

QUERY	1	10	20	30	40
UniRef90_D8JI20	Y N N   P T   V V   F S H P P   I G T   V G   L T E D E A   H K Y G I E N   V K T Y S T S F				
UniRef90_A5WH03	Y N N   P T   V V   F S H P P   I G T   V G   L T E E Q A I   E E F G K D M V K V   Y K S S F				
UniRef90_UPI000375EB94	Y S L   P T   V I   F T H P P   I G T   I G M S E M Q A I   E E Q Y G E D A I   K C Y T S S F				
UniRef90_J9F0V6	Y N L   P T   V V   F S H P P   I G T   I G L T E P Q A I   E E Q Y G E D A I   K C Y T S S F				
UniRef90_W7AXU4	Y K N   P S V V   F S H P T   L G T   I G L T E A Q A V   D Q Y G K N N L   T I Y K T K F				
UniRef90_B4WMB5	Y D Y   V P S A V   F T T P E A A S V   G I L T E P E A I   Q K Y G E K D I   K V Y Q S S F				
UniRef90_H1ZYM4	Y S N   P T   V I   F S H P P   C G V I   G M T E Q E A I   L S N Y G N D K V K V   Y R T S F				
UniRef90_A7RYC0	Y V N   P T   V V   F S H P T   I G T   I G L T E E Q A A Q R E   Q Y G D A V   R I Y Q T R F				
UniRef90_W6MAP2	Y E N   P S V V   F S H P P   V G T   I G L T E A Q A R E   Q Y G D A V   R I Y Q T R F				
UniRef90_A4VZX3	Y T T   P T   V V   F S H P A I   G T   V G L T E D E A I   T Q Y G Q D N   V K V Y T S A F				
UniRef90_H2AV32	Y T N   P S V V   F S H P E A G S I   G L T E Q E A L Q   K Y G A E N I   K V Y Y S S K F				
UniRef90_G5JZ89	Y T K   G T V   F S H P T   I G S V   G L T E E A A Q A Q Y G K E N I   K V Y Y R S T F				
UniRef90_U2QQK9	Y N N   V A T V I   F S H P P   I A A I   G Y T E E K A L   K E F G K Q N V K V Y E S S F				
UniRef90_G0R8F3	Y E N   P S V V   F S H P E   V G A   V G L T E P Q A V   E K Y G R E N V K V Y K T A F				
UniRef90_D2ANA2	Y E N   P T   V I   F S H P A I   G T   V G L T E K E A R D   K Y G D E N V K V Y K S R F				
UniRef90_W2T3L0	Y E N   A T V V   F S H P L   V G T   V G L T E E E A   N K Y G K N Q I   M Y K S K F				
UniRef90_H2YR28	Y N N   P T   V V   F S H P P   I G T   I G L T E A E A R T   L H   G D D N V K V Y T S A S F				
UniRef90_F4PU44	Y D T   P T   V I   F S H P P   I G T   V G L T E K E A   D K Y G D N V K V Y Y N S S F				
UniRef90_UPI000455E183	Y E D   P S V V   F S H P T   I G T   I G L T E P E A R K K Y G D N V K V Y K S S F				
UniRef90_F6DSE9	Y R A   P S C   V F T   T S P E I   A S V   G M T E Q V   V K D K   G L P   V K T G K F N F				
UniRef90_E3BEZ6	Y N L   P T   V V   F S H P P   I G T   I G L T T Q E A E A K Y G K E N I   K V Y T S G F				
UniRef90_B3RLQ8	Y S N   A T V V   F S H P P   M G T   V G L T E D E A V   Q K F G R E N L   K I Y R S K F				
UniRef90_UPI000409DD3	Y H N   P S I   V F S H P   I G T   T G L T E K E A   A I A E Y G Q A A I   T C Y T T S F				
UniRef90_A0ZEP8	Y E N   P T   A I   F T T P E A A T   V G M T E A E A R A E Y G D A V   K V Y Y R S R F				
UniRef90_UPI000395872A	Y D N   P T   A V   F T H P Q   I G T   V G L T E A Q A R E R   H G A V   R I Y R S D F				
UniRef90_E4UB01	Y A I   P S V V   Y T H P E   I A S V   G K T E E Q L   K S E   G H S Y K V   G K F P F				
UniRef90_UPI00036C54BF	Y D L   P S V V   Y T N P E I   A W V   G K T E A Q L   K E   A G I E Y K K G K F P F				
UniRef90_A1AVW4	Y N N   A T V V   F S H P P   I G M V   G L T E A Q A N E   K F D K I   K I Y K S E F F				
UniRef90_A0A023GKJ3	Y E N   P T   V I   F S H P P   I G T   V G M T M A E A E A K Y G A Q K   V K T Y R S T F				
UniRef90_J2WA95	Y R N   P T   A V   F S H P N   V G T   V G L T E Q Q A R Q E   V G Q V K   I F K T D F				
UniRef90_G4R6B0	Y S V   P G V   V Y T N P E V   A S V   G K T E E D L K   A E G I A Y K A A K F P F				
UniRef90_I1AV86	H D L   P S A V   F T Q P E F G T   V G L S E E E A R D R G P I E V Y A T S F R P				
UniRef90_A0A022QWP2	Y D L   P G V   V Y T H P E   V A S V   G K T E E Q V   K A L G V E Y R V   G K F P F				
UniRef90_K9WN86	Y D N   P S A I   F S T P E   G A A V   G L T E A Q A R K N W G E A V   K C Y R A A F				
UniRef90_UPI000360E2BC	Y D V   P G V   V Y T S P E   V A S V   G K T E E Q L   K E Q   K I S Y K V   G K F P F				
UniRef90_Q7VD20	Y E F   P G K   V F S Q P   O E   V A M V   G K T E A Q L   K K E N   V I E Y   T K C Y T F P				
UniRef90_F7SRS4	Y A T   P T   A V   F C H P N   I G T   V G L S E E A A R E N I   G K I   R V Y R A D F				
UniRef90_F7VDW4	Y D A   P G V   V Y T W P E E   V A S V   G F T T E E Q L   K E K   G T E Y K I   G K F P F				
UniRef90_C5K9F5	Y D S   P S V V   Y T H P E   I A W V   G K T E A D C   K K   A G I D Y K V   G V F P F				
UniRef90_X1QX23	Y H A   P S C   I F T Q P E   I A G V   G V T E K Q A K D S   G I P   Y K V   S K F P F				
UniRef90_L0P7Y5	Y N A   P S V   M Y T Y P E   V A W V   G Q T E Q Q   V K K S   C I   N Y V V   G T F P F				
UniRef90_B2KNE4	Y D V   P G V   V Y T E P E   I A M V   G K T E A Q L   K K E N   V I E Y   T K C Y T F P				
UniRef90_D0MK63	Y N N   P G C   T Y C Q P   Q I   V A S V   G Y T E E K A R E   A G Y D I   K V   G K F P F				
UniRef90_A1U0C8	Y S A   P T   A V   F C Q P   O I   V A S V   G M T E A E A K E   Q F G E D D I   Q I   Y R S E F F				
UniRef90_C4XZ89	Y S N   P S V V   F S H P E   A G S I   G L S T K Q A V   E K Y G K D N L   K I   Y N S K F				
UniRef90_K9YCB2	H E N   P S A V   F T S P E   A A T V   G F T T E A E A K E   Q F G E D D I   Q I   Y R A R F				
UniRef90_A3YZ63	H D L   P A S A V   F S Q P E   L A S V   G L S E E Q A L   A R F G P   D G V R L   Y R A R F				
UniRef90_V4A6K4	Y N C   P S V   V Y T H P E   V A W V   G K T E E M L   K E E   G I D Y K I   G K F P L				
UniRef90_B7FZC3	Y D L   P T   V V   F S H P T   I G T   I G L S E E E A K E K Y G K E N   V K V   Y R S K F				
UniRef90_F7PHZ5	Y D A   P A V V   F T S P E   V A T V   G T T E R E Y M D E   H G T C S C R   T I Q M				
UniRef90_UPI00037632FC	Y D Y   P W V   Y T E P E   I A W A   G K T E D E L   K K   A G I A Y K V   G S F P F				
UniRef90_A6FKU8	H A L   P T   A I   F T Q P E   F G T   I G L S E E E A R D   D Q   E P I E V Y C T S F				
UniRef90_M5BHS4	Y E N   P T   V V   F S H P T   I G T   V G L T E P E A R E K   Y G D Q V K   I Y K S S F				
UniRef90_UPI00037B3724	Y D V   P S V V   Y T Y P E   V A S V   G K T E E E L   K   A A G   V G Y K A G K F P F				
UniRef90_F5RA43	H D T   P W V   V Y T H P E   I A W V   G K T E T T Q L   K   A E G I E Y K A G Q   I P F				
UniRef90_M1Z1S0	P V   P A V V   F T D P E   I A W C   G L T E E Q O A K   L   A E G R E V E V E V   C K F P W				
UniRef90_Q7V2B4	Y E N   P K A V   V F T   P E   I S T V   G L S E E E K A N E   I Y S E V N V Q V   F K C N F				
UniRef90_M2SGX2	Y D V   P S A V   F T H P E   I A S V   G M T E S E A R D   Q L   G G V   E V   F T S D F				
UniRef90_A4FLD8	Y D V   P A A T   F T H P E   I A S V   G L T E A Q A V   E   A G H E V V T   G K F P F				
UniRef90_A8TQ86	H D D   P S A V   F S Q P   O I   G T V   G L S E A A A A K K Y G A L   D I   Y V S G F				
UniRef90_UPI000347109B	Y D A   P S V V   Y T F P E   V A W V   G M T E Q D A K E Q G   I E   V S T G A F   P F				
UniRef90_G8BMT7	Y S N   P S V V   F S H P V   A G T C G M T E A D A V A K Y G E N N   I K   V Y K T E F				
UniRef90_J9YS57	Y D T   P G V   V Y T T P E   V A S I   G K T E E Q L   K E N N   I G Y   K I   G K F S F				
UniRef90_K2GNX8	H D R   P S A V   F T R P E   I L G T V   G L T E Q G A R D   R E E   V E V Y C T S F				
UniRef90_W9CQ71	Y N L   P T   V V   F S H P E   V A G T I   G L T E P E A L   Q K Y G A N G L   H V   Y H T K F				
UniRef90_B6JZX4	Y N Q   P S V   V F A H P E   A G S I   G L S E Q Q A I   E K Y G E N Q V K V   Y R T R F				
UniRef90_H2ATQ3	Y N N   P S V   M Y T H P E   V A W T   G K N E K E L   K R D D   N Y K V   G K F P F				
UniRef90_R9PBE6	Y A A   P A V V   Y T H P E   V A W V   G K N E E E L   K K   G V E Y K V   G K F P F				
UniRef90_D5WSY2	Y R V   P A V V   F S D P E   I A V V   G L S E E E A K E K   G L D V V T   G R F P F				
UniRef90_I0IB23	Y D V   M P G   V   Y T D P E   V A S V   G K T E E E L   K   A G V D Y R A G K F P F				
UniRef90_C6VYZ3	Y G N   P G C   T Y C Q P   O E   I A S V   G L T E K K K A K E   A G Y D I   K V   G K F P F				
UniRef90_F4KZ48	Y N N   P S C   T Y C V P   E E   V A S V   G L T E Q A K E K   G Y E V V K V   G K F P F				
UniRef90_A0A034VK02	Y N C   V   P S V   V T H P P   I A T V   G L T E C E A Q E R E Y G V   D N V R V   Y R S R F				
UniRef90_F9ZRG8	P T   V I   F S H P P   I A T V   G L T E C E A Q E R E Y G V   D N V R V   Y R S R F				
UniRef90_A6GN99	Y D T   P W V   V Y T S P E   V A W V   G K T E Q Q   L   K Q E E   G R K Y K A G Q F P F				
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UniRef90_W5X0X1	Y D T   P G V   V Y T H P E   I S S V   G L T E D E A K A Q   G Y R V R   C G R F P F				
UniRef90_UPI0003685056	Y R V   P N O   F S P P   E I A S V   G K S E E Q L   K   G I E Y K V V K F P F				
UniRef90_UPI0003C18BCF	Y N C   P S V   V Y T H P E   V A W V   G K S E E Q L   K   G I E Y K V V K F P F				
UniRef90_A0A037ZF00	H E L   P S A V   F T Q P E   L G T V   G L T E E A A A A Q G P   I D V Y V A T F R G M				
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UniRef90_I4C095	R V   P S C   V T H P Q   I A W A   G L T E E Q A   A S D L S F R T S M F S F				
UniRef90_G2QI25	Y G C   P S V   M Y T F P E   V A W V   G Q S E Q D   L   K K   A G V N Y R V   G T F P F				
UniRef90_D3NZW3	Y D N   P T   A V   F S L P P   L G T V   G L T E T T Q A R T   G Y P Q V D I   Y K A G F				
UniRef90_V5ETA6	Y D N   P T   V I   F S H P T   S G T   V G L S E P E A I   E K F G K D N V K V   H T S K F				
UniRef90_B3LA10	Y K L   P S V   V F S H P P   I G T   I G Y S E Q E A L   D   Y G K E N V K V   Y E S R F				
UniRef90_D0J9L4	Y N N   P K C   V Y C L   P E   I A S V   G Y T E R E A R E K   G Y Q I R V   G K F P F				
UniRef90_UPI000225A8BA	Y H T   P S V   V Y T Q P E   V A S V   G L T E D Q A K E Q   G L K Y R V   G K F P F				
UniRef90_C1MY69	Y E N   P S A V   F C Q P   P V   G T V   G L T E A Q A   A A G H T C D V Y   T V F R A D F				
UniRef90_J2LMQ8	Y E F   P V T A V   F T H P Q   I A W A   G L T E E Q L   K   A A G V A Y K T   G K F P F				
UniRef90_D3NXL1	H D L   P G V   V Y T W P E   V A A   G K T E E Q L   K   A A G V A Y K T   G K F P F				

QUERY

UniRef90\_D8JI20  
UniRef90\_A5WH03  
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UniRef90\_E3BEZ6  
UniRef90\_B3RLQ8  
UniRef90\_UPI000409DD3  
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UniRef90\_Q7VD20  
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UniRef90\_Q7V2B4  
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UniRef90\_G2QI25  
UniRef90\_D3NZW3  
UniRef90\_V5ETA6  
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UniRef90\_D0J9L4  
UniRef90\_UPI000225A8BA  
UniRef90\_C1MY69  
UniRef90\_J2LMLQ8  
UniRef90\_D3NXL1

	50	60	70	80
T P M Y H A [V T K R K T K C [V M K M [V C A N K E E K V V G I H M Q G L G C D E M				
T A M Y D A V A Q H K Q L T K M K M [L I C V G V E E K I V G I H G I G L N M D E I				
T P M Y S A V T Q H R Q K C T M K L V C L G D E E K I V G I H G I G F G V D E M				
T A M Y T A V T Q H R Q P C R M K L V C V G K N E K I V G I H G I G Y G V D E M				
N P M Y Y A V T Q H K E P T T M M K L I C A G E N E R V V G L H M L G D G C D E M				
T S M Y T V I T E H R E S S S R M K L I C E G E N E R V I V G L H G I G T G M D E I				
R S M Y Y T L P N K D Q K T L M K L V V H T E S D K V L G A H M V G D H A A E I				
T S M Y Y A V T D K K H K T H M K L I T L L P E E E K I V G L H I L G L G A D E M				
R P M Y H S F T A R P T D T L M K L V C V G P E E E K I V G C H I L G E G V D E M				
T S M Y T A L E N N R Q M A K F K L V T V G E N E R V V G L H G I G Y G V D E M				
T A M Y Y A M L T E K S P T M A K F K L I C A G P E E E K I V G L H I L V G D S S A E I				
T S M Y T A I T K H R Q S C K M K L L V T A G P D E E K I I G L H G I G Y G V D E M				
T P M Y S A V T N N R Q P S T M K L V T V G A E E E K I V G L H G I G F G V D E M				
T A M Y Y A M M D P E S K G P Y K L I T A G P E E E K V V G L H H M G Q G S A E M				
T A L Y C A I S G H R M P T V M K L V V T G D N E K I V G C H M I G L N V D E M				
N P M Y H A V T K H K E P C I M K L I C A G P E E E R V V G V H I L G A G A D E M				
S P M Y H A M T K R K T K V V M K L V C L L P E E E K V I G L H M Q G L G C D E M				
T N M F Y A N D T Y K P K T F M K L I V T G P E E E K V L G I H S I G l G S D E M				
R S L Y F S Q I A E E H K E P Y K L V C V G E E E R V V G L H I I G Q G S D E I				
M A N G K A L S M G E G D G F V K V V T H A E T D R I L G V H I I G P H A S D L				
T A M Y T A V T Q H R Q P C K M K L I C A G D E E E K V V G L H G I G F T V D E M				
T P M Y H A V T T R K T P S L M K L I T V L P E E E K I V G L H I L G l G S D E M				
T A M Y S S F S D K P V K T A M K M V C A G E E E K I V G I H I I G P S V D E M				
R P M Y Y T L A G K D E K T M M K L V V D Q N T D K V G A H M V G T S A A E I				
K P L R H T L S G R S E R C L V K L V V D A S D K V L G L H V V G A D A A E I				
S A N G R A R S M N S I D G F V K I L I A D Q K S S D R V E G V H I I G V G A G E M				
Q A N S R A T N H E T T G F V K I L I A D A K T D R I L G A H M M G V G V G E M				
T P M A D A L L E H K T T T A L K L V C A G D N E K V I G C H I I M G H G A D E I				
T P M Y Y S M T E R K S K C V M M L V C V C A G A E E E K V V G L H M I G D G C D E I				
K P L K N T L S G N T E R T F M K L V V D A A A S D R V L G V H M V G P D A G E V				
T A N G R A K A M L P Q G F V K I L I A D K E T D R V L G C H I V G K G A G E M				
T A N G R A K A M L P Q G F V K I L I A D K E T D R V L G C H I V A P G A G E M				
L A N S R A K A I D D A E G I V K I L I A E K E T D R I L G V H I I M S P N A G E L				
R P M Y H T L S G R A D K T M V K L V V E E D T Q K V L G A H M V G E H A A E I				
K P M S K M V L V K S K E K C F L K L I I E K N S S N K V V G C H M I G L E H A S E I				
K A M K H T L S G S Q E R T L M K L I I V D D A T D V V V G A H M V G D E A G E L				
M A N G R A R A L G M T D D G F V K V L V A C K K T D R V L G V H I I I G P C A G E L				
A A S G R A K C V D S T E G F V K V I S Q K K D D K L L G A C H I V Q A S A G E L				
L A C G R A V T M D E T L G M V K M I C O N A Q N S R V L G M H I M G P H A S D L				
A A N S R A K T N L E T E G L V K F V T D K E T D R I L G I H I I G P N A G E M				
Q A N S R A R A Y D Q P D G L I K V L A D K K T N K I L G V H M C H G L N V S E L				
T A S G K A T A L G H T E G F V K V I F D A K Y G E F L G C H I I I G H D A T E L				
R P M K Y T L S G R A D K T R C L M K L I V D D S S D K V L G A H M V G P D A G E I				
N A M Y Y A M M D S D D D K V P C V Y R L I C A G K V V G L H I V G D S S S E I				
G S T Y F S V T Q R K E K A M L K L V V V Q K S S D R V L G A H M V G E A A A E I				
R S M A Q A L P K R G P R C L L K L V V E V I A S G R V L G C H M V G E H A A E I				
V A N S R A K C N N D T D G F V K V L G D K K T D R L L G A H I I G S V A G E L				
A N L Y Y G P W Q I E P E D K P T A M K L I C E L V V G L H I V G M G A D E M				
A D V P K A K A V Q D T R G L V Q V V K H E T D A I V G V H M V G P R A A D M				
A A I G R A V A M N E T A G F V K V L A H A E T D R L L G V H M V G P G V S E L				
K P M Q Q A F A G R E D R V L M K L I V S Q E T T R R V L G C H I I V A P G A G E M				
A L Y Y M I P E G H K E P T A Y K L V C V G P E E E K V V G I H I I G L G S D E V				
T A N G R A K A N A T T E G F V K V L A D A K T D R V L G V H I I V G P R A G D L				
A A N G R A L G Q G D T T G F V R M Y A C A K T D R I L G V H V I I G N N A S E L				
G A S G R A T T L G R N D G Q T K L I L E P K T D R V L G I G L V G T N A G E E L				
T P M S N T F K K N K S K C M L K L V V N K K N D K V L G C H M F G E A A S E I I				
R A M K N V L A N R N E R S I Y K L I V D S A N G K L V G A H M I G P D A P E I I				
A A I I G R T K T Y G N S D G F M K I V A G K Q Y G E V L G V H I I I G Q S A S D L				
R P M K Y T M T E N S E R G L M K L V V D R A S Q R V V G A H M L G V D A P E I				
A A N G R A M A N N A T E G S A K V I A D A E T D R I L G L H I V V G Q H A G E M				
T D M Y N A D P I K K Q P T G Y K L V C A G P E E E K V V G L H I V G P S S S E I				
M A N S R A K A I D D A E G F V K I I L A D E K S S D R V L G A H I I I G P H A G E L				
R P M Q Q A F I G R K D R V L M K L I V S R R T R V V L G C H I I V A Q N A G E M				
A A M F Y D F F P A E D K P T A M K L I C E L V V G L H I I G L G V G E M				
F G L N Y A M V D P E D K I P Y K I V C V G P L E K V V G L H I V G D F S G E I				
I A N S R A K T N M D T E G F V K I I L I D A E T E R I L G A H I I V G P N A G E M				
L A N S R A K T N A D S D G T V K F L I V E K E T D K V L G V H I I I G P N A G E M				
A A N G R A K A I D E T A G M V K F L I C D A R T D R V L G A Q I V G P E A S D L				
M A N G R A K A I D E T A G M V K F L I C D A R T D R V L G C H I I L G P G G G D L				
K A S G K A V G A G V T D D G F V K V I F D A K Y G E F L G A H M I G A N V T E M				
S A S G K A S A A G D K T G F V K V I F D A K Y G E F L G A H M I G Q N V T E L				
L A N S R A K T N N E T D G F V K V L A D K A T D R V L G T H I I G P S A G E L				
T P L L R A L D R D H P Q T H M K L V T V G A E E R I V G L H A I I I G D G V E E M				
M A N G R A L G Q G D S Q G F V K V L A D S T T D E V L G V H I I I N S H A S D L				
Q A N S R A T N H T E T G M V K V L A D K K T D T V L G V H I I I C V G A G E L				
M A N G R A R A K G F I E G F V K I I A D K K T D T R I L G A H M V G P G V S E L				
R A N G K A L I E G E V I E G F V K I I V S D E K S G E I L G V H I I I G P S A S N L				
A A N S R A K T N A D T D G M V K I I L G Q K S S T D R V L G A H I I I G P G A G E M				
Q T L F A G R Q D K V L M K L L V V D Q A S Q K V V L G C H I I V A D H A G E M				
R P M K Y A F T R S D E R V L M K L V V E A E T Q R V V G C H I I V G P D S P E M				
S S N G K A Q A M G D S R G W V K L L E D S T S G S L I G A H I I L G P E A S E L				
S A N S R A K T N L D T E G M V K M L A D A E T D R I L G I H I I I G P N A G E M				
R P M K H T L S G R D E R V L M K L V V D G E S Q R V V L G C H I I I G M G M D A P E M				
V S M Y Y G M L E E K A P S A F K M V W V G P G E K V V G L H I I V G L G A D E M				
T N L F F S V Y D M D P A Q K E T Y C V G K E E L I K G L H I I V G L N A D E I				
S A L G K S V C D G N T E G F V K V I F D D K Y D E W L G C H M I G N H V T D I				
M A N S R A K A V G D T A G F V K V I A D A Q T D K V L G V H I I I G P N V S E M				
T P M K H T L S G R D E R V L M K L V V D T D K V I G C H M V G P D S A E I				
K A L K H T L S G S T E R T L M K L L V E D A T D R V V G L H M V G P D A G E I				
T A N G R A R A G G N T D G F V K I L S D A A T D Q V L G V H M I G P N V S E M				

QUERY	90	100	110
UniRef90_D8JI20	L Q G F A V A   V K M G A T K A D F D N T   V A   H P T S S E E L V T L R		
UniRef90_A5WH03	L Q G F A V A   L K M G A T K K D F D N T   V A   H P T S S E E F V T M R		
UniRef90_UPI000375EB94	I Q G F A V A   I K M G A T K A D F D N T   V A   H P T S S E E F V T M R		
UniRef90_J9F0V6	L Q G F A V A   I K M G A T K K D F D N T   V A   H P T S A E E L V T M R		
UniRef90_W7AXU4	L Q G F A V A   I K M G A T K A D F D N T   V A   H P T S A E E F V T M R		
UniRef90_B4WMB5	I Q G [A] I A L K M G A T K A D F D N T   V A   H P S S A E E F V T M R		
UniRef90_H1ZYM4	L Q G F S V A   I K M G A T K A Q F D D T   V A   H P T S S E E L V T M R		
UniRef90_A7RYC0	L Q G F A V A   I K M G A T K A D F D N A   V A   H P T S S E E L V T M R		
UniRef90_W6MAP2	L Q G F A V A   I R M G A T K R D F D D T   V A   H P T S A E E L V T M R		
UniRef90_A4VZX3	I Q G F S V A   I K M G A T K E E F D A   V A   H P T G S E E F V T M R		
UniRef90_H2AV32	L Q G F G V A   I K M G A T K A D F D N C   V A   H P T G S E E F V T M R		
UniRef90_G5JZ89	I Q G F A V A   I K M G A T K K D F D D T   V A   H P T G S E E F V T M R		
UniRef90_U2QQK9	I Q G F A V A   I K M G A T K K D F D D T   V A   H P T G S E E F V T M R		
UniRef90_G0R8F3	L Q G F G V A   I K M G A T K E D F D N C   V A   H P T S A E E L V T M K		
UniRef90_D2ANA2	L Q G F A V A   I N M G A T K R D F D D T   V A   H P T S S E E L V T L		
UniRef90_W2T3L0	L Q G F A V A   V T M G A T K A Q F D A C   V A   H P T S A E E L V T M R		
UniRef90_H2YR28	L Q G F G V A   I K M G A T K A Q F D D C   V A   H P T S S E E L V T L		
UniRef90_F4PU44	I Q G F A V A   I K M G A T K E D L D N T C   A   H P T A S E E E L V		
UniRef90_UPI000455E183	L Q G F S V A   V K M G A T K Q D F D D T   V A   H P T S S E E L V T M R		
UniRef90_F6DSE9	I A E A T L A   V Q K G L T A K E L A G V I H A H P T L A E E A L M E		
UniRef90_E3BEZ6	I Q G F A V A   M K M G A T K A D F D A   V V A   H P T G S E E F V T M R		
UniRef90_B3RLQ8	L Q G F A V A   L K M G A T K A D F D N T   V A   I H P T S S E E L V T M		
UniRef90_UPI000409DD3	L Q G F A V A   V K M G A R K Q D F D D T   V A   H P T A A E E E L V T M R		
UniRef90_A0ZEP8	I Q G [V] A I A   V K M G A T K A N F D A T V G I H P S S A E E F V T M R		
UniRef90_UPI000395872A	T Q G F A V A   K A G A T K A L F D Q T I G I H P T M A E E L V T L R		
UniRef90_E4UB01	I H E A A V L M E F G G S S E D L A R I C   H A H P T M S E A V R E		
UniRef90_UPI00036C54BF	I H E [C] I A M E F G G A A S E D V A R T C   H A H P T M S E A V R		
UniRef90_A1AVW4	L Q G F F A M A   I K M G V T K K Q F D D T I A I H P T I S E E L V T M R		
UniRef90_A0A023GKJ3	L Q G F G V A   I K M G A T K A Q F D D C   V A   I H P T S A E E L V T L R		
UniRef90_J2WA95	I Q G F A V A   L Q C   G A T K A Q F D L T I G I H P T G A E E F V T M R		
UniRef90_G4R6B0	I H E A A V L M E F G G S S E D L A R T C   H A H P T M S E A V R E		
UniRef90_I1AV86	I Q L A G I A   I G M G A T K E D F D R T V A V H P T M S E E I V T M R		
UniRef90_A0A022QWP2	I H E A V L A L H Y G A S S E D I A R T C   H A H P T M S E A L		
UniRef90_K9WN86	I Q G [I] A I A L L K M G A T K Q D F D A T V G I H P S T A E E F V T L R		
UniRef90_UPI000360E2BC	I A E M A L A M E F G G A S A E D I A R T C   H A H P T L A E E A I		
UniRef90_Q7VD20	I Q M A A I S M M N G M A T K L F D Q T M A L H P T I S E E F V T M K		
UniRef90_F7SRS4	I Q G [I] A I A V R A G L T K E D F D R T I G I H P T G A E E F V T M R		
UniRef90_F7VDW4	I A E A T M A I I E F G G A S A E D I G R V C   H A H P T L S E A V		
UniRef90_C5K9F5	I H P F V L A I N Y G A S S E D I A R T C   H A H P T L S E A V R E		
UniRef90_X1QX23	I A E G V L A I V E Y G A S A E D I A R T T H A H P T L S E A F		
UniRef90_L0P7Y5	I A E A G L A M E Y G A T A E D V A R T C   H A H P T L S E A F		
UniRef90_B2KNE4	I A E A V T A R T L E T T Y H E I I E S I H P P T L S E A I M E		
UniRef90_D0MK3	I Q G L A V A   I K A G A T K A Q F D A T M G I H P T S A E E F V T M R		
UniRef90_A1AU08	I Q M A A I A I G M G A T K A D F D R T M A L H P T V A E E F V T M		
UniRef90_C4XZ89	L Q G F G V A   I K M G A T K K D F D N C   V A   I H P T S A E E L V T L R		
UniRef90_K9YCB2	M Q G [V] A I P I K M G A T K A D F D A T V A I H P S V A E E F V T M R		
UniRef90_A3YZ63	I Q M A A I A I G M G A T K A D F D R T M A L H P T V A E E F V T M		
UniRef90_V4A6K4	I N E A A L A M E Y S A S C E D I A R V C   H A H P T V A E A F R E		
UniRef90_B7FZC3	L Q G F G I A L K M G A T K A D F D A T I A I H P T T A A E E F V T M		
UniRef90_F7PHZ5	I P E A T L A V K F G L T V D D I I D T I H P F P T F S E A F		
UniRef90_UPI00037632FC	I A E A V V A M E F H G S A E D L A R I H A H P T L S E A V		
UniRef90_A6FKU8	I Q L A G I A V K M G A T K E D F D R T V A V H P T M A E E I V T M R		
UniRef90_M5BHS4	M Q G F G V A   V K M G A T K K D L D D T V A L H P T S A E E L V T M		
UniRef90_UPI00037B3724	I A E A A I A M E F G G A S S E D I A R T C   H A H P T L A E A V		
UniRef90_F5RA43	I A E A V V A M E F D A C S E D I A R I C   H A H P T L S E V M		
UniRef90_M1Z1S0	I S E G V L A I Q L G A T A E D L A H S I H P P T L S E T L M E		
UniRef90_Q7V2B4	I Q M V A V A S L N T G I T K K D F D T M A L H P T I S E E F V T M		
UniRef90_M2SGX2	M Q S L A I A V K A G L T K K Q V D A T I A I H P T M A E E L V L M R		
UniRef90_A4FLD8	I T E G A L A I N L E A T L D E L A E T V H A H P T L G E I		
UniRef90_A8TQ86	I Q G V A I A V R M G A T K R D F D R T I G I H P T A A E E F V T M R		
UniRef90_UPI000347109B	I A Q G V I A M E F G G S S A E D L A T C   Y A H P T M S E S I		
UniRef90_G8BMT7	L Q G F G V A   I K M G A T K A D F D N C   V A   I H P T S A E E I V T L R		
UniRef90_J9YS57	I A E I G I A M E F G G A S S E D I A R T C   H A H P T F S E A V		
UniRef90_K2GNX8	I Q L A G I A V K A G L T K D Q F D A T C   A V H P T M A E E L V T M R		
UniRef90_W9CQ71	L Q G F G V A   V K M G A R K R D F D A C   V A I H P T S A E E I V T M K		
UniRef90_B6JZX4	L Q G F S V A   I K M G A T K S D F D N C   V A   I H P T S A E E L V T M R		
UniRef90_H2ATQ3	I A E A C L A L E Y G A S A E D I A R V C   H A H P T L S E A F		
UniRef90_R9PBE6	I A S A V L A I E Y Q Q A S A E D I A R T C   H A H P T L S E A F		
UniRef90_D5WSY2	I A E A A L A L E M G A T L E D V A L T I H A H P T L G E V M M E		
UniRef90_I0IB23	L A E V A T A M S F G A T S E D I I G R A V H A H P T L S E A V		
UniRef90_C6VYZ3	I A E E V V V A R K L E T T S H E I M R S V H P H P T M S E A L		
UniRef90_F4KZ48	I A E E V T A R K L E T T G H E I T K S V H P H P T M S E A V M E		
UniRef90_A0A034VK02	I N E A V L A M E Y G A A S E D V A R V C   H A H P T C A E A L R E		
UniRef90_F9ZRG8	I Q G F A V A   I R M G A R K R D F D D T I A I H P T S A E E F V T M R		
UniRef90_A6GN99	I A E A V V M A M E F K A S S E D I I G R I C   H A H P S L S E V V		
UniRef90_UPI00039ED907	V A E A A L A M S F G A A S E D I A R T C   H A H P T M S E A V R		
UniRef90_W5X0X1	I H E V V V C   M E F G G S S E D L A R S F H A H P T L S E V V R E		
UniRef90_UPI0003685056	I G E G I L A M G L E A T P Q E I I A S A I H P H P T L L E A F R E		
UniRef90_UPI0003C18BCF	V N E A A F A L E Y G A S C   E D I A R V C   H A H P T L L E A F R E		
UniRef90_A0A037ZF00	I Q L A G I A V K M G A T K A D F D R T V A V H P T M A E E L V T M K		
UniRef90_L1Q8L3	I Q L A A I A V K A G L T K A Q W D A T C   A V H P T M A E E L V T L R		
UniRef90_I4C095	I A E L T L A V R M R L S A K D L A D T I H A H P T L S E A L R E		
UniRef90_G2QI25	I A E G T L A L E Y G A S S E D I A R T C   H A H P T L A E A F		
UniRef90_D3NZW3	M Q P L A I A L N C   G A T K R D F D R T I A I H P S T A E E F V L M R		
UniRef90_V5ETA6	L Q G F A V A   V K M G A T V K D F Q E T C   A I H P T S A E E V V T M		
UniRef90_B3LA10	V Q G F A V A   L K M N A T K K D F D E T I P I H P T S A A E E F V T M		
UniRef90_D0J9L4	I S E V V V A R K L E A T N H E I T C   H P H P S L S E S I L E		
UniRef90_UPI000225A8BA	I A E A V L A M E Y C A S S E D I A R T C   H A H P T H A E A L		
UniRef90_C1MY69	M Q G L G I A L K C   G A T K Q F D S C   V G I H P S S A E E F V T M R		
UniRef90_J2LMQ8	V Q G F A V A   M A K G A T K A V F D G T I G I H P T V A E E F V T M R		
UniRef90_D3NXL1	I G E L V L A M E F S A S A E D V A R T C   H A H P T L S E A V		

	1	10	20	30	40
UniRef90_UPI000344EAE2	H K N   V P S A   V F S Q   P E A G T   V G M T E A K A R E   L L G D G   V K   I Y R A R F				
UniRef90_14A277	Y G N   I P G C   T Y C   L P   E I A S V   G L   T E A Q A K E K   G Y E   I K V   G K F   P F				
UniRef90_L0WF84	Y D T   V P S V   I Y T H   P E V A W V   G K T E E E A K   A S G E A Y K T   G V V   P F				
UniRef90_A5CFW7	Y N   V P S V   I Y T A   P E I A W V   G K T E E E V   Q A S G R E Y K V   G T F   P F				
UniRef90_D3D4E4	Y R   V P P A   A T F T H   P E I A S V   G L   N E A A A R K   A G M D   V T V   A T F   P F				
UniRef90_B5JTK6	Y E A   V P S V   I Y T D   P E I A W V   G K T E Q E L K   A S G V   D Y K A G T   F P M				
UniRef90_A4XUU3	Y R M   I P T A   V F S   L P   N I G T   V G L   S E E Q A I E D   G H   K V K   I F E S R F				
UniRef90_B3QCR2	Y A Y   V P T A   V F S   Q P   V G T   V G L   T E A Q A R A Q Y S   V V D   I Y K T   D F				
UniRef90_Q2YAR3	D A I   P W   V I Y T S   P E I A W V   G K T E Q E L K   A A G   V E Y K A G Q F   P F				
UniRef90_UPI00028896ED	Y K   T V P A   C V Y T K   P E I A S V   G L   T E E Q A K E K   G I V   E D Y K   I G K F   P L				
UniRef90_UPI00016C5481	Y D A   I P S V   I Y T W   P E V A S V   G L   T E E Q L   K E K   G I V   E Y R   V G K F   K F				
UniRef90_B8LB2	Y D A   I P G V   I Y T F   P E V A S V   G K T E E E L   K E A N   V A F N K G S   F P   F A				
UniRef90_V4R9Q8	H E   L V P T A   V F T T   P E M A S V   G L   T E E D A R K R   C S R   L D   I Y K A S F				
UniRef90_UPI00026CB973	Y E N   L P S A   V F S   H P P   M A G V   G L   T E A Q A K N K F G   S V K   V Y T S   D F				
UniRef90_UPI0002880ACA	Y R A   M P A   V V F S   D P E   I A S V   G L   S E D E A K K Q   G Y E   V K T   G Q F   P F				
UniRef90_UPI0003B508EB	Y D C   I P S A   V F S   Q P   L L A S V   G L   T E A Q A R E M   L G   S N V K   V F T S   D F				
UniRef90_R6XSK2	Y S A   I P S   C V F T S   P E V A S V   G M T E   Q Q A Q E R   G V A Y   K V G R F   P F				
UniRef90_E7RWC1	Y N   C I P Y   V I Y T S   P E I A W V   G K N E   A Q L K   A E G R A Y   R V G Q F   P F				
UniRef90_SOFXF5	Y D A   V P G A   I F T M   P E I G T   V G L   S E E E A R K K G   L E V D T A   S V N F				
UniRef90_C5GMC1	Y D   D I P T V   V F S   H P   E V G T   T G L   T E P   Q A I   E K Y   G K E N   I K V   Y H T K F				
UniRef90_D0LVC4	Y D T   V P G   L Y T E P   E I A T V   G K T E E Q L   K E   A G V   A Y A K G   V F P   Y				
UniRef90_R5WCJ1	Y T T   T I P S   C V Y T T   P E I A M V   G L   T E E K Q A I   E G G   Y E I   K V G Q F   P Y				
UniRef90_F8ETB0	Y T T   T I P T A   V F S   H P P   L A S A G   L T E E E A R A E Y   K N   L   K I Y K S S F				
UniRef90_Q0FF98	Y D   V I P G   V I Y T T   P E V A N   V G K T E E E L   K D   A G   I D Y K V G K F   S F				
UniRef90_A8PKW3	Y E N   I P T A   V F S   H P   A T G T   V G M S E   P E A R E K   F Q G Q K   T I Y R S   R F				
UniRef90_K2FZI9	Y E N   I A T A   V F C   H P   N   I G T   I G L   T E Q Q A S E R Y   G K L   R I Y R S   D F				
UniRef90_E7QXQ6	Y Q A   M P A   V F T D   P E I G T   V G L   T E D E A E E Q   G F E   P   V V G R F   P F				
UniRef90_E6QNY2	D R   I P A   C T Y T E P   Q I G S   V G L   T E A R E Q   G Y E   V K I G K F   P F				
UniRef90_R6EUB6	D   I I P S A   V F T T   P E V A T V   G M T E   D T C   K E T   G I   K V K   C L K S M Y				
UniRef90_UPI0002E02B98	H S   C V P S A   V F S   H P P   I A A V   G L   T E S E A R N S   L G   N   I K V   Y Q S   D F				
UniRef90_UPI0004635B22	Y E G   V P S V   V F S   H P P   L G N V   G L   T E E Q A R A R Y   N G A V   R V Y R S   N F				
UniRef90_13ZB88	N   L   I P G   C   T Y C   E P   Q I G S   V G L   T E A M A R E K   G L   K   I K V G K F   P L				
UniRef90_UPI00036AFE45	Y D   I L P S   V I Y T E P   E I A W V   G Q T E E Q A L   R   A I G   E N   I K I G T F   P L				
UniRef90_I4YZJ9	H D   I L P T A   V F S   T P   E I G   V   G C   G E D A A R A   V Y   G D   V D   V Y K T A F				
UniRef90_A815X3	H S   S L V A T A   V F T E P   E V G T   C G L   S E T A A R   A A G   H   A V D   I Y K S   Q F				
UniRef90_G7DLV3	H S   Y   I P T A   V F S   Q P   E V G T   V G L   T E T E A R A Q F   S   H   V D I Y K T T F F				
UniRef90_H2CK58	H S   Y   I P S   C   T Y C   H P   E V G T   V G L   T E K K A K E R   G Y   D   V L   V G R F   P F				
UniRef90_UPI00036C0CCD	Y N   C   T P T A   I F T K   P E M G   T   V G L   S E E L   A V E R   G P   V   D   F T T Y   F K P				
UniRef90_F4KUC9	Y N   L   I P G   V   V Y T W   P E V A G   V   G Q T E E Q L   K E   A G V   P   Y K V G K F   P F				
UniRef90_F7XUQ4	N   I   P G   C   T Y C   Y P   Q I A S V   G Y T E K Q   Q A R E   A G F   D   V K I G K F   P S				
UniRef90_S3NJG9	Y D   A I P G   C   I F T H   P   E V A S V   G L   T E Q K Q A T   E K   A A G   F S   I N V G K F   P L				
UniRef90_A0LAA4	Y D   A I P A   V V Y T H   P   E I A S V   G Q S E E S   L   T A A G   I   P   Y K V G K F   P F				
UniRef90_Q6KH64	T   V   P A   C I Y T H   P   E E I A S V   G M S E R   Q A K E S   G R A Y   I S E K   H   Q M				
UniRef90_K9GX06	Y D   A I P S   V V Y T W   P E V A G   V   G Q T E E Q L   K D   A G   I E Y N   V G K F   P F				
UniRef90_X1VHH0	Y T S   I P N   O I F T S   P E I G T   V G L   T L   D   K A R E E   G   I E T K   I G R F   P F				
UniRef90_W7YVV8	Y K A   M P L   V V F S   N   P E L A S V   G L   S E E E A   Q A Q   G   I P   F V I G K A S F				
UniRef90_W9B5H5	Y D   N   L   S   S   O I Y S S   S P E A A S V   G L   S E K Q   A T   E K   G Y   D   V K V G K F   P F				
UniRef90_UPI0003FF08ED	Y   L   A   M   P   M V   V F S   D P E L A S S   V G Y T E Q E A K   D   A G   Y   E V T A A K F   P F				
UniRef90_A0A23Y255	F   D   T   P   W   V   I Y T E P   E L A W V   G K T E E Q   L   K   A E G   I   P   Y K A G S   F P				
UniRef90_UPI000474C213	Y A   V   I P S   V   Y T S   P E I A W V   G R   S E E Q   Q   L   K   T A G   V E Y K A G S   F P				
UniRef90_D8U8C2	Y W   A   V P S   A   V F S   N   P E L A T V   G Y T E E A A S   A R F   G D   L   D   Y T A S F				
UniRef90_E01567	Y K   C   I P A   V A   F S   D P E C   A S   V G Y S E K E A K   E K   G   H   N   V   K A G K F   P F				
UniRef90_M2TK39	H   A   V   I P A   V V Y T Q   P   E V A T V   G K T E E E   L   K   D   G   V   D   Y   A   V   G S   F   P F				
UniRef90_S0EU12	H   R   V   I P R   A   V F   D   P   P   L A S S   V G M T E A E   V   Q   A   G   R   R   C   W   C   T   V   V   P M				
UniRef90_G9QPI6	Y S   L   V P K   C   I Y S S   P   E I A S V   G W T E Q   E A K   E K   G   L   N   L   K   I G K F   P F				
UniRef90_A0YD97	Y D   C   I P N   V   I Y T H   P   E I A A A G   Q   T   E E Q   L   K   A D   G   I E Y   K V G V F   P F				
UniRef90_F1P4U5	Y D   N   V   P T   T   V F T   P   L   E Y   G   C   V   G   L   S E E K   A V   Q   C   V   Q   C   Y   G   S   D   N   V   E   V   F   H   A   Y   Y				
UniRef90_UPI000421342B	H   T   E   I A S   A   V F T   P   T   R   V   G   T   V   G   V   T   V   A   R   E   K   Y   G   D   D   F   I   V   Y   S   T   S   F				
UniRef90_H6LHG4	R   F   I   P   N   O   L   Y   T   L   P   E   A   A   S   V   G   L   T   E   E   T   A   K   K   D   Y   D   I   A   V   G   S   F   S   F				
UniRef90_K5XUH4	Y   G   A   I P S   V   V Y T W   P   E V A V   S   V   G   Q   T   E E   E   L   K   A A   G   V   A   Y   K   V G K F   P F				
UniRef90_S2L9B6	R   A   V   P   A   V   V F T   A   P   Q   L   A   W   C   Y   P   Q   V   G   L   T   E   Q   Q   A   K   Q   D   D   I   E   I   K   T   L   R   F   P   W				
UniRef90_UPI00030D0AA0	S   L   M   P   G   C   T   Y C   H   P   Q   V   A   S   V   G   L   T   E   E   K   A   K   A   A   G   Y   D   I   R   I   G   R   F   P   Y				
UniRef90_UPI0003B3658F	Y   R   M   M   P   R   A   T   Y   L   Q   P   Q   V   A   S   F   G   L   T   E   Q   Q   A   R   D   G   G   H   D   V   T   V   A   T   F   P   F				
UniRef90_C1DB56	F   G   M   I   P   W   V   I Y T S   P   E I A W V   G K T E E Q   L   K   A E G   I   E   Y   K   K   G   T   S   G   F				
UniRef90_I7A9L2	Y   N   T   I   A   T   A   V   F   S   L   P   N   V   A   T   V   G   L   T   E   E   Q   A   R   E   Q   G   H   K   V   V   L   F   E   S   R   F				
UniRef90_UPI0003FA246E	P   V   T   P   V   F   S   H   P   P   G   R   I   G   L   S   E   R   A   A   R   D   V   G   D   D   V   H   V   L   R   A   G   F				
UniRef90_F3LC23	Y   D   T   I   P   N   V   I Y T H   P   E V A S   V   G   K   T   E   E   Q   L   K   A E G   V   E   V   N   I   G   T   F   P   F				
UniRef90_A4A159	A   I   P   A   V   V I F   T   D   P   E   I A W   A   G   L   M   E   E   A   A   K   K   E   G   R   E   V   E   V   V   M   Y   P   W				
UniRef90_S8E026	H   R   F   V P   S   A   V   F   S   Q   P   I G   Q   V   G   L   S   E   Q   A   Q   K   E   Y   G   D   I   D   V   Y   T   A   N   F				
UniRef90_A1T2S8	Y   D   C   I P   N   V   I Y T F   P   E V A W   V   G   K   T   E   E   Q   L   K   A E G   E   E   Y   N   V   G   T   F   P   F				
UniRef90_F5XGS2	Y   D   M   I   P   R   A   T   Y   C   Q   P   Q   I G   S   F   G   Y   T   E   Q   Q   A   K   D   R   G   Y   E   V   K   T   A   K   F   P   F				
UniRef90_XOY8R1	Y   R   A   V   P   T   C   V   Y   T   M   P   E   I A S   V   G   L   R   E   E   E   A   R   A   Q   G   V   T   Y   K   V   S   R   F   P   F				
UniRef90_UPI000479F962	N   L   I   S   R   C   I   Y   C   S   P   E   V   A   S   V   G   L   T   E   E   A   A   K   K   E   G   Y   L   V   K   V   G   K   F   S   F				
UniRef90_K8E8Y7	Y   D   L   V   P   T   T   V   F   T   P   L   E   Y   G   C   V   G   M   S   E   L   A   K   E   T   Y   G   E   N   I   E   S   F   L   S   Y   F				
UniRef90_L7VFW0	Y   S   L   I   P   S   V   V   Y   T   G   P   E   V   A   S   V   G   K   N   Q   E   Q   L   R   D   E   G   R   S   Y   N   I   G   K   F   P   M				
UniRef90_L0RXI1	T   T   V   P   A   C   I Y T H   P   E I A V   V   G   L   T   E   E   Q   A   K   A   Q   G   K   D   V   I   V   A   K   H   Q   F				
UniRef90_E3JBF3	Y   D   N   V   P   K   V   T   Y   T   S   P   E   V   A   S   V   G   L   T   E   V   V   A   K   E   R   F   G   A   D   A   V   T   K   V   T   Y   N   L				
UniRef90_UPI000472E1A4	Y   R   A   V   P   R   C   I Y T   T   F   P   E   I A T   V   G   L   T   E   T   Q   N   K   A   A   K   Q   G   I   K   T   K   V   G   M   F   P   Y				
UniRef90_A2F0F6	T   I   P   S   V   A   Y   T   D   P   E   I A W   M   G   L   T   E   Q   A   K   Q   Q   G   I   E   Y   D   K   A   A   F   P   W				
UniRef90_V5BYS5	UniRef90_UPI00035C0B0E	N   S   I   P   G   C   T   Y C   R   P   Q   V   A   S   I   G   L   T   E   K   N   A   K   S   Q   N   L   N   I   K   V   G   K   F   P   F			
UniRef90_V5PRZ0	H   R   L   I   P   T   A   V   F   S   T   P   E   I G   V   V   G   L   T   E   S   E   A   R   A   L   H   P   Q   L   K   V   Y   K   A   S   F				
UniRef90_V5SDT9	H   S   V   V   P   T   G   V   F   T   T   P   E   I G   T   V   G   L   T   E   V   A   R   A   T   G   E   I   D   L   Y   K   A   R   F				
UniRef90_Q9RRW5	A   I   P   G   V   V   Y   T   N   P   E   I A W   V   G   L   T   E   A   E   A   Q   E   K   G   Y   E   V   K   T   G   V   F   P   M				
UniRef90_C7JHA8	I   P   G   C   T   Y C   R   P   Q   V   A   S   V   G   Y   T   E   A   R   A   K   E   A   G   Y   K   V   R   V   G   K   F   P   L				
UniRef90_E7RDJ3	Y   K   V   M   P   T   V   F   T   P   K   L   A   A   V   G   L   T   E   D   Q   A   K   E   K   G   Y   N   Y   K   V   K   V   L   Q   K   D   I				
UniRef90_C7RA15	T   I   P   S   V   A   Y   T   D   P   E   I A W   V   G   L   T   E   K   E   A   K   E   Q   G   I   D   Y   G   V   G   K   F   P   W				
UniRef90_A9TWX4	H   N   S   V   P   A   A   C   F   T   H   P   E   I S   M   V   G   L   T   E   P   Q   A   R   A   L   A   E   K   E   G   F   K   V   S   K   T   S   F				
UniRef90_UPI000378367B	V   V   P   R   C   I F   T   L   P   E   V   A   G   V   G   L   T   E   E   A   A   A   A   K   A   G   L   R   V   K   T   A   K   F   D   L				
UniRef90_R7PD9M	D   L   M   P   S   V   V   F   T   P   E   I V   A   S   I   G   M   S   E   D   L   C   K   K   N   L   S   Y   N   I   H   K   S   F   Y				
UniRef90_M4X620	Y   D   T   I   P   W   V   I   Y   T   R   P   E   I A   W   V   G   K   N   Q   Q   L   K   S   A   G   I   N   Y   K   V   G   S   F   P   F				
UniRef90_C0XUB3	Y   M   M   T   P   R   A   T   F   C   N   P   Q   V   A   S   M   G   Y   T   E   E   Q   A   R   K   N   W   P   D   R   D   I   K   V   A   M   F   P   F				

50            60            70            80

UniRef90_UPI000344EAE2	R P M F Y S [ ] T D A D E K T T   V   K   L   V   V   D   K   T   T   D   R   V   L   G   A   H   [ ]   V   G   K   D   A   A   E   I
UniRef90_14A277	S A N G K A T A N G H   N E G F I   K V I   F D A K Y   G E W L   G C   C H   M   G   V V   G   V   G   V   T   E   M
UniRef90_L0WF84	A A N G R A M A A G E T G G M V   K F V   V A D E K T   D R   V   L   G M   H   V V   G   P   Q   A   S   E   L
UniRef90_A5CFW7	A A S G R A K A M E Q T A G M V   K V   V S A A D D   D E   I   G   V   H   I   I   G   P   M   A   G   E   L
UniRef90_D3D4E4	A G L   G R S R T F G R T   E G F M K I   V A G T A   H   G E   I   L   G   V   H   V   I   G   P   S   A   S   E   M
UniRef90_B5JTK6	A A S G R G K A A N N T   A G Q I   K I   L   A D A K T   D R   V   L   G C   H   M   I   C   Q   S   A   S   E   M
UniRef90_A4XUU3	R P M K Q T [ ] T E C Q E R   T   L   M K   L   V   V   D   A   D   S   D   R   V   L   G C   H   I   V   G   P   D   A   A   E   L
UniRef90_B3QCR2	R P M K G T M S G S Q S R   V   L   M K   L   V   D   G   T   T   D   R   L   L   G C   H   I   V   G   P   D   A   A   E   L
UniRef90_Q2YAR3	M A N G R A R A L   G E T G G F   V   K   V   L   A   D   A   D   T   D   R   I   L   G   I   H   M   I   G   P   Y   V   S   E   L
UniRef90_UPI00028896ED	A A N G K S   L   I M G E N G G   I   K   F   I   T   D   K   K   Y   D   E   V   L   G   V   H   I   F   G   P   R   A   T   D   L
UniRef90_UPI00016C5481	A A T G R A Q A M D E R   R D G   F   V   K   V   L   A   D   A   K   T   D   R   V   L   G   V   H   I   L   G   P   R   A   S   D   L
UniRef90_B8LB2	N S R A R A N A T G N S E G   F   V   K   I   L   T   D   K   A   T   D   K   I   G   I   H   M   I   M   G   P   N   A   G   E   M
UniRef90_V4R9Q8	R P L   P Q T L   T P   R T E R M   T   M K   I   L   V   D   G   T   N   D   Q   L   V   G   I   H   M   I   L   G   P   E   A   A   E   M
UniRef90_UPI00026CB973	R P M K N   V   L   A   G   R   N   E   R   A   L   Y   K   M   V   C   H   A   E   S   G   V   V   L   G   L   H   M   I   G   P   D   A   P   E   L
UniRef90_UPI0002880ACA	A A N G R A L   S   G   A   T   D   G   F   I   K   L   V   I   R   E   S   D   G   L   V   L   G   A   Q   V   G   T   N   A   S   D   M
UniRef90_UPI0003B508EB	R P M K N   I   F   A   H   R   H   E   R   G   L   Y   K   L   V   V   D   A   Q   T   D   K   V   L   G   V   H   L   I   G   P   E   A   P   E   V
UniRef90_R6XSK2	T A S G K A T A A G   D   R   D   G   F   V   K   L   L   F   G   E   D   D   T   L   L   G   A   H   I   G   Q   N   V   T   E   M
UniRef90_E7RWC1	M A N G R A L   G   M   M   A   A   D   G   F   V   K   I   L   A   D   E   K   T   D   E   V   L   G   V   H   I   I   G   A   G   A   S   D   L
UniRef90_S0FXF5	R V L   G   K   A   H   A   I   D   E   I   A   G   E   A   K   M   I   V   D   K   S   S   G   R   V   L   G   M   H   L   I   G   P   H   A   T   D   L
UniRef90_C5GMC1	S A M Y Y   V   D   W   M   P   V   E   E   K   Q   K   M   K   V   C   A   G   P   E   E   K   I   V   G   L   H   I   L   G   L   G   V   G   E   M
UniRef90_D0LVC4	Q A N G R A R A L   G   A   T   E   G   K   V   K   V   L   A   D   E   R   S   D   R   I   L   L   G   V   H   I   L   G   S   R   A   G   D   L
UniRef90_R5WCJ1	T A S G K A T A A G   D   R   D   G   F   V   K   L   I   F   D   A   K   T   D   R   L   L   G   A   H   I   M   M   G   A   N   V   T   E   M
UniRef90_F8ETB0	R P M R N A   L   I   G   S   S   D   R   A   L   Y   K   M   I   V   D   G   H   S   D   R   V   L   G   L   H   L   I   G   P   D   S   P   E   I
UniRef90_Q0FF98	M G N G R A K A V   F   Q   G   E   G   F   V   K   L   L   A   D   A   T   D   D   R   I   L   L   G   C   H   L   I   G   P   A   A   G   D   L
UniRef90_A8PWK3	T P M Y Y   G   L   S   S   K   K   A   P   A   V   V   C   V   G   E   E   E   R   V   V   G   V   H   M   V   G   M   G   S   D   E   S
UniRef90_K2FZI9	R P L   R   Y   T   L   G   D   S   G   A   R   T   L   M   K   I   I   V   D   D   A   S   D   K   V   V   G   L   H   M   A   G   D   E   A   G   E   I
UniRef90_E7QXQ6	Q A S G R A L   T   T   G   H   A   E   G   F   V   R   I   V   V   A   D   E   P   S   G   F   V   L   G   A   Q   V   G   P   E   A   S   E   L
UniRef90_E6QNY2	A G N S K A T I   L   G   S   L   G   P   A   V   V   C   V   G   E   E   E   R   V   V   G   V   H   I   L   G   P   G   A   T   E   M
UniRef90_R6EUB6	R A N G K A L   A   M   D   A   P   E   G   Y   C   K   I   I   S   D   F   I   P   Q   G   I   V   G   C   H   M   G   A   H   A   S   D   I
UniRef90_UPI0002E02B98	R P M K N   V   V   A   G   R   N   E   R   S   L   Y   K   M   I   V   D   A   A   N   D   R   I   V   G   I   H   M   I   G   P   E   A   A   E   I
UniRef90_UPI0004635B22	R P M   L   H   A   L   A   D   A   P   Q   R   S   L   F   K   L   V   C   V   G   E   E   E   R   V   V   G   V   H   H   L   L   G   E   S   A   D   E   M
UniRef90_13ZB88	A G N S K A T I   L   N   A   H   D   G   F   V   K   V   I   A   D   E   Q   Y   G   E   I   L   G   V   H   M   I   G   P   Q   A   T   E   L
UniRef90_UPI00036AFE45	T A S T R S   H   V   K   G   S   P   D   G   L   V   K   I   I   A   H   A   D   T   D   T   L   L   G   V   H   I   L   G   A   H   A   S   E   L
UniRef90_14YZJ9	R P M K A T   L   S   G   G   K   D   R   V   F   M   K   I   I   V   D   K   A   T   D   K   V   V   G   V   H   I   M   G   H   D   A   G   E   M
UniRef90_A815X3	R P M R A T   L   S   G   R   E   T   R   M   L   V   K   L   I   V   D   D   Q   Q   S   S   D   K   V   L   G   C   H   I   V   G   D   C   A   A   E   V
UniRef90_G7DLV3	R A L   G   R   A   R   A   S   G   E   S   G   F   V   K   V   V   V   V   D   K   A   Y   H   R   L   G   I   I   I   G   S   H   A   T   E   M
UniRef90_H2CK58	M K T   G   F   A   D   N   E   D   K   S   F   I   K   L   V   V   V   C   K   K   T   D   K   V   L   G   V   H   I   V   A   P   G   A   G   E   M
UniRef90_UPI00036C0CCD	K A L   G   R   A   R   A   S   M   D   T   D   G   M   V   K   V   L   S   H   Q   V   S   D   E   I   L   G   V   H   M   V   G   P   R   T   A   D   M
UniRef90_F4KUC9	S A N G R A K A I   A   M   G   E   T   D   G   M   V   K   I   I   A   H   A   T   S   D   A   I   L   G   A   H   I   I   G   P   A   A   G   D   L
UniRef90_F7XUQ4	Q A N G K A   A   L   G   A   A   A   G   F   V   K   I   I   F   N   Q   E   T   G   E   L   L   G   A   H   M   V   G   H   E   V   T   E   H
UniRef90_X1VHH0	M A N S R A R A I   G   D   A   E   G   F   V   K   I   I   A   H   A   T   S   D   A   I   L   G   A   H   I   I   G   P   A   A   G   D   L
UniRef90_W7YVW8	T A N G R A R   C   N   G   E   T   D   G   F   V   K   I   I   A   D   K   K   T   D   T   L   V   G   C   H   I   V   G   P   E   G   G   D   L
UniRef90_W9B5H5	S A S G K A   Q   A   L   S   E   I   D   G   F   V   Q   L   V   V   E   K   E   D   G   R   I   L   G   G   Q   I   I   G   P   H   A   A   D   L
UniRef90_UPI0003FF08ED	G   I   N   G   R   A   L   A   R   E   T   E   G   Y   I   V   I   V   A   N   Q   A   T   G   I   V   M   G   A   Q   V   G   V   E   A   S   T   L
UniRef90_A0A23Y255	K A I   G   K   A   L   V   H   G   E   S   E   G   F   V   K   I   I   V   A   D   K   K   T   E   D   L   L   G   I   H   M   V   G   P   H   V   T   D   L
UniRef90_UPI000474C213	Q A N G R A L   S   L   N   D   S   E   G   F   M   K   V   L   V   T   R   K   E   D   G   L   V   I   G   A   Q   I   A   G   P   N   A   S   D   M
UniRef90_D8U8C2	A A N G R A V   A   M   I   E   P   A   G   F   V   K   V   L   A   H   A   E   T   D   R   I   L   G   C   H   I   I   G   P   S   A   A   D   L
UniRef90_E01567	R P M R N T   V   S   G   S   P   L   R   T   F   M   K   I   I   V   V   D   A   A   S   Q   K   V   V   G   M   H   M   V   G   A   E   A   A   E   I
UniRef90_M2TK39	A A N G R A L   S   L   N   G   A   E   G   F   V   K   I   I   V   S   D   A   D   N   G   L   V   L   G   A   Q   V   G   L   E   A   S   N   M
UniRef90_S0EU12	A A N S R A T   K   T   R   N   D   T   D   G   F   V   K   V   L   A   D   K   K   T   D   R   V   L   G   V   H   M   I   G   S   M   A   G   T   M
UniRef90_G9QPI6	E   L   V   P   R   A   G   A   I   R   N   P   K   G   F   I   K   M   V   A   W   D   W   D   T   G   E   V   V   G   T   M   I   G   P   S   A   E   E   V
UniRef90_A0YD97	R A V   G   K   A   L   V   Y   G   Q   S   D   G   F   V   K   L   I   V   D   R   D   T   D   D   V   L   G   V   H   M   I   G   P   H   V   T   D   M
UniRef90_F1P4U5	A A S G R A L   A   A   N   D   T   A   G   M   V   K   M   I   I   A   H   A   E   T   D   R   I   L   G   C   H   I   I   G   P   S   A   A   D   L
UniRef90_UPI000421342B	K P   L   E   F   T   V   A   E   R   D   A   A   Q   C   Y   I   K   M   V   C   E   R   E   Q   R   I   L   G   H   F   I   G   P   N   A   G   E   V
UniRef90_H6LHG4	R P M K N   V   L   A   G   K   P   Q   C   K   C   M   M   K   L   L   T   H   G   K   K   E   T   V   I   G   H   I   V   G   D   D   S   A   E   L
UniRef90_K5XUH4	S A N G R A L   G   S   S   E   T   E   G   F   V   K   V   I   I   D   K   Q   Y   G   E   I   L   G   V   Q   I   I   L   G   A   A   A   T   E   M
UniRef90_S2L9B6	M A N G R A R A M   G   A   T   E   G   F   V   K   L   L   A   D   K   T   T   D   Q   L   L   G   A   H   I   I   G   P   D   A   G   G   L
UniRef90_UPI00030D0AA0	Q A S G R A L   S   M   G   A   E   D   G   M   T   K   W   I   V   E   P   E   S   G   R   I   L   G   M   G   I   V   G   P   Q   A   E   S   L
UniRef90_UPI0003B3658F	L   G   N   G   K   A   L   A   G   P   E   G   L   V   K   T   I   F   D   R   K   T   G   R   L   L   G   A   H   L   V   G   A   E   A   T   E   L
UniRef90_C1DB56	V   A   N   A   K   A   H   T   M   G   D   P   S   G   F   V   K   L   V   V   A   D   A   K   Y   G   E   I   L   G   G   H   L   V   G   H   D   V   S   E   L
UniRef90_I7A9L2	A A N G R A L   G   G   M   A   Q   G   T   V   K   V   L   A   C   A   K   T   D   R   I   L   G   V   H   I   I   G   P   F   A   S   E   L
UniRef90_UPI0003FA246E	R P M   L   T   M   Q   S   L   E   R   S   L   M   K   L   V   V   D   A   E   T   D   K   V   L   G   C   H   I   C   D   R   V   L   G   L   H   M   A   P   D   A   G   E   I
UniRef90_F3LC23	L   A   I   G   R   A   V   A   A   D   S   Q   D   G   M   V   K   M   I   I   A   D   A   K   T   D   R   I   L   G   C   H   I   V   G   P   S   A   S   D   L
UniRef90_A4A159	A A S G R A Q   S   L   G   R   S   D   G   M   T   K   W   I   V   V   D   P   T   T   K   I   V   L   G   C   G   I   P   G   A   G   E   L
UniRef90_S8E026	R P   L   K   A   T   L   S   G   L   P   D   R   V   F   L   K   L   I   V   C   S   K   T   D   R   V   L   G   L   H   M   C   G   D   S   P   E   I
UniRef90_A1TZS8	A A N G R A M   A   A   N   A   A   S   G   M   V   K   I   I   A   D   A   K   T   D   R   I   L   G   F   H   V   V   G   P   Q   A   S   E   I
UniRef90_F5XGS2	T A N G K A   H   G   M   G   E   A   I   G   F   A   K   L   V   V   A   D   A   K   Y   G   E   I   L   G   L   H   M   I   G   P   E   V   T   E   L
UniRef90_X0Y8R1	S A L   A   R   A   Q   L   L   G   Q   P   L   G   L   V   K   L   I   C   E   E   P   S   G   R   L   L   G   V   H   I   L   G   P   R   A   N   D   L
UniRef90_UPI000479F962	R A I   G   K   A   L   V   F   G   E   S   D   G   F   V   K   L   V   V   E   G   T   N   K   L   G   A   H   M   V   G   P   H   V   T   D   M
UniRef90_K8E8Y7	K P   L   E   W   T   V   N   H   A   A   H   D   N   G   N   M   H   R   E   D   N   A   C   D   R   V   L   G   L   H   Y   L   G   P   N   A   G   E   V
UniRef90_L7VFW0	R S   L   G   R   S   R   V   S   G   D   L   D   G   F   V   I   I   L   S   D   K   N   T   D   E   I   L   G   C   H   I   I   S   S   R   A   S   D   M
UniRef90_L0RXI1	T   F   V   G   K   S   L   A   A   H   E   P   K   G   F   A   K   F   V   V   V   D   K   E   F   G   E   I   I   G   C   H   I   I   G   P   S   A   T   D   L
UniRef90_E3JBF3	A G N G K   Q   S   L   K   T   A   G   A   V   T   V   I   A   V   K   D   G   P   V   V   G   V   H   M   V   G   D   R   V   G   E   L
UniRef90_UPI000472E1A4	S A N G K A   L   I   A   N   E   Q   E   G   K   V   K   V   L   I   D   P   E   Y   D   E   I   I   G   L   S   V   G   P   H   A   T   E   L
UniRef90_A2F0F6	S A N S R A R A I   L   D   P   T   G   F   V   F   V   C   G   E   D   G   R   V   L   G   M   Q   I   V   G   P   N   A   G   E   A
UniRef90_V5BYS5	A A S G R S   L   S   I   G   R   K   E   G   I   T   K   L   I   C   E   K   G   T   G   R   V   L   G   A   G   L   V   G   T   N   A   G   E   L
UniRef90_UPI00035C0B0E	L   G   N   G   K   A   I   A   L   G   D   S   E   G   M   K   I   T   I   F   N   K   D   T   G   E   L   I   G   A   H   M   V   G   P   E   V   T   E   L
UniRef90_V5PRZ0	R P   L   K   A   T   L   S   G   R   T   E   K   T   L   M   K   L   V   V   D   A   K   T   D   R   V   L   G   C   H   I   V   G   M   G   P   D   A   A   E   L
UniRef90_V5SDT9	S A S G R A M   T   L   Q   A   T   E   G   F   V   K   M   V   V   V   E   K   D   T   D   L   L   G   V   H   L   V   A   P   H   A   S   D   M
UniRef90_Q9RRW5	M A N G K A   L   A   M   G   E   P   E   G   M   V   K   T   I   F   D   A   Q   T   G   E   I   L   G   A   H   M   V   G   P   H   V   T   E   M
UniRef90_C7JHA8	S S W   Y   T   K   R   T   N   E   K   H   A   M   V   K   V   I   I   D   E   D   S   D   Q   I   L   G   A   H   L   I   G   Q   E   A   D   E   L
UniRef90_E7RDJ3	A A S G R A   I   G   V   N   R   K   E   G   F   T   K   L   L   F   D   K   K   N   N   R   V   I   G   G   A   I   V   G   V   N   A   G   E   L
UniRef90_C7TRA15	K A N T   K   A   L   A   E   N   E   G   D   G   L   A   K   M   I   Y   R   P   D   T   G   E   I   L   G   V   H   I   L   G   L   H   A   A   D   L
UniRef90_A9TWX4	A G N G K A   L   S   G   D   T   G   G   F   V   K   I   V   Y   E   E   K   F   G   E   I   L   G   V   T   M   V   G   P   H   V   T   E   M
UniRef90_UPI000378367B	R A N   C   G   R   A   R   A   N   A   I   Q   G   M   V   K   I   I   A   D   V   N   D   R   I   L   G   V   H   I   M   G   Q   N   A   S   E   L
UniRef90_R7PD9M	S A N G K A   I   G   L   A   E   S   A   G   F   A   K   L   I   T   D   G   E   H   G   E   I   L   G   C   H   L   V   G   A   N   A   S   E   L
UniRef90_M4X620	S A N G K A   I   G   L   A   E   S   A   G   F   A   K   L   I   T   D   G   E   H   G   E   I   L   G   C   H   L   V   G   A   N   A   S   E   L
UniRef90_C0XUB3	S A N G K A   I   G   L   A   E   S   A   G   F   A   K   L   I   T   D   G   E   H   G   E   I   L   G   C   H   L   V   G   A   N   A   S   E   L

90                    100                    110

UniRef90_UPI000344EAE2	I Q G I A I A V N M G A T K K D F D A T V A L H P T V A E E F V T L R
UniRef90_14A277	I S E A V A A R K L E T T G H E I I I K T V H P H P T M S
UniRef90_L0WF84	I Q Q G V V A M E F G A T I E D L Q L M V F G H P S L S E T V
UniRef90_A5CFW7	I A E A V L A M E F S G S T E D I Q R T I H A H P S L A E A I
UniRef90_D3D4E4	I T E G A L A L T L E A T L D D I L A E T V H A H P T L G E I
UniRef90_B5JTK6	I T Q G V L A L E F G A S T E D L Q L T M F A H P T L S E A V
UniRef90_A4XUU3	I Q G L A I A L K A G A T K Q V F D E T I G V H P S A A E E F V T L R
UniRef90_B3QCR2	V Q V V A V A M K M K A T K A D F D G T M A L H P T A A E E L V T M R
UniRef90_Q2YAR3	I A E A V V A M E F A A S S E D I A R I V H A H P S L S E V V
UniRef90_UPI00028896ED	I T E A A L A I R L E A T V V E E I V S T V H A H P T I G E A M R E
UniRef90_UPI00016C5481	I A E C V T I M E Y K G S A E D I A R C T H A H P T L S E A V
UniRef90_B8LB2	I A E G V L G M E Y G A S A E D I V A R T C H A H P T L S E A F
UniRef90_V4R9Q8	I Q I L G V L V R M G A T K A D L D R T V A V H P T A A E E E L V T M R
UniRef90_UPI00026CB973	L Q A A A V A V K A G L T K D A F D Q T V A L H P S M A E E E L V L L R
UniRef90_UPI0002880ACA	I A E F G L A I E A G M T A E D I S L T V H A H P T L G E M A M E
UniRef90_UPI0003B508EB	L Q A A A I A V K A G L T K A D F D A T V A L H P S M A E E E L V L M R
UniRef90_R6XSK2	I A E P T L A R M L G A T A H R I I A R T I C H P H P S M S E A V R E
UniRef90_E7RWC1	I A E A V V A M E F K A S S E D I A R I C H A H P T L T M N E G V M
UniRef90_S0FXF5	I A E A T L A I E K G L T A K D I A H T I H A H P T L A E I M
UniRef90_C5GMC1	L Q G F G V A V K M G A T K K D F D S C V A L H P T S A E E E L V S
UniRef90_D0LVC4	I A E A V V A A M T F G A S S E D I L A R T M H A H P T L S E I L
UniRef90_R5WCJ1	L A E P T L A K A L G A T A H Q I A A T V H P H P T M S
UniRef90_F8ETB0	V Q L A A V A K A G L T K Q D F N D T I A L H P T S A E E E L V L L R
UniRef90_Q0FF98	I H E I C V A M E F G A S A Q D I A M T C H A H P T F S E A M R E
UniRef90_A8PWK3	I Q T V G I A V K M G A K K R D F D N T V A V H P T S A E E E L V I T
UniRef90_K2FZI9	V Q G F A V A I T L G A T K A D F D R T L G I H P T A A E E E F V T M R
UniRef90_E7QXQ6	V A E L G L A L E M G A T L E D V A A T V H T H P T L S E A V M E
UniRef90_E6QNY2	V A E A V A A M E L E A T V V D D L M F T I H A H P T L A E A M L D
UniRef90_R6EUB6	I Q E I T V L M N K K G T V D D I R K I V H P H P T L S E V I L N
UniRef90_UPI0002E02B98	M Q A A A I A V K A K L T K A D F D A T V A I H P T M A E E E L V
UniRef90_UPI0004635B22	L Q G F A V A V K M G A T K R D F D A T V A I H P T S A E E E I V L M
UniRef90_I3ZB88	I S A A V V A M Q S E M T V E E M M Y T V H P H P T L S E S S L L D
UniRef90_UPI00036AFE45	I A E A V L A M E F S A S S E D I L A R T I H A H P T L S E S S L
UniRef90_I4YZJ9	I Q L A G I A V T M G A T K A D F D R T V A V H P T A A E E E L V T M R
UniRef90_A815X3	I Q M A A A I A M G M G A T K A D F D R T V A V H P T A A E E E L V T L R
UniRef90_G7DLV3	T Q V V V A I A V K M E A T K A D F D A T I A L H P T A A E E E L V T M R
UniRef90_H2CK58	L S E V V V A A E G E L L A D T L A R T I H A H P T L S E G I M E
UniRef90_UPI00036C0CCD	I Q M A A I A L S M G A T K K D F D N T L P V H P T L S E E I V T M Q
UniRef90_F4KUC9	I A E A V A L M E F R A S A E D A A R M S H A H P T Y T E A F
UniRef90_F7XUQ4	I Q G F A M A K T L E S T E Q E I Q T I F P H P T M S E E M M
UniRef90_S3NJG9	I Q G F A I A K Y L E A T D E S I L A Q V I F P H P T L S E A M
UniRef90_A0LAA4	I A E I V L A M E C D I S A E D I A R T C H A H P G L G E A V
UniRef90_Q6KH64	I S E E L V V V A D L E T T V H E I I A N A I H P H P T F S E I I
UniRef90_K9GX06	L Q E E V V V G M E F G A S A E D I A R T C H S H P A L G E A V
UniRef90_X1VHH0	V H E I I S L A I R W E L T V D E I G S T V H A H P T L S E A I M E
UniRef90_W7YVW8	V S E E L A L A I E M G A T V E D L A L T I H P H P T L G E I V I M E
UniRef90_W9B5H5	I S E A G L A K V L D A T P W E L A H T V H P H P T L S E I I V
UniRef90_UPI0003FF08ED	I A E A G L A L E G G M T A E D L A M T I H A H P T L G E I T M E
UniRef90_A0A23Y255	V H E E G V L T M E F N G S S D D L A R I C H A H P S L S E A V
UniRef90_UPI000474C213	I S E A V T I M E F R G A A E D I A R I C H A H P T L S E A M
UniRef90_D8U8C2	M Q G F A V A V K V G V T K A Q L D S V V G I H P S A A E E F V T M R
UniRef90_E0I567	I A E I A L A L E M G A T L E D I A L T I H A H P T L G E I V L D
UniRef90_M2TK39	I A Q A A Q A M E F G A S S E D I L A R T I H C H A H P T H S E A L
UniRef90_S0EU12	I H E A A A M G L R F H A T L H D F I D M L H V Y P T T M A E A L
UniRef90_G9QPI6	I S E A G L A R F L D A A S W E V A H A I H P H P T L S E A L
UniRef90_A0YD97	V Q Q M V I A M E F G S S A E D I A L T V F S H P A L S E A V
UniRef90_F1P4U5	I Q G F A L G I K C G A T Y P Q L M K T I G I H P T T C A E E I T K L
UniRef90_UPI000421342B	I Q A L G I C O V K A G L T K A D F D R T C A V H P T L A E E I V T L K
UniRef90_H6LHG4	I S E A T M C O M S M E I T A H E V A D T I H P H P T Y S E A F M E
UniRef90_K5XUH4	I A E C T M G I E F G A S A E D V A R T C H A H P T L A E E V V
UniRef90_S2L9B6	I A E G V L A V E M G A V A E D L A L T V H P H P T L S E T I
UniRef90_UPI0003D00AA0	I Q G F V I A M N L E T T E E E L H T V F P H P T L S E T M
UniRef90_UPI0003B3658F	L P E L T I L A Q K W D L T A T E L I L A R N V H A H P S M S E A L Q D
UniRef90_C1DB56	I A E A V V A M E F A A S S E D I A R I V H A H P S L S E V L
UniRef90_I7A9L2	M Q G L A V A L K A G A T K R V F D E T I G I H P T A A E E E F V T M R
UniRef90_UPI0003FA246E	L Q G F G V A V M R R G L T L D D L H D T I A L H P T S A E E E V V L M R
UniRef90_F3LC23	V Q Q I V I A M E F G S T A E D I G M T V F G H P T F S E A V
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UniRef90_L7VFW0	I M E V A V A M E F G A T S E E I A H I S H P H P T F S E A I R E
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50            60            70            80

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 T A N G K A M I A N E S V G K V K V I V E P Q F N E I I G L S I V G S Y A T E L  
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 A A N G R A L S L N S T D G F L K L I T R K E D G V I I G A Q I A G S G A S D I  
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 Q P L F N L I G E S K Q E A L L K L V V D Q Q T D R I L G A H M V G E Y A S E I  
 L G N G K A I A L G E P D G L V K T I F D A K T T G R L L G A H M V G A E V T E L  
 Q A S G K A V A M E E T E G F V K I I A D F Y T H R I L G G H I V G P H A T D L  
 K I L G R A R A S G C T D G F L K M I S H K K T D D I L G V H I I G D H A A D M  
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 N M F Y S L A K D D Q K K L N T L M K L I C V Q E K I V G C H C I G R N I D E M  
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 L A S G R A R T F G A E Q G L S K L L V D P D T G V I I G A G I V G A H A G E L  
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 N C S G K A V A I D E V E G F V K V I I D K S T G E L L G A H M I G A E V T E M  
 S A N S R A R A M G E S D G Q V K I L S D A T S D K V L G V H I I G P A A G E L  
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 K A L G R A I S S G E I N G F I K I L S N E L T D E I L G I H M I G P R V S D L  
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 V G N G K A I A M G E D Q G L V K T V F D A K T G E L L G A H I I H P E A S E I  
 R P M K H T L S G R D E K M L M K M I V D A D S Q K V L G V H I V G P D A G E L  
 M A N G K S V L T M Q E R G F M K V V A E K E T E K I I L G A Q L M C A R A T D I  
 G N G K A Q I L R T A G V T I V S V K D G P V V G H M V G D R V G E L  
 A A N G R A I T T M H Q T D G F I R L I T D K E T D I L L G A Q I V G P N A S D L  
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 S A V T K A S I S N E G I G L V K V V S D K K Y D E V L G V H I V G P H A T E L  
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90                    100                    110

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 D L T P A A I Y T L P E V A A C G L | T E Q A R E R Y D I S V G K F S F  
 Y R S I P A A T F T H P E I S Y V G L | T E S K E L S K L E N F E F S S V K A Y F  
 Y D A V P R O V Y T D P P E V A A V G K T E R E L T E K G I A Y H V G S F E F  
 Y N A V P A V V Y T N P P E V A G V G L | T E D E L K A Q G R S Y S V R K L P M  
 V I P S I A Y T E P E I A W V G L | N E K Q A K K Q N I N Y E V A S F P W  
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 R L V P V Y V Y T D P Q L G H V G L | H E R D L A T A S G H G H H R H V K M P M  
 C I A S V A Y T D P P E I A W A G L | T E K E A K A Q N I A Y E K A S F P W  
 N V P K V T F C D P E I A S V G L | N E K Q A K E K F G D A N V E S T E Y N L  
 Y T A V P S V V F S S P Q L A Y V G K K E D A A V E E Y Q D V D I Y T S K S  
 Y D N V A T T V F T P L E Y G C I G Y S E E A E K R H G K D G I E V Y H A F Y  
 P S C I Y T N P E V A S V G Y T E M E L K K Q G I P Y V K T N L V L  
 Y K A M P A V A F T D P P E L A S V G M T I A E A K E A G L E A K A F K F P F  
 E C I P A A C F T H P E I S M V G F T E E Q A R A I A E R E R F E L G K G H F  
 Y R A V P R O I Y T A P E I A S V G L | S E K G A R E Q Y G D I I I G E F P F  
 Y S V L P A V T Y T S P E L A R V G L | N E K E A Q A Q G I E Y K I Y T Y D I  
 Y R S I P A A A F T H P E I S Y V G L | T E A Q E L G E Q E G F K V S A V K S F Y  
 I P R V T Y C D P P E V A S M G L | T E S A A K Q K Y G E D G I E T F T Y D L  
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 D I M P S A I F T Y P E A A C Y V G K T E D Q C K G E E I A Y T T R K G F Y  
 H D T I A T A V F S Q P E I G T V G L | S E D E A A Q R F D R L E I Y R A S F  
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 H E L I A T A V F S Q P E I G T V G L | P E D E A A K K Y P E L E V Y R A L F  
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 S T M P A V I F T D P Q V A T V G L | T E E Q A Q T N G H E V I T R V L D M  
 S N I P R C I Y T D P P E V A S F G L | S E E E A R E L Y E V D V V K K V L F  
 Y K A I P G V V Y T N P E I A G V G D T E E A L Q R K G I L Y R T V K L P M  
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 Y D C V P A C T Y S K P E I G S I G L S Q K I L D E R G I D Y K V V K S F F  
 Y K D V P C A V F C I P P L S V V G L | S E Q E A L J A E A K N D L L V Y T S S F  
 S A M P A I V F T D P Q V A S V G L | T E A A A R T A G H A V R V S T I G L  
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 Y C N V A T T V F S P L E Y A C V G M S E E D A A Q E Y G E D D N I E V F H G F Y  
 I P R V T F C Y P E I A S V G L | T E K Q A R E K Y G D K V K A V E F N L  
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 I P R V T Y C E P N I G S V G L | T E K Q A K E K F G E D N I A T Y D Y N L  
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50            60            70            80

UniRef90_F2I6N0	A G N G R A   L   S   □   N Q K E G F   V   R   L   V   A   T   K   D D K   V   I   V   G   A   Q   M   V   G   V   G   A   S   D   V
UniRef90_F4XX70	K G N S K A   I   A E G E A D G   V   A   K   V   I   Y   R   K   D   T   G   E   V   L   G   V   H   I   L   G   L   H   A   S   D   L
UniRef90_D1AVB0	T A N G R A   I   A S D E N Y G   F   V   K   V   I   A   D   K   K   Y   G   E   I   L   G   V   H   I   V   G   P   A   A   E   L
UniRef90_D3ENW1	K G N S K A   L   A E G D A   D G   F   V   K   I   F   R   K   D   S   G   E   L   G   V   H   I   I   G   S   H   A   S   D   L
UniRef90_E3PXX1	R G   L   G   K   A   Q   A   □   G   K   L   Q   G   S   V   K   V   L   T   D   D   N   D   V   I   V   G   A   S   V   V   G   P   H   A   T   D   L
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UniRef90_W0P078	S A S G R A M A S N S S T   G   M   T   K   L   I   F   N   K   I   N   K   I   I   G   G   A   I   V   G   T   N   A   G   E   I
UniRef90_K1PU86	W P   L   E   W   A   K   R   P   E   N   S   C   Y   A   K   L   I   C   L   I   P   E   K   E   K   V   I   G   L   V   L   G   P   N   A   G   E   I
UniRef90_M0CIM7	A P   L   G   M   I   M   N   A   D   D   G   F   V   K   V   L   A   A   P   D   G   E   I   L   G   C   H   I   V   G   P   Q   A   S   T   L
UniRef90_U5RWC1	R G   L   G   K   A   Q   A   M   G   K   L   Q   G   F   V   K   I   I   T   D   E   K   D   V   I   I   G   A   A   I   V   G   D   R   A   T   D   M
UniRef90_E3HMH1	A A S G R A L   S   L   S   L   G   R   G   E   G   L   T   K   I   L   V   E   P   R   T   R   G   M   M   K   A   T   V   A   D   T   G   D   T   L
UniRef90_F0XH00	S Y   V   A   R   A   L   E   T   D   E   T   R   G   M   M   K   A   T   V   A   D   T   G   D   T   L   G   F   S   C   L   G   I   E   G   G   E   V
UniRef90_W0BA10	V A S G R A L   S   M   G   R   E   E   G   M   T   K   L   L   F   C   P   D   S   Q   R   I   L   G   A   G   I   V   G   I   N   A   G   D   L
UniRef90UPI00040AEDF2	A G   N   G   K   S   A   I   L   G   T   G   G   I   I   K   F   V   R   E   K   D   G   P   V   V   G   V   H   M   I   G   T   R   V   G   E   Q
UniRef90_10ZQ9	T P   M   K   N   L   L   G   R   K   D   V   K   F   V   V   V   S   A   K   D   K   K   V   V   G   F   H   M   V   G   A   E   A   E   I
UniRef90_H2MK64	K P   L   E   F   T   V   V   A   Q   R   D   S   S   Q   C   Y   I   K   V   I   C   E   R   H   Q   K   I   L   G   C   H   F   L   G   P   N   A   G   E   V
UniRef90_P75393	A H   C   G   K   A   I   A   D   N   E   T   N   G   F   V   K   M   M   F   D   P   Q   T   G   K   I   L   G   C   C   I   A   A   T   A   S   D   M
UniRef90_S0KQC7	S G   N   G   R   A   L   S   □   G   K   T   E   G   F   I   R   L   V   T   T   V   E   D   N   V   L   I   G   A   Q   L   A   G   V   G   A   S   D   M
UniRef90_M1UVQ8	R A N S K A L   A   E   N   H   A   E   G   I   A   K   V   L   I   F   R   K   D   T   G   E   L   L   G   M   H   I   I   G   M   H   A   A   D   L
UniRef90_C2TY14	T A N G K A L   I   L   G   E   Q   M   G   K   V   K   V   I   V   E   P   K   Y   V   I   G   I   S   I   I   G   P   R   A   T   E   L
UniRef90_F2P8Q4	A D   L   D   R   A   I   T   D   N   T   N   E   G   F   I   V   L   T   P   P   N   S   D   K   I   L   G   V   T   I   V   G   H   H   G   G   E   L
UniRef90UPI000344AC65	K G   N   S   K   A   L   A   E   G   E   T   E   G   I   A   K   V   I   Y   R   Q   D   T   G   E   L   L   G   V   H   I   I   G   I   G   H   A   S   D   L
UniRef90UPI000377C12E	A G   N   P   K   S   Q   I   L   K   T   Q   G   F   V   K   L   V   R   A   K   D   G   P   V   V   G   V   H   M   V   G   A   R   R   V   G   E   L
UniRef90_R6AZH8	A A   I   P   R   A   R   T   L   Q   Q   I   D   G   M   M   K   A   I   V   N   A   H   T   G   R   I   I   G   C   T   L   F   C   I   D   A   P   E   V
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UniRef90_W8KKY4	A A   A   N   G   R   A   I   S   V   G   G   E   S   G   V   T   K   L   L   D   E   H   N   R   V   I   G   A   G   I   V   G   P   N   A   G   E   L
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UniRef90UPI000470ABB	D   D   L   D   R   A   I   A   D   G   E   A   Y   G   S   I   K   V   L   T   A   P   G   K   D   R   V   L   G   V   T   I   V   G   E   H   A   G   D   L
UniRef90_G0JOE8	W   F   T   G   K   R   I   N   E   K   T   Y   A   Y   T   L   I   E   K   E   T   G   K   I   L   G   A   H   I   I   G   P   H   S   E   E   V
UniRef90_D1Y5U0	N   S   N   A   K   A   L   I   A   G   M   P   D   G   M   V   K   V   L   A   D   K   E   T   G   E   I   L   G   M   H   I   L   G   P   R   A   T   D   L
UniRef90_G1VAJ8	R   A   N   G   K   A   L   S   M   E   E   T   E   G   M   I   K   I   L   F   A   E   D   G   T   I   L   G   A   H   V   M   G   P   D   A   G   E   M
UniRef90_15C647	R   P   M   R   H   T   L   S   G   R   E   Q   K   M   L   M   K   L   V   V   D   S   E   T   R   R   V   L   G   A   H   V   M   G   P   D   A   G   E   M
UniRef90_17IRS8	U   A   A   N   G   R   A   M   T   A   G   D   E   A   G   F   I   R   V   T   A   R   A   D   T   H   E   V   L   G   I   Q   G   V   G   A   G   I   S   E   M
UniRef90_R7T6A2	V   A   N   S   R   A   K   L   A   N   E   T   T   G   F   V   K   V   L   S   D   E   E   S   G   K   I   L   G   A   W   F   G   T   Q   A   S   E   L
UniRef90_G0B8G1	L   P   L   E   W   T   V   P   H   K   E   E   N   A   C   Y   A   K   L   I   C   L   K   S   Q   K   V   V   G   F   H   V   M   G   P   N   A   G   E   I
UniRef90UPI00037C3D64	Q   G   N   G   K   A   L   A   S   G   E   A   E   G   F   V   K   T   I   F   D   A   E   T   G   E   L   L   G   A   H   M   V   G   A   Q   V   T   E   Q
UniRef90_U6E1H0	R   S   L   F   A   G   S   D   A   R   A   T   M   K   L   I   V   D   A   E   T   D   K   V   L   G   C   H   I   F   G   P   E   A   G   E   M
UniRef90_M3JQM5	S   A   I   G   K   A   L   A   D   G   E   K   E   G   F   A   K   M   I   V   D   K   K   H   L   E   I   I   G   M   H   I   Y   A   Y   N   A   T   E   L
UniRef90_S3Y345	R   P   M   K   N   T   L   S   G   R   N   E   K   M   L   M   K   L   I   V   D   A   K   S   R   R   V   V   G   A   H   I   M   G   P   D   A   G   E   M
UniRef90UPI000361FAF9	A   A   N   G   K   A   W   G   L   L   G   D   G   I   G   F   V   K   L   I   A   D   A   T   H   N   E   I   L   G   L   T   M   I   G   P   D   V   S   E   L
UniRef90_K6YMU3	G   T   N   G   K   A   M   G   L   A   E   T   E   G   M   V   K   T   I   F   D   A   E   T   G   E   L   L   G   A   H   I   V   G   A   E   A   T   E   L
UniRef90_R2XTD0	E   N   V   P   R   A   L   A   N   F   E   I   D   G   F   I   V   K   L   V   A   D   K   S   T   G   T   I   L   G   A   Q   I   L   A   H   E   G   G   E   I
UniRef90UPI00036DC852	S   G   N   G   K   G   I   A   A   G   E   T   E   G   F   V   K   I   I   S   D   K   K   Y   H   Q   I   L   G   V   V   L   V   G   S   H   A   T   E   M
UniRef90_H5TDN9	A   Y   S   G   R   F   V   A   E   N   E   G   V   N   G   V   C   K   L   F   P   A   E   D   G   T   V   L   G   A   H   V   M   G   P   A   S   E   I
UniRef90_A5WC32	A   A   S   G   R   A   I   A   S   D   A   T   D   G   L   T   K   L   F   D   K   D   T   G   R   I   V   G   G   A   L   I   G   T   N   A   G   E   M
UniRef90UPI000470CE4E	A   A   A   N   G   R   A   L   A   Q   S   E   A   Q   G   S   I   K   V   V   A   D   A   K   T   D   R   I   L   G   M   H   A   I   C   A   G   A   G   D   I
UniRef90UPI0002FC4E78	R   P   L   L   H   T   L   A   Q   D   P   G   R   C   F   M   K   L   V   V   D   D   A   S   D   K   V   V   G   V   H   V   A   G   A   D   A   G   E   I
UniRef90UPI000382C9B1	S   A   N   G   R   A   M   T   R   L   A   E   D   G   L   V   V   R   I   V   A   R   A   D   N   H   L   V   L   G   I   Q   A   V   Q   G   G   V   S   E   L
UniRef90UPI00035DA880	R   A   L   G   R   S   R   A   S   G   D   I   D   G   F   V   K   V   L   V   A   D   K   N   T   D   E   I   L   G   V   T   L   L   G   P   G   A   T   E   L
UniRef90_E8WQ32	A   A   I   G   K   A   V   I   S   G   G   G   G   I   G   K   L   I   A   D   P   E   T   K   D   I   L   G   V   T   L   L   G   P   G   A   T   E   L
UniRef90_E4UB03	S   A   I   P   K   A   H   V   T   G   A   L   D   G   A   V   K   I   V   A   D   R   A   T   D   R   I   L   G   V   H   L   C   L   H   R   G   A   D   I
UniRef90_Q8GLD0	F   P   I   K   S   F   L   L   S   K   R   F   E   H   T   I   M   K   I   V   N   A   D   N   R   K   V   L   G   V   H   L   L   G   S   E   S   S   E   I
UniRef90_W2ET48	R   G   I   G   K   A   L   V   Y   G   E   S   D   G   F   I   K   I   I   A   D   K   K   T   D   D   I   L   G   V   S   M   I   G   P   H   V   T   D   M
UniRef90_X1A6P3	T   A   M   P   R   A   Y   L   V   E   D   T   R   G   L   M   K   F   V   L   V   D   A   D   T   D   E   I   L   G   A   T   L   L   S   V   D   A   Q   E   M
UniRef90_F5IT33	S   A   S   G   K   A   N   A   I   D   E   S   E   G   F   V   Q   I   V   A   D   I   N   S   G   E   I   L   G   S   Q   M   V   G   P   D   V   S   E   L
UniRef90UPI000255B7C2	A   Y   S   G   R   F   V   A   E   N   E   V   G   N   G   L   C   K   I   I   V   V   D   D   D   D   D   R   I   I   G   C   H   M   L   G   N   P   A   S   E   L
UniRef90_A0A037IWG9	V   P   R   A   L   A   N   F   D   T   R   G   F   I   K   L   V   I   V   E   A   G   Q   G   Q   R   I   L   G   V   Q   L   A   H   E   G   G   E   V
UniRef90_A3IQZ1	S   D   W   F   T   Y   K   R   T   N   E   D   F   A   A   F   K   V   L   I   D   E   D   H   D   Q   I   V   G   A   H   L   I   S   N   E   A   D   E   L
UniRef90_R8B0U8	S   E   V   D   R   A   Q   A   E   G   A   I   E   G   F   S   K   I   I   V   K   E   N   G   E   I   L   G   A   H   L   V   G   K   S   A   G   E   L
UniRef90_T0N880	D   D   L   D   R   A   I   T   E   S   E   D   Y   G   F   I   K   V   L   T   P   P   G   K   D   K   I   L   G   A   V   V   L   L   G   S   Q   M   V   G   P   D   V   S   E   L
UniRef90_E2BEC5	S   A   I   P   K   A   H   V   T   G   A   L   D   G   A   V   K   I   V   A   D   R   A   T   D   R   I   L   G   V   H   L   C   L   H   R   G   A   D   I
UniRef90_B8KKU5	F   P   I   K   S   F   L   L   S   K   R   F   E   H   T   I   M   K   I   V   N   A   D   N   R   K   V   L   G   V   H   L   L   G   S   E   S   S   E   I
UniRef90_B2UM63	Q   A   I   G   K   A   V   A   A   G   E   P   D   G   F   V   K   T   I   Y   G   A   K   N   G   E   I   L   G   A   H   I   V   G   P   E   A   T   E   L
UniRef90_H8G9B6	A   H   V   P   R   A   L   A   N   R   D   A   R   G   L   V   K   V   L   V   A   D   A   S   T   G   R   V   L   G   V   H   V   I   A   D   G   A   G   D   I
UniRef90UPI00039EA6F3	N   A   N   G   K   A   V   A   S   D   S   T   E   G   F   I   K   I   V   L   V   S   D   R   N   Q   I   L   G   A   H   I   L   G   S   N   A   T   E   M
UniRef90_R3WIW4	A   G   N   G   K   T   M   I   A   G   T   T   L   G   F   I   K   V   I   A   E   S   E   S   G   K   I   I   G   A   Q   I   M   C   D   R   A   T   D   M
UniRef90_F2ELE6	N   P   M   K   N   S   I   S   K   R   Q   E   K   S   I   M   K   L   V   V   D   A   E   T   D   K   V   L   G   A   H   M   C   G   P   D   A   A   E   I
UniRef90_K8PRE7	N   Q   V   P   R   A   L   A   A   R   D   T   R   G   L   I   K   L   V   V   A   D   A   G   S   G   R   L   G   A   H   I   L   A   P   E   G   A   D   S
UniRef90_F4H4H5	S   D   V   P   R   A   L   V   N   R   D   T   R   G   V   V   V   V   A   D   A   T   T   G   R   A   L   G   V   H   A   L   A   D   G   A   G   E   I
UniRef90_A0A023X4N8	D   D   L   D   R   A   V   A   D   G   E   P   N   G   F   A   K   I   V   T   D   G   K   G   R   I   L   G   G   H   I   L   G   P   D   A   G   N   L
UniRef90_Q694A1	K   P   T   E   F   F   V   P   Q   K   D   V   S   H   C   Y   V   K   V   K   I   A   R   S   E   S   G   K   I   I   G   A   Q   I   M   C   D   R   A   T   D   M
UniRef90_L1PFL9	N   L   A   N   G   K   S   N   I   L   G   A   T   G   F   I   K   L   V   I   V   S   V   E   D   G   P   I   V   G   F   H   G   I   G   T   R   I   G   E   Q
UniRef90_C0W013	A   G   N   G   K   A   V   A   D   S   E   T   R   G   I   M   K   M   I   A   H   K   E   S   G   E   I   L   G   V   H   M   I   S   S   V   S   S   D   M
UniRef90_A0A024HXD6	F   S   N   S   R   S   V   I   H   E   A   P   R   S   F   I   K   I   V   A   N   R   E   N   H   R   I   L   G   A   H   L   M   C   E   H   A   T   D   M
UniRef90_A4FA83	D   L   A   G   N   G   K   S   Q   I   L   K   T   S   G   A   V   K   L   V   R   A   T   D   G   P   V   V   G   L   H   M   V   G   D   R   V   G   E   L
UniRef90_X1UDV1	E   S   L   G   K   A   K   C   M   G   E   E   G   L   L   I   I   L   A   D   K   H   T   L   Q   I   V   G   A   S   C   I   G   E   G   A   S   E   L
UniRef90UPI000476BC3	P   L   L   R   T   L   S   Q   E   K   R   Q   S   I   K   F   V   T   H   D   D   R   I   L   G   I   H   I   V   G   D   D   A   I   E   I
UniRef90UPI00037531A1	K   A   N   S   K   A   L   A   E   E   L   E   G   E   G   L   L   K   L   I   I   F   K   K   D   N   Q   V   L   G   A   H   I   F   G   L   H   A   A   D   L
UniRef90UPI00029A018E	K   D   W   F   N   A   R   R   L   L   N   V   Q   E   Y   A   F   K   I   I   I   D   K   D   E   Q   T   I   F   G   A   H   L   I   G   P   H   S   E   E   V
UniRef90_D5BDJ6	W   F   N   S   K   R   I   A   N   Q   H   Y   A   F   K   V   I   K   D   K   E   T   K   V   L   G   A   H   L   V   G   P   D   A   G   E   M
UniRef90_K9ZQ19	S   S   V   D   R   A   I   A   D   S   E   S   G   F   L   K   H   R   K   G   S   D   E   I   I   G   A   T   V   A   N   H   A   G   E   M
UniRef90_F2RJ73	D   V   A   G   A   L   H   A   D   D   Y   R   G   L   A   K   L   V   V   D   E   A   R   G   V   V   G   C   T   L   T   G   P   M   A   T   E   L
UniRef90_H5SG39	K   D   V   P   R   A   L   A   A   R   D   T   R   G   L   I   K   L   V   I   A   E   E   G   T   G   R   L   L   G   A   H   I   L   A   D   E   A   G   E   V
UniRef90_K9T414	N   E   V   D   R   A   I   A   D   G   E   E   E   G   F   V   K   I   I   H   Q   A   G   T   D   K   I   L   G   A   T   I   V   A   R   H   A   G   E   M
UniRef90_R5V2K0	T   S   V   V   R   S   R   T   L   K   Q   T   D   G   M   L   K   A   I   V   N   D   H   S   G   K   I   M   G   C   T   L   F   C   A   E   A   P   E   I
UniRef90_E6SH53	E   T   V   P   R   A   L   A   N   R   E   T   T   G   V   Y   K   L   V   A   D   A   D   T   G   R   L   L   G   A   H   V   V   A   E   N   A   G   D   V
UniRef90_R9LKK0	S   G   N   G   K   A   I   I   S   K   E   E   S   G   F   L   K   L   V   F   E   A   H   S   R   M   L   I   G   A   Q   M   I   C   P   R   A   T   D   M
UniRef90_S9SX61	R   A   N   G   Y   A   L   A   A   G   K   I   D   G   F   A   E   V   V   I   E   E   D   T   G   L   L   G   M   H   V   V   G   A   D   A   G   S   L
UniRef90_S3XU97	G   G   N   G   K   S   Q   I   L   G   T   Q   G   F   I   K   L   V   R   E   K   D   G   P   I   V   G   V   H   M   I   G   A   R   L   S   E   Q
UniRef90_Q8RDF1	K   H   N   G   R   A   K   T   Y   G   E   T   E   G   F   A   K   I   I   S   T   E   D   G   E   V   V   G   A   W   V   V   G   S   G   A   S   E   L

90                    100                    110

UniRef90_F2I6N0	M A E A G L A I E A G M N A E D I A L T I H G H P S L G E S L M D
UniRef90_F4XX70	I H E A S N A I A N R Q S V N S L A Y L V H A H P T L S E V L
UniRef90_D1AVB0	I N E A S S I M E M E I T V E E M L K T I H G H P T Y S E V M
UniRef90_D3ENW1	I Q E A A N S I G Q H Q T I Y N L A L N I H T H P T L S E V L
UniRef90_E3PXX1	L T E L T L A V H L K L T A A Q V G D V I H P H P T L S E A L M E
UniRef90_D7JCR5	I A V A A L A I E Q Q L T S E R F E K L I F P H P S V G E I I
UniRef90_W0P078	I G E V S L A I E M G C D A E D L A L T I H A H P T L Y E S I
UniRef90_K1PU86	T Q G Y A V A M R L G A T K A D F D A T I G I H P T C S E T F T T M
UniRef90_M0CIM7	I Q E I V T A M D G G G T V D D V A E P V H V H P A L S E V V
UniRef90_U5RWC1	I S E L L G V A C E L G L T A E R V G E V I H P H P T L S E A M M E
UniRef90_E3HMH1	I S E A A A L A I E M G A E P G D I A L T I H P H P T L S E T L
UniRef90_F0XH00	M A V V Q A A M M G D L K W W D L E A A I W A H P S L A E S L N N L
UniRef90_W0BA10	I A E T A L A I E M G C D V E D I A L T I H P H P T L S E T V
UniRef90_UP100040AEDF2	I G E A Q L I V N W E A Y P E D V A S L I H A H P T Q N E A L
UniRef90_10ZQ99	L Q G G F A A A L Y A G I T K P Q L D D A T V G I H P S S A E E F V T M
UniRef90_H2MK64	L Q G F S L A L L Q C G A T Y R Q L M Q T V G I H P T S A E E L V K I
UniRef90_P75393	I A E L A L A M G A G L T V F D I A N S I S P H P T I N E M I
UniRef90_S0KQC7	V S E L L A L A I E S G M N A E D I A L T I H P H P S L G E I V M D
UniRef90_M1UVQ8	I H E A A A A M Q T G I P V H K L A F A V H T H P T L S E I
UniRef90_C2TY14	I G Q G T V M H T E V T A D I M R G D I A A A H P T L S E A I
UniRef90_F2P8Q4	L A E F T L A M R H K L G L N K I L S T I H P Y P T M S E A
UniRef90_UP1000344AC65	I Q E A A A A A K K E S V Q N L S F N I H T H P T L S E V L
UniRef90_UP1000377C12E	I G E A Q L I V N W E A F P A D V A Q L I H M H P T Q S E A I
UniRef90_R6AZH8	I N L V S L A M K N D L H Y S I L R D F I F T H P S M S E G L N D L
UniRef90_F5WB3	I S E L L G L A I E A G M N A E D I A L T I H A H P T L G E M T M
UniRef90_W8KKY4	I A E P T L A L E M G A D V E D L G L T V H P H P T L S E T V
UniRef90_W9G3M3	I G E A Q L I V G W E A H P E D V A G L V H A H P T Q N E A L
UniRef90_UP10004704ABB	I A E F V A A M R N G F G L N R I L S T I H I Y P T L A E A
UniRef90_G0JOE8	I N L F A I A L K T G L T S R D I K T M I F T Y P S A S S D I V Y M
UniRef90_D1Y5U0	I V E G T L A M M K S E L T V D E I V A T I H A H P T L G E T V
UniRef90_G1VAJ8	I Q E V A A L M N C C N A K L E Q I R D I I H I H P T L G E I L Q D
UniRef90_I5C647	I A Q V L G I S L K A R L T K D D F D R T M A V H P S A A E E L V T M
UniRef90_UP1000225EE3D	I A G G F A L A L E M G A R L E D I T G T I H A H P T R G E A L
UniRef90_I7IRS8	I A T F G L A I I T Y G A S A Q D V S R V C F A H P T V S E A I
UniRef90_R7T6A2	T Q G F T L A L L K L G A K K A D F D N A I G I H P T C A E I F T T L Q
UniRef90_G0B8G1	I Q G F G I A H H L E A T D E S L L S V I F A H P T L S E A M
UniRef90_UP100037C3D64	I Q M V A I P M G M G A T K A D F D A A I A V H P T L A E E L V T M R
UniRef90_U6E1H0	I S E I S V G M E L E G T A Y E L S Q A I H P H P T L S E E
UniRef90_M3JQM5	A Q L L G I S L K A G A T K D D F D R T M A V H P T A A E E L V T M
UniRef90_S3Y345	L P E Y Q L Q Y Q D L T A D E V G R V V H A H P S L S E A L
UniRef90_UP1000361FAF9	I V S L Q L Q A R T L E T T E A E L A H H M F P H P T L S E M I
UniRef90_K6YMU3	I Q S A A L A I H N N M T V E E L A G Q L F P Y L T M V E G L
UniRef90_R2XTD0	I H T L L A V K V S E G T V V E E I L A N M V F A H P T L S E V I
UniRef90_UP100036DC852	I T L A G M A I E L G L T A S E W K K I V F P H P T V G E I F R E
UniRef90_H5TDN9	L G E L G L A I E M G A D A E D I A L T V H A H P T L N E S I V
UniRef90_A5WC32	V H Q G M I A M E F V V S S I E D L Q L M T F A H P T I S E A V
UniRef90_UP1000470CE4E	V Q G L A I G V Q S G I T K Q Q Y D A T I G I H P T S A E E I V T L R
UniRef90_UP10002FC4E78	I A T A F G L A I E M G A R L E D V A A T I H A H P T Q G E A F
UniRef90_UP1000382C9B1	I M E A A A V A M E F R A S A E D L A R I C H G H P T Y S
UniRef90_UP100035DA880	I N E A A A F A K F L D A S T L E L G M S V H A H P S V G E V L M E L
UniRef90_E8WQ32	I N E A A A L A I R C R M T V A E L L A D T L H V Y P S M G E G L R
UniRef90_E4UB03	I Q V L G I C O L K S G C V K E D F D R C M A V H P T A T E E L V T M
UniRef90_Q8GLD0	I S E A A A L A Q V L N A T P W E V G N T I H P H P T L S E S F R E
UniRef90_W2ET48	I N F V A L A M R H G V T A S E L R D T V Y T H P T S T E A F N E
UniRef90_X1A6P3	H I L I A F A M Q S E L L I K D L S E M I A S H P T L S E A V V E
UniRef90_F5IT33	V I L A G I A I E N G D T V V E E F R K H V Y P H P T V S E I I
UniRef90_UP1000255B7C2	I Q S A A L A L R N R M T V E Q L A D Q L F P Y L T M A E G L
UniRef90_A0A037IWG9	I N H F A T A L R F G I S T K E L L K Q M I F A Y P T V A S D I A H M
UniRef90_A3IQZ1	I H E I V L A M S N N L K V S A L L S G I H V Y P T L S E V
UniRef90_R8B0U8	I A E F T L A M K H Q G L G L N K I L G T I H P Y P T W N E S
UniRef90_T0N880	I M E G V I A V K Q G M T F N D I I E N S H I F P T V S E G I
UniRef90_E2BEC5	I Q G F S A A K C G I T F P K I K S T V G L H P T T A E E F T R L
UniRef90_B8KKU5	I H E L L L A K S S E L L P D D I A H H M M H A H P T I S E A I I M E
UniRef90_B2UM63	I A A L G I G I Q A E L L T D E D I H A T I F A H P T L S E A I I
UniRef90_H8G9B6	T A A T Y T I S I A G M T V D Q L A R T W A P Y L T M A E S L R
UniRef90_UP100039EA6F3	I S E F S L A M S N N L S V V E N I L D S I P H P T F S E A I V M Q L R
UniRef90_R3WIW4	I S E F T T A I V N G L S I H E V T S I V H P H P T Y N E G V
UniRef90_F2ELE6	M Q G L A V A V L I K A G A T K A T F D S T V G I H P S A A E E F V T M R
UniRef90_K8PRE7	I Q T A A L A I R Q S L T V E D L A D T I F P Y L T T V E G L
UniRef90_F4H4H5	M L A A T Y A I L R A G M S V D D V A D T W A P Y L T M A E S L R
UniRef90_A0A023X4N8	I P E V V L A M R R N I P V Q A L S T T I H V Y P T L S E E V V
UniRef90_Q694A1	I Q G F A A A V K V C G L T M K I L M N T V G I H P T T A E E F T X L
UniRef90_L1PFL9	V G E G E L M V N W E A Y P E D L A A L I H A H P T Q N E A I I
UniRef90_C0W013	V G E G Q L I V N W E A Y E A D L A A L I H A H P T Q N E S I I
UniRef90_A0A024HXD6	I S E I A L A M R H K L T V F D L L Y N S I H P H P A I A E S I I
UniRef90_UP100046677C0	I S E L T V A I A N G M T A E E L L T A M R P H P T F E E E G V T D L R
UniRef90_A4FA83	I G E A Q L I V N W E A L P E D V A P L V H A H P T Q T E A L
UniRef90_X1UDV1	I A E I A L A M Q N G L T K A E L L D H A I H S H P T L S E M V L E
UniRef90_UP1000476BBC3	I Q G F A L A M Q K G L T K A E L L D H A I A I H P S S A E E L
UniRef90_UP100037531A1	I Q E I A N A I S R N Q N V T E L L S Q E V H T H P T L S E V V
UniRef90_UP100029A018E	I N I F F A M A I K T K M K I D L K T M I F S Y P T L A S D I P H M
UniRef90_D5BDJ6	I N M F V M A M C G G L S C H D L K A M I F A Y P T W S N D I K G M
UniRef90_K9ZQ19	S E L T T A I V N K I G L S L K S I S S V I H P Y P T Q A E A I
UniRef90_F2RJ73	H S T A T V A I V G E V P L E R L W H A V P A F P T V S E I W L R L
UniRef90_H5SG39	Q E A T L A I R F G L T I K D L V E T F H P Y L T M V E G L
UniRef90_K9T414	I S E V T T A I V V G G I G L S S K L S S V I H P Y P T Q A E A I I
UniRef90_R5V2K0	I N I V A M A M K T Q G H Y T F L R D F I F T H P S M S E G L N E L
UniRef90_E6SH53	I Y A A T L A V K F G L T I E D L R S T L A P Y L T M A E G L
UniRef90_R9LKK0	I G E L A T A I A N G L T A R H L M F A M R A H P T F N E G I
UniRef90_S9SX61	I Q G Q V L A L E M A M A R A E D V A M T V H P H P T L S E G W L E
UniRef90_S3XU97	I G E A Q L I V N W E A Y P E D V A S L I H A H P T Q N E A M
UniRef90_Q8RDF1	V H I I S T A C Q S G A K A E E L K D V V Y A H P T K S E T I M E

The figure displays a grid-based sequence alignment of UniRef90 entries. The rows represent individual UniRef90 entries, and the columns represent positions along the sequence. Colored boxes highlight specific amino acid substitutions or conservation patterns. The legend at the top right provides a key for the color-coding of the grid cells.

UniRef90\_F4FT84  
 UniRef90\_D5E5K2  
 UniRef90\_A0A023HVC8  
 UniRef90\_L0A806  
 UniRef90\_D9W5C6  
 UniRef90\_UP10002E9C1CD  
 UniRef90\_U2M2E4  
 UniRef90\_C7D7E1  
 UniRef90\_D4MAP7  
 UniRef90\_Q3A114  
 UniRef90\_UP10003675D19  
 UniRef90\_Q9RCE2  
 UniRef90\_R7UF62  
 UniRef90\_UP10003FA9846  
 UniRef90\_S6GIP3  
 UniRef90\_I0I9D3  
 UniRef90\_UP100026CA1C6  
 UniRef90\_R5FG60  
 UniRef90\_B3DAV3  
 UniRef90\_T1CHE6  
 UniRef90\_A5PD65  
 UniRef90\_C6HVI0  
 UniRef90\_E4NUN6  
 UniRef90\_UP100035C8D41  
 UniRef90\_T3IQP3  
 UniRef90\_UP10002491C9A  
 UniRef90\_U1QL21  
 UniRef90\_UP1000479342E  
 UniRef90\_C0N437  
 UniRef90\_C0D3B3  
 UniRef90\_UP1000475CAF9D  
 UniRef90\_UP100037692E9  
 UniRef90\_M2XBM9  
 UniRef90\_R5D0A1  
 UniRef90\_UP100047C99D9  
 UniRef90\_UP100039580DD  
 UniRef90\_UP10004719B5D  
 UniRef90\_A4F0D1  
 UniRef90\_M4BL10  
 UniRef90\_H0UJH7  
 UniRef90\_A0A059IR92  
 UniRef90\_SOET54  
 UniRef90\_A3WN17  
 UniRef90\_H0XEL2  
 UniRef90\_L0IWV5  
 UniRef90\_UP1000464B683  
 UniRef90\_Q5FQ43  
 UniRef90\_UP100034AAF72  
 UniRef90\_A0LSQ3  
 UniRef90\_A5FRC9  
 UniRef90\_TOUHA1  
 UniRef90\_D6VOK9  
 UniRef90\_X6NB13  
 UniRef90\_I1U4M3  
 UniRef90\_K9HFH3  
 UniRef90\_Q5QYX3  
 UniRef90\_A0A059IH17  
 UniRef90\_UP100025573EA  
 UniRef90\_K9P2I0  
 UniRef90\_Y6KFE2  
 UniRef90\_UP1000423CE41  
 UniRef90\_UP10003628B54  
 UniRef90\_W8ESV2  
 UniRef90\_C7LVC6  
 UniRef90\_U2U0U0  
 UniRef90\_D3PCQ9  
 UniRef90\_X1SDN9  
 UniRef90\_K9TY69  
 UniRef90\_D8P919  
 UniRef90\_R6RHR9  
 UniRef90\_X2GKJ0  
 UniRef90\_Q73VT8  
 UniRef90\_I0JV88  
 UniRef90\_D2B4S5  
 UniRef90\_UP10004794CC3  
 UniRef90\_R6HXX3  
 UniRef90\_K6VPM7  
 UniRef90\_UP10002FDD06D  
 UniRef90\_M9RA81  
 UniRef90\_B5JP07  
 UniRef90\_J9ZC98  
 UniRef90\_G7FJS4  
 UniRef90\_S3V3X0  
 UniRef90\_I4C3B2  
 UniRef90\_A0A059MRR2  
 UniRef90\_R2YY71  
 UniRef90\_UP1000370A5C3  
 UniRef90\_F4GKG7  
 UniRef90\_UP10004752331  
 UniRef90\_D0NX20  
 UniRef90\_W9YVR8  
 UniRef90\_I3CIG0

50            60            70            80

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

90                  100                  110

UniRef90_F4FT84	V A E L S L A V N S H M N V E D I A L T I H P H P T L S E
UniRef90_D5E5K2	I I A E L I A L A M E Q E V T V H E L A H T I H P H P T Y N E I I
UniRef90_A0A023HVC8	I I N E A A V A L G Y R A T A K D I C H I C H S H P D V N E V F R D
UniRef90_L0A806	L S V L Q M A M L G N V T A A Q I R D G I F S H P T F S E S L N N L
UniRef90_D9W5C6	I I G E A Q L I F N W Q A L P S E V A S L I H A H P T Q T E A L
UniRef90_UP10002E9C1CD	I I Q S L G V A I R K G I T K Q D L D E T T G I H P T T G E E F L F M
UniRef90_U2M2E4	I I N L M K M A I D H G I T A D A L G S A I Y T H P T M T E A L N D L
UniRef90_C7D7E1	I I A M W A M A I A N G L K M S A V A N T V L P Y P T L S E I
UniRef90_D4MAP7	I I A E G A L A L H F K A T P E D L L N T I H A H P T
UniRef90_Q3A114	I I G E M A L A I S G G L G L G A I G R T I H P Y P T Q A E M M R K L
UniRef90_UP10003675D19	I I Q P L V Q G M A F G T T V H D L A R Q Y W I H P A L A E V V
UniRef90_Q9RCE2	I I Q S A V I A I R A R M V T Q E L L A D Q L F P Y L T M V E G L
UniRef90_R7UF62	L L Q G F A V A L R A G L T Y E T L S S T V G I H P T S A E E M V K
UniRef90_UP10003FA9846	I I N L F V L A M C G K L T C E N I K A M I F A Y P T W G N D I K G M
UniRef90_S6GIP3	L L A E Y V L A M K H N L G L N K I L G T I H T Y P T M S E A
UniRef90_I0I9D3	I I S E I T V A M S G G L G L R H L A T V I H P Y P T K A E A I R K
UniRef90_UP100026CA1C6	I I A E A A L G M E M G A T S E D I A Y T C H A H P T H S E A M
UniRef90_R5FG60	I I A E A A I A M N G M F T V E E A A G V M H G H P T L S E A F
UniRef90_B3DVA3	I I A P L A L A I R E G L D A E A L A H V A F P H P M I S E G I N K
UniRef90_T1CHE6	M Q G F A V A V R M G A T
UniRef90_A5PD65	I I N I F G L A L R H G L T V K D L K T T M F A Y P T G A S D I G Y M
UniRef90_C6HVI0	M A G M A L A M G L P D G L F R L L S E T V F P H P T V S E A L
UniRef90_E4NUN6	L L H E A V I A A M R H G L S V A D V A E T I H A H P T L S K V V
UniRef90_UP100035C8D41	L L A E Y T L A M K Q G I G L N K L L G T I H P Y P T W G E A
UniRef90_T3IQP3	I I N H A A S F K A L E I P T D E A S E L L I F G H P C T S E A L M E
UniRef90_UP10002491C9A	V S E L S L A I N C Q L N A E D V A L T I H P H P T L G E
UniRef90_U1QL21	I I T S I Q M A M L G G L R W Q Q V R D A V I T H P T M S E G L N
UniRef90_UP1000479342E	S T A F S Q S I E M G A R L E D V A G T I H A H P T L G E A V
UniRef90_C0N437	I I A E I G L A I I E N N I K A H A I S S T I H P Y P T L S E T V
UniRef90_C0D3B3	I I S V L T L A L T N G L S P E A I I S T V F P H P T L G E V I
UniRef90_UP1000475CAF0	I I Q P W I L L A V S Q K L K I G A M A G M I A P Y P T L A E A A
UniRef90_UP100037692E9	I I I E G A L A V K Y G T I W D I D S V H I F P T I S E G I
UniRef90_M2XBM9	I I G E G Q L I V N W E A Y P E D V V A Q F V H A H P T Q N E A L
UniRef90_R5D0A1	I I G Q L G Q A I A N G M T P G Q L L A A M R P H P T Y E E A L
UniRef90_UP100047C99D9	L L G A L V T A V H A R V I P T D T L R T M I Y A Y P T F H R A I
UniRef90_UP100039580DD	L L A E F T L A M R H G L G L N K I L G T V H P Y P T M S E A V
UniRef90_UP10004719B5D	I I L Q P W G L A I S S S G L K I S S M A S Y I I S P Y P T L G E I
UniRef90_A4F0D1	S A A F T L A I E M G C C L E D I I G A T I H A H P T Q S E G L
UniRef90_M4BL10	T T Q A M G L A A M K L G F T Y D Q L V D T V G I H P T T A E A F T T L
UniRef90_H0UJH7	L L G E A S L A V S K G L T A H D V A F S V H S H P T L C E C F K D M R
UniRef90_A0A059IR92	I I Q S A A L A I R N Q M T V A D L A D Q L F P Y L T M V E G L
UniRef90_SOET54	I I A E I A V V C M R N H L P I Q A I T Q T M H A Y P S F P E A I
UniRef90_A3WN17	L L G E V C L A I E M G C D A E D I A L T V H A H P T L H E S V
UniRef90_H0XEL2	I I Q G F A V A V K M G A T K A D F D N T V A I H P T S S E E L V T L R
UniRef90_L0IWV5	I I Q P L I Q A M A F D L P A Q E M A R Q Y W I H P A L P E V V
UniRef90_UP1000464B683	L L T V V Q T A M L T G A P Y T L L R D S I I T H P T M A E G L N M L
UniRef90_Q5FQ43	I I Q G L A I A I T A K L T K R D F D R T I G L H P T S A E E F V T M R
UniRef90_UP100034AAF72	I I H T A A L A I R M G L P V A A L R D S I P Q F P T F N E G
UniRef90_A0LSQ3	I I A G A V Y A L T A K M T V Q Q L L A D T W S P Y L T M A E S L R
UniRef90_A5FRC9	I I H E L Q I V K C L H K P L S R L H T I P H I Y P T Y E E G I I K
UniRef90_T0UHA1	N N L I T L A M M N H H I P Y T D L L A K Q I F T H P T M A E N L N D L
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V I P T A S F L N P P L A N V G L L N E R Q A K S A G Y D L Q T F K L S V  
N L I P R V T F S N P P E I T S V G L l N Q N K A E E K Y G K G N V E A V E F N L  
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Y A T V P R V T Y T S S P Q T A A V G L T E A Q A R D A G H D V V V N T L P L  
H R Y V P S A V F T H P Q I A T V G L T E A Q A R D A G T R V T V K V Q E Y  
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Y G A V P R A V F T V P E M A A V G G A G E K Q L Q Q Q G V D Y V V G R A D Y A D  
E E V A W V G K T E E Q L K E E G I T Y K V G K F P F  
Y D G I P R V V F S D P E I I A A A G L T R D Q A E E Q G I R I E A V E L D L A K  
Y D A M P F A V V F S S P E V A G V G A T E A E L Q Q A A D R D Y A K R T Y R Y E D  
N I A G C T Y C Q P Q V A S V G Y T E R A L L K E K G I K Y T V G K L P F  
V P S C C L Y T N E I I A W V G L S A D E A K K Q G I E V K T S K Y L M  
I P S I A Y T F P E I I A W A G M T E T E A K K A S I N Y E V S T F P W S A  
P S I P A C V Y T S P E L A Q V G L T A D E A R A R G I P C A A G K C V L  
P S I P S A V F T I P Q L A T I I G L T E K Q A L Q Q G H K I T V L I E N D A  
N L A T S V F T Y T L A Q V G L T E Q Q A K S A G L Q F E V K K I A A  
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N V P Y S V F M T P P L S R I G M T E E Q A Q A S G K P I Q I V T L P V  
Y A G V P T A V F T I P E L A R V G L L E R E A R E R E R G L D V D V R F N D T  
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H F V P Q A V Y C E P Q N A S F G F K E A E L Q K Q G L H Y K S S T F P F  
P H G I F T T P Q V A G V G M T E D R A Q K A G L N P V S H S I R T  
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Y N N V S T I M F V Q P E V A G V G M N E K K A L Q N K M S Y K V V K I R Y D M  
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I P A V C F T D P E I I V V A G L A P D D A K R Q G L D V V S A A F P F  
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V P Q V V F T D P E V A S V G L T L A E A E Q A G H R V R A V D V P I  
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Y H H P R V T F T D P G S I A A A G L T E A Q A Q Q A G H D C E T R V L P L  
Y N K M P C I Y A Q P E I I A S I I G M T F E A A K S Q G F K A K K H K V P F Q A  
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V P Q Y T V F L T P P L S R V G L L S E K E I K A A G Y D Y K T F S F A T  
Y T A M P F A V V F S S P E V A G V G L L R E D V R E A E R P Y A T A T Y Q Y E D  
S V V P A V T F T S P S I A T V G M T E A R A R S K G Y E V I T S V L P L  
Y D I I P P S V I Y T H P A V A S I I G K T E E S K N I N Y A Y N V G K S N F  
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D T I P Q I V F S N P E A A S V G L T A T D A Q K Q R D D L S D I K E T V Y P M  
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V P A V V F T D P E M A E V G L L N K E Q A K E K G I E V A T A Q F P F  
Y S V F P Y V F T D P Q V A G V G M D E N Q A Y E N K I E Y E A S T I Q L  
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UniRef90_S0AS62	W I A G A S T R S D A Y T G Q A R A I V D E D R G V L I G A T F V G A D V G E L			
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UniRef90_F4GQ56	S D V L R A A T T G E T Q G F M K A L V D A R S D R I L G F T M L G A E A G E V			
UniRef90_E3ER90	A A N G R A M T L E S T D G F V R V V A R R D N H L I V G W Q A V G Q G V S E L I			
UniRef90_S1SX26	A T V P K A Q V M R R P E G M M K A L V E N G T D R I L G A M L L A A E S H E V			
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UniRef90_D3TOS0	A G V P K A Q V L E D P T G L F K V M V D T K T D K I I L G A V I Y S E E S H E V			
UniRef90_D5WUW0	T A R G Q A M H A E G V V K V L I E P S G E I L G C H I V V G P D A P T L			
UniRef90_Q5FEM3	D A V P R A L V I N H D T A G V I K L V A D G R S R K I L L G V H I V V A D N A G D V			
UniRef90_S9VEV7	S A N S R S K I L T N N G E G F V K V L T S K E N N A I I L G V H I I G A Y A D T I I			
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UniRef90_UPI00047A5FB5	I A G I T S A I A C A C K I A K A E D L A S V I Y P H P S F S E G L		
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UniRef90_D3ICZ5	I N I C K L A L D N N I T A E T L K N Q I F T H P T M A E A L N D L		
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UniRef90_A0YEB5	I A E V Q V V K T L Q G L I N F A K L Q G V I H P Y P T Y S D A L R		
UniRef90_UPI000479C83E	I N I F I A M V I N N K M T D R D I K S T I F S Y P S W V N D V K S M		
UniRef90_U2XCL5	L Q S A T I A V V G E V P L A R L W H A V P A Y P T L S E V W L R		
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UniRef90_Q11PG6	I Q A V A L L I S M D K G V E E L A D M I H P H P S I I E G I I		
UniRef90_A9G183	V A V V Q T A M L A G M P Y T G L R D A V L T H P T M A E G L G S L		
UniRef90_F4GQ56	S A A F S Q S L E M N A R L E D V A G T I H A H P S L G E A V Q E M R		
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UniRef90_J9BXB5	V Q E I V A L M A R K A T I E D L R A I V H		
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UniRef90_UPI00036FD943	I Q Q M I T V M A F G L D V R E V A K Q Y W I H P A L P E V		
UniRef90_R2SRV4	I N L I A L A M K A D L P Y Q L R D Q I Y T H P T M S E A L N D		
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UniRef90_D5WUW0	I Y A G V L A V K F G L T I E D L T S T L A P Y L T M A E G L		
UniRef90_Q5FEM3	I N E A A I A M A Y R A S S E D V F R I S H S H P D V N E A F		
UniRef90_S9VEV7	I Q S V G I C M K M N A K I A D F Y N T I G V H P T S A E E L C S L R		
UniRef90_A4AGR5	A N T I A L A M K N G L T T R Q I K S T T S A Y P S T G S D L G S M		
UniRef90_A5FT27	I N E M A V I I M S A G I G M K A L A E V A H T Y P A Q S E A I L		
UniRef90_G5JMY8	I N L I T M A M D N Q V P Y T Y F Q K Q I F T H P T M A E N L N D L		
UniRef90_E3EQ04	I A E A E Q L V G N H T P L S D A A R L I H P H P T F S E T L		
UniRef90_C5RBG8	I S E L S L A L E N G L T S E D I S L T L H P H P T L G E A I M D		
UniRef90_I4WMY9	I N L F G F A M R S G L G A A A I I R R A T F A Y P T A A S D I I E S M		
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UniRef90_W6WHL0	I S Q V A L A M E A S M I L C E D F A H I C H P F P A W S E A L R		
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UniRef90_UPI0002FB164B	I N I V K L A L D Q Q L P Y A V L R D N I Y T H P T M A E S F N D L		
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1 H R F | V P H A V F S G P Q V A S V G | L T E D E C A E R G | L D Y S V G | V R D Y  
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UniRef90\_F3YTR7 Y T L L M P W C T Y T D P E L A N I G H N E H S A K E A G L E Y E V W S E E F E G  
UniRef90\_K3X332 N Y P P G I Y T I P E I S M V G K T E Q Q L T K E G V N F E I G I A K Y S  
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UniRef90\_UP10002628782 Y E N I S T I M F L A P E V A G V G M N E A Q A R K A G A P F R V A S F D Y  
UniRef90\_C0C0T2 R V M P R C Y T M P O F A A V G G M S A A K A E E E G I A A V T G E F A Y S A  
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50            60            70            80

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UniRef90_D2NR07	A A M P R A K T M E N P M P R G I M K F V I D A Q T D Q I L G A Q L L V I E S M E V		
UniRef90_A3ZMG9	K G V D R A A V D G E T A G F A V I H T R R G S G K V V G A T L V A P H A G E G M		
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UniRef90_UP1000475B201	E L A R P W T Y S T S P T G R L G V L L A D H R H G V L L G A W A L A P M A G E W		
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UniRef90_B6A3M1	S R V G R A N E R G E T K G F M K V I A D A E T K K I L G A A L G L E G D E V		
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UniRef90_Q2N9E7	M A N S R A K T N H E P D G L V K V I A D A E T D R V L G I W A I A S V A G T M		
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UniRef90_A1SCJ0	Q Y V P R A L V N R D T R G F I K V V A D A D T G R I L G L T A V A K D A G E L		
UniRef90_X5JGB1	K T L V S A Q I Q D V T T G C K L I V L R N G E I L G G S I F G S Q A G E L		
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UniRef90_V4QA22	S G M P R G H V D N K L R G L F K V I V S T E N D Q I L G A S L F S Q E S H E L		
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UniRef90_C0MAV7	E D T A K G E A M D A K D Y F V K I I V E R G T M K I L G A H I I G P Y A S V L		
UniRef90_I7JFM1	A N M P R A H V N N D L R G I F K V I V N T E T N E I L G A T T F A N N S H E Y		
UniRef90_I4EU54	N A I P R H K V N N D P R G L F K V V V N K D T E T I L G A T L Y G L E S E E I		
UniRef90_Q26GG1	N D R A Q C E G E T T G R I R L L L G K H G K P L G V Q L L G P R A G D L		
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UniRef90_K3X332	A P I V K S K V V Q D T R G I L K A L V D P K T D E I L G A T L Y H E D S H E V		
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UniRef90_C2EN99	A S I P K A H V L K D P R G L F K A L V D P K T N L I G A T L Y G A E S Y E L		
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UniRef90_I3TEP2	N F L S A V K I K D G S Y S F I K I L V S E D S S K V Y G V H I V A P N A S E V		
UniRef90_F8QGB1	S R V G R A V E K G E S Q G F M K V V V D A D T R T M I L G A I L L G V T G D E V		
UniRef90_B3R9F9	E D Q G R S R V M L K N R G L M H V Y A D K A T G R F L G A E W T G P R A E N I V		
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UniRef90_UP100037CE53B	S A N G R A L S T Q Q A E G F V Q I V V E K E S D R V L V G V Q M V G P D A S S L		
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90                  100                  110

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UniRef90_UP10002FF732D	L H S A T V A V A G R V P I S R L W H A V P C F P T I S E I W L R L		
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UniRef90_D2BD42	I L A V S V A V V Q Q R L T V D Q L A H T F A V Y P S M S G S I T E		
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UniRef90_G8PT83	T Q G F S L A I K L G T K K S D F D S M I G L H P T D A E E V F S D L		
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sol5  
sol0  
jhmm  
ipssm

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UniRef90_XOYDV3	E G Q G R S L V I M G R N C G L L R V Y V G H R D S G A L L G A E M M G P A G E				
UniRef90_E6W5D8	U N I F O R M A T I O N				
UniRef90_D3PEF0	A D V E K C S A I L L G Y S K G L I K V I F D K K S S N R V I G A H I L G K S A S E				
UniRef90_UPI00037F4DE9	A G N P R A K M Q G I H E G F V K L F C R P G T G I V V G G V V V A P R A S E				
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UniRef90_Q974G8	E V M A Q M Y D E R E G M L K L L F H N K T R Q I L L G G M I N G N A D E				
UniRef90_C3MPA0	A A I T R A I I N G I K D G Y V K I G I N E R N E F G E V I G D K A K E E				
UniRef90_L0J0X1	A V S R L A L F R D G F E G W A K L V I D A H T N T L L G A T F V G P E F S E				
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90                  100                  110

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

lupas\_21

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jnet

conf

sol25

sol5

sol0

jhmm

jpssm

