  
UniRef90\_K0JTW3 W L P G G F V A R R V H G R L  
UniRef90\_N9P114  
UniRef90\_E1QEZ7 T L P F G L R A W R E H E H L  
UniRef90\_UPI000465D71E N L P G G R I A L R S S D Y L  
UniRef90\_K6T810 D L P N E I Y A E  
UniRef90\_F0LUK0  
UniRef90\_QORBH6 P L P G G V L A R R W A D R I  
UniRef90\_R5XJS4  
UniRef90\_UPI00046D446B T L R K L I K A Y K K G N R L  
UniRef90\_U2DQ65  
UniRef90\_U5MK56 D L P N K I Y A E  
UniRef90\_K4KSN7  
UniRef90\_G2LJ49 D L T G G R Q V R R I A D A L  
UniRef90\_C8P4L4 A L P G G E R L I K D Y Q R  
UniRef90\_A4IJE3 D L P K G L K V I R S Y D R  
UniRef90\_UPI0004678E85 P L A G G W H A V R K D G E I  
UniRef90\_I4D067  
UniRef90\_UPI0003A480BE  
UniRef90\_Q1XDA4  
UniRef90\_K6ZL99  
UniRef90\_R5QQF2 D L P Y Q L M A Y R S Y D S I  
UniRef90\_UPI0003B33FA4 E W P E G Q I R R Y R G R  
UniRef90\_UPI0003641137 S V G G G E V A R V A G R  
UniRef90\_X1ATS1 N L P K F M K V V K D K E N L  
UniRef90\_UPI0003B37D7B Q L E G H V S V Y R E  
UniRef90\_W4QJE5 Y L P H S F L F Q R D Y N  
UniRef90\_C3KVU7 N L P G D I H L Y K E D N Y I  
UniRef90\_J7SGR0 N L P N N I R A E  
UniRef90\_R7B098 D I P Y G L K A R R R Y S E I  
UniRef90\_UPI00037F4CA1 S L A H G I T A Q Q S Y G N L  
UniRef90\_D2PY99 D L P Q G V R A M R R G G F I  
UniRef90\_F0SW95  
UniRef90\_UPI00036F462D M L P S G C L V K V L D R W L  
UniRef90\_F9DVC0 D L A Y G Y R F V R E Y D K L  
UniRef90\_H1HTY7 S L P Q G F F A E R R G E R L  
UniRef90\_A0A0231872  
UniRef90\_G4QI05  
UniRef90\_R6U4G4  
UniRef90\_U1LSA5 S L S G G Q V R R  
UniRef90\_F2LTR0 S L R K L I K A Y R K N D K L  
UniRef90\_Q74C65 H L P E E L L V T R S Y N  
UniRef90\_K7REF2 N F K W G K V I R F D G D  
UniRef90\_R4KC42 D L P N N I K V  
UniRef90\_UPI00037042C2  
UniRef90\_X8GYT9 D L P Y G L L V I R G Y K S L  
UniRef90\_UPI00037322F6 Y V P G V R V S R A A G R  
UniRef90\_E6M0W3 T L P G I T V T R R G N F L  
UniRef90\_U5A490  
UniRef90\_D8HK20 W L P G N L E A R R A H G R L  
UniRef90\_R9IV48 D L P Y G L S A E R I Y E  
UniRef90\_E8M7R0  
UniRef90\_U7G4M6  
UniRef90\_R7BGR4 N L P K S I T A V K N Y D G I  
UniRef90\_R9MR79 H L P Y H I T V Y K K Y D  
UniRef90\_D8JG52  
UniRef90\_A0A037ZD72 M L P G S I K A  
UniRef90\_C4RE53 H L P G G L R V V R R A G R L  
UniRef90\_R9J670 F M P C G L R A K K E  
UniRef90\_C6BV57 Q F P G K K V V K V  
UniRef90\_B3E103  
UniRef90\_UPI00037F5CA4 K L P G L R V L R Y Q G  
UniRef90\_E8T3S3 S L G N G L T F V V D  
UniRef90\_E8WVPV5 K L P G E L R V E R C Y D R L  
UniRef90\_A0A010Q968 T F K W G R V I R F D H D  
UniRef90\_C2BHQ0  
UniRef90\_F4APQ5  
UniRef90\_C0VPQ1  
UniRef90\_F9N421 E F  
UniRef90\_R5NPG9 K L P G N I Q A V R S Y  
UniRef90\_R7KPM3 D L S R D I F A V T D G  
UniRef90\_K6HBI8 Q F P G G K T V R V A R E G L  
UniRef90\_C0DBI7 D L P Y G I R A V R E Y E  
UniRef90\_E3H9Y6 S L G K N I V L K K E Y D K I  
UniRef90\_B9XGF3 T V S K D M V V T R D  
UniRef90\_UPI0003B2E462  
UniRef90\_A6C2F8 S L P D Q V E A E R R D K L L  
UniRef90\_C5EFL1 D L P Y S L M A R R E Y R E I  
UniRef90\_U2CH50 F L P G G R L A Q R V Y R E L  
UniRef90\_K2G9D0 N F P K D L H I I R E Y D K I  
UniRef90\_F3AF50 S L A W G L T A Q V Y G D  
UniRef90\_X0QUM4  
UniRef90\_F0RZZ4  
UniRef90\_R5YAR7 D L P Y E M H A K R N Y E G I  
UniRef90\_F0GUZ3 I K G D L T L T K S Y N  
UniRef90\_N9FP26  
UniRef90\_R5FL30 S  
UniRef90\_UPI00036D3879 V L P G K V R V F V Q G G Y L  
UniRef90\_F8AVA8 P L P S G V V A G R A D G R I  
UniRef90\_R6E6U2 M L P Y H M I A E R S Y E





90

```

UniRef90_A8F934      D L P K G L Q A V K S Y D Y
UniRef90_E0RVV5     D L P Y N L E A V R S Y D K L
UniRef90_R6L3N9     S L P Y G L E A V R T Y D
UniRef90_D3Q838     F L P G N V T V
UniRef90_R7GVS7     N L P E S L R V I R Q Y
UniRef90_UPI00037819C9
UniRef90_UPI00047EC025  A T P K G W Q F R R
UniRef90_R7WSK0     A V G G G V V I R R R G
UniRef90_UPI000255F8D4  H L P G G V R A T R T G E
UniRef90_K2DA72
UniRef90_Q3B0S9     H L P Q G W I V S W Q G
UniRef90_M2WG37     Q M A G R V A A Y R R
UniRef90_I3Y7A9
UniRef90_R6ZBZ0     D L P G G L R A E R S Y D R L
UniRef90_U4T392
UniRef90_W7ZQA1     A V G G
UniRef90_E3GGD4     H L P H G M Q A V R R Y E W I
UniRef90_D9R1P8     D L P C G L I A V R T N
UniRef90_UPI00047C4CC7  E L G C G W E L V R E Y D
UniRef90_Q30ZS2     Q F P G G K T A R I R H
UniRef90_UPI000405EEB5  N L P Y G L L C R R S Y D R L
UniRef90_C6LFG4     M L P G G W Q A V R S F D K L
UniRef90_J7IK84     D L P G L R V E I T N E G L
UniRef90_UPI0003775F3F  G L P G G W L A R R
UniRef90_UPI0004799008  A L P G G F E L R V R G T L L
UniRef90_UPI000428C9DB  A I G S D L R G Q R
UniRef90_X0X738     S L P G G L A F A V D G E
UniRef90_N8YQS5
UniRef90_I3CG22
UniRef90_R6BZB8     N L P G G I R A V N K N E F L
UniRef90_R6SA29     D L P Y A V T A S R
UniRef90_H5XRR1     D L P G
UniRef90_C9NNI2
UniRef90_UPI0004040662  S L P Y G I N A T R E Y G V L
UniRef90_U1RBL7
UniRef90_W9BKA8
UniRef90_W6RY99     I L P R K I K V
UniRef90_F8CN61     T L G R G A L L R
UniRef90_R6PZ26     D L P Y D M E A W R T Y D
UniRef90_N8TKC2
UniRef90_Q1R016     D W P G G E A R R W Q G
UniRef90_I8QY67     P L P G G V L A R R W A D R I
UniRef90_UPI00047D4D2C  N V P G V S V Q R L G
UniRef90_R5WA93     D L P G G G R V Y V I Q Y D R I
UniRef90_U3C342
UniRef90_G9WQI3     E L P K G Y I G E I R N K V L
UniRef90_D6SMU2     Q F P G D K E A
UniRef90_UPI0003796EDF  H L P G A R Q V T A T G G R L
UniRef90_Q2J4Y3     P L P T G V L A R R
UniRef90_E6U4R0     Q L R G G W F A E I
UniRef90_N9U410
UniRef90_W6M074     H W P G G E V R R Y R D T L
UniRef90_R7K346     S L P Y G L V A G R D Y D I L
UniRef90_C9QMJ6
UniRef90_H2IIR4

```

```

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm

```

6 7 7 6 2 6 8 9 9 8 5 4 8 9 9

B B B B B

B B B

B