

QUERY	1	10	20	30	40
UniRef90_UPI00046F22DD	M	L T T K S L V E R F E L E M A G E A G L N K Q K N T D S R P G L E M A G	G	G	G
UniRef90_A6CNC7	V R V A D I I Q K F N L L E L V S G E E G I H R P T T S D S R P G L E M T G	G	G	G	G
UniRef90_E5WFR9	V R A K D I V E K F D L L E L V S G E E G I H R P T T S D S R P G L E M A G	G	G	G	G
UniRef90_G9QJS7	V R A K D I L D E F F H E L I S G E E E G I H R P T T S D S R P G L E M A G	G	G	G	G
UniRef90_UPI0003673A96	V R V S E L V Q Q F Q L E V V A G E E E G I H R P T T D D N R P G L E M A G	G	G	G	G
UniRef90_H3SLJ6	V K V A E M V E Q F F H E V L I S G E E E G I H R P T V D D H R P G L E M A G	G	G	G	G
UniRef90_UPI0001851349	M V K V Q D L L E H F N K L E L I S G E E E G I H R P T T T D S R P G L E I A G	G	G	G	G
UniRef90_UPI0002E346C7	V R A K D I L D K F K K L E L I S G E E E G I H R P T M T D S R P G L E E L A	G	G	G	G
UniRef90_R9C126	V L I K D V I I E E F D L E I I V S G E E E G I N R P T V S D S R P G L E M A G	G	G	G	G
UniRef90_D3E876	V K V S E L V Q Q F Q L E V I A G E E E G I K R P T T D D N R P G L E M A G	G	G	G	G
UniRef90_UPI000419ABF5	V R T Q D L L D R F N K M E L V S G E E E G I V H R T T S D S R P G L E M A G	G	G	G	G
UniRef90_UPI00047E31AF	V T V K D L L K N F K M E L V S G E E E G I N R Q T V D D S R P G L E L A G	G	G	G	G
UniRef90_UPI0002D9A9C0	V T T K D V M E K F K K L T L V S S G H I G R H T T S D S R P G L E M A G	G	G	G	G
UniRef90_X4Z5K0	V K V S E L V Q H F Q L E V I S G Q E E G I K R L T V D D N R P G L E M A G	G	G	G	G
UniRef90_UPI0001E89CF6	V R T K D L L E K F F H L Q L M S G E E E G I V R P A T S D S R P G L E M A G	G	G	G	G
UniRef90_UPI00047CF534	M V K V K E I I L E K F F H L Q L M S G E E E G I N R P T T S D S R P G L E M A G	G	G	G	G
UniRef90_UPI0002E79DD9	V R T K D V I I E K F F N L E L I S G E E E G I V N R P T V S D S R P G L E M A G	G	G	G	G
UniRef90_K6E3C1	M V K V K D V I D K F K F E L I C G E D G I N R P T T S D Y R P G L E L A G	G	G	G	G
UniRef90_UPI000479FE27	V T A N E I I E K F F N L E L I L A G E E D G I V Y R P T T S D S R P G L E M A G	G	G	G	G
UniRef90_UPI0003767CC6	V K V S E L V Q Q F Q L E L I L A G E E D G I V Y R P T V D D Y R P G L E L A G	G	G	G	G
UniRef90_UPI0002891CE8	V S T K D L I E K F K F E L V S G E E E G I N R P T T S D S R P G L E L A G	G	G	G	G
UniRef90_UPI0003643172	V K V S E L V Q M F Q F E V V S S G G Q G L K R N I V D D N R P G L E L T G	G	G	G	G
UniRef90_R2RUJ3	F V T V S Q M V Q K L N E L I S G S E E G I E R A T I A D S R P G L E L T G	G	G	G	G
UniRef90_U5LHX5	V R T K D I I E K F N L E L I S G S E E G I S R P T T S D S R P G L E M A G	G	G	G	G
UniRef90_A8FHS4	V R T K D I M E Q F H E L I V S G E E E G I N R P T I S D S R P G L E M A G	G	G	G	G
UniRef90_R2NU17	V K V K E I I V D K L S E E V V T G E E E S I E R V T T G D S R P G L E L T G	G	G	G	G
UniRef90_UPI00046AA282	I V K V K E I I V E R F N L E E V A S G E E E G I N R L K T S D S R P G L E M A G	G	G	G	G
UniRef90_E6TR15	V T V Q D L I V K E F K K E L L I N N E E D V A R P T T S D S R P G M E M A G	G	G	G	G
UniRef90_G2SMM1	V T V K E L I V D A V G G L T V Y S G D E K H L D R K A T D D S R P G L E L T G	G	G	G	G
UniRef90_K9AM14	M I S A K C I V E K F F D L E L I A G E E E G I D R P H N T D S R P G L E M A G	G	G	G	G
UniRef90_K8ZB15	M I S E D I V E K F F D L E L I A G E E E G I D R P H N T D S R P G L E L T G	G	G	G	G
UniRef90_B7HEG4	V R T K D L I E D L V H S L R E E V V Y S G E E E G I H R P D T S D S R P G L E M A G	G	G	G	G
UniRef90_F5L6V2	L K V K K I I V D K F Q L E E V L V S G K E E Y L D R L T T S D S R P G L E M A G	G	G	G	G
UniRef90_UPI00036BD54F	V K V S E L I V E Q F N L E E V L V S G K E E Y L D R L T T S D S R P G L E M A G	G	G	G	G
UniRef90_UPI000380D09C	M I S S S K L I I V E Q F N L E E V I A G K G N G L D R K V T S D S R P G L E L T G	G	G	G	G
UniRef90_A0A033V026	M I S S S K L I I V E Q F N L E E V I A G K G N G L D R K V T S D S R P G L E L T G	G	G	G	G
UniRef90_K8E5Y3	V T V K E L I V E V L R L S V H N G E E Q L D R K V T S D S R P G L E L T G	G	G	G	G
UniRef90_Q5KVB9	V R T K D I I I E Q F Q L E E L V S G A E E G I Y R P T T S D S R P G L E M A G	G	G	G	G
UniRef90_W8YPT2	V K V S E L V Q P F D E E I L V S G E E D G M Q R I T T D D Y R P A L E M A G	G	G	G	G
UniRef90_UPI0003729382	V R T E D I I I K E F D L E E L V S G E E E G I Y R P T T S D S R P G L E I A G	G	G	G	G
UniRef90_W4QLV1	V T A N D D I I E R F N L E L I A G E E E G I Y R P T T S D S R P G L E M A G	G	G	G	G
UniRef90_C8NGK5	V T V K E L I I K N I H K P H G E E D Y L D R P V T S E S R P G L E L A G	G	G	G	G
UniRef90_UPI0003B40C65	F V T V Q Q L I V D N G G L T V Y Q G E E D Y L N R H T T S E A R P G L A L T G	G	G	G	G
UniRef90_K0J2P1	V Q T K H I V D K Q F N L K I A G K G L D R E F I M S D D I S R P G L E L T G	G	G	G	G
UniRef90_L0EIV3	V K V S V L I V K Q Y Q L E E V V A G A E E G L G R S I T V D D H R P G L E M A G	G	G	G	G
UniRef90_W3AAY8	V T V K Q V M D M F D L D L I S G E E E G L G R R I P I S D S R P G L E E M A G	G	G	G	G
UniRef90_Q50EL5	V K V S E L V N Q F G L E E V I I S G E E Q G L K R A T V D D Y R P G L E I A G	G	G	G	G
UniRef90_UPI0003645D74	M V K V R D I I E K F K F L E E L V V S G E E E G V H R P K M S D D S R P G L E M A G	G	G	G	G
UniRef90_UPI0003F8ACA9	M V K V H E E I I D K F Q L E E L V V S G E E E G V H R N L V S D S R P G L E M A G	G	G	G	G
UniRef90_UPI0004704303	V P I E E D I I V K A F E L E E V I Y M G D N P K I G T T S D N R P G L Q F A G	G	G	G	G
UniRef90_V6Q7G3	F V T V Q E L V N E L Q D L D I A G E A F L E N R L T S D S R P G L E L T G	G	G	G	G
UniRef90_A0A24QA20	V R T K D L I D D N F N L T L V A G E D G L H R E T T S D S R P G L E M T G	G	G	G	G
UniRef90_UPI000219702A	V T V A D L I V K V N T H L S V F W G R E Y L D R P T T S D S R P G L E L T G	G	G	G	G
UniRef90_UPI00035FC97A	V T A A N L I I E R F S L T I L S G E E D G L H R A T T S D S R P G M E M A G	G	G	G	G
UniRef90_UPI0003B4DC02	V T A T D L I K E R F Q L E E L L A G E E G L Y R A T T S D S R P G I E M A G	G	G	G	G
UniRef90_F5LSA3	V R V S E L V E H Y N L L E E V I V T G E D G L K R T V T V A D Y R P G L E M A G	G	G	G	G
UniRef90_S0P1U0	V K I S S E I L T Q A L N E E I I V T G E D G L K R T V T V A D Y R P G L E L T G	G	G	G	G
UniRef90_UPI0004143E9A	V R T K D I I E K F N L E L I S G E E E G V N R P V T S D S R P G L E M A G	G	G	G	G
UniRef90_E8SKD5	V R T Q D L I D R F K I E L I A G E E E G V N R P R N T D S R P G L E M A G	G	G	G	G
UniRef90_N4WGR0	V R T Q D L I D R F K I E L I A G E E E G V H R E S M S E V S R P G L E L T G	G	G	G	G
UniRef90_UPI000382E17B	V K V A E E L V Q Q F Q E E V V S G E E G K G R V V D D N R P G L E M A G	G	G	G	G
UniRef90_J3JBD0	V K V S E L V T R A N L E V Y A G A E E Y L Q R Q T V S D S R P G L E L T G	G	G	G	G
UniRef90_UPI000468A082	V S I E E K L I V K D L Q F N L E V Y S G E E D H L D R R V V T L S D S R P G L E E L T G	G	G	G	G
UniRef90_18AMT6	V H T K E L I I D K F Q L E L V S G E E E G I H R T T T S D S R P G L E V A G	G	G	G	G
UniRef90_UPI000288FC19	V R V N E E I I E H F N L K L V V S G E E E G I G R E I V S D S R P G L E E I A G	G	G	G	G
UniRef90_UPI0002EC7E1D	V R T K D I Y E K F K M E L I S G E E E G I S K P S T S D S R P G L I E I A G	G	G	G	G
UniRef90_V7HWV8	F V T V E Q L A K E N D D M Y S G A K Y L E R K T T S D S R P G L E E L S G	G	G	G	G
UniRef90_H3NFF6	V T I T R E L I V D G V G L K V V A G D D F M D R R S V A D S R P S I E M T G	G	G	G	G
UniRef90_U2CHY1	V T I E N L I D E D L K E L I I V Q G K E Q K E S L S D N R P G L Q F S G	G	G	G	G
UniRef90_B9EAF7	M I T S I E L I I D K F D L K F I A G N V A I E I P V A N A D S R P G L E E M A G	G	G	G	G
UniRef90_Q93TM7	V T V A E E L V K A N R L D V Y T G K D N L I D R K T T S D S R P G L E L T G	G	G	G	G
UniRef90_XORA01	V N A N D L I E R F Q F E L L I A G E E E G I Y R P T T S D S R P G L E E L T G	G	G	G	G
UniRef90_X2GWQ1	V V L T R D V M E K F K L E L L G G E E E G I G R T T T S D S R P G L E E M A G	G	G	G	G
UniRef90_U5P4W6	I T V R D L I D K L R L K V V Y G N E E S L E K E T T A D S R P G L E E M T G	G	G	G	G
UniRef90_K9E7W0	F V T V G D D L V E G V N A R V I S G Q D F L D R K K I T D V S R P A L E L T G	G	G	G	G
UniRef90_TOCPM3	L T V Q Q L I I Q Q F G L E E L L A G E Q G Y I S R A E S D D H R P G L E E L T G	G	G	G	G
UniRef90_UPI00046A95E3	V S V K E L I V D E I L Q F N L E L I V H S G K E G G L D R T M T S D S R P G L E E L T G	G	G	G	G
UniRef90_D7UW98	V T V N E E L K K R L K L K E E I V T G E E A L V S K T R V S K T R H R P G L E E M T G	G	G	G	G
UniRef90_S0NVY5	I K V K E L I A T A L N L E E I V T G E E A L V S K T R V S K T R H R P G L E E F A G	G	G	G	G
UniRef90_10JQG0	V R T E D L I D Q F Q L E E L L A G K D G V H R E I T C T A D V S R P G V E E L T G	G	G	G	G
UniRef90_UPI0002D31449	V Q T K D L I E E Q F K L D V C G E E G L E R F I F M S D D I S R P G V E E L T G	G	G	G	G
UniRef90_UPI00028A27E6	K V K V S D L I V R R F K L D V C G E E G L E R F I P V A D L Y R P G L E E I A G	G	G	G	G
UniRef90_F3A0V9	I T T R D L I V E K L N L E I V S G E E K G L D R E T T D E L S R P A L Q L A G	G	G	G	G
UniRef90_F8FKX1	V K V S D L I V R R F H L E E V I C G E E G L K R P I A T A D L Y R P G L E E M A G	G	G	G	G
UniRef90_F9DXQ8	L T V E D V M N R G F G L E L L I A G H G E Q Y I H R Q N M S D I S R P G L E E F A G	G	G	G	G
UniRef90_UPI00030F52E2	I T V T V Q Q L I I D R F Q L E E L L S D D A G S E R T V V S K T R V S K T R H R P G L E E F A G	G	G	G	G
UniRef90_R5TR20	V S L K E I V E K M N L K N L T P D V D L E K Y V Q V P D I I S R P G V E E L T G	G	G	G	G
UniRef90_C9A7D8	V K V S E L A E A L N L E I V E G E N S L E R E I T G D I S R P G V E E L T G	G	G	G	G
UniRef90_R5F0B3	V T I S E L I K K M K K N T P E I D T D K V L T H P D V S R P A Q L Q L T G	G	G	G	G
UniRef90_Q3K1W9	V T V Q M L V D R L K N V I Y G D E H L S K R T T A D V S R P G V E E M T G	G	G	G	G
UniRef90_UPI0003667D9B	V T V K E L I V E K V R L K V V Y G T D E L S K E I T T S D S R P G L E M T G	G	G	G	G

QUERY	50	60	70	80
UniRef90_UPI00046F22DD	Y F S H Y A S D R I Q L L G T T E L S F Y N L P D E E R K G R M R K L C R P E			
UniRef90_A6CNC7	F F D Y Y P A D R I Q Q L L G M A E I I T F S Q R L T S E E R K Q R M E K L C C S D I			
UniRef90_E5WFR9	Y F N Y Y P A E R I Q Q L L G K T E L L S F L E K L D D S Q R K S R M D Q L C C T D I			
UniRef90_G9QJS7	Y F N Y Y P A E R I V Q L L G M T E L L S F F Q R L D D D A R R I R M E K L C C A D V			
UniRef90_UPI0003673A96	Y Y D Y Y P V E R A Q I L L G K T E L L A F E T L T S D E R R E R L E R I L C C T D E			
UniRef90_H3SLJ6	Y F E Y H P K E R V Q L L G K T E L L A F F E T L T P E E K R D R M Y H F C S S E E			
UniRef90_UPI0001851349	F F D Y Y P S E R I Q Q L L G K T E L L S F L E K L S P L E K E V R M E K L C C T D E			
UniRef90_UPI0002E346C7	F F D Y Y P A E R I V Q L L G K T E L L T F I Q K L D P E I R S E R L E R L C C T D I			
UniRef90_R9C126	Y F N Y Y P A E R V Q Q L L G K T E L L S F A E R L S E E E R A N R L T K L C C S D T			
UniRef90_D3E876	Y F E Y H P R E R V Q Q L L M G R T E L L A F F G M L K P E E R K E R M R S L C C T D I			
UniRef90_UPI000419ABF5	Y F K Y Y P A E R V Q Q L L G K T E L L S F F H K L S P Q E R K E R M E K L C C T D I			
UniRef90_UPI00047E31AF	F Y D H Y P A E R V Q Q L L G R T E L L S F F N Q L D V E Q K Q I R M E K L C C T D I			
UniRef90_UPI0002D9A9C0	Y F T H Y P A N R V V Q Q L L I G R T E L L S F F E M L P P E L R Q E R R M M K L C C S Q E			
UniRef90_X4Z5K0	Y F E Y Y P E D R V Q Q L L M G K T E L L A F F S M L P A E E R I S R I R G L C C H D E			
UniRef90_UPI0001E89CF6	Y F T Y Y P A E R I Q Q L L G K T E L L S F F E R L T P K E K R E R M N Q L C C T D I			
UniRef90_UPI00047CF534	Y F E F Y P A E R I Q Q L L G K T E L L S F F E E L T P S E R M S R M E Q L C C T D I			
UniRef90_UPI0002E79DD9	Y F T Y Y P A E R L Q Q L L G K T E I I S F F N Q L D V E Q K Q I R M E K L C C T D I			
UniRef90_K6E3C1	F F D F Y P A E R L Q Q L L G R T E L L S F F Y D L D P E V R R E R M E Q L C C T D M			
UniRef90_UPI000479FE27	F F T Y Y P A K R L Q Q L L T F F E Q L N T H E K L D R M K N L C C T Y D			
UniRef90_UPI0003767CC6	Y F Y H Y P N E R V Q Q I L L G R T E L L A F F L E T L D T E R V D R L E R L C C D P E			
UniRef90_UPI0002891CE8	F F D Y Y P A E R I Q Q L L G K T E L L T F F D K L L S R D E K M Y R M E K L C C T D I			
UniRef90_UPI0003643172	Y F E Y Y P T E R V Q Q I L L G R T E L L A F F K M L T H E E E K A E R M G K L C C N E D D			
UniRef90_R2RUJ3	Y F N Y Y S H D R I Q Q L F G S K E M T F A Q R M M P E E R L M V L R R M C T P D			
UniRef90_U5LHX5	F F D Y Y P A E R I Q Q I L G K T E L S F F E Q L P E R E R K Q Q R M M S L C C T D I			
UniRef90_A8FHS4	Y F T Y Y P K E R V Q Q L L G K T E L S F F E Q L P E R E R K Q Q R M M S L C C T D I			
UniRef90_R2NU17	Y F N Y Y S H D R I Q Q L F G N K E I T F A E R R M M P E E R L M V L R R M C S D D			
UniRef90_UPI00046AA282	Y F T Y Y P S E R V Q Q L L G K T E L S F F E E L T P S E R M S R M E Q L C C T D I			
UniRef90_E6TR15	F F T Y Y P A K R I Q Q L L G K T E M T F F S Q L T P E E Q E D R V E R L C C T Y D			
UniRef90_G2SMM1	Y F D Y Y P Q E R V Q Q L F G M T E I S Y A H K M D P E E R L E V V M D K L C C G E N			
UniRef90_K9AM14	Y F S H Y A K D R I Q Q I L G T T E L S F Y N L L P E A S K E G R M R S L C C R E E K			
UniRef90_K8ZB15	Y F N Y Y P A D R I Q Q M F G M K E I S F C E K M G H E E R C I I M R K L C C N P K			
UniRef90_B7HEG4	F F T Y Y P A D R V Q Q I L G K T E L S F F D T L T S E Q K Q E R M K A L C C T E E K			
UniRef90_F5L6V2	Y F T Y Y P A D R I V Q Q I L G R T E L L S F F E R L H P Q E K E V R M L N L C C H E E K			
UniRef90_UPI00036BD54F	Y F E Y H P V D R V V Q Q I L G K T E L A F F Q M L S P P E E R K S R I E Q F G S E E			
UniRef90_UPI000380D09C	Y F T H Y P K E R V Q Q L M G R T E L L S F L Y D L T E P E V R D R M E N L C C T D V			
UniRef90_A0A033V026	Y F S H Y S S D R I Q Q V L G T T E L S F Y N L L P D E E K K G R M A K L C C R P E			
UniRef90_K8E5Y3	Y F N Y Y P Q E R V Q Q L F G R T E I I S F S E R M T S E E R L I V M R R M C R P N			
UniRef90_Q5KVB9	Y F A Y Y P A E R L Q Q L L G R T E L L S F Y E T L T P S E E K K S R M E R L C C T D I			
UniRef90_W8YPT2	Y F H Y Y P K E R V Q Q L L G K T E L A F I Q T L D S R E R K E R L E K L C C N D E			
UniRef90_UPI0003729382	F F H Y Y P A E R V Q Q L L G R T E V V K F T E M L M T G E R K Y R M E Q L C C T D S			
UniRef90_W4QLV1	Y F T Y Y P A K R I Q Q L L G R T E L S F F E H L K Q H E K E E R M L K L C C T Y D			
UniRef90_C8NGK5	Y F N F Y P S E R I Q Q L L G R T E T S F A H E M D S Q A R Y E V M E L L C C T P D			
UniRef90_UPI0003B40C65	F F K F Y P H D R I Q Q F G K T E W T Y L R G I T V A E R Q N L Y D H M A Q E D			
UniRef90_K0J2P1	Y F R Y Y P K A R I Q Q V L G K T E I I S Y L N E L S K E D R I D R A K R L C C T K V			
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UniRef90_W3AAY8	Y F T H Y P A N R I Q M L G K T E L L S F F A L L E A H E R T E R M F K L L C C T D D E			
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UniRef90_UPI0003645D74	Y F D Y Y P A D R I Q Q I L G M T E L S F F Q R L S S E E K K E R M D K L L C C T Y D			
UniRef90_UPI0003F8ACA9	Y F N F Y P S D R V Q Q L L G Q T E L S F I T K L L D S E T R L D R M L Q L C C T D E			
UniRef90_UPI0004704303	F F D Y F A S E R V Q Q V V G K T E M T Y L N G L D P Q T R F E R L C Q F F K Y D E			
UniRef90_V6Q7G3	Y F N Y Y P Y D R I Q Q F G R K E A T F S E K M T A D E R L L V M R K I C H K E			
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UniRef90_F5LSA3	Y F N Y Y H P Q E R V Q Q L L G R T E M S F F E T L D E T V R L H R A E Q L C C S E E D			
UniRef90_S0P1U0	Y F S Y Y P S N D R I Q Q F G N K E I T F A E R R M M P E E R L M L R R L C C S D D			
UniRef90_UPI0004143E9A	F F D Y Y P A E R V Q Q L L G M T E M D F Y N K L S S A E Q R L R M E A L C C S D E			
UniRef90_E8SKD5	Y F S H Y A S N R I Q Q L L G T T E L S F Y N L L P D A E R Q G R M R K L C C R P E			
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UniRef90_UPI000382E17B	Y F E Y H S P E R I Q Q I L G R T E I T F Y H M L S K E D K L D R M S R L C C N E D			
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QUERY	90	100	110	120
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UniRef90_U5LHX5	T P G I V T R D M E V P E G I E A S E R E A V P V M R S K Q K T T R F S G L			
UniRef90_A8FHS4	T P A I I S R D R E V P K E L I E A S N E N G V P V L R S S L K T T R L S S R			
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UniRef90_L0EIV3	T P C C I V T R G L E V P P E E L I I E E A G R K Q I P P V V L R S S M A T T Y L I S K			
UniRef90_W3AAY8	T P A I I V A H G M D V P P N E E L V D A S G R K H V P P V V L R T K M P T T R F S S L			
UniRef90_Q50EL5	T P C C I V T R S W K V P P E E L I I E I S S E K Q I P P V V L R S S M A T A L L S S R			
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UniRef90_UPI0004704303	I P C L I V S R G M E V P D Y L V E A A K K Y D R P V F R S Q L V T T N L I S K			
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UniRef90_S0P1U0	T P G F I V S R G L E I P D E M I Q A C E H Q I P P I L R S K V S T S R L L G E			
UniRef90_UPI0004143E9A	T P C C I I T R G E E V P V Y L I I E A S E R E S V P P V L R S G S K T T R L F S R			
UniRef90_E8SKD5	T P A I I I T R G H D P D E L L I I E A A E E L D T P L I Y V E E A T T R V M G R			
UniRef90_N4WGR0	T P G I L I T R D M D V P P E E L I I E A C R E S G V P P M R S P Y K T T R V I S R			
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UniRef90_J3JBD0	T P A F V I S R S L P V P T E M L Q A A K E A G I P P V V L G S K L A T T R L L S S L			
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UniRef90_F3A0V9	T P C C I I S R D L E V P K E L E E A A D R Y D T P P V V L R C H Q D T T K L M G N			
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UniRef90_UPI0003667D9B	T P A F I V S R N L D I P E E M L E A A Q N E G I A I L Q S K I P T S R L L S G E			

QUERY	L T T F	E H E	L
UniRef90_UPI00046F22DD	L T N Y	L E Y K L	
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UniRef90_UPI0003673A96	I T N F	L E E K K L	
UniRef90_H3SLJ6	I T S F	L E E K K L	
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UniRef90_UPI0002E346C7	L T N F	L E T K L	
UniRef90_R9C126	L T N F	L E R K L	
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UniRef90_UPI000419ABF5	L T N Y	L E E T K F	
UniRef90_UPI00047E31AF	L T N Y	L E E G K L	
UniRef90_UPI0002D9A9C0	L T N Y	L E E S K L	
UniRef90_X4Z5K0	L T S F	L E E G R L	
UniRef90_UPI0001E89CF6	L T N Y	L E E G K L	
UniRef90_UPI00047CF534	L T N F	L E E S K L	
UniRef90_UPI0002E79DD9	L T N Y	L E E S K L	
UniRef90_K6E3C1	L T N Y	L E E S L L	
UniRef90_UPI000479FE27	L T N F	L E E S Q L	
UniRef90_UPI0003767CC6	I T N F	L E E K K L	
UniRef90_UPI0002891CE8	I T N F	L E E S K L	
UniRef90_UPI0003643172	I T N F	L E E K K L	
UniRef90_R2RUJ3	M T S Y	L	
UniRef90_U5LHX5	L T N F	L E E S K L	
UniRef90_A8FHS4	L T N F	L E E S K L	
UniRef90_R2NU17	I S S F	L N G G L	
UniRef90_UPI00046AA282	V T S F	L E E N Q L	
UniRef90_E6TR15	L T N Y	L E E S Q L	
UniRef90_G2SMM1	M T D Y	L G G R L	
UniRef90_K9AM14	L T T Y	L E E R R L	
UniRef90_K8ZB15	V T N Y	L E E E K L	
UniRef90_B7HEG4	L T N Y	L E E G K L	
UniRef90_F5L6V2	L T H F	L E E T E L	
UniRef90_UPI00036BD54F	I T G F	L E E R R L	
UniRef90_UPI000380D09C	L T T F	L E E T K F	
UniRef90_A0A033V026	V T G Y	L E E R E L	
UniRef90_K8E5Y3	V T N Y	L E E G K L	
UniRef90_Q5KVB9	L T N Y	L E E S K L	
UniRef90_W8YPT2	L T N F	L E E R R L	
UniRef90_UPI0003729382	L T Y Y	L E E N K L	
UniRef90_W4QLV1	I T T F	L E E S E L	
UniRef90_C8NGK5	V T N F	L E E G R L	
UniRef90_UPI0003B40C65	M T N F	L E E S Q L	
UniRef90_K0J2P1	L T N F	L E E A E F	
UniRef90_L0EIV3	M T G F	L E E Q R L	
UniRef90_W3AAV8	L T N Y	L E E S Q L	
UniRef90_Q50EL5	I T S F	L E E R K L	
UniRef90_UPI0003645D74	L T N Y	L E E S M L	
UniRef90_UPI0003F8ACA9	L T N Y	L E E S R L	
UniRef90_UPI0004704303	L T S Y	L S S A L	
UniRef90_V6Q7G3	M S N F	L E E S K L	
UniRef90_A0A024QA20	L T N Y	L E E A K F	
UniRef90_UPI000219702A	M T T Y	L L E E A K L	
UniRef90_UPI00035FC97A	I T D F	L E E T K L	
UniRef90_UPI0003B4DC02	L T N Y	L D T K L	
UniRef90_F5LSA3	L T N F	L E E N K L	
UniRef90_S0P1U0	I S S Y	L L E E Q L	
UniRef90_UPI0004143E9A	L T N Y	L E E F K L	
UniRef90_E8SKD5	L T T Y	L E E H E L	
UniRef90_N4WGR0	I T N F	L E E A K F	
UniRef90_UPI000382E17B	V T G F	L E E R K L	
UniRef90_J3JBD0	M T D Y	L L E E G R L	
UniRef90_UPI000468A082	I T D Y	L L D G Q L	
UniRef90_I8AMT6	L T N Y	L L E E S R L	
UniRef90_UPI000288FC19	I T N Y	L L E E S R L	
UniRef90_UPI0002EC7E1D	I T N Y	L L E E S K L	
UniRef90_V7HWV8	L T D F	L L E E A C L	
UniRef90_H3NFF6	L T N F	L L E E S N L	
UniRef90_U2CHY1	L T N Y	L L D D K L	
UniRef90_B9EAF7	I T S Y	L L E E S E L	
UniRef90_Q93TM7	M T N F	L L E E G K L	
UniRef90_XORA01	I T D Y	L L E E S E L	
UniRef90_X2GWQ1	L T N Y	L L E E G R L	
UniRef90_U5P4W6	L S S Y	L L D S L L	
UniRef90_K9E7W0	M T N Y	L L E E K K L	
UniRef90_TOCPM3	L G N Y	L L E E R Q L	
UniRef90_UPI00046A95E3	L T D F	L L S S G R L	
UniRef90_D7UW98	I T N F	L L E E S K L	
UniRef90_S0NVY5	I T S Y	L L D G R L	
UniRef90_I0JQG0	L T N F	L L E E T K F	
UniRef90_UPI0002D31449	L T N F	L L E E A K F	
UniRef90_UPI00028A27E6	F T D F	L L E E N K L	
UniRef90_F3A0V9	I S N Y	L L R K E F	
UniRef90_F8FKX1	L T N F	L L E E N R L	
UniRef90_F9DXQ8	L T N Y	L L V G Q L	
UniRef90_UPI00030F52E2	V D S Y	L L T K M L	
UniRef90_R5TR20	L I R W M N	L L V K L	
UniRef90_C9A7D8	L S S F	L L D G R L	
UniRef90_R5F0B3	I I R W	L L N V K L	
UniRef90_Q3K1W9	V S W Y	L L D S C L	
UniRef90_UPI0003667D9B	I S S F	L L D S K L	

		10	20	30	40
UniRef90_J9W1V8	V T V A D L V K N A R L D V Y Y G K E Y L E R T I S T A D I S R P G L E L T G				
UniRef90_UPI000312D736	V T I R E L L V K N T R L T V Y Y G E E Y L D R R I T T P D I S R P G L E M T G				
UniRef90_UPI000314C50E	V Y V K D I R N F D L E I L V E G N L N V D S V S D I Q F A G E				
UniRef90_C6CSU6	V K V S E L V Q H F S M E I V S G E D G L K R S I L V D D L V Y R P G L E M A G				
UniRef90_UPI0003743C46	I D V E K K L V D K F K L K Q L N D A P I D S I V T V S D I E L L A G				
UniRef90_D4LYZ8	V K L T D I V E K M N L K N L T P E V D I E R E V L V P D I T T G				
UniRef90_UPI00046A3D6C	V T V K E I I D S I G L E V F Y G E E F V E K K I T T S D I T T G				
UniRef90_F3A9J8	I V T T R D L I I E K L D L L E V I S G E K G L D R E I T T G E L I S R P A L Q L S G				
UniRef90_R9MKM2	V K M S K V V E K M M N L K N L T P D D H T D K Q V K L P D I N R P A L Q L S G				
UniRef90_UPI0003FA6CB0	V T V E K L I I K D F D L E V L V E G K P N E I I V N D I S R P G L E M T G				
UniRef90_F5ZH47	V T V K M L I I K N V R F E I I Y G T D E L E K E I T T S D I S R P G L E L T G				
UniRef90_UPI0003FB48E6	V T V E K L I I K D F N L L E V L V E G N P E E V I S V I S D I Q L S G				
UniRef90_S1NDX0	V V K V I Q M V E K L N L L E V V T G S D A L N R L I K T A D I T T S D I T T G				
UniRef90_Q88YK3	V T V A D L V K N T R L L D V Y Y H G A D L L E K K I T T S D I S S R P G L E A L T G				
UniRef90_Q03AM8	V T V R Q L L V K A T K L L E V Y Y S G E S A G L N R S I N T T D I L N S R P G L E A L T G				
UniRef90_F5SGP3	V T V K E L L A A Q F D L E I I P G G K A G L D R E I I T S D I S V T D I S R P G L E A L T G				
UniRef90_UPI000415E397	L R T K N L V E Y F R L E V I S G S A G L N R S I N T T D I L N S R P G L E A L T G				
UniRef90_U2NM63	I V T V E K L L I I K D F N L L E V L V K G C A N K E I T V S D I S S R P G L E A L T G				
UniRef90_H0UER4	M V N V S H L V E H F Q L K I V S G E Q G L S R P V S V T D I S R P G L E A L T G				
UniRef90_R6EM51	V V K S E M A K M Q L K N L T P D V D I E K E V T V P D V				
UniRef90_UPI000248FE83	V T V A D L V K N V R L L N V L Q G E D Y L D R P V T T S D I S S R P G L E E L T G				
UniRef90_UPI00034D9D36	V V R V K D L M N K I C L E V I H G D E E L L N K E I T T S D I S S R P G L E E M T G				
UniRef90_A8AW75	V V K V D L L Q V K R L Q L I Y G S E D L E K E I T T S D I S S R P G L E E M T G				
UniRef90_M5J597	V S V A S L V Q A C L V Y I G E K Y T E R Y E T V S D I S S R P G L E E L T G				
UniRef90_U1XWV9	V V R D I V N H F Q L K V V S G E K G L R R E I T V S D I S S R P G L E E I A G				
UniRef90_B814X6	V T I V K E I I M E E F Q L L E E L T G T P G Y E N E E I S S A D V N R P G L E Q L A G				
UniRef90_SOJAD8	V V S V K K I V E K M N L K I L N P E V D I I N R K V T T A E V N R P G L E Q L A G				
UniRef90_R6ELZ9	V V S V K E L L V D N T H L L N V F W G K E Y L D R P V T T Q P D I N R P G L E Q L A G				
UniRef90_E0IDC5	V V S V L T R V I E K M M K L E N L T P E I D V K H R T T T D D I L Y R P G L E E M A G				
UniRef90_UPI0002E717D3	M V V K V K D V I I E K F N F E L V C G E E G I H R P V T T S D I S S R P G L E E M A G				
UniRef90_UPI000466D3BB	V V K L E E K L I I E K M S L K N L T P D L D I T Q E I Q V P D I N R P G L E Q L T G				
UniRef90_G2KVD8	V V S V K E L L V D N T H L L N V F W G K E Y L D R P V T T Q P D I N R P G L E Q L A G				
UniRef90_Q0TRN3	V T L E E K L L K D F S L L E V I T G E E N V V R A T T S D I S S R P G L E E M T G				
UniRef90_UPI0003FF8025	V V K V S E L V Q Q F Q L E I I L S G E D G L R R T I T T D D I L Y R P G L E E M A G				
UniRef90_Q5M0J7	V T A K E L L M E E F D L L E I L V N D E E D V V R A T T S D I S S R P G L E E M A G				
UniRef90_W7CSY0	V T V K M L V D K L K L K V V Y G E E L L A K A I T T A D I S S R P G L E E M A G				
UniRef90_C0BYS1	V T V Q A K L E E N M H F K L V T G E N G L N R K V E V P D I N R P G L E Q L T G				
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UniRef90_I4X8P7	V T T K Q V M E K F E L L D L I S V G D E G V G R H P I S D I S S R P G L E E M A G				
UniRef90_S6F0S1	V S V E K L I I N D F D L L E I I L V E G Q K D T M I V S V D I S S R P G L E Q L A G				
UniRef90_R1ATI5	I V S V E K F I K D M D L L E I I I Y T P E K T D I K I V K S D I N R P G L E Q L A G				
UniRef90_W1U8G9	V V N V R R K L I I D D F N L L E I I L V H G N E E V E I S V N D I S S R P G L E Q L A G				
UniRef90_R6MEA2	L P L K V K L V I I E F F E L E K I I Y T E T D D L L D S V T N T D I S S R P G L E Q M V G				
UniRef90_C0ZQ62	V V T V R N L V E N F N L E I I L V H G N E E V E I S V N D I S S R P G L E Q L A G				
UniRef90_G5KHW0	M V T V R N L V E N F N L E I I L V H G N E E V E I S V N D I S S R P G L E E M T G				
UniRef90_Q1WSX6	V V S V K K L V D K V K L D V I F G D E D Q L L K G R E I T S S Y I S Y R P G L E E L T G				
UniRef90_R6P570	M L T V N D L L V E K D F E F L V N L T D E I D K I E E S P E D I S S R P G L E E L T G				
UniRef90_UPI00034F4F4EE	V V T V Q E I I K D E F E L V N L T D E I D K I E E S P E D I S S R P G L E E F V G				
UniRef90_UPI0004069DE1	V V T A K D L L V E Q F H L T L V N D E E S V T R P T T S D I S S R P G L E E M A G				
UniRef90_UPI00036DBB5C	V V T V Q D D L V N R F S L L D V L V A G Q S G L N R K V T K P K P Y R P G L E F V G				
UniRef90_T0CM45	V V T V R E L V K D D G L D V I Y M P D D V E Y Y V H Y Q D I H R P G L E Q F A G				
UniRef90_Q8ELO4	I V Q V Q Q L V E E F N L E V L V A G E D H R E R T I T K S R T H R P G L E Q F I G				
UniRef90_R6WBA8	V V K L S S K V V I E K L N L K N L T P D V D M E K K V M V P D I N R P G L E Q L T G				
UniRef90_A0A037Z8D8	V T V E E L V Q D L L K L E V I N K G E D N T E I T V S D I S S R P G L E Q F S G				
UniRef90_UPI00028823A0	V S T K D D V M E M F D L L T L L E S G E E G I I G R H I L T S D I S S R P G L E E M A G				
UniRef90_F216W9	V T V K E L L R D Q L G L K V L Q G E E Y I L D R L I K T Q S D I S S R P G L E E L S G				
UniRef90_UPI0003764269	V V S V Q E L L V D E C D L V V V Y S G G V N L D R Y I V M T S D I S S R P G L E E M T G				
UniRef90_S0KVK2	V V K V I D D L V N A L Q L E M I T D E Q A L Q R E I K I S D I N R P G L E E L T G				
UniRef90_R5P3J7	V V S S L S K I I I E K M G M L L K N L T P D I D V S I K V E Q T D I N R P G L E Q L T G				
UniRef90_UPI00047D5BFB	V V S S L S K I Q E C I E K M M N L E V L T P E V D I D A D K V L S H P D V I N R P G L E Q L T G				
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UniRef90_V6Z2C9	V V T L K K K I K E D F S L L E L V T N D E E N E D I L L V T S T D I N R P G L E Q L V G				
UniRef90_W4V4P1	V V T V Q N L L A N T H L L N V L T G E D H L D R V I S T A D I S S R P G L E E M T G				
UniRef90_M5JDK1	I V T V K N L L A N T H L L N V L T G E D H L D R V I S T A D I S S R P G L E E M T G				
UniRef90_J4TC91	I V T I K E L L L K D L N L E N F T P D I D T E S I K H P D I N R P G L E Q L A G				
UniRef90_UPI0002D97070	M L T V E A L V I D T F D L L T V K A G K D G L G K E I V N I D V I N R P G L E E V A G				
UniRef90_B2UWW9	M V S V K R L I I N D F D L L E V L V E G N E D V D V K I E V N D V I N R P G L E Q L A G				
UniRef90_G8LY73	V V T L I R E V M D E F Q L E D I S N C K Y I D L I T S S D I N R P G L E Q L V G				
UniRef90_UPI00036E1B35	I V S T I S S Q L I I E D L N L E I V Y M P K G K E Y Y V T S S D I N R P G L E Q L A G				
UniRef90_UPI0003B3A09B	V V T I K S S I I V Q Q F D L L E V V V S G W D Q L D R R V I T V I A D L Y R P G L E E R T G				
UniRef90_A6P2M2	V V P L L G K L I I S E F N L L E V I V I G G K D Y E T R A I R T E D V I N R P G L E Q L I G				
UniRef90_R6QGX0	L K L D K I I I E K M M E L K L L T P D E T G D K V V T V P D I N R P G L E Q L T G				
UniRef90_R6LV76	V V T L T K I I V E K M M E L R R N L T P D V D M Q R E V K I T V S D I N R P G L E Q L A G				
UniRef90_B8CY14	I V V E D I I I K R F S L L E V L V A G E G G K S N H I T V S D I N R P G L E Q L A G				
UniRef90_R7R2W1	V V S I K Q L I I D K L E Q N Q L T P E V D I T I K V T Q P D I N R P G L E Q L A G				
UniRef90_F8FM95	V V T V Q Q L L V I D R F S L L E V L V A G K D Q L H R T I A K T R V Y R P G L E E F M A G				
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UniRef90_R6GNL6	M V S V E S L V I R A T G M K V F S G G K Y L S K M I T T S D I S S R P G L E E L T G				
UniRef90_J0KZR4	M L T V Q E I I I D E F G F L E K T N Q V V V N R D V T V S D I S S R P G L E E L T G				
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UniRef90_R5YYF1	V V E L Q Q K V I A E K M M N L K N L T P Q I G L G R E V I N V P D I N R P G L E Q L A G				
UniRef90_S2Y1Z2	V V K V Q D I I V E K M M N L K N L T P E E L I G R E V I N V P D I N R P G L E Q L T G				
UniRef90_F0Z3N4	V V K V Q E D I I A Q R F S L E I L A G A E Q V H R R I T K A R P H I N R P G L E Q L T G				
UniRef90_UPI00036EB2B3	I V T V Q E D I I A Q R F S L E I L A G A E Q V H R R I T K A R P H I N R P G L E Q L T G				
UniRef90_R5QTQ4	I I K V L S S E I I A E R M D D L K N L T P E L D L E K E K E V H V I P D I V N R P G L E Q L A G				
UniRef90_F4PG26	I I G V K D L V R E F S L E V L V A G E D Q I I G R K I T T S K D I S S R P G L E F I F G				
UniRef90_F4A195	I V P I E T L V D L Q L E V L V A G E D Q I I G R K I T T S K D I S S R P G L E Q L A G				
UniRef90_R9NBI9	V V E L K K V V E K M M N L K S I L T P D V D V D K R I E I P D I N R P G L E Q L T G				

50 60 70 80

UniRef90_J9W1V8	F F N Y Y P V K R I Q L L G I T E I S Y S K G M S H E E L L D V M Q Q M C Q P Q
UniRef90_UPI000312D736	Y F N Y Y P P E R I Q L L G I T E T S F S K K M S H E E L L M I M R K M A D P Q
UniRef90_UPI000314C50E	F Y D Y Y D N K R V Q I V G K T E W S Y L E S L S T E L R K Q R L D K F F S F E
UniRef90_C6CSU6	Y F D Y H P H E R V Q I F G T T E L S F I K E L P K E L L V E R L R K L C H E S
UniRef90_UPI0003743C46	F F D Y F A P E R V Q I F G T T E L S F I K E L P K E L L V E R L R K L C S Y D
UniRef90_D4LYZ8	F F D H F D N R V Q I I G N V E C A Y L E T L A E E K R V E I Y Q K L L E H
UniRef90_UPI00046A3D6C	Y F E Y Y P Q E R V Q I L G M T E V S F A H Q M K N V D K S Q I M R R L C G K D
UniRef90_F3A9J8	F F S H Y T P Q R V Q I L G T S E L S F F K L L T A A E K R S R M G M L C T R
UniRef90_R9MKM2	F F K H F A S E R V Q I I G Y V E Y S Y L K T L D E E K K K E V Y E T L M S Y E
UniRef90_UPI0003FA6CB0	F Y N Y F A P E R L Q V I G K A E W S F L D D M Q V E F R K K R L N K Y F T F P
UniRef90_F5ZH47	Y F D Y Y A P E R I Q I F G M K E W S Y L T K M T S H N R Y S V L R E M F K K E
UniRef90_UPI0003FB48E6	F Y N Y F T P P E R I Q V I G K A E W S F L D D M Q V E L R R K R L K K Y F S F N
UniRef90_S1NDX0	Y F N Y Y S Y D R L Q L F G S K E L T F A E R M M P E E R L L M V M R R M C N D E
UniRef90_Q88YK3	Y F N Y Y P R E R V Q Q L L G K T E T A Y S K N M S H D E R L L M I F R K M C Q L T
UniRef90_Q03AM8	Y F N Y Y P H E R I Q I F G R T E I S F A R N M S S E E R L L I L K R M A T E D
UniRef90_F5SGP3	F F T Y Y P A E R L Q M L G R T E L L T F I R G L S E A V R R Q R L Q F L C T D R
UniRef90_UPI000415E397	F F T Y Y P S D R V Q I L G K T E L T F Y H S L T D E E K H N R L R K L C A D D
UniRef90_U2NM63	F Y N Y F A A E R I Q V I G K A E W S F L E D M G I E I R K K R L N K F L S F D
UniRef90_H0UER4	Y K S H Y P G E R I Q I L G M T E M E F L H T L P N E T I V D R L S F L M S E E
UniRef90_R6EM51	Y F D H F D S E R V Q I I G Y V E H T L Q T L E P E K K E I Y K E L L L A C Q
UniRef90_UPI000248FE83	Y F K Y Y P A P R I Q I L G I T E T S F A K N M T H D E L L M V M R K M C A P E
UniRef90_UPI00034D9D36	Y F D Y Y S P E R I Q I I G M K E W S Y L Q H M T S H N R Y Q V M M K M F Q L E
UniRef90_A8AW75	Y F D Y Y T P E R I Q I I G M K E W S Y L M K M T S H N R H Q V L L K M F Q P T
UniRef90_M5J597	Y F D Y Y P E D R I Q I F G M T E V S Y A Q K M E P T T K K Y M E M L C G E E
UniRef90_U1XWV9	Y F E F Y Y A S E R V Q Q L L G K T E L S F Y E A L G E A D R K E R I D K L L L D S
UniRef90_B8I4X6	Y M E Y F G T D R I Q I I G K G E T A Y L M Q L T E E E R Y R R L D N F F K C G
UniRef90_S0JAD8	Y F D Y F E K S R V E I I V G M V E H T Y M Q K L D R E E K L D L Y R K F F S H S D
UniRef90_R6ELZ9	Y F E H F D A T R L Q I I G F V E Y T Y M E G L T D E T R R E A Y E K L M A Y D
UniRef90_E0IDC5	Y F H Y H P R E R V Q I L G K T E L T F L E T L S A A S R T E R M E K L C N E E
UniRef90_UPI0002E717D3	Y F A H Y P S E R L Q Q L G R T E L S F I N A L A P E V R K E R F E M L C T D I
UniRef90_UPI000466D3BB	Y F D H F D S D R V Q I I G Y V E Y T Y L E T L S D E K K K E M Y T Q L L S Y G
UniRef90_G2KVD8	Y F D Y Y P S E R I Q I L G I T E T S F A K H L P E K E L T A D M T K M C Q P D
UniRef90_Q0TRN3	F Y N Y F A P E R I Q V I G K A E W S F L E D M S P D L R K K R L L N K F F S F D
UniRef90_UPI0003FF8025	Y F T Y Y P A K R L Q Q L G K T E L T F F S Q L T D D E K K D R M D R L S T Y D
UniRef90_Q5M0J7	Y F D Y Y S P E R L Q Q L V G M K E W T Y L K T M T A N N R Y S V F A N I I F R E E R
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UniRef90_I4X8P7	Y F T H Y P A N R V Q I L G K T E L S F F S M L L P E E R L D R R M M K L C T D D
UniRef90_S6F0S1	F Y N Y F A S E R I Q V I I G K A E W S F L D D M G V E L R K R V D K Y F S F N
UniRef90_R1AT15	Y F D Y F A Y E R I Q V I I G S T E W N Y L S T L D I E T R K E R L L N K L F S Y P
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UniRef90_R6MEA2	F F D Y F D N N R L Q I I M G K V E F T Y L E Q F H A D E R A E K I E K L M S Q H
UniRef90_C0Z6Q2	Y Y S Y F A E E R I Q I F G L T E I N F F Q T L T P E E R L E R M N F L M Q S Q
UniRef90_G5KHW0	Y F D Y Y S P E R I Q Q L V G M Q E W S Y L T Q M T S H N R Y S V L K E M F K A G
UniRef90_Q1WSX6	Y F E Y Y P E E R I Q Q L F G M T E V S Y A H Q L T E K D Q D V A E K L C A S K
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UniRef90_UPI0003F4F4EE	Y F S H Y S S E R V Q I L G K M T E I S F F E R L S D D E R E D R A K R L C R K E D
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UniRef90_UPI0003764269	Y F D Y Y P A E R I Q Q L F G M T E I S Y S H K M K K N E R A R I M D K M C G K N
UniRef90_S0KVKH2	Y F T Y Y S Y N R I Q Q L F G S K E I T F A Q K M L P E E R L L M V M R R M C A P E
UniRef90_R5P3J7	Y F D Y Y P A E R I Q Q L F G M T E I S Y S H K M K K N E R A R I M D K M C G K N
UniRef90_UPI00047D5BFB	F F E H F P T D R V Q V I G H V E S T Y L T T L D E G R K K Y L Y D Q I F G A N
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UniRef90_V6Z2C9	Y F D Y Y A P E R V Q Q L V G M K E W S Y L N A M T P H N R F Q V L R E M F K P E
UniRef90_W4V4P1	Y L E Y F G T D R I Q Q M I G K V E T S Y L A G L T P K E R Y S R L D E F F F K C G
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UniRef90_R6L7V6	F F D H D H D C E R I Q I I G Y V E Y T Y L Q T L E E Y E H K M K L Y D T L L E Y G
UniRef90_B8CY14	F W K Y F S P E R V Q I I L G R T E M T F L N E L D S G V M E T R I K K L L E Y E N K
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UniRef90_L0KD45	F F D Y F T P P E R I Q I I L G R T E I I S F L K E L P K E L L V E R V K K F V S Y N
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UniRef90_S2Y1Z2	F F E H F E S D R V Q V I I G Y V E Y T Y L Q K L S D D R K E E V Y Q S L L S Y P
UniRef90_F0Z3N4	F F D H D F D C D R V Q I I G Y V E Y A Y L Q T L L E E K R K F E L Y D E L L L S H K
UniRef90_UPI00036EB2B3	Y F D F F P Q E H V Q I I L G K K E I N Y L H T L S E E E R N H H I G N I V K Y H
UniRef90_R5QTQ4	F F D H F D S N R V Q I I I G N V E Y T Y M Q T L T E E R R V Y I Y E M L L K H P
UniRef90_F4PG26	Y F D F F P M E R V Q I I L G L K E I T Y L H Q L S Q S E R Q L R I R N V V H Y H
UniRef90_F4A195	F F D Y F A Y E R V Q I I G R V E M T Y L M S I D V K T R N E R L N D Y F K Y P
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	90	100	110	120
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UniRef90_UPI000312D736	T P C F V V S T G I E P P A E L I Q A A T E E Q H I P V L G S K Q T S S R I L L S N			
UniRef90_UPI000314C50E	N P C I I I V T R G L E L Q E E F I Q A A K Y K V N I F R S N I K S T R F V S R			
UniRef90_C6CSU6	T P C I I L T R G L E P A P D E L V E Y S N M T Q I A V L R S N V A T T I L Q S R			
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UniRef90_UPI0003FA6CB0	M H C I I I M S R G L E P H E E L I N A A N K K N I W V L R S D L V T T K L M S N			
UniRef90_F5ZH47	T P A V I V S R D L P I P D E M I Q A A K E E N I V L L K S K T S T S R L L G E			
UniRef90_UPI0003FB48E6	M K C V I V T R G I E P H E E L I K Y A E K Q N I W V L R S D L V T T K F I S K			
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UniRef90_Q88YK3	T P A F V I S T G L P V P E E L V Q A G E E N G V P I L G T K M T S S R I L S N			
UniRef90_Q03AM8	T P A F L V S R G L E A P A E M I T A A T A A H I P V L G S R L P T T R L S S L			
UniRef90_F5SGP3	T P C F C I T R G E E I P P E L V V A A A E A K K I P V L R T S L S T T R F G S K			
UniRef90_UPI000415E397	T P C I I I V T R G L E P P S E L I E A G E E T G V P I L L S N S K T T T M Y S R			
UniRef90_U2NM63	S T C C I I I T R D L E P H E E L I K A A E K S K V W V L R S D T I T T K F I S K			
UniRef90_H0UER4	T P C L C V A R N L E L P Q E V L D V S N S R G V P P V I Q S P L P T T S L V S K			
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UniRef90_UPI00034D9D36	T P A V I V A R N L E V P P E E M I Q Q A A R E K R I V I L Q G K A P T S R L S G E E			
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UniRef90_U1XWV9	T P C V C I V A H G C E I R L S E R S I P V L T S P L P T T K L S S K			
UniRef90_B8I4X6	F P C M L V A R G L L G V F P E M I E V G R K Y K I P V L R T D D V T S R F M S G			
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UniRef90_UPI000466D3BB	I P C I V Y C E P D E T F L Q M A N E M K V P I F Q S S K Q T S A F T A E			
UniRef90_G2KVD8	T P A F V I S T D I E P P I E L V K A C K N A H I P I L E S K L N T S R V L S N K			
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UniRef90_W7CSY0	T P A F V I A R S L P A P T E L I A T E R G I V P V L S S S K L K T T R L S V Y			
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UniRef90_S0KVH2	T P A F V I S R S G L E V P K E L I I Q A C E E N Q I P V L R S K V S T S R L L G Q			
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UniRef90_A6P2M2	I P A L I I I S R G M E P F P E C M E M A E K Y D R T V L R T Q E T T S T F M S A			
UniRef90_R6QGX0	I P C I V F C R S M M P D A Q M I E E A A R E Y Q V P P L L Q T D K A T S S F E A E			
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UniRef90_R7R2W1	T P C C I V F C R D L R P D E I F L E T A V K N K V P V V L L T Q K S T S A F M A E			
UniRef90_F8FM95	P P C F V V T R G Q E G L K Y L K K Y C E E E G I P P L R T G E A T S K V M P M			
UniRef90_UPI00037B4008	T P A L V V A R D L E I P K E M L Q M A A Q E E V G V A I L Q G R M P T S R L L S A V			
UniRef90_R6GNL6	S K C V V I T R G L E P H E E F I I K A A K K N K T W L L R T T S V T T S F I S K			
UniRef90_J0KZR4	T P C F V I S R Y L P V P E E L D E A A K T H G I P V L R S K L P T T R L L S S K			
UniRef90_L0KD45	I P C I V V T R G M E P P Q I L I D L A T E A E V A I L R T D Y S T T S F V S R			
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UniRef90_M7P503	T P M I V V C H S M R I P P E L V A A A E E Q V P V L L S S P M T T T K L L S N K			
UniRef90_Q97K32	T P C I V L A R G L K P Q K E L L D C S K E Y N R W L L R S K A Q T T R F I N K			
UniRef90_R5YYF1	I P C C L V I C Q G I E P D E D L I E V V G R K N G V P V L S T D M T T S S F Y A D			
UniRef90_S2Y1Z2	V P C C I I F C R D L M P D Q R F L I A V E K D V P I F L T D K T T S S F M A E E			
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UniRef90_UPI000314C50E	I T N Y L D S E L
UniRef90_C6CSU6	I T D F L E K K L
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UniRef90_D4LYZ8	L I R W L N V K L
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UniRef90_F3A9J8	I T Y H L Q N M F
UniRef90_R9MKM2	I I R W L N V E L
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UniRef90_UPI0003FB48E6	L T I Y M S D K L
UniRef90_S1NDX0	M S A Y L S S L
UniRef90_Q88YK3	M T N Y L E G K L
UniRef90_Q03AM8	I T E Y L D S Q L
UniRef90_F5SGP3	V T S Y L E K R L
UniRef90_UPI000415E397	L T S Y L E A K L
UniRef90_U2NM63	L T I Y L G D K M
UniRef90_H0UER4	L T N Y L E D R L
UniRef90_R6EM51	L I R W L N V K M
UniRef90_UPI000248FE83	M T F Y L S G K L
UniRef90_UPI00034D9D36	I S S Y L D S R L
UniRef90_A8AW75	I S S Y L D S R L
UniRef90_M5J597	M T N Y L E G E L
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UniRef90_Q0TRN3	I T M Y L S D K M
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UniRef90_Q5M0J7	M S W Y L N S Q L
UniRef90_W7CSY0	I T N F L E T E L
UniRef90_C0BYS1	I I R W L N V E L
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UniRef90_I4X8P7	L T N F L E S Q L
UniRef90_S6F0S1	L T I Y L A D K L
UniRef90_R1AT15	L V N Y L E D I L
UniRef90_W1U8G9	T T I Y L A D K L
UniRef90_R6MEA2	L I A Y L N V Q L
UniRef90_C0Z6Q2	V T N F L E N R L
UniRef90_G5KHW0	M S Y F L D A S L
UniRef90_Q1WSX6	M T D Y L E G K L
UniRef90_R6P570	L L K W M K V Q L
UniRef90_UPI0003F4F4EE	I T T Y L E K E L
UniRef90_UPI0004069DE1	L M M Y L E S K L
UniRef90_UPI00036DDB5C	M D A F L A K A M
UniRef90_TOCM45	L S N Y L D S K L
UniRef90_Q8EL04	V D H Y L T R K L
UniRef90_R6WBA8	I I R W L N V E L
UniRef90_A0A037Z8D8	L T S Y L D E R L
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UniRef90_S0Kvh2	L S S F L D S K L
UniRef90_R5P3J7	I I R W L N V E L
UniRef90_UPI00047D5BFB	L N R W L K V Q L
UniRef90_R6RCG7	V T R W L K A K L
UniRef90_V6Z2C9	I S W Y L D S C L
UniRef90_W4V4P1	L I S Y L N V E L
UniRef90_M5JDK1	M S Y Y L D G E L
UniRef90_J4TC91	L V R W L N V Q L
UniRef90_UPI0002D97070	V S N F L E K A L
UniRef90_B2UWW9	I T L Y L A D K L
UniRef90_G8LY73	L I R Y L N V Q L
UniRef90_UPI00036E1B35	L S N Y L D N K L
UniRef90_UPI0003B3A09B	L T N Y L E K L
UniRef90_A6P2M2	L I A Y L R T E L
UniRef90_R6QGX0	I I R W M K V M L
UniRef90_R6LV76	L I R W M K V E L
UniRef90_B8CY14	L T T F L E E I L
UniRef90_R7R2W1	I I R W L N V K L
UniRef90_F8FM95	M D I Y L A K E L
UniRef90_UPI00037B4008	M S W Y L D T C L
UniRef90_R6GNL6	M T I Y L S D K F
UniRef90_J0KZR4	V T D F L E E T Q L
UniRef90_L0KD45	L T E Y L E E K F
UniRef90_Q042D2	I T Q F L D E K L
UniRef90_M7P503	L S D F L E N R L
UniRef90_Q97K32	I M N Y L D D K L
UniRef90_R5YYF1	L T R W L N V E L
UniRef90_S2Y1Z2	I I R W L N V E L
UniRef90_F0Z3N4	I I R W M N V R L
UniRef90_UPI00036EB2B3	L D A F L V K H L
UniRef90_R5QTQ4	I I R W M N V K L
UniRef90_F4PG26	V D A Y L T R S L
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UniRef90_UPI00021954CE	V	T V N D L V H T R L T I V S G Q E Y L N R P I T T A D I S R P G L E M T G				
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UniRef90_R6C4X0	V	K M E K V V E K F K L E N L T P D I V D I S L K I S M P D V N R P A L Q M A G				
UniRef90_R5XNM6	V	K L S L E V E K M E L K N L T P T V E L K K E V S I P E V N R P A L Q L S G				
UniRef90_UPI0002491106	F	T V S Q L L V I K E N D L K V Y S G E E L L E K K I T T S D I S R P G I E V T G				
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UniRef90_UPI0003B68C77	I	S L Q R L I D K F K M K N L T G E I N I D K K A V T Q P D I N R P A I Q M T G				
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UniRef90_R7ISK9	V	K V S K L I E N Y D L K L C N P G I D T D K K E T V P D I N R P S L E W T G				
UniRef90_D3FYC2			A G E E G I Y R P I T T S D I S R P G M E M A G			
UniRef90_M4Y771			T K T S D I K T K R A T H R P G L E F I G			
UniRef90_R5LX88			V T L G R I I S E F K L E E L N V P G S D L I Q L A G			
UniRef90_Q03GY5			V T I K E L I I E K M D L K N M T P E L D T E K T V L V P D V N R P A L Q L T G			
UniRef90_G5JT46			V S V S E L V E K I R L D V F Y G D E L L L E K K V T V S D I S R P G L E L T N			
UniRef90_C0EG45			V T V D M L L A K K V K L E P V Y S P E L L K K E I T T S D I S R P G L E L A G			
UniRef90_UPI00041C10E8			V A L S K L I K E F N L E P I Y P E D P E N O M S C P D I N R P G L H S G			
UniRef90_R5TWK6			V T I K Q L I A Q F S L E V L A G E D Q U N R T I T K A R T H R P G L E F I G			
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UniRef90_R6QD33	V	L V K N L V E D L K L E V L N K G K D D I E L N I S D I N R P G L Q F S G				
UniRef90_D9SKB9	S	I V K K F I E H F N L E N I L P E I N L D R V I N R K E V N R P A L Q L T G				
UniRef90_C6PVQ6	V	K V E N M I S D L F L E V I V E G K K D V S I S V S D I N R P G L Q F A G				
UniRef90_A6TVI5	V	T V K E L I R D F N L E V I N K G E R I N K D I S D I N R P G L Q L A G				
UniRef90_R7NBV1	I	T V E K L M K D L N M E E L N S I E A T A L L S T T D I S R P G L Q L A G				
UniRef90_V9H714	V	N L F K V I I E K M M N L V N L T P D I D V V K I W H V P E F N R P A L Q L T G				
UniRef90_F2JL11	V	T V E K I I K D F D M E V L Y E G E N D I E F V N D I N R P G L Q L A G				
UniRef90_AOPZD5	F	T V A Q L R E Q L K L E N L T P Q D Y K E R R I T Q C D I N R P G L Q F A G				
UniRef90_R5L884	I	T V E D I I K D L E L E V L V Q G E K D K K E I K T S D I N R P G L Q F A G				
UniRef90_EORUG0	L	K V E K I I I E K M D L K I L T P D I D V V S K V V M V P D I N R P A L Q L A G				
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UniRef90_R5ZB15	V	S V A K I A Q I L L D D L K N F T D N I D L K K K I T S S D I V N R P A L Q F A G				
UniRef90_UPI00047B3194	S	S I K D M A K D L E L E S V C M P E D K D Y Y F V T T S D I V N R P G L Q Y A G				
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UniRef90_D6Y104	I	T A K E L I M K E F D D L L N D N D E V S R P I T T S D I S R P G M E M A G				
UniRef90_F3B7T8	V	G L E K L L V I E K M E L L K N L T P D I D M E R V I T V P D I S R P A L Q L T G				
UniRef90_E3BSD7	M	K I S E L L I D N P T L T V K Q G E D Y L E R V V S V S D I S R P A L Q L T G				
UniRef90_R9L3X9	V	S I E R V I E K L K L T N L T P E I D V S L K I H Q P D I N R P G L E F V G				
UniRef90_G8PC14	S	V S E L L V I K I R L D V Y S G K E F F L E R N V T V S D I S R P G L E L T N				
UniRef90_T1Z3L8	V	R I K D L L K V R L N V V Y G D E K L E K E I T T S D I S R P G L E M T G				
UniRef90_AOA011QUZ8	V	K L R E L L V D A M D I S V V V G E E F L D R D I V I S D L S R P A L Q L T G				
UniRef90_R5KV26	I	F K T I V E Y Y K K T N H T P S V D T D K K I T I P E V N R P G L E L T G				
UniRef90_D9S210	N	L S R I I D K F D L E T L V K V D N L P D D V I D L A G D Q L D R E N R H K A H R P G L E F V G				
UniRef90_UPI0003796058	V	S E D I V K T F K L E V L A G A D Q L D R E N R H K A H R P G L E F V G				
UniRef90_W6SFK1	V	K I I N K L I I E D M K L E V L V E G N P N V E S V S D I N R P G L Q F S G				
UniRef90_R7R1K8	V	A I E K I V K K L E E L K K L T G M D L T G H R V L S D V I N R P G L Q L S G				
UniRef90_R5GP7	M	L Q K I I D E Q K E V I Y P E D G L E T I S D H E I I R P G L Q F A G				
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UniRef90_E3PW59	V	S I R K I I E D L K V G V A Y I P D G V D Y H S T T D I N R P G L Q L M G				
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UniRef90_I7LB21	V	T V E E L V K S N P L K V V E G D K F L L K K K A I S D I I N R P G L E L T G				
UniRef90_D4W738	V	T V A D L V Q E L K L E V I T K E I S L D R K T E Q M I S R P G M E L A G				
UniRef90_R5HJB0	V	T S V S K V A Q I M D L Y N F L P D M D L K K R I K I S D I I N R P G L Q L S G				
UniRef90_R7N7T0	V	K L E K I V E K M K L E N L T P E L D I S S K K I K Q P D I I N R P G L Q L M A G				
UniRef90_E6UBW4	V	T V N E I I I K Q L G L E V L V Y A P D N I I D E L I T D D N D C Y C N D I I R P G L Q L M G				
UniRef90_E0E1C8	I	T V R K L I I D D L K L E I I S P D K A E E T Y I T E K E L L N R P G L Q L A G				
UniRef90_C4Z4U2	V	K L L S K V I Q K M M N L V N L T P Q I D V S I W L N P L D V N R P G A L Q L T G				
UniRef90_I3VUR9	V	S V E D L I K D L N L E V I V E A K E K I D I T T S D I N R P G L Q F S G				

50 60 70 80

UniRef90_UPI0003815CC7	Y Y S H Y P A E R I Q L F G L T E M E F L Q T L S R E D R L E R F R F L M D D E		
UniRef90_R5D5M7	F F E H F A S E R V Q I I G Y V E Y T Y L Q N I E E E K K E K I Y D M L L S Y E E		
UniRef90_A9KSS1	F F D Y F D S D R V Q I I G N V E H A Y M Q K M E K D H G L G I M K K L M S F K		
UniRef90_UPI00021954CE	Y F T Y Y A P E R V Q L I G T E T S F S D R M S H D E L L M V Y R K M A D K Q		
UniRef90_U2CT13	Y F E H Y E A T R L Q I I G F V E Y T Y M E A M T E E R K N K I Y N Q L L S Y P		
UniRef90_R6C4X0	Y F E H F D S S R L Q V I I G F V E Y T Y M E G L I S E E Q K R V V Y D K L M S Y D		
UniRef90_R5XMN6	F F D H F D S D R V Q I I G Y V E Y T Y L Q T L D Y E R K I K I Y D E L V T Y K		
UniRef90_UPI0002491106	Y F D Y Y P S E R I Q L F G Q T E S A Y S H S M T V N N R Y K V M L E I C R D D		
UniRef90_A0A015L049	Y F D F F P M E R V Q V M G R K E I T Y L H K Q T E E E R M L H I G N I V R Y R		
UniRef90_UPI00047EB198	Y F D H F V Y D R L Q I I G K V E S S Y L E T L D K E T K E Y R L N R F F S A P		
UniRef90_UPI0003B68C77	Y F E H Y D S T R L Q I I G F V E H T Y M Q S L S V E Q K T K I Y N E I I L N H P		
UniRef90_R6S445	F F E R F D S E R V Q V I I G Y V E Y S Y L T T L E E K K A E I Y D T L L S Y K		
UniRef90_R7ISK9	Y F E H F D S L R V Q I I G F T E N S Y V E Q M D K E S K F A I Y E K L M S Q R		
UniRef90_D3FYC2	F F T Y Y P A K R L Q L L G R T E L T F F E Q L T K E V Q Q E R M L K L C T Y D		
UniRef90_M4Y771	F Y E Y C D T E R I Q I I G T V E M A Y L A S L S Y E E R Y A S L K A F F K H D		
UniRef90_R5LX88	F F D H F D K E R V Q I I G Y V E Q A Y L D T L T S E R R Q V Y D K L I S S K		
UniRef90_Q03GY5	Y F K F Y P H E R I Q L F G E T E L S Y A D S M T K D E R T K I Y D R M A D V D		
UniRef90_G5JT46	Y F D Y Y S P E R V Q L M G M K E W S Y M M T M T P H N R Y S V L K A M F K S E		
UniRef90_C0EG45	Y F K Y F E P T R I Q I I G N M E Y S Y L E N L D E E L R R E R I N L L I F E R K		
UniRef90_UPI00041C10E8	Y F D F F P M E H V Q V L G R K E I T Y L H Q L S H E E R Q L R I G N I V N Y H		
UniRef90_R5TWK6	F F D H F D N E R V Q I I G Y V E Q E Y I R Q M E H D R K V E M Y D K L L S S Q		
UniRef90_Q97Q18	Y F D Y Y T P E R I Q L L G M K E W S Y L I S M P S N S R Y E V L K K M F L P		
UniRef90_B2GAJ1	Y F K H Y P A M R I Q L L G T E T S F A K E V P A D K R R E Y I E R M C T P Q		
UniRef90_UPI00035DD24C	Y F D Y Y S P E R I Q L I G M K E W S Y V M S M T P H N R H Q I F R Q M F Q P E		
UniRef90_Q896J4	F Y N Y F A N E R V Q I I G K T E D V M S P E L R K R V A K F F Q F E		
UniRef90_R6QD33	F Y E R F D N D R V Q I I G R V E H S Y L L T L D P E Q R R Q A I C H L F E F H		
UniRef90_D9SKB9	F Y N Y F A N E R V Q I I G N A E W S F L D T L T P E L R Y K R V K K F F S Y D		
UniRef90_C6PVQ6	F Y N Y F Y A N E R V Q I I G K A E W S F L D A M Q P E L R K R L K K Y F E F D		
UniRef90_A6TV15	F F D Y F F A Y E R I Q I I G K V E H R Y L E T L D T K T K R E R L D R M M S Y D		
UniRef90_R7NBV1	F Y D Q F D N D R I Q I I G N V E Y A Y L K S L S E T E R Y E R Y M Q L L S S N		
UniRef90_V9H714	F Y N Y F A P E R I Q V I I G K A E W S F L E A M A L E L R K K R I D K Y F S F N		
UniRef90_F2JL11	F F D Y F D S T R L Q I I G K V E Y T Y L E K I E E E R N K R I K R L L D Y D		
UniRef90_A0PZD5	F Y S Y F A N S R V Q V I I G N A E W S F L K N M P V E L I R K R L M K K F F E F D		
UniRef90_R5L884	F F D H F D N E R V Q I I G R V E A A Y M K Q M S D D D K R E R Y D R L L S Y N		
UniRef90_E0RUG0	Y F E H F E A T R L Q V I I G F V E Y T Y M E S F P E E K K E D M Y R E F L S F D		
UniRef90_R7BC76	F Y D H F D N E R V Q I I G Y V V E E A Y I E T L D R E T R V Q R Y R Q L M E S N Q		
UniRef90_E9SPM6	F F D H F D K D R V Q I I G Y V V E Q A Y L D K L T P E R R H E V Y D A L I S S Q		
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UniRef90_F4LWH5	Y F D Y F F A Y D R I Q I L G R T E I S Y L E G G L P K N I L K A R L E K F F S Y D		
UniRef90_B1YLF7	Y Y A Y Y P A E R I Q I L G K T E L T F F N N L T Y E E Q L E R A N V L C T D E		
UniRef90_C4ZEG5	Y F D H F E E R R I Q I I G N V E Y T Y I E K M S D E S K E R Y S R F M E F D		
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UniRef90_UPI000479808A	Y F D F F P M E R V Q V L G R K E I S Y L H T L S E E E R N L H I G N V V K Y H		
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UniRef90_R5X771	Y F E Y F A F D R I Q I I G K G E Y T Y F K N I D K E R R R Q I L D K L F S Y D		
UniRef90_R5ZB15	Y F A H F E Q S R I Q M I G N V E Y A Y I Q Q M S D E E K R I R Y S A F L Q F E E		
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UniRef90_B6FXR9	F F E Y F T S E R I Q I I G K S E Y A Y F A T I I D D E T R K E R L E K L F S Y D		
UniRef90_D6Y104	F F T Y Y P A K R I Q L L G K T E M S F F Y E L D T E E Q E E R M K G L C T Y D		
UniRef90_F3B7T8	F F D H F D S E R I Q V I I G Y V E Y T Y L E K M P E E R K E V I Y E Q L L S Y D		
UniRef90_E3BSD7	F Y D F Y P K E R I Q Q L L G K T E I S Y S T H L D H D L R T N V F R R M A T D		
UniRef90_R9L3X9	Y F E H F E E T R P Q I I G F V E Y S Y M E H I T D E K K Q E V Y P R V I S E K		
UniRef90_G8PC14	Y F K F Y P H E R V Q V Q I I G Q T E L S Y A D M M S T D D R R D I F N R M A M S D		
UniRef90_T1Z3L8	Y F D Y Y T P E R I Q L M G M K E W S Y L M K M T S H N R Y Q V L R K M F E R D		
UniRef90_A0A011QUZ8	Y F S F Y P Q N R M Q L L G K T E L S F A E R M T S D E R Y I V M K R M C Q A D G		
UniRef90_R5KV26	F F E H F D K E R V Q V I I G N V E C A F L D N M E R K N R Q W V Y E K L M S S G		
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UniRef90_UPI0003796058	Y F D Y F P M H R V Q V L G R K E I T Y L Q L T V E E R K L H I G N I V K Y H		
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UniRef90_R7R1K8	Y F E H F E E K R V Q I I G N V E Y T Y L Q Q L E H D K K I D Y N Q F L K Y E		
UniRef90_R5GPF7	F Y E Y F D K Q R I Q V M G K T E W E Y A L D T L E P E V R R S R I D N L L S Y K		
UniRef90_D9PG12	N F V Y F P S E R V Q I I G L T E M A N L E S L K N R E S R Q R I D K I F G Y R		
UniRef90_R5RG63	Y F E H F A S E R V Q I I I G Y V E Y T Y L M H L E K E K R K R L C F E E F V S K K		
UniRef90_R6YKR9	F F D Y F D H H R V Q I I G H V E N T Y M E K Q G L E Y S V E M M G R I M S Y K		
UniRef90_H3RQ17	Y F T H Y P A E R I Q I L G I T E T S F A K D M T Q A H R T E Y M T K M C M P Q		
UniRef90_R7CAS9	F F D Y F D H H R I Q I I G Q V E H T Y M E K Q G I E E S L K Q M Q R I L L S Y K		
UniRef90_R7RQN2	Y Y D Y F V N T R I Q I V G N A E W H Y L N N L E P N V R R Q R I L E K Y F E Y D		
UniRef90_N1ZDC1	F Y E H F D N D R L Q I I F G K V E H S Y L S H D A E Q R K E I L Q K F F S F S		
UniRef90_UPI00047BC569	F Y E H F D N D R L Q I I F G M V E T S F F A S L S D E L K K E R A D K F F S Y D		
UniRef90_R6D2B0	F Y E Y F N A E R I Q I C G N M E F A Y L A S V D E E T R Y K K I E T L F A T H		
UniRef90_I4D212	Y L T Y L T P Q R I Q I Y G R T E L G L F E E L S P H L R Y D N L L A K V M I G E D		
UniRef90_W6NFE8	F Y N Y F Y A N E R V Q V V G K A E W S F L D A M Q P D L R Q K R L K K Y F E F D		
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UniRef90_A5Z8H5	F F D H F D K E R V Q I I L G N V E Y A F I D S M E R Q N R L W V Y E K L M S S G		
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UniRef90_UPI00047B1F47	F Y N Y F A S E R I Q V I I G N A E W S F L D A M R V E I R T K R L K K F F Q F E		
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UniRef90_D4W738	Y F R D S A K R V Q I I G T K E W L Y L Q T L D S Q T R K E R A R V L F T E D		
UniRef90_R5HJB0	F F E H F E Q S R V Q I I I G N V E Y T Y L Q R L D V E K K E I L Q K F T T Y D		
UniRef90_R7N7T0	F F E H F E D T R L Q I I G F V E Y T Y M E G L P Q A R Q K E V F T R L L S Y D		
UniRef90_E6UBW4	F Y E Y F N A E R V Q I I C G N M E F A Y L A S I D E E V R R Q R I L D A F T K		
UniRef90_E0E1C8	Y F D Y F T S E R I Q I I G N V E H A Y L A S L S E Q R E Y E R Y M Q L L S S N		
UniRef90_C4Z4U2	F Y D Q F D N D R L Q I I G N V E H A Y L A S L S E Q R E Y E R Y M Q L L S S N		
UniRef90_I3VUR9	F Y E H F A K E R V Q V I I G M V E T A F I D E M P L D L L A E R A D K F F E Y P		

90 100 110 120

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UniRef90_A9KSS1	M P C I V F C R G I E V S E D F K E V A I E E G V P I F R T E K T T S S F M A E			
UniRef90_UPI00021954CE	T P A F V V S T S L P I A D E L K Q A A E E H I P I L T T H L T S S Q I L S N			
UniRef90_U2CT13	I P C I V F S R E L H P D P L F L Q I A K E K N V P I L M T K K A T S A F M A E			
UniRef90_R6C4X0	I I P C C V V F C R E L Q P D P I F L E I A H K Y N R P V F S T K K N T S V F M A E			
UniRef90_R5XMN6	V P C I V Y S R N L E P D K E L I E K A A Q K D I P I F Q T E K Q T S G F M A E			
UniRef90_UPI0002491106	T P V V L L I S R N L I S P S E E L L T A A R K N N V P V I G S A L P T T R L S S L			
UniRef90_A0A015L049	P P C F I V T Y G Q E G L K Y L T Q Y C E E E G I P P L L R T V E P T T E F I T K			
UniRef90_UPI00047EB198	I P A L I V S R K M E V D P Y M I E C A K K Y K R P I L T T E M P T T K F I S K			
UniRef90_UPI0003B68C77	T P A F V F C R E L E P D P L F L E T A I K Y G I P V L S T S K A T S A F M A E			
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UniRef90_D3FYC2	T P G I I I S R G N E A P R A L L E A A E Q N G V P V M R S K Q T T T R L S S K			
UniRef90_M4Y771	F P C V I I A R G K E P F P E M V E L A T E Y G V P P L L R T D E E T S R F A S Y			
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UniRef90_Q03GY5	T P A F V V S R G L P I P E E L I Q A A K N N Q V P I L T S T L P T S R L L S N E			
UniRef90_G5JT46	T P A L I V A R D L E I P P E E M I R A A K E G D T P I F Q A H Q A T S S V S G E			
UniRef90_C0EG45	I P A L I M T N G L D M F P D M I E A A E K N G V P P L L R T K D Q T S S F M S A			
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UniRef90_Q97Q18	T P A V I V A R G L L V V P E E M L K A A R E C K I A I L T S R A A T S R L L S G E			
UniRef90_B2GAJ1	T P C F V V S T D L P V M D E L K T A A E K A H I P I L G T P L T S S R I L G N E			
UniRef90_UPI00035DD24C	T P V V I V A R G L D I P E E M F Q A A K E N R I A F Q S K S A T S R L L A G E			
UniRef90_Q896J4	T P C V I I T R N L K P H K E V L E N S R K Y N R W L I L N T S N D S T R F T S K			
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UniRef90_C6PVQ6	N P C T I V T R G L V P H K E F M D S A I E N K R W L I L R T N T I S T R F V S K			
UniRef90_A6TV15	I P C C I I I S R G N E E V P E E L L C T A N K Y Q R K I L R S H K N T T K L I S K			
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UniRef90_V9H714	L K C C L V I T T R D L E P P Q E E L L K A A K K N K N I W L M R T R L V T T K F I S K			
UniRef90_F2JL11	I P C V I V I C R E I E P F P Y L Q C A E E N G I P I F K T D L P T T T F L A E			
UniRef90_A0PZD5	T P C C I I I A R D L E P P H P Q L I N K A K L H K R W V L R S K L L T T K V V T K			
UniRef90_R5L884	I P P C I I Y C R N E V P D E L M I E A A R K Y K I P I L L Q A S Q V T S S F E A E			
UniRef90_E0RUG0	I P P G V V F C R E L T P D P L F I K I A I E E K V P P V L I T K K S T S A F M A E			
UniRef90_R7BC76	I I P P C L L I F C R S Q Q P D Q D L L E V A L K Y E I P I L S S D A S T S S F M A E			
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UniRef90_F4LWH5	I I P P C V I I T R D L I P P E E L L T L V I A R K Y Q K P P V L G S P A A T T Q F M S R Q			
UniRef90_B1YLF7	T P G I L I T R G F D V P E A I V K A A D E T N V P P L L T T K G H T T S V E S Q			
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UniRef90_R4K884	T P C C I I I A R N L T P H E E F I I E E A T R R R N A W L I R A S S S T T R F I S K			
UniRef90_UPI000479808A	P P C F I V T S N Q E G L K Y L L L Y C Q Q E G I P P L L R T K D N T T E F V G K			
UniRef90_U2DQT7	T P A F I F S N D F D I P E V F I I R N A N K Y K I P V P L R S S K K T T P L M G D			
UniRef90_B9MN44	UniRef90_R5X771	I P C V I I T S N Q E P F E E F L E F S K K Y Q V P P L R T Q E V T T R F M T N K		
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UniRef90_D9PG12	I P P C F I V S R H L K P K Y F L K L A E T K K I P P V L R S R L S T T R L I S E			
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UniRef90_R6YKR9	V P C C V I Y C R D M A V P D A I L E V A D K A G V P P I L R T K Q T T S S F S S E			
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UniRef90_U2CT13	I I R W L N V M L
UniRef90_R6C4X0	A I R W L N V K L
UniRef90_R5XMN6	L I R W M N V K L
UniRef90_UPI0002491106	I T E Y L D E K L
UniRef90_A0A015L049	L D G Y L V K S L
UniRef90_UPI00047EB198	I I G Y I D D M L
UniRef90_UPI0003B68C77	V I R W L N A K L
UniRef90_R6S445	I I R W L N V Q L
UniRef90_R7ISK9	I I R W L N V E L
UniRef90_D3FYC2	L T N Y L E S K L
UniRef90_M4Y771	L I L Y L N V E L
UniRef90_R5LX88	V I R W L N V K L
UniRef90_Q03GY5	M T N F L E D R L
UniRef90_G5JT46	I S W Y L N S C L
UniRef90_C0EG45	L I S F L N V E L
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UniRef90_R5TWK6	I I R W L K V K L
UniRef90_Q97Q18	L S S Y L D S R L
UniRef90_B2GAJ1	M T S Y L V G R L
UniRef90_UPI00035DD24C	L S S F L D S R L
UniRef90_Q896J4	L M N Y L D E K L
UniRef90_R6QD33	L I A W L H N E L
UniRef90_D9SKB9	L M N Y L D K K L
UniRef90_C6PVQ6	L M N Y L D D K L
UniRef90_A6TV15	V I N Y L E D T L
UniRef90_R7NBV1	V I R W L K V Q L
UniRef90_V9H714	L T I Y L T G Q L
UniRef90_F2JLI1	A N R W L H V E L
UniRef90_A0PZD5	L M N Y L D A K L
UniRef90_R5L884	I I R W M K V E L
UniRef90_E0RUG0	I I R W L N V K L
UniRef90_R7BC76	I I R W L K V Q L
UniRef90_E9SPM6	V I R W L N V K L
UniRef90_UPI00047BE495	L V G Y L E D K L
UniRef90_F4LWH5	L T D F L E S M L
UniRef90_B1YLF7	I T N F L E A E L
UniRef90_C4ZEG5	L I Y C L G E Q L
UniRef90_R4K884	V M N Y L D D K L
UniRef90_UPI000479808A	L D H Y L L K Q L
UniRef90_U2DQT7	V T N F L Q E K L
UniRef90_B9MN44	L S T F L T H E L
UniRef90_R5X771	I S N Y L D N R L
UniRef90_R5ZB15	L I Y T L A E K L
UniRef90_UPI00047B3194	L S N Y L D D R L
UniRef90_B6FXR9	L S N Y L E T R M
UniRef90_D6Y104	L T T H L E S H L
UniRef90_F3B7T8	A I R W L N V E L
UniRef90_E3BSD7	L M Q Y L D E H L
UniRef90_R9L3X9	I I R W L N V E L
UniRef90_G8PC14	M T N Y L E S H L
UniRef90_T1Z3L8	I S S Y L D S R L
UniRef90_A0A011QUZ8	V T N F L E E R L
UniRef90_R5KV26	L S R W L N V E L
UniRef90_D9S210	L T D F L E S E M
UniRef90_UPI0003796058	L D G Y L L K A L
UniRef90_W6SFK1	L M N Y L D K E M
UniRef90_R7R1K8	L I H T L S E E L
UniRef90_R5GPF7	L V N F L N Q L
UniRef90_D9PG12	I T N Y L E E F
UniRef90_R5RG63	I I R W L N V Q L
UniRef90_R6YKR9	L N R W L K V E L
UniRef90_H3RQ17	M T S Y L V G C L
UniRef90_R7CAS9	V T R W L K V E L
UniRef90_R7RQN2	L V N Y L D R A L
UniRef90_N1ZDC1	C I R W L T E Q L
UniRef90_UPI00047BC569	L I N Y L N E E L
UniRef90_R6D2B0	L I S Y L N V Q L
UniRef90_I4D212	L I R F L A N R L
UniRef90_W6NFE8	L M N Y L D Y K L
UniRef90_F9VA89	L T S Y L D E E L
UniRef90_E6U6B2	L I S F L N V Q L
UniRef90_A1HLX1	L I R Y L T N R L
UniRef90_A5Z8H5	L T R W L N V Q L
UniRef90_E3PW59	L L D Y L N E L L
UniRef90_UPI00047B1F47	V M N Y L D E K L
UniRef90_R6HNS2	I I D Y L N R A L
UniRef90_M1Z4Z8	L I N Y L D Y V L
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UniRef90_UPI0003B7481D	V I R W L N A K L
UniRef90_I7LB21	L T Q Y L D E Q L
UniRef90_D4W738	I S N Y L E E A L
UniRef90_R5HJB0	L I F C L S E Q L
UniRef90_R7N7T0	I I R W L N V M L
UniRef90_E6UBW4	L I G Y L N V E L
UniRef90_E0E1C8	L S W Y L E D K M
UniRef90_C4ZAU2	V I R W L K V Q L
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V D I K D L A M D L D L V D Y M P Q D S I Y E S S E V N R P A L Q L T G G
V K I I S E L I A E K M G L E N L T P G I D T E N I K H I D V T V P E V N R P A L Q L A G G
V S V S M F I I K E L E L E V V H K G E N T D Y E I I S S D I N R R P A L Q F A G G
M V S V M S Q L V E E F K L E V I T G H G G L S K E S D Y S L K R P S A E L V G
L M V S Q L V E E F K L E V I T G H G G L S K E S D Y S L K R P S A E L V G
V Q Q L T K M V Q E L L N N L T P E I D L S I V I K T A E I N R R P A L Q L T G G
V K L K D I A N E F S L E V I T P E N Y D D I Y V R R A D V S R P G L P L T G G
V S V S E L L I K K E K L V N L T P D V S T D K F I N I P N V N R P A L Q L A G G
V P L K T L V K E F N L E V T Y A S T D F D I R T V E D V A R P G L Q L A G G
I L T V S K K I I E K M N L K N Y T P E I D T D K L I Q D P G M N R P A V Q F G G G
M I E S I S S E L G L K I I A G F Q G I R R E V F T A D V N R R P G L A L T G G
I Q T R D L I I E E L D L V L L N P G A D T Q R E I T V S D I V N R R P G L A L T G G
V T I I T E F I I Q E K E L I N M T P E I D T D I F V K H P D V N R R P A L Q L T G G
V T I I Q R L I Y E K L R H L L P L G V S L E R R I R S A E I H R P G L A F T G G
V S I L N E F I I K K M K V V N L T P E V D I I E N E T Q T D T N R R P A L Q L A D G G
L S S I Q D D L L D D L R L I A G A S G L G H R V S S S R I Q K P G L Q L A L T G G
V S L T K V I K E L Q L D T A Y M P G N P D I T S R D V T R P G L V L S G G
V V G I E D F A R D C N E L W L S E K G Y K L P L S T V S V N R R P A L Q L S G G
V S V D K I I I T L G L K N Y T E E D T Q Q R L I T T A D V N R R P A L Q L S G G
L T V G D L I I E K F S L K I L A G E D Q L Q Q P T Q S R A H R P G L E F V G G
V T L D L I D I L N L R C I G G R K G L N R V I A I P D I N R R P G L A L S G G
I V R T A Q V V E R F K L Q V I I A G E E G I H R P V A T P D L S R P G L V L A G G
UniRef90_C4L5J5 UniRef90_H3NIW3 UniRef90_D3R2Y3 UniRef90_B0S8M8 UniRef90_P61323 UniRef90_UP10003FF18E4 UniRef90_R7E120 UniRef90_C4CGC99 UniRef90_R5BR99 UniRef90_H4GIK1 UniRef90_E4TK59 UniRef90_A1AMN4 UniRef90_E7C252 UniRef90_E1R9G3 UniRef90_R6IL45
F V T L S K F Y E A L Q L E L I N S P A G L L S R H I C E P A L N R R P G L A I A G G
V K L S D I A R Q L S L V N F T D K I N L E E H I Q I P D I N R R P A L Q L N G G G
V E L T K M M Q E L N K N A T P D I D M D K I T T S E I N R R P A L Q L A G G
V T V E E L I N N A R L K I L Q G A E Y I D R P V T G N I C R P A L P F A G G
I Q V Q E E L I S D L K L K L I Y G K E F L E R Y I S S F R I Q K P G L A L T G G
L S I I Q E E F Y S S L G L R L V L L A G K R G L T N R I V V S S R I Q K P G L A L T G G
V T I I E E F Y S S L G L R L V L L A G K R G L A R T S E Q E I N R R P G L S L S G G
V S L E K I I T A H N L E I Y P K P A D E I I T T N E V N R R P G I V M T G

	50	60	70	80
UniRef90_UPI00037D817E	Y F D F F P M N R V Q V L G R K E [REDACTED] N Y L [REDACTED] T L S V E E R K L H I G N V V K Y H			
UniRef90_R6QJ52	Y F D H F D S E R V V Q V I G Y V E Y T Y L Q T L P M E Q K K K I Y K Q L L S Y K			
UniRef90_R5JV0	F F E H F D A S R I Q I [REDACTED] C G N V E H A Y I A N M T E E E N R E I F A K L F F S Y K			
UniRef90_UPI0003747C59	Y F R F Y P E E R L Q L Q I [REDACTED] G N V E H A Y I A N M T E E E N R E I F A K L F F S Y K			
UniRef90_R7ARJ2	F Y D H F D N E R I Q V I G Y V E Q A Y L D S I S A D E R K L R Y T Q L L L S S N E			
UniRef90_Q4L417	Y F S H Y A A D R I Q V I G Y V E Q A Y L D S I S A D E R K L R Y T Q L L L S S N E			
UniRef90_R5JJ10	Y F D Y F T P E R I Q V I G K T E Y T F F G S F S T E H R E K A L G E Y F S Y D			
UniRef90_Q5FL72	Y F D F Y P A Q R I Q V I G R T E I S Y A A R L D H E I R T H V F T K M A T K A			
UniRef90_T0CZK2	Y L R Y H P A E R V V Q V L G R T E L S F L R G M N E R E Q A L R V F A F C S Y Q			
UniRef90_R6BJ78	Y F E H F A S E R V V Q I V G Y V E F T Y L E H M T R N Q R V H A Y E Q F C A H			
UniRef90_V70T03	F Y N Y F S R S K R I Q V I G Q G E W S F L D E L I P E L R K K R L G R F M R Y N			
UniRef90_I7L6R4	Y L E Y Y T P E R I Q V I G M K E W S Y V Q N V I G D N R Y D L L K N V V T D A			
UniRef90_R5TEJ7	Y F E H F A E E R I Q I I G M V E Y S Y L E S L E D E V R T E R Y R K L L G F N K			
UniRef90_R6DLV2	Y F D Y F D S S R I Q I I G H V E H T Y M Q K I L G I E R S V E V M E R I I M S P K			
UniRef90_A51539	F Y N Y F A N E R V V Q V V G K T E W S F L D V M K K E L R I K R L N K F F E E F K			
UniRef90_N2AJF3	Y F E H F P K E R V V Q I V G M V E Y A Y L R Q L Q E E A R T K A I E A F F S H D			
UniRef90_UPI000364C1C3	Y F D F F P T E L V Q V L G V K E L T F L K R L S D E E Q K L R I G N I I V N Y H			
UniRef90_R5SMK1	F F D Y F D P R R I Q I I G K A E T M F L K S F S S A E R R K C F E D L L F K Y E G			
UniRef90_R5CKM8	Y F E H F D A A R I Q I I L G F V E Y S Y M A Y M T P E R K E E Y D Q L F A K G			
UniRef90_K1MFZ4	F K D Y Y P S E R I Q V I G R T E I A Y L Q A Q S S Q E R I E K F R L I C R H D			
UniRef90_B5EEZ8	Y T E H L H P D R V V Q V L G N T E L S Y L S Q I P P E V G S R H I E K L C S Y P			
UniRef90_R6V322	Y L E H F E N E R V V Q I I G Y V E Y T Y L H L S R E N K M E A F E R F V A S K			
UniRef90_F8I074	Y F D Y Y A P E R V V Q L M G I T E T S F A E R M N H D E L L M A R K M M G E K			
UniRef90_D6S5X8	Y F D Y Y P S S K R I Q V L L G R T E I S Y A A M L D H E T R L Q V F N K M A T P D			
UniRef90_G2GA4	Y Y S Y F S N D R I Q V I G M T E W S Y M N S L D E E S R D K K F K E Y L E K H			
UniRef90_R6YSC8	Y F D Y F E K D R I Q V I G T K E L T L F N M L S A S Q K K E R L A K L F S Y N E			
UniRef90_X0QR57	Y F N F Y P R E R I Q V I F G K T E I S F S K N M T S A E R L V V L K Q M A T P E			
UniRef90_D4MHU2	F Y E Y F D K G R I Q I I G K A E T A Y L E Q C G A E I R A Q R I K K F F S E Q			
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UniRef90_Q93FD2	Y F D F Y P A D R R V Q L L G R T E I S Y A A R L D H D L R R K V F E K I I C Q K E			
UniRef90_Q1K312	H L S Y L H P N R I Q I I L G S T E L S Y L E K L L T P E T A A A N V E Q I L C S L G			
UniRef90_R5UZ52	F Y E Y F N P E R I Q I I I G K M E Y A Y L S T I D E E T R V V Q R L D M L F S Q R			
UniRef90_UPI00047D3EF5	H F D F F P T E R V V Q I I L G R K E V N Y L H K L S I E E R Q M R I G N I V K Y H			
UniRef90_B0PDT4	F F D Y F D S Q R R V Q I I L G K S E F A F L Q Q F D D T E I T N R I D N Y F S T C			
UniRef90_D4J475	Y F E Y F D Y S R I Q V I I G K V E Y E S Y L K M H D D D Y I R E M T E K I F K A G			
UniRef90_R8W9P9	F F D Y F D P N R I Q V I I M G K V E N T F V E K M T H E E R A L C F D K L F G S G N			
UniRef90_C0EXZ8	F F E H F D S E R I Q V I I V G N V E A A Y M Q L A P E S I P L C E K I F S F N			
UniRef90_UPI00040C10EFF	Y L R Y H A A E R I Q V I I L G R T E I S F L N G M D K R E Q A L R L F A F C S Y Q			
UniRef90_R7KNY6	F Y E Y F N N E R I Q V I I V G K A E F A Y L A T M E E T V R K E H L E M F Q A Q H			
UniRef90_R9LZB7	F F D Y F D N Q R I Q V I I M G K S E L A F L E Q Q F D E A R A R R I D N Y F A N K			
UniRef90_E4KMW4	Y I D N Y P H E R V V Q I I L G R T E I T M G F L L N S K T S E E R Q E L F K N I C T V D			
UniRef90_I7A7A9	F I D L F A Y S R I Q V I F G N T E E M S Y L H S L S K E E R I I D S L N R I F K F E D			
UniRef90_UPI00046F6885	Y F D F Y T R T R I Q V I L L G K T E I S F F E L L P E E L R V E R M N L C T P D			
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UniRef90_F5T7Q5	F F D Q F D S E R V V Q I I G N V E T A Y L M T K D R P T R R A R Y A E I T K Y P			
UniRef90_D4YVB7	Y F D F Y P K Q R I Q V I I L G R T E I S Y A A R L L D H D I R T H V F K K M C T P N			
UniRef90_UPI0004750A21	H F D F F P T E R V V Q I I L G K K E V T Y L H K L L T K E E R K I R I G N I V Q Y H			
UniRef90_W1Q675	F V E D Y P F E R I Q V I I G R T E I L L Y L A S L P E E Q R L V A Y E S I C N E E			
UniRef90_G9YX56	F F D Y F D A K R L Q V I I G R V E T T Y L E G L T S E E R E S F E L L L S Q D			
UniRef90_W4Q162	Y F N F Y P V K R V Q V I I L G R T E I T F L E H M D P I V K K E R M D K L C T Y D			
UniRef90_D4YIC5	Y F N Y Y P S E R V V Q I I F G R A E H T Y L S R M T S D E R L L I M R R L S R E D			
UniRef90_D4LDP7	F Y E Y F N P E R I Q V I I G K M E F A Y L S T I D E K T R R D R L E M L F A Q K			
UniRef90_E3DPR6	F W K H F A P E R V N L L G R T E I L S F L R S L E N D L L K D R I D E Y V E Y N			
UniRef90_R5AGT6	F Y E R F D S D R I Q V I I V G R V E T Y S Y L L S L N D E D R K N A I R H L F Q Y H			
UniRef90_K1XNP9	Y T E Y Y F A F R R I Q V I I L G K A E I T F L N S L S P E T I R Q R L I P I F G G K			
UniRef90_G9RYC6	Y D E Y F D P T R I Q V I I F G N A E V G Y L T T L P E S E R R S H I H T F A A K			
UniRef90_UPI0004666675	Y F F F S H D R I Q V I I V G K T E Y N Y F A K V D A K K R D R L E M L F S Y D			
UniRef90_N2A742	F F D H F A Y D R V V Q I I V G Y V E Y T Y L Q T L E E D R K Q Q I Y D E L L S R Q			
UniRef90_V2Z906	F F D Y F D S E R I Q V I I V G N V E Y A F L K R K N E E D G I K V V T K L M D Y K			
UniRef90_Q93SG0	F F E H F A Y D R V V Q V I I G K G E H D Y F G T L D R A T R L R R L E K L L F S Y E			
UniRef90_G2FQ28	F L T H L T P K R I Q V I Y G R T E I L G L I Q Q F E E S V R R E H L A Q V M V A E			
UniRef90_D4LJQ0	Y L E H F A N E R V V Q I I I G Y V E Y T Y L M Q L N E E E R F K Y E R F F L S S K			
UniRef90_R6WHC2	F F D D F E S G R I Q M I G N M E H S Y L D S L G S A G R Y E S I D K F M A H			
UniRef90_W3ALN2	F F D Q F D S E R V V Q I I I G N V E N A Y L M S F E A P E R R A K Y D A I T R Y N			
UniRef90_R5EZH3	Y F D H Y E P M R L Q V I M G N V E M S Y V D K L Q P K E R G A I F D R L F S Y K			
UniRef90_R5KIS0	F F E H F D A G R I Q V I C G N V E H A Y I I A M T E E E N K L I N E F F S Y K			
UniRef90_UPI0003815AF1	Y L E Y F A N D R I Q V I L G N T E I H Y I E R L S P A E I E N R L Q Y M F S F E			
UniRef90_UPI00036AB007	F F I Y H P A E R V V Q I I L G Q T E I L A F F N S M Q E H E Q R A R A D S L C Q F Q			
UniRef90_G5GGE6	F F E H F D S E R I Q I I G H V E Y E Y L L Q G M E E L S R K N I F N K L L S Y K			
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UniRef90_B3E459	Y T Q H L H P D R I Q V I L G N T E I S Y L F Q L S D E R L R D N T Q K L L C S F P			
UniRef90_R6QM46	F I D Y F D N T R L M L I G N T E I N A Y L N K F S S E Q R K H V I D R I F A M K			
UniRef90_R5F166	F D D Y F A F G K R L Q V I M G N A E M Y F L Y K M D T E A C D K A L R A L F K H			
UniRef90_UPI0003B50907	Y F E H F E Q S R T Q V I I I G N V E Y A F T Q K L S D D E K K A R Y N E F L K F D			
UniRef90_W4Q0C1	H F D F F P T E R V V Q I I I G R K E I N Y L H K L S H E E R K V R I G N I V H Y H			
UniRef90_F8EY17	F Y D A F A H E R I Q V I F G R G E V A Y L K L L A D E G K T E T I V Q M F S Y P			
UniRef90_C4L5J5	Y Y D H F G H D R L Q V I M G N M E M A F L A R L D S R E R E N C L D K L F A Q K			
UniRef90_H3NIW3	F N D F F P D E R I Q V I I I G R T E I I S Y L N S L S A P D R L K Q Y K R V C R E N K			
UniRef90_D3R2Y3	Y Y D H F G H D R L Q V I M G N M E M A F L A R L D S R E R E N C L D K L F A Q K			
UniRef90_B0S8M8	F F D F F A N D R I Q V I I I G K G E W A Y L N S L S E E K L G E I T D K F F E F H			
UniRef90_P61323	Y T E H L H P D R I Q V I V G F V E Y T Y M E N L P E D R K E K A Y R D F F L S F D			
UniRef90_UPI0003FF18E4	Y F E H F E A T R I Q V I V G F V E Y T Y M E N L P E D R K E K A Y R D F F L S F D			
UniRef90_R7E120	F Y S Y F A N K R I Q V I F G S A E L A Y L Q K L P E G M R K S R I Q R M F R C E			
UniRef90_C4CGC9	F Y E H F E A E R I Q V I I I G M V E N A Y L R Q K S P E E R A D F E T L L S H D			
UniRef90_R5BR99	Y L A H F D N E R V V Q I I I G Y V E Y T Y L Q Q M S E E R H F T Y E R F I S S K			
UniRef90_H4GIK1	Y F T H Y P A E R I Q V I I I G R T E I I N A F A D E V D H E K L A E Y C C C E E			
UniRef90_E4TK59	F T D H H P E R I Q V I F G N T E I I S Y V N S L T S E Q R L N A F E N F C K K R			
UniRef90_A1AMN4	Y T E H F H P D R V V Q V L G N T E I I S Y L S K L L D S H L A A E C V R T V C S F P			
UniRef90_E7C252	F V K Y F A N K R I M Q A V G S A E V T Y L R S L P K H E R V K R F E Y I C S L K			
UniRef90_E1R9G3	Y F F E F A N N R I Q V I F G M G E E A S Y L T K L E S E D Q M E T V N K M F T Y P			
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90 100 110 120

UniRef90_UPI00037D817E	P P C F I V T S G Q Q E □ P Y L I L F C E Q E G □ P L L R T T E T T T E F I A R		
UniRef90_R6QJ52	I P C L V F T T E I F P D E E L L K Q A N E T D T P V F S T E Q K T S P F Q A E		
UniRef90_R5JV0	I P C L I F C R G L E P H D F I L D V A R E Y G I P V L T S N S T T S S F V H E		
UniRef90_UPI0003747C59	T P G F L V S R N L E P S E L Y D V A Q K H N I P I I R S N R S T T R L A S S		
UniRef90_R7ARJ2	I P C V V F C R D L E P E E C M L E I A L K Y G V P I L K S H D A T S S F M A E		
UniRef90_Q4L417	T P A I I V T R G L E P P Q E I D A A Q E M D T P I L V I S K D A T T S L M S R K		
UniRef90_Q5FL72	I P C I I V T R G M E L R E D F S K F A K A S D I I V C S T E S T T T R F I N K		
UniRef90_TOCZK2	T P C F L I S R S L P V P E E S E A A E K A N I P I L R T S E S T T Y I S S I		
UniRef90_R6BJ78	T P C I I I T R N D T P P S V L L R E A A A K R I P V L G T N M V T T R L T A T		
UniRef90_V70T03	V P C C I I F T S K T D P D E D I L R I A T E N G I P V F T T E K N T S P F M A E		
UniRef90_I7L6R4	I P C L V I T R G L E P H Q E I V D A A K T Y K R W L L R T K E S T T N F I S K		
UniRef90_R5TEJ7	T P A I I V A R G L P I P D E M V S V A K K R D T V L L H S T E P T S R L N G A		
UniRef90_R6DLV2	V P C V I M C R D Y E P D E E V L R I A G E R G I P I L G S P D A T S N V A A E		
UniRef90_A5I539	P P C C I Y C R E I W E D E I V E L A N K Y N V P I L R S R K A T S P F M A E		
UniRef90_N2AJF3	T P C T I T R N L A A H D E F I N S A K E G Q W V L R T G E I S T R F V S S		
UniRef90_UPI000364C1C3	I P C V F C R G L I P E E N F L E I A K H N V A V L S T E R K T S S I T A E		
UniRef90_R5SMK1	P P C F I T A Q Q E S L G Y L T E Y C V Q E G I P P L L R T D D P T S E F I R K		
UniRef90_R5CKM8	I P A L V I S R K L D V F P E C M E M A Q K Y G R T T L R T E H T S V E F T S M		
UniRef90_K1MFZ4	C P C F I F C R E L Q P D E I F L K Y S A K Y G V P V F Q T K Q S T S V F M A E		
UniRef90_B5EEZ8	T P A I V I A R G I V V P A E L A L V S N E M K V P V L S A R S K T S R V L A N		
UniRef90_R6V322	I P C V I F S T K T E P D E D M I N L A I K Y D V P I F V I T D Q T T S T F M A E		
UniRef90_F8I074	T P V F V I S T G R K L P A E F L K A A N E S E I I P V L A T E L T S S Q I L A N		
UniRef90_D6S5X8	T P C F I L I S R S L P V P K E L T E A A A K N G I P I L T T P E S T T Y I M S V		
UniRef90_G2IGA4	T P C I I V T R G L E I F E S E I K Y A K I Y G R T I L R T N E D T T G I I S R		
UniRef90_R6YSC8	S P A F V F T K N V D A P K E F V E A A I A C Q I P I F K S K L S T S G F I G D		
UniRef90_X0QR57	T P M F L V S T S L P V P E E M L T V S K K F N V P V L G S K K L P T T T R L A S L		
UniRef90_D4MHU2	P A V V V S R G M D I M P E M R E L S K E L S V P L L R S E E S T S T F T S K		
UniRef90_R6BKZ8	I P A V I I T R N L D I P E E M V T A A N T Y G V P I L R T S Q P T C D F M A T		
UniRef90_Q93FD2	T P C L L V S R N L P V P V E L K E A A E A A G T P I L I S N D A T T Y L M S M		
UniRef90_Q1K312	F S C C L I I T K G Q T P P K V L L N M T E Q Y A I P I L L R T Q M K S S A F I S L		
UniRef90_R5UZ52	I P A L V I S R E L P Y F E E M L D L A K K Y S V P P L L R S K E S T S N F I A G		
UniRef90_UPI00047D3EF5	P P C F I V T A G D E G L T Y L R K S C I E E G I P I L S T P R T T S E F I T E		
UniRef90_B0PDT4	P P A V V I T R N I E I A P A C M M D A A K A H K V S I P I L R T A D G T S A F M A G		
UniRef90_D4J475	I P C M I F C R G L E P R P L F M E L G N K Y G V P P V L S T D D G T S S F F S E		
UniRef90_R8W9P9	I P V M I S R N M D V F P E C L A A A Q K Y N V P V L L R T N E F T S T I V N A N		
UniRef90_C0EXX8	I P C L V F C R G L E P S Q E M L D T A E K N G V P I F T T E M T T S D F I A N		
UniRef90_UPI00040C10EFF	T P C C L I V T R G E A P P E E L L K E A T S R G L I P V L G T K M V T T R A A A V		
UniRef90_R7KNY6	V P C C I I I T R E L L P Y F P E M L D L A Q Q Y E I P I L L R C K D S T S S F M S A		
UniRef90_R9LZB7	P P A V V I T R N L D F P P R I R D A A E K N E V A L L R T S E G T S S F L A A		
UniRef90_E4KMW4	T P A I I I I A R G M E V P Q E I P I A D K Y Q I P I L S A R S K T S R V L A N		
UniRef90_I7A7A9	I P C I I I T N S N L P S P E M I E L A N K F N I P I F G S D Y T T T K L I Y L		
UniRef90_UPI00046F6885	T P A F V L A H G V T L P V E L E I A A E R M G I P I L S V L G A D I P T T R L L S G M		
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UniRef90_R5EDW2	F F E H F D S N R I Q I C G N V E H A Y I T S I I D R D E T A K I F D N L F Q Y K			
UniRef90_UPI0003B3BA3D	F V N L F T Y N R V Q V F G N T E E M S Y L A T L L P R E R A V D V L R S F F S A D			
UniRef90_A7H6M3	F T E N L H R E R V Q V F G N T E E M S Y L A T L L P R E R A V D V L R S F F S A D			
UniRef90_UPI0002D28F91	Y Y S K F V K D R I Q L I G T Q E W H Y I I N S L L D D E E R Y S T L E K L F K Y N			
UniRef90_R6PHV7	F E D Y F D P K R I Q F L G L T E T E Y I R S S L G D S E A K E S M E R F L S K R			
UniRef90_K2CB57	F F E H F G Y E R I I V L G R T E L A Y L G E Q T A E I R K V R L R Q L L F F N D			
UniRef90_V5WLZ9	F F D N F A F E R I Q L F G R G E H A Y L D M I D S R H L M D N V R T L F D S D			
UniRef90_F5YFW5	F F D S F A F N R I Q V Y G R G E V A Y L R K I E E D G K V E T I R Q M F T Y A			
UniRef90_U4KQY6	F Y D F Y D Q E R I L L I G S K E A S F L K L F S P H I Q K E R V V D R I V S E Q			
UniRef90_B9XMN7	F T R Y F A N K R V Q V I G N A E A F A Y L K S S L T P E E R E L R Y A T F F N F K			
UniRef90_U1FID5	F Y E S F A Y Q R V Q F G R G E S A Y L Q K L H T E H N L S S L K A I I F E Y D			
UniRef90_R5PWN8	F Y D C F D H K R I Q L I G H A E H Q F L S S I I P A D E R R Q Y K L E R L L A A H N			
UniRef90_C2CFB4	Y L E K F P H K R I Q L I G S V E E T Y Y L T S L L D S K M Q Y E R F R G I L S Y K			
UniRef90_R7FSA5	F F D C F D H K R I Q L L V G N A E E S F L G S V A P E E R R K K L D A L F E T G			
UniRef90_R5X9K8	Y T D Y F D P R R I Q I L G W T E F G F G L Q N M S R E M Q I E A V V S K W L S L R			
UniRef90_UPI0003B536ED	H I N L H P N R I Q V F G V A E I D Y L N R L L P P E A G R Q M L D Q L F S L S			
UniRef90_I0K0Z2	Y L R Y F P K Q R V Q I G W G E M S Y L K S L P I A E S E E R I L R Q L L F L K K			
UniRef90_F4XCF1	F F E H F D A R R L V I G L T E H T Y L S G M E P Q A R R E S F D R L L A H P			
UniRef90_T2UC23	F Y D Y F D P R R I Q I G K T E Y N F F G L M D S H T R E E V V L D R F F S Y E			
UniRef90_E3FD97	F T E H L H P H R V Q F G N T E I S Y L R T L L S E A V V Q Q E V V L T R L F N E D			
UniRef90_B9Y315	F Y K H T E P R R I V I G D K E Q A Y Y I D T L L S V E I Q R E R F E Q L T D G Y			
UniRef90_A6G443	F V K H V Y G D R L Q V L G L T E I D Y L L H V S E E Q A R I G V E K Y C K R K			
UniRef90_C1A8F9	Y I N R F P Y Q R V Q V Q L G E T E I V T Y L Q S L L G E V Q R T A N L E E Q F F G F P			
UniRef90_UPI00036AFB40	H L N F I H P N R V Q V Q L G A E V V N Y F Q G L S A D A Q K E S V E R L F A N E			
UniRef90_S3K1U4	F Y E S F G F Q R V Q V F G R G E T A F L E K I V R E N N L D P I K Q L F S Y E			
UniRef90_I4B1E0	F F E H F A H D R V Q V F G Q G E H A F V S S I I P P E K L Q P E R Y F N Y P			
UniRef90_D0MFT9	Y T E L F T Y Q R V Q I L G N T E N R Y L R H P P D Q R R A F Q N L L Q F P			
UniRef90_U2DUC3	H H D F F D C S R I Q L I G N L E Y S Y L L D L D D E A R D A S L C R F F K T Q			
UniRef90_D0LNA9	Y T E Q L H T N R R L V V V G S T E I E Y L E S V S E E Q L R T G V R T V M A S V			
UniRef90_G4KNW3	F Y D Y F D P R R I Q V I G K A E V V M Y L K G L T V Q E R R R A F D D L F L Y D			
UniRef90_U4XTY8	Y F R Y Y P S N R I Q L F G K T E I S F S K G M S S E E L S V V L R R M A M P D			
UniRef90_T0EY03	F Y E S F A H D R I Q I F G K G E W A Y L I S R E G D G L T R I A T E F F H F H			
UniRef90_F9MS15	F Y R K Y V S E R I Q I I G G A E W Q F C N D L T H E K R Y Q V L E P I F A S H			
UniRef90_UPI000382AB09	H L N F V H P N R V Q V L G C A E M D Y L R G L L S E S S L Q Q E A I D H F S N E			
UniRef90_S6A2R6	F F D S F A N E R V Q V Q L F G R G E N E A Y L K T L L I E K N D L S T I E Q M F S K K			
UniRef90_F4LJK1	F Y D S F A Y K R V Q V F G R G E V S Y L M K L V S E N N F D G I R Q L F S Y E			
UniRef90_U5FC68	F F E N S Q V K R L V V L G D K E I A Y I I Q T M S V A K Q R K S F D F I T N E A N			
UniRef90_D4JE15	F F P D S Q T K R L V I L G E K E M G Y I I D E M D E I S Q R R S F E F I T S E N			
UniRef90_D6GS97	F Y G Y F P S D R I Q I I G Q V E Y A Y L M S L N E N A Q K E V L E K Y L S Y R			
UniRef90_UPI00046F48F0	F L D F F D P Q R I L L G S K E A H F L M L L D E N T Q K K R V E A V L K L L			
UniRef90_R6MUL8	Y F D F F D S S R I L L F G T T E F S Y L S R F G S E A Q K M V I D S I L S F S G			
UniRef90_R6UCU5	F L E F F Y N P E R I L V G N T E Y A Y L K K F G S E Q R A Y V L N N I L Q K K			
UniRef90_UPI000371EA7E	F Y L T N F A W Q R V Q I I G A G E T S Y L R S L P A D E A R R R V R A I F L R K			
UniRef90_G4D5Z3	H F D S F D D K R V Q I I G Q E W Y F L N E M S S E E R Y E A V V K K L F S C K			
UniRef90_D3PD44	Y T D H H E G R V Q I L G N T E I S Y L N T L H L K Q R Y N A I L G C K K N			
UniRef90_R7K9N8	F E E Y F A E S R I Q V C G S A E I A Y L N S L P K E V R L K R L D T F F G K N			
UniRef90_R7EQR1	F F D C F D Q G R V Q V I G T V E H M Y L Q Q L D K K E R L E R L E K F F F S Y T			
UniRef90_UPI00016BFB46	F F D C F D Q G R V Q V I G T V E H M Y L Q Q L D K K E R L E R L E K F F F S Y T			
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	90	100	110	120
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UniRef90_UP100041ABA1A	T P C V I F T T G D K G L T Y L R H Y C N E Y G I P P L L T T P E T T S D Y I S Q			
UniRef90_R6MP67	I P A L I I I A R G I H A L P E C L E M A K K H D V T V L S S R E T T S Y I V V S S			
UniRef90_K0NZ91	T P C V L I S R N L P V P K E L K A A A A E S K T P I L I S N D A T T Y L M S M			
UniRef90_R6D9V1	F P A M I V A R N M E A P P E L V Q M A D K H D R T L L R A V D S T V D I T S R			
UniRef90_UP10003B55BF2	M P C C I F T Y N L E P T E D F R R I A E E S Y C P L L Q T S L T S T E F S N R			
UniRef90_S9QXQ7	L A C V V V T K G I D P P Q A L A E A C E K A G L A L M R T P L L S S A F I Q Q			
UniRef90_H1HVP3	V P G F I F S R N L Q P H E T L L K K C R E Y G I P P C M V T S Q T T G D L T S E			
UniRef90_H9UMF2	F P C A I F T H S L Q P T D F V F L R L A E E S E T P V L Q S D L T T S T F V A R			
UniRef90_R6WXJ2	V P C C I I S R G L E P C K D M L D L A K E Y D T P V L Q S N A I T S E V V N D			
UniRef90_R7GFL6	P P C C I I C S V N V Q I P N Y F V E L G N E Y K T P V L K S N L R T T A I S S K			
UniRef90_R6NBG4	I P C V I F C R D L Q P D D F L Q R A K E N N V P V F G T G R S T S E F M A E Q			
UniRef90_I8SB51	F P C C L V I T R N I I L P E R W L Q L A A H R Q L P V F R T R L A T T R F I A Q			
UniRef90_E4KZ57	I P A V I F S R N A E I F P Q A I L A K Y N V T I L R S P D S T S K V F S K			
UniRef90_UP1000365400A	L A C L V V V T K N Q E I P D Y L R K E A D S H H I P L L R T C H L S S D F I S L			
UniRef90_J0WWY1	S P A V I V A R D I E P M P E L L E A A Q O Y G V S V F S S S E P T S D L M A A			
UniRef90_R7JUL2	I P C V I F T T K M I P G P E I I L E L C N R Y Q V P A F A V D K S T S S V F M A E			
UniRef90_R6GER8	P P A V I I T R N I I E P Y P E L I K A A K K N F I P I L R T T E T T S S T F I A N			
UniRef90_C6LH15	S P C C I I Y T T R T K P E E E L R L A V Q Y G V P V F I T D K E T S A F S A E			
UniRef90_R7L8H4	I P C C I V V S R N L A P T K A M L E L A N A R N I P L I R T K M K S K E F S S D			
UniRef90_R6VB05	P P C C I V F C R N L H I D E K L V Q L A S K Y Q V P I L R T P K E T N A F M A E			
UniRef90_R6HYM5	I P A L I I A R N M D P D E T C V E M A K K H D I L T R C Q E T T S Y M V S S S			
UniRef90_V2Y118	V P A L I I L T R G L E P P E C Y M E L A K K Y D R T V L R S T L Q T S I F M S S			
UniRef90_K1MHZ4	T P A I I V F A R D I E I P A K L I P Y A Q A A G I P I L G A K S K T S R V L S N			
UniRef90_I7J0W0	T P C F I I S R R L P I P E E L K V E A E K A R I I P I L V I S G D S T T Y L S S I			
UniRef90_H1XUM5	I P A I I V T N N N K I P D Y L I Q V A T R R Y I S V F S T P S T T R L V H L			
UniRef90_B3QY08	V P C C I I V T N N N K L D P E L V E M A T E E A G I P Y R T S H T T K F I Y L			
UniRef90_Q04GB4	T P A F V I S T N L K I P E E L I E A A K D A G I P V L T S S L T S S R L L S N			
UniRef90_R6QM2Q	P A A V V T R T R G L E I P D Y L Y D A C K K H E I P P L L K T E E T S S P F L A A			
UniRef90_R6MZL2	P P A I I I C R S L K P Y P E M M E A A K R H G V A L L G T A D T T S S L V A A			
UniRef90_F7V3F5	V P C C V I F C R G F E P D V T F L K T A A K Y Q V S V L G T T R E T S S Q L A A			
UniRef90_D4H7T5	V C C F I V T K N L H I P K E L L E A V K S H N V P L L K T H L P S S D A I Q G			
UniRef90_E0QJG5	I P L L V I S T K Q K V L P E I I L E S A K K Y S K I L I V S S K E T S T K T V S K			
UniRef90_UP100047BAF66	I P A V I I A R G L E P F P E C L E M A K K Y D V T V L G T K D T T S Y I V S S			
UniRef90_R51XP7	C P A L I I F A R G F E P P M E C L E M A K K Y D V T V L G T K D T T S Y I V S S			
UniRef90_R6QDW1	I P C C L V F C R G K Q P C D K I V D F G R K Y G V P V F I S K D S T S E F T A E			
UniRef90_F8E5L5	I I A C F V I V T K N L K V P S E L L T C V K K H N I P L M R T A L V S S E A I T K			
UniRef90_B1ZNZ3	I P C C I I L T R N F H P F P T M L K V A T E M K L P I R T P M I T M N F V N L			
UniRef90_D4K4B7	P P A V I I L T R N F H P F P T M L K V A T E M K L P I R T P M I T M N F V N L			
UniRef90_Q6ME01	T P P A V I V S R R Y R P P K E L L R A I I C E K L N I P P L F R T N L S T M N L M S Q			
UniRef90_R5T433	P P C C I V F C R N L P V D D R L I E L A T K Y Q V P P I L R T K R A T N E F M A D			
UniRef90_R5EDW2	F P C C L V F C R G L Q P Q D F V L E A G R K Y G V P V L T S D A T T S A F V H E			
UniRef90_UP10003B3BA3D	I P C C I I F T N G K T P I P E I I H C E K R I V I V T A M S T T Q F V H E			
UniRef90_A7H6M3	V A C L V V T K G L D V P P E M A A A A D E S G V P L R T T H L S S T F I E G			
UniRef90_UP10002D28F91	I P V V V F S R D N E I F L Q A K V L A E K H N V T I L R S P D T T S K I F S K			
UniRef90_R6PHV7	P A A V I V F S T N V E I T Q D F I I D A A N L Y E V P P I L K S S L R T T P L N S R			
UniRef90_K2CB57	I P C C L I I T D D L L V L D E L L E L C D L I V T Q D F I I D A A N L Y E V P P I L K S S L R T T P L N S R			
UniRef90_V5WLZ9	I P C A V I V T H D L D P T D E M I L A M A K E T G T P I L Q T D L S T S E F S A R			
UniRef90_F5YFW5	I P C C I I F T H N L V P G E M F F R E A E A S Q C P I L Q T D L S T A E F S A R			
UniRef90_U4KQY6	P P A I V F S T N V E I T Q D F I I D A A N L Y E V P P I L K S S L R T T P L N S R			
UniRef90_B9XMN7	V P C C V I F C R G F E P D V T F L K T A A E E A D V P I F Q C P L I T M K F I N L			
UniRef90_U1FID5	I P C C V I F S Y S G I Q P P D D F L S I A A E E A F C P V P L Q T S L E S T E F S S R			
UniRef90_R5PWN8	P P A L V I T S G L S A F D E I M N V V C R K Y G L P L F R T T N Y T T S D F Q S A			
UniRef90_C2CFB4	L P A V I F T Y N K E I N K D L R D L C S Y Y D I T L L R S P L K S T R L I S K			
UniRef90_R7FSA5	I P A V I V T T E L P V F D E M L G A A E K Y S V P V F R T T S Q K S S E F Q A A			
UniRef90_R5X9K8	P A A V I V T R G L E P T E Y F E K L F E Q H D V P L K T N E E T S P F L A N			
UniRef90_UP10003B536ED	I P C C I I F T N G K T P I P E I I H C E K R I V I V T A M S T T Q F V H E			
UniRef90_I0K0Z2	M A A V I V A N G E P V P S Q L R Q Y C E R Y R V P L A S T Q P S P Y L M D V			
UniRef90_F4XCF1	I P C C L I I S R G M T P P S F I V K Q A A E E L G V P L F V I S Q L H T M R L I N T			
UniRef90_T2UC23	V P A L I I T R E L E P F P E C M E M A I K H E R T V L R T Q E H T S A F M S R			
UniRef90_E3FD97	I P A L I I S R D L E I K P D V I E K A K K Y K R I L L S T N R N T L D L			
UniRef90_B9Y315	L A C V V V T K D L E P P R A L V E A C E S S K L A L M R T P L L S S V F I I Q Q			
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UniRef90_C1A8F9	L A A L A L T R G L E P P D L L M E L A E A H G I P V L R T P L M T S S F I G R			
UniRef90_UP100036AFB40	I P C C I I F T N G K T P I P E I I H C E K R I V I V T A M S T T Q F V H E			
UniRef90_S3K1U4	M A A V I V A N S Q P V P D A L K E A A E R Y H V P L L T S P E Q S P Y L M D V			
UniRef90_I4B1E0	I P C C V F T H N L V P P Q A F I E L S D K A A C P V P V L Q T D L E S T D F S S R			
UniRef90_D0MFT9	I T G I V F T H S N F P P D L F L E Y E A R N R T P V F I S E H R T T S K F I N V			
UniRef90_U2DUC3	I P C I F I L T D N N E L D P E L V Q M A T E E A G V P V P Y R T P V P S T R F M A L			
UniRef90_D0LN9A	P V T V I F T R G L E I F E S A I R Y A E E N G V P P L L R T S E P T S A F M S G			
UniRef90_G4KNW3	P A C V V V T R G L R A P P V L L A A C E D E G V P P L L S T E L Q S A D F I A R			
UniRef90_U4XTY8	P A L V I A R N N L D C F P E C L Q S A Q E H E R T L L R T A E T T V D F T S H			
UniRef90_T0EY03	T P A F L V S R G Y Q P P Q M I T E A Q K A H V P V P V L G S P L P T S R L L S S V			
UniRef90_F9MS15	L N C I I I F T H G N S A P P I F I E Y C N R L N I P P L L I S D V V S T H K F I T L			
UniRef90_UP1000382AB09	I P V M I F S R G N T V F D E A I D L A K K Y N R T I L T T K A T T S R L V N Q			
UniRef90_S6A2R6	L A A V I V I S N G E A V P P V L R D T A E R T G T P F S S T L L A S P I L M S Y			
UniRef90_F4LKJ1	I P C C C V F T H D L E P P A A F T A I S E E S G C A V I L Q T N L E S T E F S T R			
UniRef90_U5FC68	T P A L I I T K N H E C P E L L R K C A K R K N F P I F R S A S P T W R L I V D			
UniRef90_D4JE15	T P C C I I V A H G Y D C P K V L K E I A Q R K N F P I F K S P Q K T T A V V V V S			
UniRef90_D6GS97	M P A I I F M T R G Q K P S E S F V K I A K K Y N Q Y L I S E L S T K Q L V N K			
UniRef90_UP100046F48F0	P P A V I I F S V N V E I P Q Y F I D L G N K Y G V P Y H S D E R T T P I N S K			
UniRef90_R6MUL8	P P A I I I I S R N I E P P I A M M E S A K T H K V S I L R S A E T T S S Q V T A A			
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UniRef90_G4D5Z3	I P A L I I F M R D R W I H D E I E L A K E M D I T L R T E E F T S K F S I K			
UniRef90_D3PD44	I S C F V V T K N Q H I P K V V I D A C K E C S I P I L K T P L K S S V A I S E			
UniRef90_R7K9N8	I P C C V V L T R G K T P D K D F L E I A K K H K R A V F G S E K P T S E F V N N			
UniRef90_R7EQR1	P V A V I V T S G L E P F E Q L V H H A E C G V P L R S S E K T S T L L M A A			
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UniRef90_U5L584	L D A Y L V K E L
UniRef90_D4L8R6	L V Q Y L N K E L
UniRef90_UP100041ABA1A	I S S F L E A R L
UniRef90_R6MP67	L I T Y L N R Q L
UniRef90_K0NZ91	I N Q Y L A A K L
UniRef90_R6D9V1	L I D Y L N R
UniRef90_UP10003B55BF2	I I R V F A N Q F
UniRef90_S9QXQ7	V Q A F L E E S L
UniRef90_H1HVP3	L I R W L K A K L
UniRef90_H9UMF2	I I R A L S S V F
UniRef90_R6WXJ2	I I N F L N D F L
UniRef90_R7GFL6	L Y N Y L Q A T L
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UniRef90_D5EIM8	Y F K Y F A A K R M Q I F G A G E M A F L R D L K E Q R E I T E I L E R K			
UniRef90_X1QHW6	Y T G Y F L S D R I L I V G E T E T V Y L K T L T K K L K D K R I A T V M N F D G			
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UniRef90_F4GQI1	H L N L I H P S R I Q V F G K E E L S Y Y T R F E V K R R V H H E D L V A G G			
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UniRef90_L0B5Y0	H L N L I H P S R I Q V L G N E E L E Y Y T R L D V N R R L Y I E E L A T G N			
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UniRef90_B7CD64	Y F P D T Q T K R L V V L G D K E I G Y I E Q M D E I S Q R R S F E F L T G D N			
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UniRef90_J0UQ02	H L N L I H P G R I Q V F G P E L S F Y S R F D V K R R L H H L D D L R Q G G			
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UniRef90_E3H7P4	Y Y D M I D S D R L Q V F S E G E F R Y L E S L D E E T R K K N L E T Y L D Y N			
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UniRef90_W8X2H1	H L N L I H P G R I Q V F G A E E M S Y Y T R L E P R R R L H D D L L L A Q			
UniRef90_K2EHA1	H I N I I H P E R L Q V M G Q A E Y D W V Q R I G E R R F S Q V F H D L L L A Q			
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UniRef90_V5RJE0	Y F E E G A S H R L V L M S T K E Y N Y I M N F D V K E R G Y R K L L M K D			
UniRef90_F9U8Z6	S L N C H P N R L Q V I G N A E L Y L A Q L G R T A F G E T V Q K L F S D H			
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90 100 110 120

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UniRef90_F8L6U3	N P A V I V A R G Q R P P K E L K E I C Q K L K I P L L R S G E K T M T L M S Q		
UniRef90_D5EIM8	V P C I I L I S R N L L P T K I M K A L A D E Y K T P L I R S S L K S		
UniRef90_X1QHW6	A P C L I V T K G L D I D K K F I E Q A K H R K I P I L R T S M S T T P F I H K		
UniRef90_K9DHE5	P P A L I I A Q G L E T P P D I L A I C D E Q N I V P L F S T P L P A A Q V I D F		
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UniRef90_UPI00036BF6BB	P P V V I L A D G Q P A P D H L Q L C E R A Q I P M F A T D E R A A Y V I D L		
UniRef90_K0AZ09	I P A M I I T G D H K V L P E I I E F A K E F E R P L F K T E L P A T K F I S K		
UniRef90_R6XH5	C P G I I C Q G Y P C P P S I L R A A Q E M N I C V F G T K M R T S D L L S D		
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UniRef90_L0B5Y0	V S A I I L I A N N L P I P N D L I E K C S Y Y K I P L L S T K T D T A Q L I D L		
UniRef90_Q22Q01	P P V I I L A D G Q D P A Q A L L S M C E R A Q I P M F A T A S S A F V I D V		
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UniRef90_W0FQG9	I P C I I C R S L T P P E L L S V A K S H D I P V Y T S P M V T S K F T A F		
UniRef90_V5PW06	P P F L V V V A D G L E A P P D L V L R C T R S S T P L F T T P M S T A A V I D S		
UniRef90_B7CD64	T P C I V I A H G H E C C P P V L K E I A K R K D F P V F K T E H Q T S H A I V S		
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UniRef90_B2I9L5	P L T L V I S K N Q S C P E D M R T A A D N S Q I P L W V S P K R G H E L L N H		
UniRef90_UPI00037891AE	LAG G V V I V T R G I E P P A I I R E A A E R T Q T P L F V S E L A S S T F M T D		
UniRef90_I4Z6C2	P P A I V I A D G C M P S D R L V A M C E R A E I P P L F V T R E S A G H V I D V		
UniRef90_U2JY90	I P A L I F A R G L L D I A E D I L R L S Q E N D I T I L R S P L V T T N L Q S K		
UniRef90_H5WSC1	P P V I I A A D G V A P P D R L V A M C D R A E I P P L F V T Q E P A G E V I D V		
UniRef90_D9S5J2	T T C L V I V A D G D N E I P P E L M V F A N R S S I P P L F S S S K P S V H L M W L		
UniRef90_A6GM66	P P A I I V A E S F Q P H A L L K A A C D E S N I P P L L A T P L S A A E I I I D F		
UniRef90_E6MF75	I P C I I V C W D L P E A A L F E K A A A K Y H R V L L R S K E K T T S L V Y R		
UniRef90_I3U8F9	V P A M I L A E G L D S P P D L V L G V F C A R S R I P P L L S T P V D A A H L I D V		
UniRef90_B4SMH9	P L A L V L T R N Q P C P E D L R A A D S G T P L W L S P K R G H E L L N H		
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L A A I V V S N G E S V P A I L K E A A A D R S E T
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P P A L I V A D G L P V P E P L R D I C H T T Q T P L L T S V K P C A A V I D L
F P A L I A T N E S I I F P E M I E S A K E N N N K T L L L K S H R R T S A T I R E
F P A L I A T N E S I I F P E M I E S A K E N N N K T L L L K S H R R T S A T I R E
I P M I I L T E K F T D K L L E I A E K H S C P V V R S N I T T S R L Y Q M
P P G V I V A D D A A V P D V L R Q I C E Q A K V P V M A S P H E A A R V I D V
T P A V I V A K G G L P S K E L I E I C E E K K G V P P L F Q A S S N A T
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P A A V I F S D G I E P G A A L L E Y A E G T Q T P L L A S T L G D Q E L I N H
L V A I F L S E G C V L L P A I A E R A E Q R S I P V M G A S V D S T S V I N Q
P P A I I V A D G C E P G L L R G I C E R A D V A L I T T P L P A A S V I D Q
P S I L I V L S R S F K P F P I L I E L I S K K Y N V T V M A T N S S S S E I N T L
I P M I I V T E K F T D K I F E V G K E L D F P I L Q T N E S T S D F T K D
T P C I I V T R N Q D V P D E L L Q A S R E S G M P L L R S S Q T T T R L S S R
I P L I I I T Q K F E D K I V I D V A K E L N I L L V K T K N S T S D F T Q N
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M S L V I V A N D L D V P Q I L R D Y C H T T N V P P L L T S S L E S P Y L M D V
P P A I I V A D G C E T P N V H G V C T A H A N V P A F S T P H P S A S V I D Q
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UniRef90_R7RSU0	L T Y A E V V V N I V E G S V L L G G K D G L H K T L N K F V I G A M T L D V M R
UniRef90_A0A011RKK7	L T F D E I V K V I I E G E V H G G R N G L K K T L T K F V I G A M T E E A
UniRef90UPI00036099AE	L T F A E V A D I I D G Q V L L G G A Q G L H K T L Q K F V I G A M Q L D A
UniRef90UPI00037C3FD2	M T V Q D I I S S L N L T V C S G K E G L Q R E I K G A M T L D V M R
UniRef90_F4LWJ2	L S F A E V V N I V E G S V M M G K S G L L H K P L S K F L I G A M E V E E
UniRef90_E6LHL7	L T F R E V V V Q I I T E A D V L L G G A S G L D K D L N R F V I G A M Q V S A
UniRef90UPI000426E6E1	L T F A E V V G I V E G T V L L G G R D G L H K T L Q K F V I G A M Q L P D
UniRef90_U5Q9R8	V K D V I E K L N L E I F S A P E G V D R V V V K G
UniRef90_X0T6C2	T V R E L A D G I N G K I L A G E E Y T D A L V E N L A V G A M G V D H A T
UniRef90UPI000463CB9D	
UniRef90UPI0002D7DE5C	L T F N E I V K I I V D G Q V L L G G K Q G L H K T L L S K F A I G A M E I K D
UniRef90_V7I5Z5	I T Y K E V V L R I V D G E L L A G E G G G L D K T V S R F N I G A M T L D A
UniRef90_K1M4C5	I T Y R Q I V P I I E G E I I L G G E T V G D R H N R F F I G A M T L D Q
UniRef90_I4E067	M I T V N Q L V E K M E L E V I A G A T G L S Q V V E G M Y I G D L L S W V M A
UniRef90UPI00047A4A7E	L T F A E V V N I V D G E V L L G G A G G L H K S L N K F V I G A M Q L E A
UniRef90UPI000248D24A	L T F S E I V K I I I D G Q V L L G G R N G L I K T L T K F A I G A M E L N D
UniRef90_H3S15	L T F E E I R S L V D G E V L L G G K A G L D K T L N K F V I G S G A A L V G
UniRef90_F9ZSS8	M K V S Q I I E A L S L K V L L A G E S F L D R E V C S A G
UniRef90UPI000471CEF4	L T F E E V V N I V D G E V L L G G M N G L E K T L H K F V I G A M E L D A
UniRef90_F5LKR9	L T Y S E V V N I V D G T V L L G G R S G L L H K F V I G A M K V D A G
UniRef90UPI00036543A6	M K V R E I V A E K L E L T V Y S G H S G L D N E V I G
UniRef90UPI00047E0A16	L T F A E V V N I V D G Q V L L G G K E G L H K T L N K F V I G A M K I I E A
UniRef90_I8AIC4	L T F D G V A G I V E G Q V L L G G A A G L D K P L H K F V I G A M E L D A
UniRef90_L0EH87	L T Y H E I A E I T R S E V L L A G Q A G G L D K F E S K F S I G A M T E Q N
UniRef90_A8AY18	L T F G E V V Q I I E G D V L L G G A A G L D K D L N K F V I G A M K E S A
UniRef90_C9ABM3	L T F S E I V K I I I D G Q V L L G G R N G L I K T L T K F A I G A M E L N D
UniRef90_U1E9W1	L T F E E I R S L V D G E V L L G G K A G L D K T L N K F V I G S G A A L V G
UniRef90_R6N0W0	M T V Q Q L K E A L S L K L L A G E E G S Q E V S G C Y I G D L L S W V M G
UniRef90_F6CK40	L T V T E F Y E T L V G G E I V L A G E E N M D R L V E D V I V G A M T I E S A G
UniRef90UPI00040D7F8B	M L T V R E L L R D L D V G V L L A G E A N L D R W H I S E L A D P T P W L S G G
UniRef90_C0JZY9	M T V K E I I I E K L D L Q C L N E A N L D V E V S G A Y A S D L L S D V M G
UniRef90_B2A6D1	V T F A E L I I K I V N G T V L L G G R E G L Y K P L N K F V I G A M K L K D
UniRef90_G5JG54	L T F N E I V N I I D G Q I I L G G H K G I T K T V S K F A I G A M E I K D
UniRef90_W8YZD5	L T F G D V A E I V E G Q Q V L L G G A E G L Q R T L H K F V I G A M E L E A
UniRef90_F8C4V2	V T V R R L L E I V N G G I V C G E D K L D E F V E N Y L V G A P G Q A L P
UniRef90_R2QHH6	L T F G E V V V R L I I E G D V L L G G A N G L D K D L N K F V I G A M T E E A M Q
UniRef90_E4KM04	L T F D H V L E A I Q G K V L L A G A A G L S K E L D H F L I G A M T E E A
UniRef90_B9E7B1	L T F A E V V N I I D G H V I L L G G R E G L H K S L T R F A I G A M E L N E
UniRef90UPI000377C437	T V A E Y L E A L G G E I L L S G D D R L L D R I V E D V I V G A M T I E S A G
UniRef90_I7LJA8	L T Y A E V V N I I V D G Q V L L G G R E G L H K T L N K F M I G A M T I D A
UniRef90UPI00046FECB7	L T F E E V V N I I T D G D V L L G G E A G I S K S L E Q F L I G A M T V D A
UniRef90UPI000255BF13	L T S F D S V V N I I V D G Q V L L G G K A G L L S R T L H K F V I G A M E M D A
UniRef90UPI000262809B	L T Y A E V I K I I V D G Q V L L G G R K G L H K T L N K F V I G A M Q L E A

50 60 70 80

UniRef90_U5NBT2	A F A N K K I N S V V V W G G M E C E F L F S L E E D K R L D V L K K I I L K N
UniRef90_U2ESE4	Y L N F I H P P Q V Q V I G E P E T A Y L D S I G A E Q L A H V L E R V T S G A
UniRef90_G0J768	F F N F I R P H V V Q V A G L C E L A Y L G A H P E A M E Q F L P H K
UniRef90_I6ZJN3	I F L E Q E L L S V V I W G Q M E C Q F L E T M E E S K Q I E T L K S I I T K N
UniRef90_K1SWM4	M S E Y Y A Y L K K F D E D T L T Q K L L D S Y F A L K
UniRef90_G2DB97	P L N L A R P Q P I Q V I G P P E R H L L E S L G S K G Y R H Y L E L L F A S R
UniRef90_UPI000255D6B7	Y V S D L L S D V M G N A D G D V W T L Q T H K N V M A V A S L K E E
UniRef90_T0SIP2	F K R Y I L S P N G L V I V G
UniRef90_C8NEX8	M T R Y I Q P E S L V I I G N R E D A Q L L A L N Q G
UniRef90_W6M1M1	R L N W V Q P P R L Q V L G A E E S A F L R R M G P T L R E N L I R E L L E P A
UniRef90_Q38YP3	I T R Y I T P K S L L I V G D R I D V Q R L A L E N G
UniRef90_L7WW48	I L R Y I G P Q T L L I I G N R R R N V Q L E V L K R G
UniRef90_X5D875	Y V S D L L S D V M G N A E G Q V W T L Q T H Q N V M A I A S L K E
UniRef90_F0QS84	A F A F K E I K T V V V W G K M E C E F L S S L Q E E R K L E T L K S I I L L K N
UniRef90_H6N5Y3	C F L N E Q N Q R S V V C W G K Q E S N F L D L F E E N K Q I E I L S K I I L E T D
UniRef90_B5EQC7	F F N F I R P Y P V Q I A G D C E L A Y L R A H P Q A M E Q F L S P N
UniRef90_Q6KIA8	I H N Y K N F G N I I V W G F T E Q E W F K T L N E K S L K E V L A K V F K L N
UniRef90_H3NKC0	M E R Y F D K D T L L M I V G N R R S E V Q R H S L K H
UniRef90_V6Q9Z1	M E R Y I S S H S L M I V G N R E S V Q R L A L E S
UniRef90_UPI000362A1EB	M E R Y I S E G S L L V I V G N R E D A Q R L A L E K
UniRef90_F0K6B3	K Y I D P G S L L M I V G N R E D A D V Q K L A I L N
UniRef90_UPI000471F5E7	T K T G S E R I V A W G T T E S K W F E S I G T Q K T K E L E H I F G F Y
UniRef90_UPI0003B4998F	H F E I D D N K N I I G F G T R E S N L M D S V D V D Q L E N N L K R I I F K Q K
UniRef90_UPI00028A2D3B	M L R Y I E A G N L L I V G N R E K A H K F A L E H
UniRef90_X0QMP0	M E R Y I T P K S L L M I V G N R E D G Q R L A M Q N
UniRef90_UPI00029AEA9E	Y I S D L L S D V M G N A E G D I W A T L Q T H K N V M A V A S L K E
UniRef90_B3WC64	M R P Y I T R N S L M I V G N R E D A Q R L A L E D
UniRef90_UPI0002898498	I H K Y I D A D C L F I V G N R E E L A Q K L A L E K
UniRef90_D3QC63	I L K Y I I S K Q T L L I V G N R E D A Q F E A L K R
UniRef90_Q5HNK0	I L K Y I G K H T L L I V G N R E E N V Q I E A L K R E T S K R
UniRef90_K1Y632	Y T S D L L S D V M G H A E G Q L W T L Q T H K N I M A V A S L K D
UniRef90_S1R200	I E R Y I V T P G S L L M I V G N R E D A R I N V Q R L A L E N
UniRef90_H3NEH0	M E R Y I L A D H S L M I I G N R Q E A Q K L S L E T
UniRef90_E0IBY9	M I R Y I D E G S L L I V G N R E E S A H R Y A L E Q
UniRef90_UPI00046F0D0F	Y V S D L L S D V M G N A E G M A W T L Q T H L N V M A I A S L K D
UniRef90_S3FIJ6	M M R Y I I D V D S L V I I G N R E E K A H E L V L Q S
UniRef90_E1QH48	Y V S D L L S D V V M A K A P A E C L W L T V Q T H Q N V A A V A V L K D
UniRef90_K6B355	Y T S D L L S D V M G H I E E G M L W I T M Q T H Q N I L A V A T L K D A
UniRef90_D5WST3	M L R Y I D K D C L L I V G N R E E E A H R A S L E H G R Q E V Q E L S L K N
UniRef90_K9ECQ4	M L R Y I I S K D S L L M I V G N R E D A Q F E A L H R L A L E H
UniRef90_UPI00037B0D03	M M G Y I I D A G S L L I V G N R E N A R Q E V Q E L S L K N
UniRef90_UPI0003B748F0	M I R Y I F S K D A I L I I I G N R K E A Q L E A L K H D V R T N I Q R L A L K H
UniRef90_U5P435	I L D Y I V S E G G L L I V G D R T N I Q R L A L K H
UniRef90_F9Z3K6	Y T S D L L S D V M G N A E G N I W T L Q T H K N I I M A I A S L K E
UniRef90_F9V7P4	V K K F L M K N S L M I V G D R K D I Q S M A L H G
UniRef90_UPI0002624E19	F L N F I R P H V V Q I A G T C E L Q F L R D N P L S F E Q F L T G K
UniRef90_UPI00036F36D7	M I K Y I E P D N L L I V G N R V Q A H M C A L G Q G R T D I Q L L A L H E
UniRef90_I7KIN1	I L K Y I L T H G S L V I V G D R Q E I Q K F A L R N
UniRef90_F3Y8A3	M A R Y I T P G S L L M I V G N R E E A Q K L A L E K
UniRef90_R7RSU0	M R Y I I S P G N L L I V G N R E E E A Q Q L S L E N
UniRef90_A0A011RKK7	M L R Y I T E E S L L M I V G N R E E E A N V H R M A L L E
UniRef90_UPI00036099AE	M L I A Y I D A D S L L I V G N R E E E A R T D I Q L L A L H E
UniRef90_UPI00037C3FD2	Y T S D L L S D V M G H A E G D V W T L Q T H K N V M A I A S L K E
UniRef90_F4LWJ2	M H K F I I E P E S L L I V G N R E E R K D A Q L L A L K H
UniRef90_E6LHL7	M E R Y I V T P G S L L M I V G N R E E R T N A Q K L A L E D
UniRef90_UPI000426E6E1	I V I R Y I T P G S L L M L V G N R E E Q V Q R L S L E H
UniRef90_U5Q9R8	Y T S D L L S D V M G H A E G Q I W T L Q T H K N V M A V A T L K D
UniRef90_X0T6C2	H F R R K P N K A V I T G G D R S D I H L A A L E T S
UniRef90_UPI000463CB9D	K S L E P S T R Y D K I K K L F S F D
UniRef90_UPI0002D7DE5C	V V K Y I L T M N T L L I V G N R A D V Q M E A L K R G
UniRef90_V7I5Z5	M K K Y I H P G G L L I I A G N R D D V H L L A L S S G V
UniRef90_K1M4C5	I E K Y Y L I P N T L L I V G N R R S N V Q K Q A L E H N
UniRef90_I4E067	L L R Y I L T E G G L L I I G D R T R I Q L L A L K H E N R S N V Q K Q A L E H N
UniRef90_UPI00047A4A7E	N I L R K I E P G N L L I V G N R T Q A H L Y A L G Q G
UniRef90_UPI000248D24A	M K R Y I E P G N L L I V G N R N K A H H S A L T R S N V Q K Q A L E H N
UniRef90_H3S115	M I R Y I E P G N L L I V G N R N K A H H S A L T
UniRef90_F9ZSS8	M M R Y I F L N F I R P H P V Q V A G R L E L D Y L R H Q P E Q I P Q F L N E R
UniRef90_UPI000471CEF4	Y C C D L L S R V M A R G E K G M V W I T V Q T H H M N I V A V A T L I E Q
UniRef90_F5LKR9	M M R Y I V E A G S L L I V G N R E E V H R L A L E Q
UniRef90_UPI00036543A6	M V K Y I I D P D S L L I V G N R E E R D Q V V H R I A L E Q
UniRef90_UPI00047E0A16	Y V S D L L S D V M G N A E G Q A W T L Q N H K N I I M A V A S L L K D
UniRef90_I8AIC4	M M R Y I V D P G S L L I V G N R E N A H E L A L N S
UniRef90_L0EHS7	M V R Y I I D A G S L L I V G N R E N A H R R A L E R H D R T E I Q R L A L K N
UniRef90_A8AY18	I M R Y I L T E G G L L I I V G N R E N A R N E V H K L A L E D
UniRef90_C9ABM3	M E R Y I T P G S L L V I V G N R E E R K D V Q L E A L K R G
UniRef90_U1E9W1	V V K Y I L S P H T L L I V G N R E E R K D V Q L E A L K R G
UniRef90_R6N0W0	R A K A G D A W L T V M G N I S A L A V A S L A D D R A D L A L A A L E T S
UniRef90_F6CK40	Y L R R A P N K A V I T G G D R A D L A L A A L E T S
UniRef90_UPI00040D7F8B	G E L L I T T G D R A D L A L A A L E T S
UniRef90_C0JZY9	N A R S G Q V W L S Q E T P D E Q R E Y I Y N L A D H G
UniRef90_B2A6D1	I S S Y I I S D G C V L L I V G N R E E A I T M Q T H K N V T A I A S L L K D
UniRef90_G5JG54	I M K Y I I G D N T L L I V G N R D D V Q F E A L K R E T
UniRef90_W8YZD5	M S R Y I I N E D S L L I V G N R E E R Q E A H R T A L Q Q G
UniRef90_F8C4V2	Y F L R V I H N K A V I T G G T G V H R T D I Q I L A M E T S
UniRef90_R2QHH6	I R D Y I F Q S R T L M I V G N R E N V Q L L A L E N G L R L G A Q R L A L K D
UniRef90_E4KMO4	V E K Y I I G E N T L L I V G N R E E D R A D I C L A A L E T S
UniRef90_B9E7B1	Y L R R A P N K A V I T G G Q K L A L D K
UniRef90_UPI000377C437	I R D Y I F Q S R T L M I V G N R E N V Q L L A L E N G L R Q D A Q R K A L E S G
UniRef90_I7LJA8	M E K Y M S P G N L L I V G N R E E A R V K A H E L A L N E
UniRef90_UPI00046FECB7	I N E V H K A I M I V G N R E E S V Q E Y A L K E
UniRef90_UPI000255BF13	M K R Y I I G A N D L L M I V G N R E E R V K A H E L A L N E
UniRef90_UPI000262809B	M M R Y I T E A G S L L I V G N R E E R V K A H E L A L N E

90 100 110 120

UniRef90_U5NBT2	P P L F L L S S N F S E V N L I K E [■] N E K N S S A I I I K [■] D Y S T K E I I F S S		
UniRef90_U2ESE4	T K L V V V A D G R S L I T Q L R D A F D R A G I A V F E T A A S G H R A A Y R		
UniRef90_G0JT68	L R L L V I C E D Q A L D D H L Y E A L K A R Q I A V L T T P [■] G A Q M V L A R		
UniRef90_I6ZJN3	P P L F L L S S N F T E V K L L D S [■] N K E F N S A I I I Q L D Y S T K E I F N S		
UniRef90_K1SWM4	P P V V V V S R E L E I F P Q M L E C A Q K Y K V P L L R T P E S T S V F L S S		
UniRef90_G2DB97	P A A L I F T D G L V P T D A C [■] R T L A A D S N T P I I I Y T S E P D A Q V I Q R		
UniRef90_UPI000255D6B7	V A A V I L V K G G L A P D D D T L E Q S N K E N I P L L G T K M E T F F E V A G K		
UniRef90_T0SIP2	Q N A V L V T G G F D V D Q E V V W D Y A N Q L G I P L L R T S Y D T F T V A N R		
UniRef90_C8NEX8	A A V L L I T G G F Q A T P E L I Q K A D E L K I P L M G T Y D T F T V A S L		
UniRef90_W6M1M1	A G A V L V C G E L D Q A E A L R L V A D A A G V P P L W Y T P A Q L G V A L E Q		
UniRef90_Q38YP3	G A A V L L I T G G F H T S D E V I A L A N E L A L P I L Q T Y D T Y T V A T L		
UniRef90_L7WW48	T A I I L I T G G F Q P T K E V I Q Y A D E H D L P V L S S S Y D T F L V A N		
UniRef90_X5D875	L A A V I L V K G F P E E D T F E R S N E E G P V L G T D K A T F E M A G N S		
UniRef90_F0QS84	P P L F L L S S N F S E V E L I K K A N E E N R S A I I I K [■] D Y S T K D I F T S		
UniRef90_H6N5Y3	P P L F L L S S N F R H S D L H K L N K D L N S A I I C M G Y S T L E I F T L		
UniRef90_B5EQC7	L R L L I C E G Q T I D E H F Y G D L N A R H I A M T T P A A A K G V L A R		
UniRef90_Q6KIA8	P P L V I L S K S L E T S N F I I E V A S F Y S I P P V V K T K F S I S E I H T Y		
UniRef90_H3NKC0	V A A V L L I T G G F K T D P D I I T L A N Q Q E L P I M T T H Y D T F T V A S M		
UniRef90_V6Q9Z1	G A A V L L I T G G F T T S E E I I A L A D R E N L P I L S T T Y D T F T V A T K		
UniRef90UPI000362A1EB	G A A I I L I T G G F E A S R A V T E F A N K K K L P I L M S T T Y D T F T V A T K		
UniRef90_F0K6B3	N M A V L L I T G G F D C S K E I K K L A N K E K C L P V I S S N Y D T F T V A S I		
UniRef90UPI000471F5E7	P P L V I C S N G Q K N K D I F K W A N E F E T P V V F V D T K L S F I T T T T		
UniRef90UPI0003B4998F	P P L V I T G G F E C S D R I K E L A N K N G L P I I S S T Y D T F T V A S M		
UniRef90UPI00028A2D3B	G A A V L L I T G G F E A S E E V V R L A N R L G L P I L M S T T Y D T F T V A A L		
UniRef90_X0QMP0	G A A V L L I T G G F S A T Q S I I D L S N E L A L P V L G T Y D T F T V A A L		
UniRef90UPI00029AEA9E	V A A V I L V K G L I P D E D M L A Q S N E E E L P P V L G T E M E T F E L A G K		
UniRef90_B3WC64	G A A V L L I T G G F E T S S A A I I A L A D D Q Q L P P V L Q T A Y D T F T V A T M		
UniRef90UPI0002898498	Q C A V L V T G G F E C S D R I K E L A N K N G L P I I S S T Y D T F T V A S M		
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1 10 20 30 40

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UniRef90_UPI000372ACEC	L T F E E E V V K I I V G G H V L L G G S K G L V K P L H K Y V I G A M E L E D
UniRef90_K1WQ38	V T V R E L V A Q L E A Q V V C G H E R L D L I V E T L S V G A M N V S A M K
UniRef90_C8X1Z8	I K I A D L A E R L L G G R I I S A P G K A D R V I E N F L I G T M Q V E F M T
UniRef90_H8I609	L R V F E I V E E L N G I V L A G N E N L S N A V E E K I I G A M S R E S A R
UniRef90_Q2JHH7	I S V G E L V R Q L D A E V L C C P D R M D L M V E D I A V G A M N V N S
UniRef90_UPI00046F6207	L T Y A E I V S I V D G M V L L G G R K G K L D K T L S R F V I G A M T I D A G
UniRef90_F9EKR5	P V T K L I V N E F D L E I K Y G E D K I I S T Y I K S S N V Y R P S L S I
UniRef90_D3FET8	M L T V R E L V R D I D I R L L A G E E A L D R W V H I T E L I A D P T P W L S G
UniRef90_D6SRP0	I I S V G D L I A K E L L G G R I I I S M Q S K S D Q V I Q N F L I G T M Q V E F M T
UniRef90_UPI0003771C72	I I K V G D L I A D R L L G G K I I S A H N K A D R V V E S F L I G T M Q V E F M T
UniRef90_D1YXL7	V T A G E I I A D E L H G Q V L A G G K G N L D S V S V N G I V V G A M S L D N
UniRef90_UPI000380E03F	I T F A E I A R I S D S E V V A G R E G L S Q E F S K F S I G A M T R E N S
UniRef90_Q31PX6	V S V T E L V S R L I N A E V L L C C R D R L D L M V E S L T I G A M N V N S
UniRef90_Q3AD02	L T L N E I I K I T E S H L V G E D L L N Y R F A N F L I G A M A V E A
UniRef90_K9WNA3	V S V R E L V H Q L Q A E V L C R S D R L D L M V E S L T I G A M N V N A A G
UniRef90_C9R912	T V A E F Y E V L L G G E I L T G E D K L G S A V E D V L V G A M T P E S A A
UniRef90_U4TR56	L T F G D I I L H I I D G T L L F G G E D G L D H R L D R F V I G A M T T D A M Q
UniRef90_UPI00028A3E25	L T F D S V V K M V D G Q V L L G G R G L S K S L H F F V I G A M E I D A
UniRef90_D9S2K2	L T Y A E V V N I V E G Q V L L G G R G L H K P L I G A M E L L R D
UniRef90_I3IJN1	V P I R E V V H A L N G K I I C C E D K M E E L I E H F M I G A M N V E S A S
UniRef90_M1ZHF0	L T F A E V V S I V V E G Q V L L G G R D G L H K R L I N K F V I G A M R L E D
UniRef90_D9R9G5	M T V R D V R D I L G A R V L L A G E D H L D E K I V S A C G S D M M
UniRef90_M0MFS9	I T V A D L I A D E L G A Q V L T D E I P L D G L I E R V S V G A M G S E A A G
UniRef90_B2A3R7	M M T L R D L I I A E L D L E V I V G E D E D K P I E G
UniRef90_A6TQG6	M N T V G D L I I K E L E L E V M A G Q E A M D K A V T G V Y I G D L L S W
UniRef90_UPI0002893E57	T I I K E V V D H K G K V L F G E F L N N Q A G S F G V G A M Q L H N
UniRef90_A3Z017	V T V E E L V V D R L I C C E R L D L L V E T L S I G A M N V N S A G
UniRef90_UPI000347214A	V S V Q E I I A T R L D A E V L L C C S S E H L D W M V E S L S I G A M N V N S A G
UniRef90_UPI000374AB6A	L T Y A E I I A R I S D S E I I L A G H S G L G H E F S K F S I G A M T R K N
UniRef90_B0BZA9	V S V S E L V V Q Q L Q A E V L L C G H E S F L N L M V E E L T I G A M N V N S
UniRef90_I7JX50	M K V R D L I I N S L N L K I L A G E K G K L E K D V V K G V Y C C D L L S W V M S
UniRef90_W4QDS9	L T Y A E E V V N I V E G Q V L L G G R G L H K T L N R F V I G A M K V D A
UniRef90_A0PYB8	L T S Y A E E V V N I V D G T L L G G K D G I H E R L I N K F I M G A M Q V E D
UniRef90_G2FZX3	L T L R E V V S Q I V E G V V I C G F E H L D R S P N K F I I A A M E L E A M G
UniRef90_A2U316	T V K E V V E E L E G K V L F G E Q F L D N A I G S F S T G A M Q L R N
UniRef90_UPI000479C87D	L T F A E V V N I V E G Q V L L G G K G G L H K T L N K F V I G A M E V D A
UniRef90_TOC382	L T F A E V V T I V E G T V L L G G R G G L H K S L I N R F V I G A M Q L D D
UniRef90_K9XSV7	V S V R K L I A K R L Q A V Q V L C R P D R L D L M V E S L S I G A M N V N S
UniRef90_UPI000344DD99	L T Y H E V V A Q V T G S E V L A G H A G L E G F S R F L I G A M E T D S
UniRef90_F0P3K1	L T F G E I A K I V D G H L I G G K G G Q F N S L T K F A I G A M E L D N

50 60 70 80

UniRef90_T0NCS5	I K K Y I S P G A L L I V G N R E E A	R A D V Q R Y A L K N
UniRef90_K1LWD7	M A K Y F A K E T L L I V G N	R I D A H R Q A L E A G
UniRef90_Q65G72	M M R Y T G A G N L L I V G N	D R S D L A L A L E T H
UniRef90_R4KMB5	Y L R R S A N K A V V M G G	
UniRef90_A0A033V346	V V K Y I T K N T L L I V G N R S D V Q M E A L K R G S	Q R L A L E N
UniRef90_U5SBT4	M V R Y I T P G S L M I V G N R E N A	R A D V Q R Y A L K N
UniRef90_X1RAY7	Y T S D L L S D V I A N S K E G N L W I T L Q T H Q N I I A V A K L	Q R L A L E N
UniRef90_D4YF50	M M R Y I E P D S L L I V G N	R D E I Q R I A L E N
UniRef90_G7WIN0	V I R Y I E A G S L C I L G N	R R D V Q M A A L N S H
UniRef90_F6CNM9	Y F R R T A D K A V I L G G	D R A D V A L A A L E T S
UniRef90_E5CLY2	V V K Y I G N Q T L L I V G N R	P E V Q M E A L K R
UniRef90_U7PDL5	M K K F M K P H A L M I V G N R E Y I Q L E S L	R H
UniRef90_K8ZJU9	M M R Y T D A G S L L I V G N	K Q G M
UniRef90_W7Y698	A M K Y F D R T R	R T Q A H E Y A L K T
UniRef90_F2F8X0	K Y T E A G S L L I V G N	N M A V V T G G D R T D I Q L A A L E K S
UniRef90_A0YZP8	M E K Y I K K D C L L I V G N R E E A	R V D A H E L A L N S
UniRef90_UP1000365B957	M M R Y V E Q S S L L I V G N	Q R L A L L N
UniRef90_W6NFN4	R Y I L T P G S L M I V G N	R Y Q V H K L G L E A G
UniRef90_UP1000365732F	H A A K G D A	W I T V H T H V N I V A V A L M A D D
UniRef90_G4L539	V P Y I T K D S L L I V G N R E E	I Q R L A L E N
UniRef90_A3DC95	A V K Y F R K R R N K A V	V T G G D R V E I I Q Q A A L E T S
UniRef90_J2Z5P7	F M T H F H Q N A A I I V G	G D R S D V Q L V A L E G D
UniRef90_D4TRR2	M M K Y T E K S S L L I V G N	R V K A Q E K A L N A G
UniRef90_UP10003B39933	I L R Y L V K G G L L I V G D R E A I Q L L A L E H A N	
UniRef90_UP10002E941EE	R Y L L V K G G L L I V G D R E E	N I Q L L A L E N
UniRef90_UP1000377B901	M R Y V E A G S L L I V G N R E D A	H S L A L E H
UniRef90_G5KDN9	Y A S D L L S C V L A G A S D G S V W V T L Q A H I N V V A V A A L L N	
UniRef90_UP100037063E0	M L K Y I E T G N L L I V G N	R V Q V H A R A L G Q G
UniRef90_W1Q5P2	M I R Y I D A G S L L I V G N	R L K A H E I A I K A
UniRef90_H0DF72	H Y L S K T M G G L L I V G D R E N I Q L L T L K K H N	
UniRef90_Q5M378	V V R Y I L S K N T L L I V G N R T D V Q L E A L K R G S	
UniRef90_UP100047CFD1C	K Q Y I E K D C L V I T G N R E	D V Q K L A L L N
UniRef90_UP10003828244	I P K Y I L S P N C L V I V G N R E	E V Q R L A L M N E C
UniRef90_K8GDM8	A L K Y F R K G R	N M A V I T G G D R T D I Q L A A I E T S
UniRef90_W1Q5P2	M E R Y F T D D S L L I V G N R E D V Q L F A L E K G V	R L E V Q Y E A L Q R G
UniRef90_H0DF72	V M K Y I L S S H T L L I V G N	D I Q L L A L E Y
UniRef90_Q5M378	I I R Y I L T K G D L L I V G D R E	D I Q K L A L I N
UniRef90_UP100047CFD1C	K K Y I S P G C L L I V G N R E	
UniRef90_UP10003828244	I H Y R Y I L T N G G L L I V G D R E D I Q L L A L E N H N	
UniRef90_C0QAH8	Y C G D L L S D I V M A N A E H N V W L T V Q A H Q N I I A V A V L	K E
UniRef90_W7CDW7	T R Y V E A D H L I I V G N R E A	Q K L A L E K Q
UniRef90_W4EIF4	M I R Y I D A D S L L I V G N	R D D V H S L A L E Q
UniRef90_F7XKZ4	Y F R R F P N N A V I T G G D R S T I Q L A A I E A K S R	
UniRef90_E3CH55	R Y L V K G G L L I V G D R E E	I Q V L A L E N
UniRef90_W7BAL3	M E R Y I T D A G N L V I V G N	R V G A Q E L A L E R
UniRef90_F2I681	I A S Y I L K P N L L M I T G N	R D N V Q E L A L S H D
UniRef90_I4A391	F L N H I D Q N S L V I	T P G D R A D I I L G S L Q A H
UniRef90_UP10002E259B6	M M R Y T G S G D L L I V G N	R N Q A H Q E A I K A G
UniRef90_Q12WB2	A I K Y F T P N S V V I T G	G D R S D I Q M A A I E A R
UniRef90_UP1000372ACEC	M L G Y I D A G S L L I V G N	R Q S A H R L A L Q Q
UniRef90_K1WQ38	Y F S Q S H N M A V V T G G	D R T D I Q M A A L E Q S
UniRef90_C8X1Z8	H F R R H Q N S A I L V G G	D R S D L Q L V A L E G K
UniRef90_H8I609	Y F E R V P N K A V I T G G	D R N D V S L A A L E T S S
UniRef90_Q2JHH7	A L K Y F D H K A V I T G G	D R T D I Q L A A L E T S S
UniRef90_UP100046F6207	M K K Y I L S S G S L L I V G N R E E A	H R L A L E N
UniRef90_F9EKR5	F F D L I E N G I Q I F S K I E F K F L E N L P P I E R	
UniRef90_D3FET8	G E L L T T G M Q	L S H D A E D Q R A Y V H R L A D H G
UniRef90_D6SRP0	F M A H F H K N K V I V G G	D R S D L H L V A M E G N
UniRef90_UP10003771C72	H F R K K N N S A I I V G G	D R S D V Q L V A L E G D
UniRef90_D1YXL7	A I K V F K P H R A I I	T A G D R A D T Q M A A L E A R
UniRef90_UP1000380E03F	I L D Y L V S G G L L I V G D	R D D I Q L L A L E H
UniRef90_Q31PX6	A M E Y F R K G R	N M A V V T G G D R A D I Q L A A L E T S
UniRef90_Q3AD02	I E R F L V E G C L F I V G N R E D A Q L K A L Q S G A H	
UniRef90_K9WNA3	Y F R K R N N M A V I T G G	D R A D I I Q M A A L E T S S
UniRef90_C9R912	Y F R R S A N K A V I T G G	D R T E I A L A A L E T D
UniRef90_U4TR56	E Y I T T A G A M L I V G N R E D A Q L M A L	R N
UniRef90_UP100028A3E25	M K R Y I G T D D L M I A G N R E A V H R C A L N S G	
UniRef90_D9S2K2	M Q Q Y V I E Q G D L L I V G N	R K Q A Q I L A L N M
UniRef90_I3IJN1	Y F R R F S N K A V I T G G	D R S D I H L A A I E T P
UniRef90_M1ZHF0	M M K Y I V E A G N L L I V G N R D E A	H R L A L L Q
UniRef90_D9R9G5	S D V L A F S K D H S V L L T G L C N P Q V I R T A E M L	
UniRef90_M0MFS9	Q F R R T R S A A M I T G G D R	S E V Q T A A L Q A S G
UniRef90_B2A3R7	F V M S R S A K N Y V W T L Q S H P N I V A V A S L V	
UniRef90_A6TQG6	Y C S D L L S F V M S R I E T G N I W V T I Q T H V N V V A V A L L G E A K	
UniRef90_UP10002893E57	Y L T H F K E N S L V I	T P G D R A D I I L G A I L Q P K
UniRef90_A3Z017	A M E F F R R R R	N M A V V T G A D R T D I Q L A A L E A S S
UniRef90_UP1000347214A	Y F R N R E N M A V V T I T G G	D R A E I Q M A A L E T S S
UniRef90_UP1000374AB6A	I T K Y I L V K G G L L I V G D	R K D I Q L L A L E N
UniRef90_BOBZA9	A L K Y F R K G R	
UniRef90_I7J5X0	H A K S Q N A W I T V Q I H T N I V A I A S L L E	N M A V V T G G D R T D L Q L A A L E S S
UniRef90_W4QDS9	M M R Y M E V G N L L I V G N R E E	I H K V G I E S
UniRef90_A0PYB8	A K K Y M V P G C L V I V G N R E E	D M Q E E A L K N G C
UniRef90_G2FZX3	R Y I L E D G A L C I V G N R R D A Q I C A L	K H
UniRef90_A2U316	Y L T H I K N N A L V I	T P G D R A D I I L G A I L Q P N
UniRef90_UP1000479C87D	V M A K A G S S N I W T I Q T H I N V M A V A T L V	
UniRef90_UP100036D2FB3	M M R Y T E A G N L L I V G N	R T K A Q E Y A L R A
UniRef90_TOC382	I T R Y I L N A G S L M I V G N R E E	Q V Q R L S L K S S
UniRef90_K9XSV7	A L E Y F R Q R E N M A V I T G S D R T E L Q M A A L E T S S	
UniRef90_UP1000344DD99	V V N Y V S K N T L L I V G N	R L D V Q K A A L E R
UniRef90_F0P3K1		

	90	100	110	120
UniRef90_T0NCS5	G C A V L I T G G F S C S E E	I E E L A D K N Q L P	S C T Y D T F T V A S M	
UniRef90_K1LWD7	G L A V L V T T G G F T C Q K D	I I E L A D R L E L P P	L T T V H D T F T V A S L	
UniRef90_Q65G72	A A V L V T T G G F D T E P E	I E L A D R L E L P P	V I S T S Y D T F T V A A M	
UniRef90_R4KMB5	T S A L I L T G G G L Y P D V G	V L A R A G E K G V P V I	L T Y Q D T F T V I E M	
UniRef90_A0A033V346	A A V L I T T G G F E A N E D	D I I N Y A D E H E L P P I	L S N Y D T F T L V A N	
UniRef90_U5SBT4	G A A V L I T T G G F N T N N D	I I L L A N K L P P	T T T Y D S F T T V A T L	
UniRef90_X1RAY7	L A G I I I V N N R E P D E N T	L G K A K E E S V P P I	C S E G M A F E I S G K	
UniRef90_D4YF50	D V A V L I I S G G F K P S D A	V V D L A N K R E V P P I	S V N F D T Y A T A T L	
UniRef90_G7WIN0	V S L L I T T G G F E P D E E	V V A L A K K N E L V P I	Q S P Y D T F A V V T S M	
UniRef90_F6CNM9	T S V L I L T T G G G L Y P D V K	V I A R A Q E K G V P P I	L V H Y D T Y T T T I E K	
UniRef90_E5CLY2	G S G I I I T T G G F S T A Q N	I I D Y A N Q K E L P P I	S S N Y D T F T L V A N	
UniRef90_U7PDL5	G S A V L I T T G G F E P D E E	I K R Y A D Q H D L P P I	S S N Y D T F T L V A N	
UniRef90_K8ZJU9	A A V L I T T G G F P P S E G	I K A A S E Y Y Q F P P V I	G T N Y D T F T V A T M	
UniRef90_W7Y698	V A A V V L V K G Y R P E Q A T	I D Q S N K E G P P I	L G T H L Q T F F E I A G L	
UniRef90_F2F8X0	G A A V L I T T G G F D T T E S T	K D L A D E L D L P P I	I S T Y D T F T T V A T M	
UniRef90_A0YZP8	T H C L I L T G Q I T P D P M	V L S R A E D L E V P V I	C V D L D T	
UniRef90_UP1000365B957	G A A V L I T T G G F D T T E E Y	V K K I A D E K D L P P I	S T S Y D T F T T V A T M	
UniRef90_W6NFN4	N S G V L I T T G G F Q C S D E	I R E L A N E K C L P P I	S T T Y D T F T T V A S M	
UniRef90_UP1000365732F	G A A V L I T T G G F D T N D D	V I Q L A D E L E L P P I	T T S Y D T F T T V A S M	
UniRef90_G4L539	A P V L I T T G G F D T S Q E	R A L A D Q L A L P P I	L R T Y D T F T T V A S M	
UniRef90_A3DC95	P C I I I P E G I E V E E A T	I K K A V E E D I P P I	L R T S K T A Y Q I V A S L	
UniRef90_J2Z5P7	G A A V L I T T G G G L G A S P	A I E L A N Q K A L P P V I	M T P F D T Y T T V A S L	
UniRef90_D4TRR2	T Q C L I L T G Q Q L P P P F	L H R A E E L E P P I	S V D L D T	
UniRef90_UP10003B39933	A P C L I L T G N L Y P N D	I L T R S E V L K T P P I	I I A R E D T F T T V A K K	
UniRef90_UP10002E941EE	A A I L I T T G G F D T T D Y	V K S L A D R Y E L P P V I	S C Y D T F T T V A A M	
UniRef90_UP1000377B901	A I L V T T G G F K V S D R V	L D T S N K L G I P P V I	M V T S Y D T F T T V A T M	
UniRef90_G5KDN9	Y N A I L V T T G G F P V S N R	V V K L A N N Q G I P P V I	M V T H Y D T F T T V A T M	
UniRef90_UP100037063E0	G A A V L I T T G G F G T S L	E V K A L A D E R G L P P I	I I S S R H D T F T T V A S M	
UniRef90_X0VHZ5	L S C V I V T E G R R P N Q E	C Q V K A N E E S G I P P I	L I S S E S T F T T V V S Q	
UniRef90_W2E8T7	A G I L I T T G G F D T S S E	V K S L A D E L Q L P P I	G S S Y D T F T T V A T L	
UniRef90_F9DW23	G A A V L V T T G G F D A T E E	V K H A D E M N L P P V I	I S T S Y D T F T T V A T M	
UniRef90_A0A023VMW0	A V L V T T G G F P I S K R V	I V E T A D K L G I P P V M	V T K Y D T F T T V A T L	
UniRef90_K9B8U8	A V L I T T G G F D T T D E I	K A Y A D D K G L P P I	S C Y D T F T T V A N M	
UniRef90_A5N356	G A G V L I T T G G F K C S S E	I K E L A N R K C L P P I	I S A N Y D T F T T V A S M	
UniRef90_U2EID0	A A V L I T T G G F G C S S E	I K K L A N E K A L P P I	I S S T Y D T F T T L A S M	
UniRef90_K8GDM8	T Q C L I L T G Q M S P D P D	V V S R A E D L E P P I	S V D L D T	
UniRef90_W1Q5P2	A A V L I T T G G F K A S Q D	V I S L A N E R N L P P V I	I S T F D T F T T V A T I	
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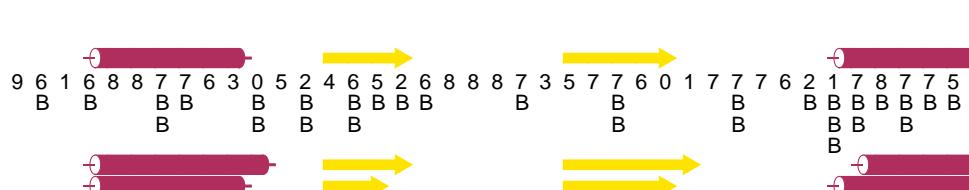
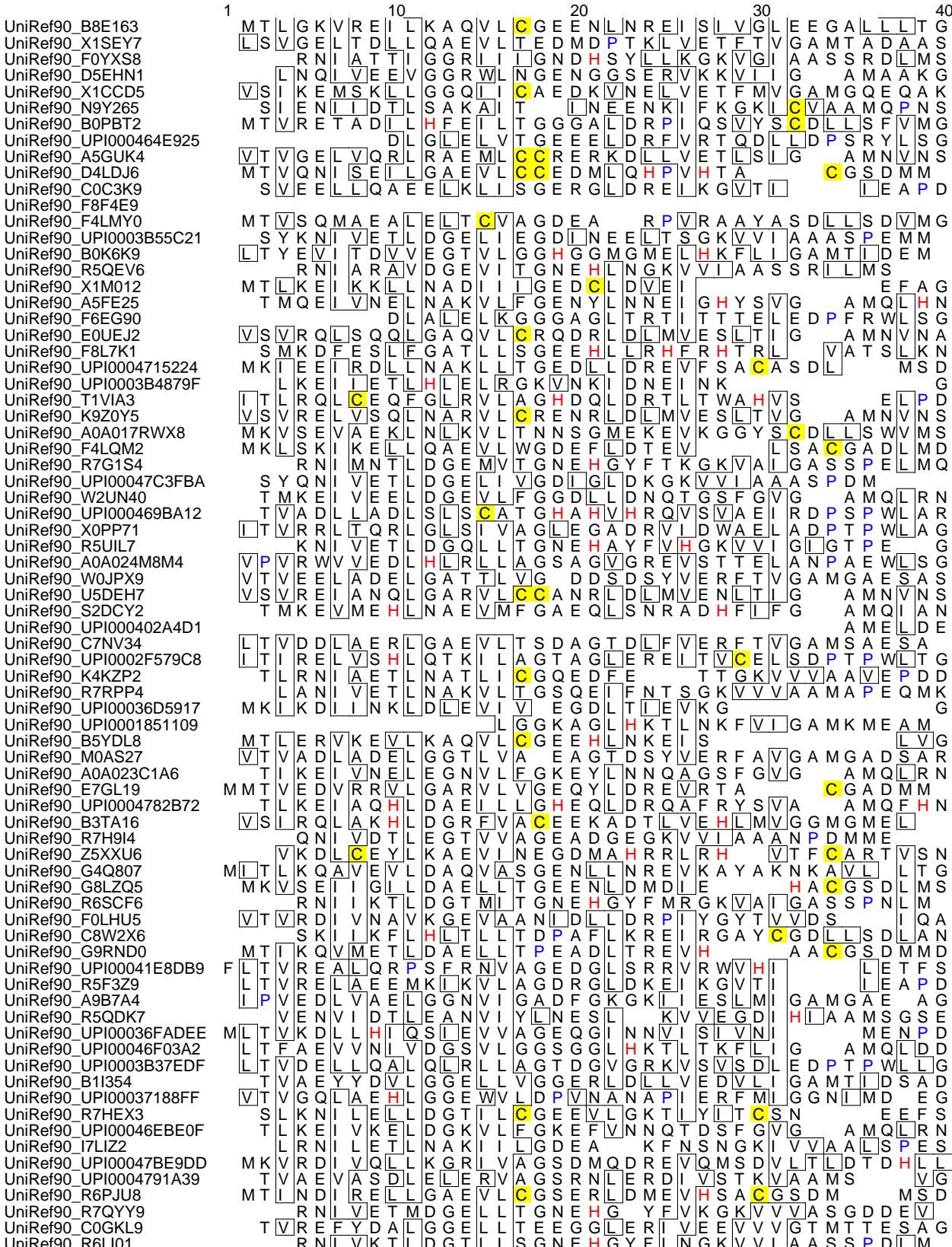
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UniRef90_I4C783	Y F R N A V N K A V I T G G	D R T D I Q L A A L E T S
UniRef90_Q7NP03	Y A C D L L S R V L A K A N E D S A W I T Q T	N V N V V G V A V I K R
UniRef90_I0GKP1	F M T H F R K S K I I V G G	D R S D V Q L V A L E G Q
UniRef90_C7LRJ8	Y F L R I P N K L V I	T G V N R T D I Q I L A A L E T S
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UniRef90_D7EA80	V L A F V E E Q C V L L T G	L C N L Q V I R T A E E M M D
UniRef90_A9KKF6	E E S I E A G D M V I I M G	D R Y E S Q L C A I E M Q
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UniRef90_G2SXH6	Y F E R H Q N K A V I V R G	V M G K A E P G M I W I T S Q V H K N I V A V A S L K E
UniRef90_UPI0003735FDE	R	D R P D I Q M A A L K T A
UniRef90_UPI000362C4C0	A K E D S V W A T I M T N V N V I A V A S L	A K E D S V W A T I M T N V N V I A V A S L
UniRef90_R7FWN4	Y A S D L L S D V I A N A K K D N I W I T L Q I H Q N I V G V A T L K E L	D R P D I Q M A A L K T A
UniRef90_X1D5W6	A I K Y F R K A T N M A V V T G G D R T D I Q L A A L E T S	A I K Y F R K A T N M A V V T G G D R T D I Q L A A L E T S
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UniRef90_T0C3F5	R A Q E G D A W L T V M G N V	R A Q E G D A W L T V M G N V
UniRef90_R5XY84	N S I G V A V L A D	N S I G V A V L A D
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UniRef90_A3XKM3	A L E Y F R K G R	N M A V V T G G D R P E L Q L S A L E T S S
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90 100 110 120

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UniRef90_K6WWH7	L A G V L I L T V G I R P H D D L L C R E A G L P V M V T H Y D T F T V S T M
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UniRef90_I0GKP1	V P I I I I T E G E F V I P E E T I K K A E E N S I I I I A R T T H T T F E E L S G K
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UniRef90_A9KKF6	A A C L I I I S I G G E C V S P A I I Q L A E E K N I C I I I R T A Y D T F I T A R
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UniRef90_UPI00036D2E3C	V A G L I G L G V G L S V P A V I V E V A E A H G F P V F E V P R P T F I I S K
UniRef90_I2N785	V V G G L I G F A V G V G V H V P D A L L E A R E A D E F P V L L E V P R K T P F L
UniRef90_M3DHY5	V A A L G F G V G L Q V P E A L V G A A E E A G L P L L E V P C P T P F V
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UniRef90_Q55458	T S C L I I I L T G H A G P Q P L I I S R A Q D L E I P I L S V D Q D T
UniRef90_XOSFM3	L S G I I V I I N G R E P E D E T K K K A E E E N I P M I S N N M T A F E L I G K
UniRef90_L8M5U8	T N C L I I I V T G N V T P K P L I I N R A E D L E I P I L A V D S D T
UniRef90_A3XMK3	I S G I I I L T G G G L K P E E P I I Q L I Q G L S V P I V S V N D G T F S V T N R
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UniRef90_UPI00036F3A0F	T N C L I I I L T G H S Q P Q D F I I N R A E D L E I V P I L S V D L D T
UniRef90_T2J7K1	T S C L I I I L T G H M D P Q P L I I S R A E D V V E V P I L S V D L D T
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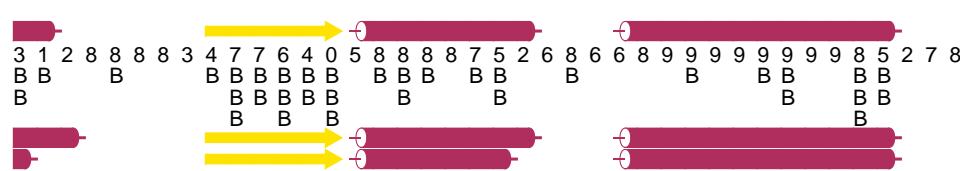
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L R I H
L I R
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I N R A F D R L
I N R A Y D Q L
I N R
M E E I L N S Q
I N H A L
I N H T S N A
V
M
L I N
I Q R E L
V T N
M E L I L N S Q
L I A R I D
L
L
L Y T L L E
M E A I L S R H
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L N D
L Y N L L S R E
V R
I
L Y G L L G A E
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V I S I I N E K



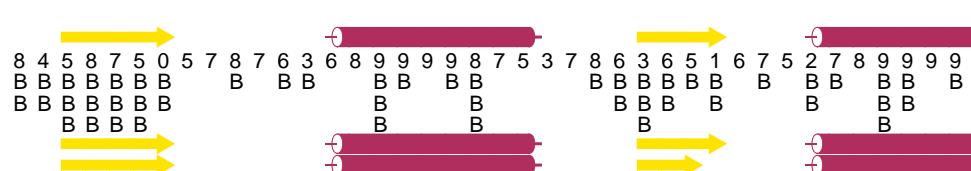
lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm

This figure displays a multiple sequence alignment of UniRef90 protein sequences, focusing on a specific region spanning positions 50 to 80. The alignment includes 100 entries, each represented by a sequence of amino acids. Identical amino acids are shown in black, while conservative substitutions are shown in grey. Non-conservative substitutions are highlighted in colored boxes, with red indicating a change to a polar residue (P), blue indicating a change to a charged residue (C), green indicating a change to a hydroxyl residue (Y), and yellow indicating a change to a histidine residue (H). The sequences show significant variation, particularly at positions 50, 60, 70, and 80, where many non-conservative changes are observed.

lupas_21
lupas_14
lupas_28
inet



	90	100	110	120
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UniRef90_X1SEY7	T V V L I L T G N L H P S P L I I Q Q A E M L N V P I L L V K D N T M E T I N S			
UniRef90_F0YXS8	V G C M V V C Q G A E V P D D I I E Q A R A K E I V I I S T P H D T F T V A R Q			
UniRef90_D5EHN1	G I I L T T R N V L P H P K L M S M I A K T Q I P V V I S N D E S Y D V A S K			
UniRef90_X1CCD5	T K C L I L T G N F Q P S T I V L G R A E E L G V P M I L V N F D T			
UniRef90_N9Y265	V S L M I I T G S N A L S N E L V E K A K A K G V T V I S T P H D S F T A S R L			
UniRef90_B0PBT2	V A C V V L A E G A A L D D D A R A K A E Q N D I A V L I R S S D P V F E T C L A			
UniRef90UPI000464E925	V A A L A T A R Y G A P P E D V V D A C R Y R I P L F R T N V A F A A V T E R			
UniRef90_A5GUK4	T Q C L I L T G A G D P L P Q L V S R A Q E L D V P L L K V E H D T L A T V A V			
UniRef90_D4LDJ6	I V C I V F V R G K K P D D A M L E L A Q Q R G I P P L L V T K H			
UniRef90_C0C3K9	V S A L I L K R G R K V E N A L L E E F S E T H G I P I L E V P F E F S D I M S L			
UniRef90_F8F4E9	V R A L V I T N G I T L E K D I L E L A E Q N R V S I I I S P F D T S S T S L			
UniRef90_F4LMY0	S P A I I I C N D R P L P S D M K E A C R A E G L A L F V T Q C S Q F T V S G R			
UniRef90UPI0003B55C21	A A C I I V C E G A E V A R T I K Q A S E H G T K I I T T P H D T F V V A R			
UniRef90_B0K6K9	G A A V M I T T G G F D T L P H I K E L A D K L S L P L I S T S Y D T F T V A T L			
UniRef90_R5QEV6	A S C M V V C Q N A S I S E E I I K Q A E K K Q I V I I R T P H D T			
UniRef90_X1M012	A K A I V V Y V R G K K P D K M G I E L A R E K G I P L L S T K L			
UniRef90_A5FE25	I S G I I L T G N I V P E E S I L K L I E G L S V P I I A V D G G T Y H I T N K			
UniRef90_F6EG90	V A A L G F G T G L T V P A D L I V A A N E A G L P L L E V P L P T			
UniRef90_E0UEJ2	A S C L I L T G N I A P D E L I L T R A E D L E I P I L S V K L D T			
UniRef90_F8L7K1	E A G I I L T G G T P P R H T I V E A L K K A N I P M L Y A P V S S Y K A M E M			
UniRef90UPI0004715224	V T A I V F V G G R T P A Q E V D M A M K K M G I A V L A T E Y T M Y E A C G R			
UniRef90UPI0003B4879F	L S G I V I I N G R E P E E E T I K K A E E E N I P I M V S K L P A F E L I G K			
UniRef90_T1VIA3	I A G I I G F G T G L Q A P Q T I V D A A T R F S V P L L D V P L R T P F I			
UniRef90_K9Z0Y5	T N C L I L T G H P P Q L I V A R A E D L E I P I L M V D L T T V E I I D R			
UniRef90_A0A017RWX8	F S C I I L P E N I E V D R V T L D K A N Q E N I A I L Q G E E S A F E L C G K			
UniRef90_F4LQM2	F V A I T F V R G K I P P K D V I E L A R Q V K V P L L R T S L P			
UniRef90_R7G1S4	V S C M V V C Q N A E V S E E V I K R A D E Q S T V I I S T P H D T F T A A R			
UniRef90UPI00047C3FBA	A G C I I I V C E G A D V A K T I R T Q A R E H G T K I I T T P H D T F V V A R			
UniRef90_W2UN40	I S A I I I L T G G G I T P E D T I L R L I D S Q V V P I S V K G G T F Q V T N Q			
UniRef90UPI000469BA12	V A A V G F G G V G L E I P A E W V A A A D A H Q I P I L R I P L S T S E F V A R			
UniRef90_X0PP71	T V A L A F D T G T T V P D G I R S A G D E L G L P I L A V P A S T P F I A I			
UniRef90_R5UIL7	C S C M I V T N G Y E I S Q E V I E A A K E R E V V L I I S T P Y D T F T A A R			
UniRef90_A0A0124M8M4	V A A V G F G T G L T V P D E V V V A A A E E L G L P I L E V P L R T			
UniRef90_W0JPX9	V R C L V L T T G G H R P P G A I L Q G A T E Q G G L P P V L S V Q T D T			
UniRef90_U5DEH7	A H C L I L T G Q V D P Q E F I L Q R A E A L E V P I I L N V D L D T			
UniRef90_S2DCY2	I A G I V L V T G G F E V P D S V L R L I E N T Q L P I L R V E E P S F Y A A T K			
UniRef90UPI000402A4D1	G A G V L V T G G F G T S D E V D V K A Y A N E R Q L P I I L T C K H D T F T V A S M			
UniRef90_C7NV34	I K A I I I L G G G F R P P S S A I I G R A E E E G V P I I L L Q S D T R M V I D R			
UniRef90UPI0002F579C8	V S G I I A I A E G M Y A P E L L L A A A D R S A F P I I L L T A Y			
UniRef90_K4KZP2	T T C L I L T C G G D P S Q E L I I E E A R S R N I V L I T T P I D T			
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UniRef90_M0AS27	G V V F V R G K G P D V I E L L A R N S N L P I I L S T K Y P			
UniRef90_A0A023C1A6	V K C L I L T G G I I P E P P I L K L I E S L S F P I I S V P S G T F S I T N K			
UniRef90_E7GL19	I V C V I F V R G K K P D Q K I I L D M A R E T G L V I M E T			
UniRef90UPI0004782B72	I A G I I I L T T G L K P Y N S V I K L L E P N I V P I I L S V K F N T F E T S K K			
UniRef90_B3TA16	T S C M V L T K G L I P E Y V K Y E A E Q E E V S V I I L M V V Q T D T L D T M E A			
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UniRef90_Z5XXU6	I G A I I I L T G G G F K P E D R I I M Q L C E Q A G L P I I I A T K E D T W R T S L L			
UniRef90_G4Q807	I A A I I I F V R D K H P E S D V L L M A A K R K D I P V I L V Y T K C T M F E A C G R			
UniRef90_G8LZQ5	I K V I V F V R G R K V P D E K V L V Q F A K E K G I I T I L I T K H P			
UniRef90_R6SCF6	A S C M V I I C K D A E V I S P K L I I Q K A E Q S I V I I Q T P Y D T F T T A R			
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UniRef90_G9RND0	C I V F V R G K K P D G A I I Q L Q A V D R G I A V L A T K L P			
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UniRef90_A9B7A4	T N A L V L T G N F R P Q Q S V I D R A E Q R N V P I I I I T I A D D T L T A V E R			
UniRef90_R5QDK7	P S L I V L T G S L T A D E N V V K K C E Q Q G I S I S T P F N T Y Q T S Q Q			
UniRef90UPI00036FADEEE	C A G L I C V K R Y F D L P Q N M I D H A N K Y G L P I I I E L P F T Y P L S K			
UniRef90UPI00046F03A2	G A A V L V T G G F D T T D E V K E L A N S L D P V I I T T S Y D S F T V A T M			
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