

QUERY UniRef90_G4E349 UniRef90_UPI00037132E6 UniRef90_K2K879 UniRef90_E0MJ17 UniRef90_W6MA86 UniRef90_W0AAJ2 UniRef90_UPI0003F770D1 UniRef90_C5BT02 UniRef90_Q15QS3 UniRef90_Q2SLA2 UniRef90_T0AMC8 UniRef90_UPI00039E8C1D UniRef90_UPI0001D2E43C UniRef90_UPI0003616B55 UniRef90_Q1H3J2 UniRef90_A7C4P5 UniRef90_F7RV84 UniRef90_M4S0C5 UniRef90_L8D241 UniRef90_B8IFN5 UniRef90_K4KJ31 UniRef90_S6CE10 UniRef90_N6W2J4 UniRef90_B6ITK2 UniRef90_K6ZHH3 UniRef90_K2BCB5 UniRef90_W2UDG8 UniRef90_N2J8Z5 UniRef90_UPI00047D283D UniRef90_C1DBA9 UniRef90_U5NAH8 UniRef90_UPI0002D8106D UniRef90_Q5P723 UniRef90_UPI00037E69DE UniRef90_UPI0003707D59 UniRef90_A9DH80 UniRef90_A4CFK3 UniRef90_Q1GSP2 UniRef90_UPI00035C121B UniRef90_UPI00037CDE97 UniRef90_L2EAF6 UniRef90_K2M8F9 UniRef90_UPI0002891FA3 UniRef90_UPI0002EB1230 UniRef90_UPI0003A31BF2 UniRef90_UPI00047A9136 UniRef90_Q0G095 UniRef90_L0DZ37 UniRef90_W0SJ62 UniRef90_UPI000382D3D4 UniRef90_C6WX76 UniRef90_I2JGQ5 UniRef90_G2DTK3 UniRef90_Q5NL76 UniRef90_B3PJN6 UniRef90_K2BK24 UniRef90_A4VPC5 UniRef90_Q8UDA0 UniRef90_UPI0003697669 UniRef90_B5JU06 UniRef90_W9H910 UniRef90_Q3SLR4 UniRef90_S6AJC1 UniRef90_UPI0003B70783 UniRef90_Q0VS83 UniRef90_K7ARY3 UniRef90_M2SE78 UniRef90_M7NTL5 UniRef90_J9DIA2 UniRef90_UPI00037FCE91 UniRef90_V8G776 UniRef90_M5DPB0 UniRef90_F9U5T5 UniRef90_Q8PNT9 UniRef90_UPI0003B6E7C6 UniRef90_UPI000317E513 UniRef90_UPI000426F53C UniRef90_UPI00029B386E UniRef90_UPI00035DEC90 UniRef90_UPI0003781CE91 UniRef90_Q1QXD2 UniRef90_B7S157 UniRef90_Q21FL7 UniRef90_Q0AGY6 UniRef90_A0Z9C3 UniRef90_U4TJV9 UniRef90_L8XUI6 UniRef90_UPI00036B25D1 UniRef90_R6HT89 UniRef90_E1VKU2 UniRef90_UPI0003B32A45

	1	10	20	30	40
M F T I N A E V R K E Q G K G A S R R L R A A N K F P A I I Y G G K E A P L A I					
F E L Q A E S R T D Q G K G A S R R L R R A G K L P A I I Y G A G K E P Q S I					
I Y T L D A Q V R T D K G K G A S R R L R H E N E Q V P A I I Y G G E K E P V S I					
F T I K A E L R T D L G K G A S R R L R R A E K V P A I I Y G G E K E P L A L					
T L L T A Q A R D R V G K G A A R E L R R N N M V P A I I Y Y G D K K D P L S I					
F E L K A E P R G D L G K G A S R R L R R A G K V P A I I Y Y G G Q D P Q P L					
L T L S A E A R E R N G K G A S R R L R R N N G R V P A I I Y Y G N K E D P A S I					
I K L N A E L R T D L G K G A S R R L R H A E K V P A I I Y Y G A D K E P V S I					
F T L L N A K A R D D Q G K G A S R R L R H D N L V P A I I Y Y G G E K D P Q N I					
I F T L D A E V R T D L G K G A S R R L R H E D K V P A I I I Y Y G G H K D A L S I					
F S L L N A E K R D V Q G K G A S R R L R R D G K V P G I I Y Y G G T K D P Q P I					
I Q F Q A T K R D A Q G T G A S R R L R Q R A G Q L V P G I I Y Y G G E T A P V A I					
I F T L T A E V R T D L G K G A S R R L R H E D K V P A I I I Y Y G G H K D A L S I					
K L L A A A V R S G T G K G A A R S V R R E G R I P G V I Y Y G G G D A P T P P L					
Y E L L K A S V R N R V G K G A A R A L R R E G L I P A V I Y Y G D K K A A L P P I					
I T I K A T K R E G K G T S A S R R L R R A G N V P G V V Y Y G G D K E A V S I					
F K I E A Q L R T E R G K G E N N R R L R K A G Y V P A I I I Y Y G G D K E P I S L					
Y E F F K A E I L R T D K G K G A S R R L R L E G N V P A I I L Y Y G G N A D A V S I					
L T L L S A E T R D R A G K G A S R A I R R E G R V P A V I I Y Y G N K Q E P L S S I					
L Y T L N A E V R A D L G T G A S R R L R N A D Q V P A I I L Y Y G A G Q E A V A I					
L E A V A R D R V G K G A S R A I V R R Q G R V P A V I I Y Y G G G Q S P Q S I					
F T L L N V E K R D V E G K G A S R R L R R A G K V P A I I I Y Y G G K S E P Q N I					
L L K A V T R E V Q V Q G K G A S R R L R R E E G M V P C I L Y Y G G G K E P Q M I					
F V L L E A F L R D D Q G K G A S R R L R R E E K V P A V V Y Y G G D K D A Q S I					
I A L L S A E L R D R A G K G T A R Q T R R E E G R I P A V I I Y Y G N K E K P V M I					
I F K L D A T I R T D G K R A S R R L R L Q D K V P A I I V Y Y G G E E A P I S I					
F E I I E A S V R Q N M G K G A S R R L R R E E K V P G V V Y Y G G G K N A V S I					
F T L L H A K G R E D T D G K G A S R R L R R A A E I P A I I V Y Y G G K T A P A K I					
F T L L N A Q A R S D L G K G A S R R L R R A E Q V P A V I I Y Y G G E K A P V S S V					
M K F K A T A R S V Q G S S A S R R L R R A G R V P A I I V Y Y G G T A A P S N I					
I E I I Q A Q Q R A D Q G S S A S R R L R R A G V V P G V V Y Y G A G K A A V A I					
M K I I S A F Q R A A Q G T G A S R R L R Q G R T P G I I Y Y G G G K E P Q P I					
I E L L N A S V R A E I G K G A S R R L R H A D K V P A V I I Y Y G G K E A V S I					
I V F K A T Q R V E Q G T G A S R R L R R A G Q V P G I I I Y Y G A D T D A Q A I					
L T L L S A E T R D R A G K G A S R H R R E G R V P A V I I Y Y G D N K E P V S I					
I K L L N A I A R S D E G K G A S R R L R R E G R V P P G I V Y Y G G E A E P Q S I					
Y E L L K A E A R A Q V G K G S A R E L R R N G L I P A V I I Y Y G D K K D P V S I					
Y T L L D A E L R V E L G T G A S R R L R R E G K V P A I I L Y Y G A D K E A V S I					
L T L L T A E T R E R G G K G A S R E E L R R N G R V P A V V Y Y G G K E E P L M I					
L A A A V R D G I G K G A A R S V R R E G R I P G V I I Y Y G G G D A A E P I					
I E F K A T K R V E Q G T G A S R R L R R A G Q V P G I I Y Y G S G E V E T					
M K V I A F E R S V Q G T G A S R R L R N S G K T P G I I Y Y G G A A E P K M I					
Y E L L K A E A R E R V G K G S A R A I R R N G K V P A V I I Y Y G D N E A P L S I					
F T L L N A S V R N D L G K G A S R R L R R A N L V P A V I I Y Y G G D K A P Q P I					
L T L L S A Q L R D R A G K G A S R R L R R E G R V P A V I I Y Y G D K K D P E A I V					
F T L L K A I A R D D L G K G A S R R L R R A D M V P A V I I Y Y G G E K A P Q S V					
I I A A E P R T E F G K G A A R R T R R A G K V P A V L Y Y G H G T D P T H					
F E V K A E K R E K V G K G A A R A L R R R N A M I P A V I I Y Y G D N K D P L P I					
F V I I E A E P R L E Q G S S A S R R L R R T G R V P G I I Y Y G G T A K P Q V T					
L E F N A N K R D Q G T G K G A S R R L R K Q N L V P A I I I Y Y G G N E E P T A I					
I E I I N A V K R D A K G T G A S R R L R H A G S V P G V V Y Y G G G K D A Y P L					
Y T V I S A T V R A D V G K G A S R R L R R E G E I P A V I I Y Y G G E K A P Q M I					
Y E I I Q A T V R E N Q G T G A S R R L R R E G Q V P A V I I Y Y G E Q E P V A I					
L N L L I A K K R D R A G K G A S R A I R R E G L V P A V I I Y Y G D K T P A M G I					
F K L L D A T A R N D L G K G A S R R L R R A D Q V P A I I I Y Y G G S K A P V N V					
F E L L E A H V R E D I G K G A S R R L R H A D K V P A I V Y Y G G N N A P Q S I					
F T L L N A Q V R S D L G K G A S R R L R R A A L L V P A V I I Y Y G G N N A P Q S I					
Y E L L K A E A R E R V G K G S S R E E L R R N G L I P A V I I Y Y G D K Q A P I S I					
M N A E P R N D Q G K G A S R R L R R E G K V P A I V Y Y G G A D A P I S I					
F V I I K A Q V R E D L G K G A S R R L R R A D K V P A V L Y Y G S G D P V S I					
F V L L A A E A R D R A G K G V A R Q T R R A G R I P A V I V Y Y G N K E K P V M I					
I E V I I A S K R E L Q G T G A S R R L R H A G K V P G I V Y Y G G S T A P V Q I					
I E I I S A T A R T L Q Q G T G A S R R L R R T G R I P A V V Y Y G G E K D A A A I					
Y T L L T A E V R T D E G K G A S R R L R T G K V P A I I Y Y G G S G E P V S I					
F F L L N A E S R S D T D G K G A S R R L R R Q E R V P G I I Y Y G G E A E P Q M I					
I F T L L K A E A R E R V G K G S S R E E L R R N G L I P A V I I Y Y G D K K D P E S I V					
L L T L L E A E V R T D L G K G A S R R L R H A D K V P A I I L Y Y G E G K E S V S L					
UniRef90_V8G776					
M K F T A T S R S V Q G S S A S R R L R R A G R L P G I I Y Y G G K G E A L S I					
F V F T L L S A E L R D A G K G A S R R L R R E N G V P A I V Y Y G G K A K P Q A I					
F E I I I N A Q P R A L A G T G A S R R L R T G Q V P A I V Y Y G G H Q E P E M V					
E I K I V E R R A D E G K G A S R R L R H A G V I P A I V Y Y G G E L E P V S I					
Y T V I N A K A R T D V G K G A S R R L R R A S E V P A I I I Y Y G G D K A P Q M I					
M K V I A F P R K E Q G T G A S R R L R K A G Q T P G I I I Y Y G G N G A P V T V					
N I T I T A S R S K D E G K G A S R R L R R S Q V P A I V Y Y G G H A E P Q S I					
F E L L T A Q T R K A F G T R A S R R L R R E N Q I P A I I L Y Y G A G E P P L A I					
I V L L N A T A R K R D I G K G A S R R L R R A D L V P A I I I Y Y G D N K E P E S I					
T I I V A E P R R E I G K G A S R A A R R A G K V P A V I I Y Y G D N K E P E S I					
F T L L S A E V R H D L G K G A S R R L R R E N K V P A V I I Y Y G G S K T P Q P I					
F E V I Q A E L R E D T D G K G A S R R L R R A G K V P A I I Y Y G G D K D P Q S I					
F I L L N A E A R D V S G K G A S R R L R R E G L V P A I I V Y Y G G R K N P Q N V					
I E I I S A N S R N L I H G T G A N R R L R I Q G R L P G I I V Y Y G G G T A Q P I					
F E V I Q A Q V R V D E G K G A S R R L R R E G K V P G I I V Y Y G G E A A A I S I					
I E L L P A A L L R Q D K G K G A S R R L R R A D Q V P A I I V Y Y G G N K D P M S L					
F I F K A S L R Q D M G K G A S R R L R R E G L I P A V I V Y Y G A G Q E A V S I					
I A A E P R T E F G K G G A R R T R R A G K V P A V L Y Y G H G K P P R H					
I T F D A K L R E K A G K G A S R R L R R E N K V P A V I I Y Y G G N K E A L M I					
F V L N A S L R T D L G K G A S R R L R R A G E I P A I I I Y Y G G D A A P A T I					
I R L L A A E T R T E F G K G G A R R T R R A G K V P A V I I Y Y G H G A D P R H V					

QUERY	50	60	70	80
UniRef90_G4E349	D H D K V M N M Q A K A E F Y S S E	V L T I V D G K E I K V K A Q D V Q R H		
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UniRef90_K2K879	V L D H N K V I R A Q E N E G F Y S S H	L L T L L N D G D A V E V I L K D V Q R H		
UniRef90_E0MJ17	T L D H N K V N N M A D Y E A F Y S S H	L L D I E V D D G K K H K V L P K D Y Q L D		
UniRef90_W6MA86	A L P R K E T T L A I H A G G F M T T	L L D I E V D D G K K H K V L P K D Y Q L D		
UniRef90_W0AAJ2	V L S H L D I L N Q L K N E A V Y S S H	V L T L L S F G D R T E S V V L R D M Q R H		
UniRef90_UPI0003F770D1	H V E E K A L F K L L H T G H F M N S	V V M V E V G G K A V R T L P K D V Q F H		
UniRef90_C5BT02	T L A H N E V I K A Q E V E A F Y S S H	I I T L V I D G N E E Q V L V K D M Q R H		
UniRef90_Q15QS3	A I A Q N E F V K H L E N E A F Y S S H	I V T L V V D G E K Q D V I L K D L Q R H		
UniRef90_Q2SLA2	T L S H N K V F Q A Q E F E A F Y S S H	V L T L L N D G G K K V E A V I K D M Q R H		
UniRef90_T0AMC8	S V S H N Q L S H A L Q N E A F Y S S H	I I T L L D V E G T N E S V I L K D L Q R H		
UniRef90_UPI00039E8C1D	T L L D H N E L Y H L L K K E V F H S S	L L S V E V D G E K E T V I L R D T Q W H		
UniRef90_UPI0001D2E43C	T L L E H S K L L K A Q S F E A F Y S S H	I I T I T V G K E K I Q A I V K D M Q R H		
UniRef90_UPI0003616BEG5	S L L D Q K E L T K L I Y A G H F L T T	I F E L D I D D G K T E R A I P R D Y Q L D		
UniRef90_Q1H3J5	S I P L K E T T L A L H K G G F L T H	A I I D V D G E K H Q V I A K D F Q R H		
UniRef90_A7C4P5	E F N H K E L F L E F R H E T F F H A S	I I I D V D G Q K E Q V V L R D Y Q L D		
UniRef90_F7RV84	T L S H N D L L R Q L E H E A F Y S R I	I I I T V N I D D Q P E Q A V L K D L H		
UniRef90_M4S0C5	T L L D H D K I I N A A D H E G F Y S S H	I I I T L H I D G G K K H Q A I L K D V Q R H		
UniRef90_L8D241	H L E E K V L V K A L H T G H F M N S	V V L I D A G G G Q Q I R T L P K D I Q F H		
UniRef90_B8IFN5	T L L D H S K V L K A Q E D E G F Y T H	I I I T L N I G G E S V E A I L K D V Q R H		
UniRef90_K4KJ31	S L L D A N Q T H H I Y G G G F L T T	V F E I I E V G G R K I L R A I P R D Y Q L D		
UniRef90_S6CE10	Q I S H K D L V H H L E N E A F Y S H	I I I S L V V D G G K A E D V I L K D L Q R H		
UniRef90_N6W2J4	A T R H N E L V H E L E D E S F F S R	V L T I I E I D G G T P V K A V L K D L Q R H		
UniRef90_B6ITK2	S L W H N D L K K A L E N E A F F S H	I I I T L D V D G K K E S V I L K D L Q R H		
UniRef90_K6ZHH3	T L L E H N K V N Q A Q E F E A F Y S H	V L T I I N D G K K V E V L V K D M Q R H		
UniRef90_K2BCB5	T L L E H N K M S K A L E I E A F Y S H	I I I T L R T G T E S E R V I L K D V Q R H		
UniRef90_W2UDG8	S M N H K D V A K A L E N E A F Y S H	I I I T L D V D G K K S Q D V I L K D V Q R H		
UniRef90_N2J8Z5	T L L E G K D L A K L L N E A A F F S H	V I I N L V D G Q Q N E S V L I K A L Q R H		
UniRef90_UPI00047D283D	E L D H N E I Y H A L R K E E F H A S	I I I L Q M E L D G G K D H P V I L R A V Q W H		
UniRef90_C1DBA9	S F D H N T L Y Y A L Q K E E G F H S S	I I I I L N L V I D G G A T E Q V F V R D V Q M H		
UniRef90_U5NAH8	E F D H N T L W H A L K K E A F H S S	V I I I L T L E V D G T E G Q A L L R D V Q M H		
UniRef90_UPI0002D8106D	T L E H S K V L K A Q E Q E Q Y S Q I	V I I I I N I D G E K V E A I V K D M Q R H		
UniRef90_Q5P723	T V D H N E L Y H L L K K E T F F H A S	V I I I I M I E L E G A K H T V V L R D V Q W H		
UniRef90_UPI00037E69DE	H V I N E R E L M K A L N T G H F M N S	V I I I I V M I E G A G A A I R T L P K D V Q L H		
UniRef90_UPI0003707D59	S L L Q K D L F K A L E N E A F F S S M	I I I I T V D I D G K E E K V I L R D L Q R H		
UniRef90_A9DH80	A L S R K D V T L K I H A G G F M T T	I I I I T V D I D G T K Y S V L P K D Y Q L D		
UniRef90_A4CFK3	V L A H K E V I K A Q E D E G F Y T H	I I I I T L N L N G E K V E V I L K D M Q R H		
UniRef90_1QGPSP2	H V E E K L L M K Q L M T G H F M N S	V I I I I V M I E V G G K Q I L R T L P K D V A F H		
UniRef90_UPI00035C121B	A L D Y R E V N K L I Y A G H F L T T	I I I I F E I D V D G G K Q R V I P R D Y Q L D		
UniRef90_UPI00037CDE97	S M D H N E I Y H L L K R K E A F H A S	I I I I I S V D E V E G A K Q A V L L R D T Q W H		
UniRef90_L2EAF6	E L D H N A L W H A L K K E A F H S S	I I I I I L D L E V A G K S E K A I L R A F Q M H		
UniRef90_K2M8F9	T L L P Y K E V F L K I H A G G F K T T	I I I I I A T I I E V D G K K I K V L P K D Y Q L D		
UniRef90_UPI0002891FA3	S L E K A P F Y K A I E D E T F F S S	V I I I I I T A I I E V D G K K I K V L P K D Y Q L D		
UniRef90_UPI0002EB1230	H I E E R A L N K L L G T G H F M N S	V I I I I I T A I I E V D G K K I K V L P K D Y Q L D		
UniRef90_UPI0003A31BF2	S L E A R E L K K A L E N E A F F S H	V I I I I I V K L I N V D G G K K Q D V L I K A I L Q R H		
UniRef90_UPI00047A9136	S L L P G H E E L M M A L L K T P N A I L L A I	E G L D G G G K Q L A L P K D V Q R D		
UniRef90_Q0G095	A L L P Y K E T F L A L H A G G F M T N L	I I I I I A T I I V T G K E I K V L P K D Y Q L D		
UniRef90_L0DZ37	T L L D H N A I L Q N L K H D A F Y S H	I I I I I I T V N L S G G K T E R A I L R D V Q R H		
UniRef90_W0SJ62	D I D H N E L F Q Q L L R K E A F Y S S	V I I I I I I T V N L N D G G K K E M C L R D V Q R H		
UniRef90_UPI000382D3D4	S I I K D N E L L R K L L E N E A F F S S N I	I I I I I I T I E L D G G E D H L A V I K D L Q R H		
UniRef90_C6WXT6	E I I N A K E L F L I Q F R H E A F H A S	V I I I I I I E G G K K E S V L L R D F Q M H		
UniRef90_I2JGQ5	N L I H K D L I R L L N D E A F Y T S I	V I I I I I I T L D V D G Q K V S V L L K D L Q R H		
UniRef90_G2DTK3	T V D H K T V F Y A L L A K E S F H T A L	I I I I I I T L N L D G Q K T Q D V I V R D F Q M H		
UniRef90_Q5NL76	T V D H K A L F K M L N T G H F M N S	V I I I I I I T L N L D G Q K T Q D V I V R D F Q M H		
UniRef90_B3PJN6	S V S H N E L L K H L Q H E A F F S H	V I I I I I I T L N I D G G T S E S V I L K D V Q R H		
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 P A K P F I L H V D F Q R V
 P [V] R N N I V H I D F Q R
 P Y K Q L I L H V D F Q R V
 P Y Q N L V M H V D F [L] R V
 P A R E T I M H V D F [L] R V
 P A K G F V L H A D F Q R V
 P [L] T D K I L H I D F Y R
 P Y K P K [S] H I D F V R A
 P [V] T D Q P I H V D F [L] R V
 P F K P [L] V L H I D F Q R V
 P [V] R D E P V H I D F Q R V
 P F K P K L V H I D F K R A
 P [V] S G V P L H V D F [L] R V
 P F R P L V L H V D F M R V
 P [V] T D V R H V D F
 P F K P K L S H V D F V R A
 P I K G F L E H V D [L] L I V
 P A K P F V L H A D F [L] R V
 P A K N V V T H I D F L R V
 P A K G F I M H A D F V R V
 P Y K V K L I H A D F M R V
 P A T G A A F H I D F Q R A
 P [V] R D V P V H V D F [L] R
 P L K G F I E H V D [L] L L V
 P I R D T P L H V D F Q R V
 P V T D T L V H V D F I R V
 P I K D T F E H V D [L] L L V
 P I K G F L E H V D [L] L Q V
 P V K D H P I H V D F L R
 P A K V L V M H A D L Q R
 P F K Q Q M L H M D F L R
 P A T D F P M H I D L E R V
 P F K L Q V L H I D F Q R V
 P [V] R E T P V H V D F [L] R
 P F K P [L] T H I D F L R
 P T K P K I M H M D F L R
 P A K V Q V L H L D F M R V
 P F K P K L V H M D F V R V
 P I K G F I E H V D [L] L V V
 P V K R Q V Q H I D F Q A V
 P A N N K V L H L D [L] Q R V
 P Y R P I V M H V D F Q R
 P I R P G V Q H V D F L L V
 P Y K Q Q V L H I D F Q R V
 A I K G D I E H V D [L] L T V
 P V R N V I E H V D L L I V
 P V T D R P E H A D F L R
 P F R Q E V Q H I D F Q R V
 P I K P I I E H V D [L] V V V
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 P A K N T P M H A D F Q R
 P V T R K [L] L H A D F L E V
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 P V T D Q P M H V D [L] L R V
 V V K D T L A H V D Y L R V
 P I K N Y I E H V D [L] L V V
 P L K D D I V H A D L L I V
 P I K R T L T H A D L L V V
 P Y K P K V T H I D F K R V
 P V T E V A L H V D [L] Y R V
 P F K P K L T H I D F V R V
 P F K R S I L H I D F Q E
 P V T D E I L H A D F
 P A K G H V L H A D F V R V
 P S R P V I M H A D L L R
 P W K P L V L H A D F Q R V
 P I R G V L E H V D L L I V
 P V S D L P W N I D F L R V
 P L K D T Y K H V D L I I V
 P V T D S I I H V D F L R
 P V T D N A I H A D F L Q V
 P V K G R I E H L D L L L V
 P I R H T I Q H A D L L L V
 P V K R Q V Q H I D F Q V V
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 A F K D E I V H V D L I R
 D V R R V I E H V D F V A V

1 10 20 30 40

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UniRef90_I0DPJ8	M I I I K A E A R K D Q G K G A S R R L R H A G K F P A I V Y G G N Q E A I S V	
UniRef90_D5CLY5	F K F E A E V R S A Q G K G A S R R L R H N G Q V P A I I Y G G N A E P V S I	
UniRef90_G7LN83	I A A T V R S D L G K G A S R R L R R S D H I P A I I Y G A G K D P A P L	
UniRef90_I0HI84	I V L E A Q L R T E F G K G A A R R I R R R N D M I P A V L Y G H G E T P V H	
UniRef90_A3MZK5	V F E F I A E A R S T G S S A A K V V R R K G K V P A V I Y G G S D A P E M L	
UniRef90_A4A593	I L E A Q L R T E F G K G A A R R I R R D K V P A V M Y G H G T D P V H	
UniRef90_E3BCV9	F V F E A E V R S D L G K G A S R R L R H E D K V P A I V Y G G N Q E P V A I	
UniRef90_F9ZXN2	I I L N V E V R D G A G T G N A R A T R R A G K V P G V L Y G G G K A P V N I	
UniRef90_H2FWQ6	M K F D A T L R S V H G T S A S R R H L R H K G R I P A I V Y G K N S P L N I	
UniRef90_B8GZU9	S I Q A I V R D V Q G T G A S R R L R R A R A T R R Q G L V P A V I Y G A K E E A T L I	
UniRef90_M1LTG9	I T F N I E L R E R I G T G G A R E A R N N G F V P G V L Y G G G E D P V A I	
UniRef90_UP100036A9A4C	M V F T A E I I R E S E G K G A A R A L R R N D R I P A I L Y G G K E D P V M L	
UniRef90_H0A727	L T V Q A E L R E T T G K G D A R M R R A G L L P G I I Y G G D K P D L P I	
UniRef90_A0A059G5X9	F T F E A Q V R S D L G K G A S R R L R H A N K F P A V I Y G K G E E A I S I	
UniRef90_F7XV26	Y T L H A V V R E E Q Q G K G A S R R L R R Q G L V P A I I Y G G N T E P Q A I	
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UniRef90_UP1000362613C	I I L N V D V R E N I G T G G A R A A R R S G A V P G I L Y G G D K A P V A I	
UniRef90_A5EWV0	M F T F D V A V R K E Q Q G K G A S R R L R A A N K V P A I I Y G G A A A P V S I	
UniRef90_S3ZFP3	M N I L K A T K R T I T S T Q G V N K L R S D G R I P A I L Y G G K K N N L N I	
UniRef90_R7JI98	M V T I N A E L R D V K K K A M Q A L R E K G S I P A V I Y G K G H D N V N	
UniRef90_D9QM47	I I E A S A R S R A G K G V A R A T T R R E G K V P A V I Y G A R Q E P S L I	
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UniRef90_B3CMB8	K L T T A T V R E R T G K G A S R R R A R R E G K V P A V L Y G H G T E P R H L	
UniRef90_K5YV7D	F S F S A E P R E A Q G K G A S R R L R H T C P A V V Y G H H A E A E S L	
UniRef90_W7WVH6	I T L K A T A R T T G S G G K G A R Q A R Q A R D G K C P A V V Y G H G S E P R H I	
UniRef90_A4BMQ9	I K L V I A E A R N D F G K G A A R R L R R R A E K V P A V I Y G H G A E P K H V	
UniRef90_D7BKN8	L T V E P R T E F G K G A A R R L R T R A G K I P A V L Y G P G S D P R H L	
UniRef90_G7CCE9	T L E A Q A R E G S G G K G I A R R L R A A Q G Q V P A V V Y G K H K A P L H I	
UniRef90_T0YQC3	V F E F V I A E A R K K P G T A S A K S V R R Q G K V P A V I Y G G E A D P E M L	
UniRef90_UP10002F9774F	K L D A Q V R T S F G K G A A R K I L R A N D Q I P A V L Y G H G T D P Q H I	
UniRef90_A1S615	F E L A V E E R T E F G K G A A R R A R R D W K I P A V L Y G H G E P P Q H I	
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UniRef90_C7MZ10	L T V E P R T E F G K G A A R R L R T R A G K I P A V L Y G H G T E P R H L	
UniRef90_H8MPG6	T L E A Q A R E G S G G K G I A R R L R A A Q G Q V P A V V Y G K H K A P L H I	
UniRef90_UP1000346A81D	V F E F V I A E A R K K P G T A S A K S V R R Q G K V P A V I Y G G E A D P E M L	
UniRef90_UP100047BF9B8	K L D A Q V R T S F G K G A A R K I L R A N D Q I P A V L Y G H G T D P Q H I	
UniRef90_F6EQQ0	F E L A V E E R T E F G K G A A R R A R R D W K I P A V L Y G H G E P P Q H I	
UniRef90_W9GHE8	I K L V I A E A R N D F G K G A A R R L R R R A E K V P A V I Y G H G T E P R H V	
UniRef90_UP10003464E39	I S I V I A E L R D R S G K G A A R A V V R R S G K V P G V I Y G K Q A A V L V	
UniRef90_S9TTA8	F T F K A D A K A D T G T G A S R R L R K A G K V P A V I Y G K D Q A P V T I	
UniRef90_UP1000382C074	L I A E A T R T E F G K G A A R R I R R D W K I P A V V Y G H G T D P R H V	
UniRef90_C8X6T0	K I E A E V R E E F G K G A S R R I R S A D K V P A V I Y G H G T D P V H V	
UniRef90_UP1000308A2A1	UniRef90_H1QS53	M I S L D A A A R T E F G K G A A R R T T R A G N I P A V I Y G P G F E P V T I
UniRef90_UP10004775250	T I V I A E K R T E F G K G A A R R T T R A G N I P A V I Y G H G T E P V H V	
UniRef90_K6UMC9	I K I A V E T R T E F G K G A A R R I R R D N K V P G V V Y G E K Q A A V L V	
UniRef90_C4LFH4	F T F Q T E V R A D L G K G A S R R L R R A E Q V P A V I Y G K D Q A P V T I	
UniRef90_D9RZE9	T L T A E E R K L A G K G T L N E L R R N G K V P A V F Y G K N I E N R T I	
UniRef90_UP100035E879A	N N V V M R E R T G K G G A R E A R R R N G M V P G V I Y G G G E D P V A V	
UniRef90_UP10004142118	I T I N G S K R E S V G K K E T K A L R N A G Q V P C V V Y G G G E P L H F	
UniRef90_M2X7F5	V N N L N A A V R T E F G K G A A R R I R R D D K V P A V L Y G H G T D P Q H I	
UniRef90_W4UJ37	I I H L K A E Q R T E F G K G A A R R I R R D D K V P A V M Y G H D H D P I H F	
UniRef90_I0WHS2	I T I K G S Q R E S V G K S S T K A L R N A G K V P C V L Y G G D T P I H F	
UniRef90_F7Z142	V L E A K K R E V K H H S S S R R L R R N G C V P G V V Y G Y Q T E N T P V	
UniRef90_N0E6E2	K L V I A E E R T F Q G K G A A R R I R R D H K V P A V M Y G H G A K P I H F	
UniRef90_UP1000248E68E	I T I N A S Q R E S L G K K A T K A L R N A G S V P C V V Y G G D T V T H F	
UniRef90_U2BZD8	I T I V G S Q R E S V G K A A S K A L R N A G K V P C V L Y G G D N T I H F	
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UniRef90_D1W8V7	I N V S G K K R E D L G K K A S K Q L R K E G Y V P C N I Y G G K P E A L A F	
UniRef90_N9MRZ4	F V L N Q A R E A Q G K G S S R R L R H A G K I P A V I Y G G S A E P V T I	
UniRef90_I4ZP47	F V L N Q A E A R E Q Q G K G S S R R L R H A G K I P A V I Y G G E A A P V A V	
UniRef90_D5AQI5	I E T L V I A E V R T G T G K G A A R A R E G K I P A V I Y G G G N K P A V S I	
UniRef90_Q2GI5	M I K V D A S V R E R C G T G T G S A R A L R A R G L I P A V I Y G G N K P A V S I	
UniRef90_R8AV77	M F T F N A E V R E R C G Q G K G A S R R L R T R A G L I P A V I Y G H G Q E P V H L	
UniRef90_A0A031GRL3	F V Y Q A E V R T D M G K G A S R R L R H A D L V P A V I Y G A A K E A V S V	
UniRef90_N9TW88	F L A V E K R T E F G K G A A R R T T R A G K V P A V L Y G H G S E P K H L	
UniRef90_UP100039BF74C	M I T I K A E V R N D Q G K G A S R R L R A A N K F P A I I Y G G S E A A I A I	
UniRef90_A1JLN0	I I S I N G T A R T D L G K K A T K A L R N G N V P C V I Y G E K K D A I H F	
UniRef90_R6A8K3	I T I T G S K R E S V G K K A T K A L R N A G E V P C V L Y G G D D N I V H F	
UniRef90_Q12P38	I T I T G S K R E S V G K K A T K A L R N A G E V P C V I Y G G D D N I V H F	
UniRef90_A3XHD0	F E V L A T T R P D G K T G T G S S R R L R R E G R I P A I I Y G H G E E P K H V	
UniRef90_UP1000472958	UniRef90_UP1000362841C	I T I T G S K R E S V G K K A T K A L R N A G E V P C V I Y G G D D N I V H F
UniRef90_UP10004689952	I T I T G S K R E S V G K K A T K A L R N A G E V P C V I Y G G D D N I V H F	
UniRef90_D2NP34	T L S A K G R D R A G K G A A R A T T R R E G Q V P A V I Y G G R Q D P V L L	
UniRef90_Q2RMV5	M A T F E T V T R E G L G K G V A R K L R Q Q G R I P A V V Y G A G K E N I S L	
UniRef90_A0L5U7	V I T I P A T L R T E F G K G Y A R Q A R V R A A N D K I P A V I Y G H G A E P L H F	
UniRef90_B2GLJ3	K L K E T E P R T S F G K G A A R K I R A A G K F P A V I Y G H G T E E P K H L	
UniRef90_U1MWH8	M F K F E A E V R T E K G K G A S R R L R H Q K F P A I V Y G G N Q E P V S I	
UniRef90_UP1000395CF03	I T I N G S K R E S V G K K A T K A L R N A G Q V P C V I Y G V E G D P L H F	
UniRef90_A0M745	I T I N G S K R E S V G K K A T K A L R N A G Q V P C V I Y G H G E E P L H F	
UniRef90_UP100047992C3	K I A A V V R T E F G K G A A R Q A R R A N M I P A V I Y G H G E E P L H F	
UniRef90_UP10003FE3ED8	I T I T G S K R E S V G K K A T K A L R N A G Q V P C V I Y G G E K P L H F	
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		50	60	70	80
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UniRef90_K2J0Q7	N	L N A K E L E R Q L R R P G F F N H L F E V K V G K D T H R V L A R E E L Q Q D			
UniRef90_I0DPJ8	T	L N H D E V I N Q E G K A E F Y E V L S L V I A G G K K Q S V L L R D F Q M H			
UniRef90_D5CLY5	E	L D H N T L Y Y A L R N E A F H A S I L S L E L D G G K K Q S V L L R D F Q M H			
UniRef90_G7LN83	E	L D H D S V K N Q E L K D G F Y G E V V I L S I D G G K E T K V K V Q A I Q R H			
UniRef90_A0HI84	A	L P A R E F A A A I R H G G L N Q I F T I D I A G N A T L A L P K A I Q R D			
UniRef90_A3MZK5	I	L D H D K V V N N A Q A H D A F Y N E V L T I V V A G K E E Q V K V Q A I Q R H			
UniRef90_A4A593	T	I V R K D L E K A L E N E A F Y S Q V I D V S V D G D V Q P A I L K D L Q R H			
UniRef90_E3BCV9	E	L P G H D T M M A V K N P N A L L T I R F D G K E E L A L A R D D V Q R E			
UniRef90_F9ZXN2	I	L D H N D L L K H L A H E A V Y S H V L D V K V D G R T E K A V L K H I Q R H			
UniRef90_UP100041AF6CD	T	L P G H Q T L L A L R T A N A V L T I V L D G K E Q L A L A K Q V Q R D			
UniRef90_H2FWQ6	A	L D H K K A I I A Q A E D A F Y S E V L T L V I D G Q E V K V K V Q D V Q R H			
UniRef90_B8GZU9	A	V K A N E F R K S L Y T G K L L G H L V T L L Q Y G E E K Q S V I A K A V Q F H			
UniRef90_M1LTG9	E	L D H N Y I Y H A L R K E E F H S S S V L S M N L D S K E Q V I L R S V Q W H			
UniRef90_UP100036A9A4C	A	I D G T A I F Y A L Q K E S F H S S S L L K L S L D G K E V D V I V R D F Q M H			
UniRef90_H0A727	A	L D P R D V M K E M H K G G W Q S H L Y E V A L G G A T V R T L M R D V V Q F H			
UniRef90_A0A059G5X9	S	L R L P E V L K A I E T G H F L S S T A S L V H D G G K K Q M V I P Q A I Q M H			
UniRef90_F7XV26	S	L V A K D F F K E Y S K G N I Q S R L V E L H L G N K K I T A I P R D V V Q I N			
UniRef90_UP100037A8C4D	T	I N A N T I G K L L N E E A F Y T S M L E V N V N G K T N T V L L K D V Q W D			
UniRef90_A6FEA5	E	L E H D V V N N A Q R N E E F F F S S V I T L L V V D G T E M A V T V K A M Q R H			
UniRef90_UP1000362613C	A	L P G L E F A R V V R E H G Q N T V I T L L N I G S D T E L A L T K T V T T H			
UniRef90_A5EWV0	A	I K Q D E L K K N A K N H S F F S Q I I I N L L K I D G E D Q E I L L V R D V Q H H			
UniRef90_S3ZFP3	A	L P G H D L L M A L R T P N V L I S L D I D G T T Q L A I P K A V Q R D			
UniRef90_R7JI98	S	V D P R E I K P L I Y T P N S Y I V D L E D G K T E K A V L R D V Q F H			
UniRef90_D9QM47	S	V N E K D F R K N L Y T G K L L G H L V T L L K Y G D E T Q S V I A K D V Q F D			
UniRef90_E3GBY5	E	L D H D K V F N A Q A K T E F Y S D V L T L V I D G G K E E K V K V Q A V Q R H			
UniRef90_UP1000376E5A0	S	L K L Q L Q D L I R T E F T M S K V V N L E I D G S T E K V L P K D V A Y D			
UniRef90_Q084M1	K	F E H K D I I N I Q L N D D F Y T T D L T V V S I E G K E V K V R V K A I Q R H			
UniRef90_B3CMB8	T	L S A K E F T K Q Y K S G A L S A H L I E L D I S G K K E Y Y A L V R D I Q W H			
UniRef90_K5YV7D	A	L D P R T V M K E L K R G G W R S R L Y E L I D V A G T K T R A I M R D V S F H			
UniRef90_W7WVH6	E	L D H N A L W H A L K K E A F H A S I L D M E L A G T T Q K V L L R D V Q Y H			
UniRef90_A4BMQ9	A	L D E E Q V M G L M R D E T F F S Q I V D V N I D G T T E R A I L K D V Q R H			
UniRef90_D7BKN8	E	L D Y H T T F L A V R G N A N A L L S I E V E G E K H L A I V K D V Q R N			
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UniRef90_T0YQC3	A	L E H H K L L T V V A D E R F Y S S I V Q L K K I G E R T Q E A I V K D V Q M H			
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UniRef90_UP1000346A81D	V	L D H N E V V K H A H E A V Y S H I I D V V V A G K A E K A I L K A V V Q R H			
UniRef90_UP100047BF9B8	I	L P G H E T M L L R R A N A L I I E L N I E G T K E E S L V K D V Q R D			
UniRef90_F6EQQ0	L	P F T E F A A I L R S G G T N A I L S I N I G G K K S L A F T K S V S T H			
UniRef90_W9GHE8	L	P G H A T M L A L K T A N A L L S I E L E G G N S T L V L A K D V Q R D			
UniRef90_UP10003464E39	N	L P G H D L M L A L K T P N V L I R L E G L D K D N L A L P K S V Q R D			
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UniRef90_C8X6T0	S	L T A R E F A A A I K G G A N T V L T L Q L E G G G D E L A L P K S V V R H			
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UniRef90_H1QS53	T	L P G H D L L M A L R T P N V L I N L L D I D G K T Q L V I P K S V V Q R D			
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UniRef90_K6UMC9	T	L P G H E T M L L A V K V Q N A V L N S I D G K N Q M V L V K D V Q R D			
UniRef90_C4LFH4	V	L D H N K V I T A Q Q E A A F Y S E V L T L V V D G G K E V K V K V A A V Q R H			
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UniRef90_UP10004142118	S	A D E T A F K P L V Y T A D V H T V I I T L E G G E K I D A V L Q D I Q F H			
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UniRef90_W4UJ37	T	L D G H A T L L A L R T E N P L L S I E L E G G Q K M A L P K D V Q R D			
UniRef90_I0WHS2	S	A D E L A F S K L V Y T P D V H T A V I D L E G G Q T F S A I L Q D I Q F H			
UniRef90_F7Z142	Y	V N Y A E F E K L L R E N G R N A V I S L N V N G T Q R N V M V H E V Q T D			
UniRef90_N0E6E2	T	L P G H D A M M A L K H A N A L L T I T L G D E E H E M A L A K D V Q R D			
UniRef90_UP1000248E68E	T	A P E N S F S K L V Y T P D V H T V V I A L L D N G T K I N A I L Q D I Q F H			
UniRef90_U2BZD8	S	A D S L A F K K L V Y T P N V Y T A T I E L L E G K T Y T A I L Q D I Q F H			
UniRef90_R5GBS4	S	T V K E K D L R N L V Y T P D I F V I E L N T G A G G V R T C I L Q D I Q F H			
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UniRef90_Q2GI5	S	L S Q V D F L K K C R T F P I F S K L I E L C I G E K K E Y V I T K D I Q F H			
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UniRef90_G7LN83	P F K P K L T H I D F I R A
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UniRef90_A3MZK5	P T K P K L V H I D F K R V
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UniRef90_A6FEA5	A F K P K V Q H I D F I R A
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UniRef90_S3ZFP3	V L R Q G I L H V D L L L V
UniRef90_R7JI98	P I R E E L L H M D F Y R V
UniRef90_D9QM47	P V S D R P L H F D L M R V
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UniRef90_UP1000376E5A0	P V S D E P M H I D F M R
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UniRef90_K5YV7	P V T D Q P E H V D F Q R
UniRef90_W7WVH6	P F K P L V L H V D F Q R V
UniRef90_A4BMQ9	P V K P L V L H M D L Q R V
UniRef90_D7BKN8	P L S R L I E H I D L L R V
UniRef90_G7CCE9	P I K R T I Q H A D L L V V
UniRef90_T0YQC3	P A K N Q I V H V D L Q R V
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UniRef90_C7MZ10	P L K N Y I E H V D L L I V
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UniRef90_F6EQQ0	P I R P V I E H V D L L V V
UniRef90_W9GHE8	P I K P V I E H I D L V V V
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UniRef90_C4LFH4	P V K P K V V H L D F I R A
UniRef90_D9RZE9	A L K G D I T H V D F F R V
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UniRef90_UP10004142118	P V T D A I L H M D F Y Q
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UniRef90_F7Z142	P L K N K I H V D F L A V
UniRef90_N0E6E2	P I K P V I E H V D L V I V
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UniRef90_D1W8V7	P V T D A L L H V D F Y A V
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UniRef90_I4ZP47	P A K N T P M H A D F K R A
UniRef90_D5AQI5	V V K D L P T H I D F M R
UniRef90_Q2GI5	P V S G A I A H V D F Q F V
UniRef90_R8AV77	A F K P K V T H I D F V R A
UniRef90_A0A031GRL3	A I K D T V D H L D L I E V
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UniRef90_UP100039BF74C	P T K N Y L E H V D L L L V
UniRef90_A1JLN0	A F K P K L T H I D F V R
UniRef90_R6A8K3	P V K D N V L H V D F Y E V
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UniRef90_A3XHD0	P V T D R I L H I D F Y Q
UniRef90_UP10004702958	P A T H R I T H L D F Q R
UniRef90_UP1000362841C	P V T D E I L H I D F Y E
UniRef90_D2NP34	A I R P E L Q H I D L L T V
UniRef90_Q2RMV5	P V T D M P I H V D F L R
UniRef90_A0L5U7	P V T D L P E H V D F L R
UniRef90_B2GLJ3	A V R P E I L H I D L L T V
UniRef90_U1MWH8	P V M Q S I E H L D L L I V
UniRef90_UP1000395CF03	P F K P K V E H M D F I R
UniRef90_A0MT45	P L T D A I L H I D F Y Q
UniRef90_UP100047992C3	T L K R I V E H I D L L T V
UniRef90_UP10003FE3ED8	P V T D S I L H V D F Y Q
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1 10 20 30 40

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UniRef90_UPI00047BEBFD	K L P A D L R T E F G K G A A R R L R R A E K I P A V I Y G H G A D V I H V
UniRef90_C7R023	K L V A S A R T S F G K G A A R Q L R R D G H P V P A V I Y S H G S A A E H I
UniRef90_M5A5E6	L L H A E S G R Q T G S S A S R R L R A D D K I P G V V Y G H G M E P L S I
UniRef90_R7WIG4	L T A A V R S E F G K G A A R R A R R D G N V P A V L Y G H G T D P R H L
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UniRef90_D1XV76	I K L S G Q N R N D L G K K A S R L M R K E G G L I P C N L Y G E K K E N L S F
UniRef90_H6SPN0	T L A A V K G R D R A G K G A A R A T R R E G L I P G V I Y G G R Q A P A L V
UniRef90_UPI00036586AB	M K I K A V K R E T G K K A A K Q V R N E N K I P S I L Y G G G A E P V P L
UniRef90_U2A171	K L A A E L L R T E F G K G Y A R R A R V A G R I P A V I Y G H G A E P V H V
UniRef90_C1AY16	K L V A A V R T E F G K G A A R R A R R D G Q V P A V L Y G H G E D P R H L
UniRef90_H1XY86	M L K L S A E I R E D E K G K G S A A R Y R R Q G K L P A I L Y G E D K E P V H V
UniRef90_C6C8H2	M T I T N A E V R N E Q G Q G K S A S R R L R N T G K F P A I V Y G G N E A P V S I
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UniRef90_R5KVC9	I D V K G Q K R A E T G K K A S K T L R K E G L I P C N L Y G E K K E A M S F
UniRef90_D9VZ69	I K L L S A K L R D S F G K G S A Q S R R D A L T P G V I Y G H G T T P K H V
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UniRef90_M5E2P6	I T L T G D V R T E F G K G A A R R M R V A N L I P A T I Y A G G E E P S F L
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UniRef90_K6GHA7	I K L L H A E V R T G T G K G A Q R R N N L V P G I V F G G D T D P L P I
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UniRef90_C0W7W7	I E L V I A Q T R T K S G K P A R L R N E M V P A V L Y G P K A E T V S L
UniRef90_UPI0003B3D195	I V L V G A K E R K D K K H S T L R R I R S Q G G I P A V L Y G K K V D N K M I
UniRef90_A0LPH1	V F E L L K G E K R N D L G K K A T K A V R V D A K V P C V L Y G G G E N V H F
UniRef90_A4IJC8	I I K L N L T A E V R T R T G T G K G A S R L A R R E G R V P V V L Y G H G T E P Q H F
UniRef90_R5P3H3	I I K L N A T L R E E K G K N R V D K L R A D K Q I P A V I Y G R E L A P Q S V
UniRef90_UPI0003735B21	I V I K V I A D T R E S D G K G S A S S R L R A A G R V P G V L Y S S G E D N L I H F
UniRef90_A9GXJ8	F E V I K G T A R T A V G K K E T T K K L R A E G K V P C V L Y G G D E V I I H F
UniRef90_D7WE37	I K L L E A E L R E N Y G K G Y A R R T R A A G R V P P G V L Y G R G N E P A H L
UniRef90_UPI0004718228	K L L N V D I L R K E Q G T S A R R T R L Q N K V P A V V Y H S G V E A T P L
UniRef90_D4YQX7	I K L L E A T L R E D L T K S A T K E I R N S G R V P A V L Y G K E K D S E S I
UniRef90_UPI00039AD936	I S L L Q A Q L R E R G T K G S V R A L R N Q G M L P A V L Y G K E V G N V L L
UniRef90_UPI00040FE110	V L V I A Q T R T E F G K G A A R R A R R A R A K L V P A V L Y G H G A E S V H V
UniRef90_K4LJ22	I T L L A A Q A R N E F G K G A S R R L R V A G R V P A V I Y A S H Q E P I H V
UniRef90_UPI0003B527215	I L D L L H A E A R T V R A G T G K G A Q R R D G F V P P G I V Y G D D K E P M P I
UniRef90_S4XFD5	M A T L L T A K E R T D F T R S S L R N I R T S G H P V P G I I Y G K D T G N K P V
UniRef90_K1ZY98	V E A T V R T E F G K G A S R R R D G Q V P A V L Y G H G A E P K H F
UniRef90_K2JL23	M I L I I N A K I L R K D L G K G A S R R L R L A N K F P A I V Y G G N S A P I I A V
UniRef90_P14194	M T I T I E A K P R E T G K R A A R A I R R E G W V P C I L Y G H V E P I P F
UniRef90_E5XR31	M I T I I N G S V R R T E F G K G A S R R R D G L V P A V I Y G H G E K P Q H I
UniRef90_UPI0003B5233B	M L I I I N A K I L R K D L G K G A S R R L R L A N K F P A I V Y G G N S A P I I A V
UniRef90_UPI00037512A7	I T I I E A K P R E T G K R A A R A I R R E G W V P C I L Y G H V E P I P F
UniRef90_F7XXJ6	I T I I N G S V R R T E F G K G A S R R R D G L V P A V I Y G H G E K P Q H I
UniRef90_D0MF37	I T I I I N G S V R R T E F G K G A S R R R D G L V P A V I Y G H G E K P Q H I
UniRef90_Q26GA3	I T I I I N G S V R R T E F G K G A S R R R D G L V P A V I Y G H G E K P Q H I
UniRef90_D9WLV2	K I I I P A K P R T E F G K G A A R R T R M A D R V P P G V V Y G H G A E P L H V
UniRef90_R6E137	I E V I T G K K R T A L G K K A S K A L R K E G M V P C N L Y G G K P V A L L A F
UniRef90_V8CLQ1	I I L I I S G K K R E A T G K K A S K E L R K E G M I P C N L Y G G K P V A L L S F
UniRef90_F0GWM6	I V L I I Q A Q K R E A T G K K A S K E L R K E G M I P C N L Y G G K P V A L L S F
UniRef90_L1N7W1	I N V I K Q Q K R E A T G K K A S K E M R K E G M I P C N L Y G G Q P E A V A F
UniRef90_M3T106	K L I S A S I R T G K G K G D A R R A R R E G Q V P A V L Y G H G T T P Q H L
UniRef90_X0RCN0	V L V K A N K R E N L Q S S T R T K L R K D G F L P G V L Y G G K I D S Q P I I
UniRef90_J9YSJ0	M N S L L D A T I R N K R E N L Q S S T R T K L R K D G F L P G V L Y G G K D N N E N I V
UniRef90_U6S727	I T L I I E G N V R N E F G K G V A R R I L R V A N L I P A S I Y A G G A E P V H V
UniRef90_G8PH70	Y E L I I K A Q V R E R A G K G A A R A A R R E G L V P A V I Y G D K K E A V V S I
UniRef90_S2WT15	U N F E A K V R T E F G K G A A R R R E G E L V P A V V Y S D F V E P I H
UniRef90_UPI00030F105F	M E A K V R T E F G K G A A R R R E G E L V P A V V Y G H N K Q P R T V
UniRef90_W51JA7	I T L I I L K A N L R E D S K S N T H Q L R D G G F I P A T I Y E G G N E P A F V
UniRef90_E8LLX8	I T L I I D A V V R T D L G R G A S R R L R R E A R I P A I I V A P G Q E T V S I
UniRef90_R6VVZ3	I N V T L Q G Q K R T D L G K K A S K H L R K Q G M V P C N L Y G S N I N T I P I
UniRef90_A8MEE4	I I S I S G K K R E T V G K K A T K A L R K E G F V P C N L Y G G K P V A L A F
UniRef90_F9D4J7	I S V K A V K R A D F G K K A A K A I R R E G E M V P C V L Y G G N E T E T F
UniRef90_D4ILZ9	I T F N A T T R K T Q G T G A S R R L R K A G S V P G V V Y G S G E A V M I
UniRef90_D9SC57	I T I T I Q G V K R E S V G K V A T R A L R N A E Q V P C V L Y G G Q E T I H F
UniRef90_F0P193	I T I T I K L E G E V R D Q F G K G A A R R M R V A Q Q I P A T I Y A G G A Q P D Y I
UniRef90_K4IQU4	I D L K A N L R T G R K K G P S R R L R A A G R I P A V L Y G P G A E T T L A L
UniRef90_S7UK40	I I D L K A N L R T G R K K G P S R R L R A A G R I P A V L Y G P G A E T T L A L

	50	60	70	80
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UniRef90_UPI000469A257	A P G H Q V S I I R R A N A	A L D L D I E G T S Q L A L V K D V Q K D		
UniRef90_D3I9L2	T V P M T E L R K L I Y T P H Y	L V N L T V D G K L H T A I L K E I I Q F H		
UniRef90_K9EVJ0	A V D A H E L F L I V K N P N A I I N	I V K D E G A S S D L A L V K D I Q R N		
UniRef90_UPI00047BEBFD	A L P E K E T T L A V R T P N A L L R L D I H G D E H	L A K D V Q R D		
UniRef90_C7R023	Y L D G H E V F L T V K N H R S S	L N I D L D G E V K T V I I K D V Q R D		
UniRef90_M5A5E6	S V A R R D L R Q A V S G S A G L N T I V	D L T V D G E V Y P S L I K D V Q R H		
UniRef90_R7WIG4	N L P S L E F A A I L R A N G M N A L V	E L L N I D G E Q Q L A L T K S V V I H		
UniRef90_UPI0002DC475B	A L P S Y D M M M A L K T P N V L I N	D L I E G G K K Q L V I P K A V Q R E		
UniRef90_V6SH79	S A E E K A F K G L V Y T P N V H T V V V	E L L E G G K S Y S A I L Q D I Q V H		
UniRef90_UPI0003B4A9D8	S V K K C E I Q S L V Y S D T F L S K V L	E L L D I D G G K K E K V I P R D V A F H		
UniRef90_D1XV76	A S P M S E L R K L V Y T P N I Y G V	E L L T I D G G E K H L A M K D L Q F H		
UniRef90_H6SPN0	A I D P R V V L G E M K R A G F S T R L F	D I L V D G E S G R V M I H D V Q M H		
UniRef90_UPI00036586AB	E I D Y S E F Y H Y Y K E S G H Q S F I	F I L Q I G K K E C R C L V R D M Q I D		
UniRef90_U2A171	T L P G R E T T L A V R V A N A L L N	N L D I N G E A H L T I V K D D I Q R N		
UniRef90_C1AY16	N V P S R E F A A I L R A H G T N A V L	T L D I D G K E Q V A L T K S V V V H		
UniRef90_H1XY86	L V D E H D L G I G L R G H H S V I	N L V I D G K P H R C V R E V Q Y H		
UniRef90_C6C8H2	V L D H D I V K N L E R N S A E L F G E I	E L L V I D G G K A T K V K I Q A V Q R H		
UniRef90_D1PXF8	V S P F K E L R K L I Y T P H Y V I K I S L	D G G E E H T A I M K E I Q F H		
UniRef90_R5KVC9	A V P T N E L R K L I V Y T P H Y V I K I S L	D G G E E H T A V L K E L Q F H		
UniRef90_D9VZ69	G V E A H A L M M A L K T P N A L L S L	D L E G G D T E L V I S K A V Q R H		
UniRef90_M2YEL2	S L P G H D M M L I S R N N A N A	V I E V L A D D G Q K H L A M L K D V Q R H		
UniRef90_UPI000364A526	A A P L S E L R K I I Y T P H Y V V D I N I	D G E H H T A I L K E I Q F H		
UniRef90_S9R0N9	S I N F D Q L L T R L R A G H F L S T M W N L	K I E G M D Q R V V C R G V Q R H		
UniRef90_B8D015	A V D A K D L N K V V G G N A L	L D M T L V D G D K E E K E T A V V K D L Q R D		
UniRef90_D1BXS8	A L P G H Q T A L A L R Q A N A L F A V E L	D G K S Q L A V V K D V Q R D		
UniRef90_Q659V3	V L D H D S V I N Q M D K P A F Y E V I T L	V I D G K E V Q V K P Q D I Q R H		
UniRef90_UPI00036C315A	S T E E K S F K N L V Y T P D A H T V S I E V	D G E T I P A V L Q D I Q F H		
UniRef90_B6BS99	S I S K K L L K S L I E K E N F L S N I V T L	N D V D G K S Q N V L P K E I K Y H		
UniRef90_UPI000479507A	N L P G H E A M I A L R V Q N A L I T I D L	D G E E H L A L A K D V Q R D		
UniRef90_M5E2P6	K V D P L D I E K L L Q S N A I F D L T F	V G E D G E E S T V I I K D Y Q K D		
UniRef90_U1SDW4	Q L P A K E T T L A L R H T N A L F E L K	G F N E T K T A V V K D V Q R N		
UniRef90_D4ZJK2	K F N Q K D I I N I Q E N K D F T G E L T	I D G K E I K V R V Q A M Q R H		
UniRef90_X5LM50	E I N A R E F A A V L R H A G T N A V L	T L D I E G K E Q L A L T K A L D I H		
UniRef90_D1NSE5	T L L P M K E T T L A L R H N A L I T T L	K Y D G K S T M A V V K D V Q R N		
UniRef90_K6EDE1	S I V K N A D L K V K M R D I G R N G I L S	L D G K S K N V M L R D Y Q N D		
UniRef90_UPI000346F774	S V E G V D F L K A V R E K G R N G L F S	L S L E D G K K H Q V M I H E I Q R D		
UniRef90_UPI000288E8CE	T L L P G H E L L L A L R T P N V L I S L	D I D G G K E L A I P K A V Q R H		
UniRef90_V4RLZ3	S V N L N A F R K A L S T G K L N G H	V T L L K Y D G K S T M A V V K D V Q R N		
UniRef90_UPI0003B4C312	T L L P G H Q V A L I L R K A N A V L E L	D I D E G K E Q L A L V K D V Q K D		
UniRef90_K6GHA7	K L K L N E L T K A S E N E F Y T Q V L	K I L L E G Q E E K V V L K E L Q R E D		
UniRef90_UPI0004659123	N I P F N A L V K H L K A G R F K S T L F	N S L L D G D D D V R V I C R D V Q R D		
UniRef90_U2J515	T L L N A K E L E K V Y G E A G G T T I	V D I V M D G K N I L P V L F K E V Q K H		
UniRef90_UPI00037DF283	A V K D R D L K K L L Y T P N V Y L V N L	D L D G K S Y D A V M R D I Q F H		
UniRef90_UPI0002ED6473	A L E H H I V I N Q M D K P E F Y E A I	T L L V I D G Q E E V N V K P Q D I Q R H		
UniRef90_C4K3S7	V L D H D V V K N L E A N P A F Y N E I	L T L E V G E E K T K V K I Q A I Q R H		
UniRef90_C0W7W7	L L E E H A T R L A L R G N E N A L V E L	A D D G G E T I L L V L T K D V Q R H		
UniRef90_UPI0003B3D195	A L P A H Q I I G L I I R K A N A V L D L	Q I D G G K S Q L A L V K D V Q R K D		
UniRef90_A0LPH1	S V P P Q R L I E R L L R D M G E E S K	Q M I F E V N V D E D K D F V L V K E I Q Y H		
UniRef90_A4IJC8	S I S A A D L E K A L R E G G R H S	L V T L K V D D E Y S V S L L R E E V Q R D		
UniRef90_R5P3H3	S V V E K D L S K L L Y T P V V Y T I	I K L L D I N G G T S Y N A V M R D I Q F H		
UniRef90_UPI0003735B21	E I N A R E Y A A V L R N S G T N A V L	T L L D I A G K E Q Q L A L T K Q V V H		
UniRef90_A9GXJ8	A I S P K A L L Q V L G S D H G K N S	T L T V M V R D Y D Y H		
UniRef90_D7WE37	H V D L L E I S A L V R N D G T N A I	L I D G E K N L A M V K N I I D Q N		
UniRef90_UPI0004718228	E A E A G E F R H V I Y T P N V Y L I	N I E L I G G K K Y Q A S M Q D I I Q F H		
UniRef90_D4YQX7	S F D G H A I I M M A M K N P N S L V E I	S T A D G K V K A V A R D I Q R H		
UniRef90_UPI00039AD936	S V D K I S L N K A L T R D E G Q M I F	I S T A D G K V K A V A R D I Q R H		
UniRef90_UPI00040FE110	S V D S D E L L K T V R D E G K N A I T	V N V D E D K D F V L V K E I Q Y H		
UniRef90_K4LJ22	S V P T K S L E Q V I T N H S I G S T	V N V D E D K D F V L V K E I Q Y H		
UniRef90_UPI0003B52715	D V P E H D L F L I V R G T K N A L V E L	T L L D G D T Q L A I V K D V Q R H		
UniRef90_S4XFDF5	S L D R L E L T A A V R K H G S N A L L S	D A E G E D H V L V I K A I I D Q N		
UniRef90_K1Z9Y8	K I P Y N A L K R K L K A G R F L S S	F N L K V E G Q D V H V I C R A V Q R D		
UniRef90_K2JL23	N L P F N V L L K R L K A G R F L S S	F N L K V E G Q D V H V I C R A V Q R D		
UniRef90_P14194	S L D S V E L L I K T L R D E G K N A V I	T L L E V S G E K H S V M V T D L Q T D		
UniRef90_E5XR31	N L P A K E F A R V L R A N G T N A V V	S L T A G G E E H L A I T K L V V V H		
UniRef90_UPI0003B5233B	A V R L S S D L K R Y L Y R Y R D E Q L	S L T A G G E E H L A I T K L V V V H		
UniRef90_UPI00037512A7	T L P A R E L G V A L K Q S N V L L D I	V L T L E D G K T E L T L P K A I V R H		
UniRef90_F7XXJ6	E L D H D F I I L H A Q I K E G F Y S E E	L V L V I N G H I N K V K V Q A V Q R H		
UniRef90_D0MF37	Q M L E S K L R P L I Y T T E T H L V K L	Q L N G K T W D C I L K D V E F H		
UniRef90_Q26GA3	Q A E E K A F K N L V Y T T S D A M T	V I A Q D M Q W H		
UniRef90_D9WLV2	T L P A Y D L L M A L K T P N V L L R L	E V E G G K E L V I P K A V Q R H		
UniRef90_R6E137	A S P P F T E L R K I I Y T P H V Y V I	K F G K E S R I A V V K D V Q R H		
UniRef90_V8CLQ1	U n i f e r 9 0 _ F 0 G W M 6	T S T I I T L L D F G D E K K D V L I K A Y Q N H		
UniRef90_UPI00040FE110	Q V T S R E F E K V L V K K A G T S T	T S T I I T L L D F G D E K K D V L I K A Y Q N H		
UniRef90_D4YQX7	M V P M A E L R K V V Y T P H I Y V I	T I I T L L D F G K K H T A I M K E L L Q F H		
UniRef90_UPI00039AD936	L L P A R D L A A I L R N N G L N A I I	D I D E G A S Q L A L T K Q V D T Q D		
UniRef90_J9YSJ0	S V E S V E F L K T R E I G K N G I F S	L D V V G G K K H Q V M L Y D L Q T D		
UniRef90_U6S727	S I S K K T L K S L V E K D N F Y S N I	S L D V V G G K K H Q V M L Y D L Q T D		
UniRef90_G8PH70	T L L P M R E T T L S L R H A N A L F T	N I L F T I K F G K E S R I A V V K D V Q R H		
UniRef90_S2WT15	N L L P L K E A T M T L H K G G F L S H	N I L F T I K F G K E S R I A V V K D V Q R H		
UniRef90_UPI00030F105F	D L L P G H E T F L V V K D S A N A L V	N I L F T I K F G K E S R I A V V K D V Q R H		
UniRef90_W51JA7	S V N S O D L L K T V R D E G R N A I I	S L D V D G D S V D V M L H D Y Q V D		
UniRef90_E8LLX8	K L P Q K E A T L A M R H A N A L I E	S L D V D G D S V D V M L H D Y Q V D		
UniRef90_R6VVZ3	T L L D E K K L I V A A L K D E F Y S E	T V T I N L D G G S A I A V K P V A M Q R H		
UniRef90_A8MEE4	A V A M S D L R K I V Y T P H V Y V I	T V T I N L D G G S A I A V K P V A M Q R H		
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UniRef90_E8LLX8	S V D P R E I K P L I Y T P N S Y I V E	F D I E G G K K E Q A V L R E A Q F H		
UniRef90_D9SCS7	E M N H N E L Y Y K L R A E S F H A S V	L T M N D D G K E E A V Q L R A F V N H		
UniRef90_F0P193	A A D E K A F K G L V Y T P E A H T V	N L D G T K V H A I L Q D I Q F H		
UniRef90_K4IQU4	K L P M R E T T L A L R R A N A L F S I	N L D G T K V H A I L Q D I Q F H		
UniRef90_S7UK40	S I D T T D L E K A V K N R S G S Q V F	N L V I D G G G N K T A M I K D L Q I H		

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UniRef90_D3I9L2	P V T D S V L H V D F L E V
UniRef90_K9EVJ0	P V T R R I T H V D L Q R V
UniRef90_UP100047BEBFD	P V R Q I V E H L D L L A V
UniRef90_C7R023	P I G R V V E H I D F L A V
UniRef90_M5A5E6	P V R L N I A H I D F I Q V
UniRef90_R7WIG4	P I R N Y I E H A D L L
UniRef90_UP10002DC475B	A I R Q F L V H V D L L V V
UniRef90_V6SH79	P V S D K I L H I D F Y Q
UniRef90_UP10003B4A9D8	P V S E E P I H I D F M R
UniRef90_D1XV76	P T T D A L L H V D F Y E V
UniRef90_H6SPN0	P V T D M P I H A D F L R V
UniRef90_UP100036586AB	P V T R E I V H L D F Q E V
UniRef90_U2A171	A I K Q T I E H M D L L T V
UniRef90_C1AY16	P I R N Y I E H A D L L
UniRef90_H1XY86	P L T S K V L H V D F L
UniRef90_C6C8H2	V F K P K L T H I D F V R V
UniRef90_D1PXF8	P V T D A P L H V D F Y E V
UniRef90_R5KVC9	P V T D T L L H V D F Y E
UniRef90_D9VZ69	P L K R N I L H V D F L I V
UniRef90_M2YEL2	P I R P E I Y H I D L L T V
UniRef90_UP1000364A526	P V T D A P L H V D F F E V
UniRef90_S9R0N9	V V K D L P T H V D F L R
UniRef90_B8D015	P V Q G N I L H V D F Q
UniRef90_D1BXS8	A I G T V I E H I D L L V V
UniRef90_Q659V3	P Y K P K V N H M D F K R V
UniRef90_UP100036C315A	P L T D R I L H A D F Y Q
UniRef90_B6BS99	I I S D E P I H V D F L R V
UniRef90_UP1000479507A	P V R Q L I E H V D L L T V
UniRef90_M5E2P6	V I K Q N L L H V D F Q
UniRef90_U1SDW4	P V K R T V E H V D F Y E V
UniRef90_D4ZJK2	A F K K A L I E H V D F
UniRef90_X5LM50	P I R R N I Q H A D L L V V
UniRef90_D1NSE5	P V K R I V E H V D F Y E V
UniRef90_K6EDE1	P V T R E I L H V D F L Q V
UniRef90_UP1000346F774	P L K G D Y V H V D F F E V
UniRef90_UP1000288E8CE	A I K G F L V H V D L L L V
UniRef90_V4RLZ3	P V T D V P L H F D L Y R V
UniRef90_UP10003B4C312	P V L Q I I E H I D L I V V
UniRef90_K6GHA7	P V K G K F L H A D F Q R V
UniRef90_UP10004659123	V V K D L P T H L D L M R
UniRef90_U2J515	P F K N Q F L H I D L Y
UniRef90_UP100037DF283	P V T D K V L H I D F Y Q
UniRef90_UP10002ED6473	P F K P K V M H M D F I R
UniRef90_C4K3S7	P F K P K L T H M D F I R A
UniRef90_C0W7W7	P I R P G V Q H V D F Q L V
UniRef90_UP10003B3D195	P V H Q V I E H L D L I
UniRef90_A0LPH1	P V R R F L H V D F Y E V
UniRef90_A4JC8	P L R G E L L H A D F Q A V
UniRef90_R5P3H3	P V T D R V L H I D F F Q
UniRef90_UP10003735B21	P I K R N I Q H A D L I V V
UniRef90_A9GXJ8	P I S R E L V H A D F I Q V
UniRef90_D7WE37	V L T L N I D H I D L L G V
UniRef90_UP10004718228	P V T D K V Q H I D F L R
UniRef90_D4YQX7	P V R R D I I H V D F I I V
UniRef90_UP100039AD936	P V T D E I I H I D F Q K V
UniRef90_UP100040FE110	P L K D E L I H A D F Y I V
UniRef90_K4LJ22	P V R R E L L H A D F Y Q V
UniRef90_UP10003B52715	P V K R N L L H A D F I A V
UniRef90_S4XFD5	V L T L E I D H I D L L A V
UniRef90_K1ZY98	V V K D L P T H V D F M R
UniRef90_K2JL23	V V K D L P T H V D F M R
UniRef90_P14194	P L K N E I T H A D F Q V V
UniRef90_E5XR31	P T K S Y L Q H I D L Q I V
UniRef90_UP10003B5233B	P V T D E I I H V D F Y E
UniRef90_UP100037512A7	P L K Q I L E H I D L V L V
UniRef90_F7XXJ6	P F K P Q L N H I D F I R
UniRef90_D0MF37	P V T D R P L H A D F Q
UniRef90_Q26GA3	P V K E Q L L H A D F Y Q
UniRef90_D9WLV2	P I K G I L E H V D L L L V
UniRef90_R6E137	P V T D A P L H V D F Y E V
UniRef90_V8CLQ1	P T T D A V L H I D F Y E V
UniRef90_F0GWM6	P F K N I F L H V D F Q
UniRef90_L1N7W1	P V T D A L L H V D F F E
UniRef90_M3T106	A L R N Y I Q H V D L V V V
UniRef90_X0RCN0	P L K N D F V H V D F F E V
UniRef90_J9YSJ0	I I S D E P I H V D F Q R V
UniRef90_U6S727	P V K R I V E H I D F Y E V
UniRef90_G8PH70	P V K D T L M H V D F F L R V
UniRef90_S2WT15	P V R R D I L H V D M F A V
UniRef90_UP100030F105F	P L K D Q L L H A D F Y V V
UniRef90_W5IJA7	P V K R T I I H I D F Y E V
UniRef90_E8LLX8	P V T S R I I H V D F M R V
UniRef90_R6VVZ3	P V T D A V M H I D F L E V
UniRef90_A8MEE4	P V T G N I I H L D F F Q Q V
UniRef90_F9D4J7	P V T D A P L H V D F F E V
UniRef90_D4ILZ9	P V R E E I L H L D F Y R
UniRef90_D9S57	P F R Q Q V Q H L D F Q R V
UniRef90_F0P193	P V T D R I L H A D F Y Q
UniRef90_K4IQU4	P V K R Q V E H I D F Y E V
UniRef90_S7UK40	P V S R D M I H A D F Y E

1 10 20 30 40

UniRef90_R5CPE4	I E V T G K K R S T	[] G K K S S K N L	R K E G F I	P C N L Y G E A K D A L A F	
UniRef90_S3Y520	I K L V A E A R N E	F G K G A A R R I	R R D H K V	P A V I Y G R G H D P I H I	
UniRef90_C6C0N1	T F K A E L R T K T	G K S A N R Q L	R N Q G M	P V V F Y S Q D G E N L V L	
UniRef90_M1NR13	T [] P A T L	F E F G K G S A R R L	R R D W K I	P G V I Y G A G H D N I H F	
UniRef90_A4AJ98	R D S F G K G A A R K L	R A L [] G K I	P A V I Y G H G T D P I H V		
UniRef90_C7HUG4	I V L N S E K R E A V	G K N K V N K L	R Q Q A [] V	P G V V Y A K D K E N I N V	
UniRef90_UPI0002884367	I I L N A D S R E R T	T G S G A L N A M R	R E G F V	P A V V Y G A S E N Q N V	
UniRef90_UPI000365AF60	I N T V K A T E R A R T	G K K A S K G L	R A G D L I	P A V L Y G G N D V V H F	
UniRef90_Z4WVZ3	F Q L A G Q P R P D L	R G S A T T K K I	R K Q G Q V	P A V L Y G N K I D S Q P V	
UniRef90_W4QY44	V L K A N P R E D L	R G K G A A R R L	R R A G Q V	P G V I Y G S N T E P I H F	
UniRef90_W5XUZ2	V I K A Q A R N E F	G K G A A R R L	R R A G R V	P A V V Y G G K S E P V M I	
UniRef90_W6K574	I V N M D A E V R E	A G K G A A R R L	R R A G R V	P A V V Y G G E T P V M I	
UniRef90_UPI0003B482CD	F E F E A E I R P K A G T	G A R R R L	R R E K R I	P A V I Y G E K Q E P V T I	
UniRef90_A8HS67	E L K A V A R A R G G	K G G A A R A E	R R A G R V	P A V I Y G E K Q E P V T I	
UniRef90_UPI00041394B1	L N L A A T L R T E	G K G S A R R A R	R R A G L I	P V V I Y G K G F E P A H I	
UniRef90_X4QYJ0	E I T E T R E	F G K G A S R R I	R R E G G M P	P V V V Y G H G E E P K H Y	
UniRef90_W5WSV6	L K G E L R T E	F G K G A S R R I	R R D F R I	P A V V Y G N G L D P M H V	
UniRef90_UPI000407475C	K L D V H A R E A A H	S R E T R R L	R R A G Q V	P P G V L Y G G G E D P V A F	
UniRef90_U7KK55	V I K A E A R T E	F G K G [] A R R L	R R D W K V	P P G V I Y G A H Q E P V H F	
UniRef90_I0GIM2	S I N A E K R E V	T K G N N N K L	R Q D G K I	P A V V Y G K I V D T F Y V	
UniRef90_I6XPC9	K L E A A A R T	T G F G K G A A R K L	R R A E R L	P A V V Y G P G L E P V H I	
UniRef90_D9QSV2	D V E L R D E T	G T G S A R R L	R E Q G L V	P G V V Y G R N Q E P L N L	
UniRef90_D2B414	V I K A E S R N E	F G K G A A R K L	R R E N K I	P V V L Y G H G T D P Q H L	
UniRef90_F1YKX1	L A T T A R E E K	G K G S A R A R V	R A A G Q V	P A V V Y G H G T D P K H L	
UniRef90_E0TD92	F V F D C E R R	R Q R A G T G G S	R A V R R D G W	P A V V Y G G D E E P L N I	
UniRef90_F5L9Z1	M V T F R A E E R	P D L R K S V	R R R K L R Q S G K V	P G I V Y G K T I G S K P I	
UniRef90_UPI00046D368E	F E I T A Q K R	D V G T K Y A K K L	R R D D G K I	P A V I Y G A D F E N Q H I	
UniRef90_F5J3J9	F E L K G E A R T	D T D G K K A T K A	R K E D K I	P A V I Y G G E K K A I H F	
UniRef90_N6XOP9	F Q L E A A S R A	D L G K K A T K A L	R R K E G L I	P A V V Y G S E T R H I	
UniRef90_UPI00046FC2AF	M A T L L N A T I	R G E F K K S Y A K K L	R N E G K I	P S V V Y G K T V G N E S V	
UniRef90_V6IU02	M T L L Q A E N R K	K T G T R A S N R L	R [] A G K L	P A I Y G G N T Q P I A I	
UniRef90_Q1LT81	M T L L Q A G V K	R A D F G K K E S K H I	R K E G M I	P C T I Y G R G E T V H F	
UniRef90_G5H7K0	I K L L E A S E R	R K L N T K G D L	K K K L R L E G F L	P G I L Y G D K E Q S L P L	
UniRef90_UPI00037EEC86	M L T L Q A D K R	R Q E K G K S F S R R	R I N N K F P	P G V L Y G S D K S E I I L L	
UniRef90_G2LML0	M L T L Q A D K R	R Q E K G K S F S R R	R I N N K F P	P G V L Y G G D E V V H F	
UniRef90_UPI00047E24BC	M T T L V I A H E	R N D S T R A D L	K L R S N G E I	P A V V Y G S D I K T V S I	
UniRef90_UPI000225B895	M T T L V I A H E	R N D S T R A D L	K L R S N G E I	P A V V Y G S D I K T V S I	
UniRef90_W0P478	M T T L V I A H E	R N D S T R A D L	K L R S N G E I	P A V V Y G S D I K T V S I	
UniRef90_UPI00016C409D	M T T L V I A H E	R N D S T R A D L	K L R S N G E I	P A V V Y G S D I K T V S I	
UniRef90_F4C300	I A I S G S P R E	N V G K R D A K E L	R Y A G K V	P A V V Y G G G E Q Y H F	
UniRef90_C6HX87	I A I S G S P R E	N V G K R D A K E L	R Y A G K V	P A V V Y G G G E Q Y H F	
UniRef90_UPI0002FA778A	M I T V T A T P R E	G F N K N A A R R V	R A K G K I	P A V V Y G A Q E P S V A V	
UniRef90_UPI00047A2F13	M I T V T A T P R E	G F N K N A A R R V	R A K G K I	P A V V Y G A Q E P S V A V	
UniRef90_H0E932	S L A V E S R D P	Q H S R D A R R T	R T R T Q G V	P G V I Y G G D L E P Q P I	
UniRef90_G8QZK4	I A I S G S P R E	N V G K R D A K E L	R Y A G K V	P C V I Y G G E E N I H F	
UniRef90_UPI00029AA84B	I A I S G S P R E	N V G K R D A K E L	R Y A G K V	P C V I Y G G E E N I H F	
UniRef90_B4CYA3	U V K L A K A K R E	N L G K T A T K Q L	R S E E E K V	P F V L Y G G E E T L L H A	
UniRef90_W0JOY5	K L T A L T R T E	T G R S A V V N K I	K Q Q G L V	P A V V Y G G K E Q P L N L	
UniRef90_UP1000379733C	L T V T P R A Q T	T G R S A S R R V	R V R K A N Q I	P A I L Y G K H T S P Q T L L	
UniRef90_G5GAE8	I S L V S G A K R A	D L G K K A T K A R	R R E G L V	P C N L Y G G N A V A I A F	
UniRef90_TOLEI4	I S L E V K L R E	K T G K E V A K K L	R R K E G L I	P G V V Y G A E G K T L S I	
UniRef90_C0XQ08	V V K A H K R E E	F G K G A A R R L	R R D D G R I	P G V L Y E S G I E N V H F	
UniRef90_UPI0003B776F8	T L L V Q Q R D A F	G F K Q H S A R R L	R R D D G R I	P G V L Y E S G I E N V H F	
UniRef90_UPI0003798A7D	M E K I T A S V R	L R D K T G T S A	S A S K Q I	P A I L Y G R A Q D T L T I	
UniRef90_Q3AFL7	M E K I T A S V R	L R D K T G T S A	S A S K Q I	P A I L Y G R A Q D T L T I	
UniRef90_UPI0002E07FFB	M E K I T A S V R	L R D K T G T S A	S A S K Q I	P A I L Y G R A Q D T L T I	
UniRef90_UPI0002ED3417	V L Q A Q V R E	D L K R S A T R K L	R E D G S V	P A V V Y G Y N Q N S K S I	
UniRef90_Q3A313	V L Q A S V R K T	G T G V R S E L	T Q L R K G G K I	P A V I Y M G K G V E N C S L	
UniRef90_I7LB99	E L L N V S Q R E	G L G K T A R S Q L	R R E G L V	P A V I Y M G K G V E N C S L	
UniRef90_Q4FPHO	T L L K A E E R T	E F G K G A A R R L	R R Q W K V	P G V I Y G S L E K P V H F	
UniRef90_UPI0003663BFE	M N S L D A N T R	N T K S K G D V	R S A G N I	P G I I Y G G P D Q N Q K V	
UniRef90_E3H5W8	K V S G E V R E N	L G K K H S K A T	R R E G L V	P A V L Y G A G D P V H F	
UniRef90_W7CNG7	I K I T A E P R T	D F G K G Y A R R I	R A V G D I	P A V I Y G N G K E P K H V	
UniRef90_C3PF85	T L L E V Q K R E	T K P H S N I T A I	I R N A G R I	P G V I Y G Y K A E N V P V	
UniRef90_J9GM11	V L K A E V R S E	F G K G F A R R L	R A A A G K I	P G V V Y G H A V D V L H F	
UniRef90_UP1000379E4DF	I E I K G T A R Q	D L G K K A T R E	R L R K N N G V	P C V I Y G V Q K D A T H F	
UniRef90_Z9JRW3	M K L M A E K R T	R Q D L G T S A S K Q A	R A A A G K L	P A V I Y G T G V D S L P V	
UniRef90_W3RQ80	K L N I E L R E E	F G K G A A R R I	R R E K K I	P A V I Y G H G M E P V H V	
UniRef90_R1CVB5	E L L K A T A R P	K S G G K G A A R A	E R R A A G R I	P A V I Y G D N K A P L P I	
UniRef90_E0RSJ8	E L L N C S L R	N E F G S S N A C	I R N R D K I	P G V V Y G H L T N Y P L	
UniRef90_R7D0B7	K K L T A I V R T	A T Q K K T E A K A L	R R E G K I	P G V V Y G G K D Q V P V	
UniRef90_B0SA92	I D V K G T A R P	E T G K K S T R E I	R R K A G S V	P C N L Y G G N I V A T S F	
UniRef90_UP10003B33D36	I S I K A Q P R T	S T T G K G P A R R M	R V E G L V	P A N I I G S G E E A K S A	
UniRef90_Q30ZH2	M T L E A Q P R E	T G K K A T Q A V	R V K N D H	P C I L Y G S D T D P V P F	
UniRef90_A4JQ05	M T L S V Q K R E	G L G K G A N R K I	R T A K K V	P G I F Y N S E G K N I I P V	
UniRef90_UP10003B36D81	L N A N L R K T	A T K S I V K E I	R N N G G I	P G V V Y G K H V G S M A I	
UniRef90_I9TST7	L V I A E V R A G	T G K G A A R Q A	R R D Q L V	P G I V Y G G G I D P Q P I	
UniRef90_UP100046EAA8E	M F T I N A E V R	K E Q G K G A S R	R A A N K F P	P A I I I Y G G S E A P I A I	
UniRef90_R2QJT7	F K L S A T V R D	Q D L G K K A T K A L	R R E D L V	P V V L Y G S E T T Q H	
UniRef90_G2LP14	M L T I K A E T R	Q E K G T N V S	R R E G L V	P G I L Y G I N K N S I I L L	
UniRef90_UP10003B64B75	L S I L P L N K R	E T R P R S L R N R K L	R R E G L V	P G I L Y G I N K N S I I L L	
UniRef90_D0YPE2	UniRef90_D5EW84	K V S E R A T T	E F G K G F A R R A	M N D Q I	P A V V Y G H G A D P V H F
UniRef90_UP100047C7BE	I S V T A K V R E	A H K R S I K T E	L R K S G Y	P C N M Y G E A K V S L S F	
UniRef90_UP100036044AB	I E L E A Q P R	K R K A K K R N C	L R A S G K V	P G V V Y G F K T D S T P I	
UniRef90_F0S468	I E L E A Q P R	K R K A K K R N C	L R A S G K V	P G V V Y G G D N Q L V	
UniRef90_UP10003B42DE4	I S S L A V A S R E	P A H S R E A R R A	R R Q G S V	P G V I Y G G D E Q P V S I V	
UniRef90_B5YG55	F I L N V E K R E	R T T G K G I A R Q L	R R S K G I	P C V I Y G K N G Q S T P V	
UniRef90_A0A023CJ40	I L L E A K E R M	D R D R K H S T L	R R Q G N I	P G I L Y G K N V D N K M I	
UniRef90_K8EJ43	I L L H A N R	T E R T K S S L	R R Q G N I	P G V V Y G K H L G T M A V	
UniRef90_W8Z1B3	I T M Q A Q T R	N T A S K G S L R Q L	R R K E G K V	P A V V Y G K K L E S S S I	
UniRef90_F6CLR6	S L L A Q V R T	G R G K G Y R H R L	R A A Q G K I	P A V V Y G K A I G N I P V	

	50	60	70	80
UniRef90_R5CPE4	T C P M N E L R K I V Y T P H I Y	V I N L I I D G E S H T A I L K E L Q F H		
UniRef90_S3Y520	T L P G H D S M L A L R Q S N A L I E	V Q F A D G S S K L V L P K Q I V R H		
UniRef90_C6C0N1	S V N E N E F V K M Y R K V G T T R	V F S L E V D G K T Y D T L I W K V Q M D		
UniRef90_M1NR13	A I D M L E L T A I V R N Q G I N A	V V E L D E I D G E K H L T M I K H V D Q N		
UniRef90_A4AJ98	A L P G H E I G L I L R K S N Q I L	D L D I N G K S Q L A L V K D D V Q K D		
UniRef90_C7HUG4	Q F T S R D F E K V L S Q A G T T T	I I D L D I L G E K V P V L I K D Y Q M H		
UniRef90_UPI0002884367	K L K L N E L T K A S Q N E L F Y T Q	V L I I K N G D L E E K V V L K E L Q K D		
UniRef90_UPI000365AF60	K V N A K E F R D M L N A S P S S Q I	L L N L E V G G K T Q R V F I Q D D L Q F D		
UniRef90_Z4WVZ3	T V S Q E A V R N L V Y S P D I F	V I I D L D I A G K K V K A V L K D D L Q F H		
UniRef90_W4QY44	S V D G A E F L K T V R S V G K N G	L F S L D V S G E K H Q V V M I H D D L Q F D		
UniRef90_W5XUZ2	A A D I L E L H S L I R N Y G A N A	V L E L E I D G D Q H L T M V K D I E E Q N		
UniRef90_W6K574	S L D P L Q L H K Q L H S T G F F S H	V V L E L K V G K D A H R V L P R D V Q F H		
UniRef90_UPI0003B482CD	S L A Q S Q V D R N L K Q E A V F S H I	L T L L N L P G G G V Q A V L K E V H R H		
UniRef90_A8HS67	S L G H K E I T R I I Y A G H F L T T	L F E I V D V D G V K H R V I P R D Y Q L D		
UniRef90_UPI00041394B1	T V D R L E F T A I V R N H G L N A V	V T V D L E G K K Q L A M L K S V D Q N		
UniRef90_X4QYJ0	V V N Y H D A F L M V R G N A	N A L I T L K S E S A E Q L V I V K D L Q R N		
UniRef90_W5WSV6	H V D I L E F Q A I L R N E G V	N A V L E L E V E G Q D H L V M I K A V D Q N		
UniRef90_UPI000407475C	A V N A R T L R H A L A A K G	A V L E L E T I D G G R A T P A V L K D A Q R H		
UniRef90_U7KK55	A V P L L D I Q S L V R N N G V	N A V L E L E I D G D Q H L T M V K H V D Q N		
UniRef90_I0GIM2	A V N Y K E F T K L E R E V G R S A I	F D L N I D G K V Y P T I I K E V Q Q D		
UniRef90_I6XPC9	S L P G Q E T F L L R E P G	V T F E I S I S D G A D A V V V P K Q V Q R D		
UniRef90_D9QSV2	K L D A T E L A D V T G G N A I I D L Q V	D G E E K T V V M V K D V Q K D		
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UniRef90_I0JX66	I T L K A N I R K A V G K S A V K K L R A N G R I P A I L Y G K K S N L P				
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UniRef90_D8FPG5	P L K N T F V H A D F Y E
UniRef90_R5S8H5	P V K D N C L H A D F L A V
UniRef90_K1ZDU9	P I T D D V T H V D F R R
UniRef90_F4A040	L M G T Q Y E H V D F Q
UniRef90_UP10002FE9E4E	S L K N Q I T H I D F
UniRef90_H5SMB8	P V H D Y V L H L D F
UniRef90_UP100035DB5B8	P V S E I I M H A D F L E
UniRef90_E2MWE3	P L T L D I D H A D L L
UniRef90_UP100041ED425	P V N E M L L H V D F L E
UniRef90_K1LMV3	S L K D H F Y S I D L
UniRef90_UP10004096A3D	S L K N Q I L H I D F L
UniRef90_Q0B0S7	P V S G Q L I H L D F L S V
UniRef90_H0URC0	P L S R D L V H L D F L Q
UniRef90_Q7M7U7	P I T S D L L H V D L M L V
UniRef90_K1YA55	P V S R R F Y H A D F Y E
UniRef90_F9MTK5	P F K N Q I L H F D A Y A V
UniRef90_U4WMT5	P V Q G R I L H A D F
UniRef90_D7JEF9	P V T D E I L H I D F L A V
UniRef90_N0AM53	P I N K E I I H A D F L A V
UniRef90_L8A4L3	T F T N H F E H A E F L S V
UniRef90_B1BCD5	P V T K K I L H I D L Q E
UniRef90_UP100034C3BF1	P W K G Y P Y H I S F F
UniRef90_A6DC19	P V T G D L L H V D L L I A
UniRef90_A6TJB3	P V T G M I M H V D F Q Q V
UniRef90_UP100036E2395	P L T E K P V H V D F Y Q
UniRef90_D5X9J3	P V K G D L M H V D L Q
UniRef90_UP10003B574AD	P L S G N I I H I D F
UniRef90_J9Z1K5	K V K N H P I H V D F Q R V
UniRef90_L0D8T0	H L G K E I I H L D F A R V
UniRef90_B7JXN5	P W K K N L L H L S F F Y V
UniRef90_Q7UKU9	P L G I E V L H M D L I R V
UniRef90_A0A023D0Z3	P V S D T P I H I D F Q R
UniRef90_E8RJH7	P V T G S L L H V D F F L E
UniRef90_C8W305	P I R R S Y L H A D F F L E
UniRef90_S5STG7	V L T L D V D H I D M
UniRef90_R1ATW9	I T K D N F L H I D F Q Q
UniRef90_UP10003758347	P V N G A L I H I D F M R A
UniRef90_Q72BR0	P Y K K K F T H I D F F G V
UniRef90_UP1000418BFE6	P V S E M L L H V D F F L R
UniRef90_B9M5U4	S L K G L P L H V D L
UniRef90_A5KTC0	P V K N L L R H V A F H A V
UniRef90_UP10004026B2A	S L K N T I L L H A D F L
UniRef90_K1Z2Q9	P V S D K Y L H I D F Y Q
UniRef90_KOZEM9	P V R W D I L H L D L L A V
UniRef90_R5AUU0	P V K D S I L H I D L L E V
UniRef90_W3AIK5	A L K G S F E H V D F L A V
UniRef90_U2KMT6	I I T D K N L H A D F Y A V
UniRef90_UP100036D43A4	P I K G S L L H I D L K R
UniRef90_UP100047DF3BC	T L D G K I I H V D F Q K V
UniRef90_D8FJ94	P F K N N M L H F D L Y E
UniRef90_UP100036AD19D	P V R D F I T H V D F M E V
UniRef90_UP10004145FBF	P V T D A P Q H V D F Q R
UniRef90_B1HSV6	S L K D E V N H V D F F L
UniRef90_UP10001E89688	P L K S E F V H L D F H V V
UniRef90_A7NI71	P V T R D I I H A D F R A V
UniRef90_A0A023X1M5	P V N G K L L H V D F
UniRef90_S6FA59	P V S H K I I H L D L
UniRef90_E0XY78	P V T E D L L H V D F L R V
UniRef90_K9XWY0	P W K K T L H H L S F F S V
UniRef90_J9G3Y5	P V K D T I L H V D F Y Q
UniRef90_UP100037F48B2	D G R F L H A D F L
UniRef90_B7GFH9	P I R H D I I H I D F L A V
UniRef90_W1Q6D2	A L S D E I Y S V D F
UniRef90_UP10003B621AA	P Y K K E F C H I D Y Y G V
UniRef90_UP10002F7D8C1	P W K G N L Y H V S F F A V
UniRef90_G4L4E9	T F T Q D L I H V E F L S V
UniRef90_U2MMD9	I L K D R V L H A D F F E
UniRef90_W4F626	A L K G T L V H L D F L A V
UniRef90_E0DIQ5	V I T L N A D H I D L L
UniRef90_Q8XJ87	P V T R R V L H I D L E K V

1 10 20 30 40

UniRef90_V5RWD7	L S L S L D E R T V Q G K K V A G L R K D G I V P A V V Y G P G V E P V A V
UniRef90_S7TZ68	E L T A A A R S E T G K G S C R T M R S Q G L L V P P G V F Y N G E G E N I L V
UniRef90_D1C5V0	L Q A Q Q R A V L G K K V R Q L R R Q G L L P G V I Y G P A V E P R P V
UniRef90_S3L2N1	L V L N A V T R T A T G K G A A K K L R S E G K L P A V M Y N S K G E A F P L
UniRef90_SOLOY0	S L K A S K R E V R P R S L R N Q L R H E G K V P A I V N G Y K I E S T P I L
UniRef90_K9YW0	I K F E C E T R P E G S K P R A L R R E G F I P T A L Y G H G A E S M S L
UniRef90_XOYFA1	T L E V D E R N E R G T R A T K R L R R E G F I P G V V Y G G Q E D A I A F
UniRef90_A8ZXZ4	E L Q V K T R Q M A G G P T P K A L R R Q G F V P A I V Y Y G H K N D P L P
UniRef90_B3ERN9	I E I I G Y R R A N L G K Q A S K Q L R N D A Q V P G V L Y G G K E Q V H F
UniRef90_Q89AV5	M L T I Y G I S R T K C G K K A S R R L R L Q N K F P A I I H V S L I S N I S I
UniRef90_UP100047CBB10	E I I I G F K R A N L G K T E A K R L R E E S M V P C V L Y G G T E Q V H F
UniRef90_I2GIY5	L E I V G Y K R A N L G R T E S Q V I R A E G N V P C V L Y G G Q E Q V H F
UniRef90_M7N6E1	E I I I G Y N R A N L G K T E S R D L R L A G Q V P C V L Y G G N E Q Y H F
UniRef90_A6TJB2	L L K Y T L R E E A G T G G A S K A R R A G E V P A V L Y S K G E V T Q P V
UniRef90_D4ZRD4	I T V K C Q K R P S G S K P R A L R R E G L I P A V L Y G H G A E S E E L
UniRef90_E0NKS0	M I L K L Q K R D Q H G K N K V D K L R Q E G L V P G V V Y S K G E E A V S I
UniRef90_UP1000315C5EC	M E T L H A A M R T G R G G Q T T N A L R R T G W I P A V V Y G S E L G N L P I
UniRef90_UP10003178C33	M Y E L K A E R R T D F K R S A L R G L R Q Q G R I P A V V Y G S S M D S I P V
UniRef90_D5QBP1	R R A G L V P G V I Y G G K Q E A V L I
UniRef90_D1B0D0	L E G I I R D S I E K K A T K A L R R D G Y L I A N I Y G K G E Q N I N A
UniRef90_B3QWH6	I V L E A E R R M P G K K S D L K Q L R A N G N V P A T L Y H K G E P S I S L
UniRef90_A9WCQ8	T L T A Q R R H I F G K K V K T L R R E G L L P A N F Y G K G V E T T A I
UniRef90_U7D7E0	I T L T A R A R N G T G K S Y N R K L R N S G W I P A T F Y G Y G V E A L T I I L
UniRef90_K2FE58	I A L K A T K R E V L G K R L Q K S R K E G L I P A V L Y G H G I A N E N L
UniRef90_C6VZ77	E I V G F K R A N L G K V E A Q N L R A Q G Y V P S V L Y G G D E Q V H F
UniRef90_L7LB0J0	K L S T T D R T E T G K G A A R R A R A G L V P A V L Y G H G A D P K H L
UniRef90_U7UKY1	M K L N F T K R E A F G K N K V D K L R A Q G L V P G V A Y S K G E E A I H V
UniRef90_UP10004221422	T L L N A I N R N H F K R S Y K H R L R E E G N V P S V L Y G N G T D P R N L
UniRef90_L8LVZ1	I S V Q S Q K R P E G S K P G A L R R Q G L I P S V L Y G H G T E S V P L
UniRef90_I0AH45	T L L E A K K R Q T P T K S A L N Q L R K S G K V P G V F Y S K H H E P I T I
UniRef90_UP100034DA0BE	L T V E G Q Q K R P E G S K P N A L R Q Q G Q I P A V V Y G H G A E S I N L
UniRef90_F5SHW0	I A V T R R Q Y K P R S L L T K I L R R E G R V P A V V Y G K G M E N E L I
UniRef90_W4BEE2	M A Q L T A T P T E K K G A A L R L R Q G G R V I P A V V Y G P G L E G A S I
UniRef90_UP10004779BA1	V D V S K R T E F S R S S L N R L R G S G R I P A V V Y G G G S D G I S I
UniRef90_G2IDX1	I N A M I N N G T T K G S T K R L R K E G K V V G N I Y G T D I P S T K I
UniRef90_Q1MQD6	T L L V V Q K R L D L G K G P N R R L H K K N L I P G I F Y T S S G K N I P I
UniRef90_K2CDY8	M S N L I A K Q E R E V L G K K V K L L R R D G V P G H V Y G N K L E T E H V
UniRef90_L1Q3E7	M S N L E M N K R N A D I P N S A K K A R K N G K V P G V L Y G K K I N N L L F
UniRef90_UP100046466BE	L E G I V R D S I T K A A V K A L R K E G Y L I A N I Y G K G L E N I S A
UniRef90_R6G4F6	M S I I Q L N E R D C S I A K S A K K C R R G K I P G V L Y G K N I N N F M F
UniRef90_R7L6A7	I N L K T T S R T Q V G G N S A K A R Y R K S G Q V P A V I Y G E S G E K H L
UniRef90_W0JG45	M Q F K A Q I R D A K A K T L R K Q N R I P A V I Y G Q L P K P I N I
UniRef90_D0JBG5	N I Y G Q K R N V G K K A V R S I R S G K I P C I L Y G K N I N I P F
UniRef90_K2AD10	L K L S S E V R D L T E K L S T I R W N K L I P W V V Y G H K F P S K G I
UniRef90_D3EJD6	I N L R A E A R A A M N K T G L K Q L R S G R I P A V V F G T G E N N N M M I
UniRef90_UP10001E2FB9F	F D I N V E N R T E L G S S V A R K L K R E G M V P G V L Y Q G G E S L P I
UniRef90_UP100031FB796	L T V D C Q Q R P E G T K P N A L R R S G K I P A N L Y G H G T E S I A L
UniRef90_UP10003725620	L T A E K R T A F K S S D I K S L R Q S G R V P A V V Y G K N S E G I P V
UniRef90_UP1000464055C	S L K A Q P R S A V G R H R V R R L R A E G K I P A V L Y G R K G H L A L
UniRef90_F4Y2G1	T V E C Q K R P E G S K P R A L R R S G L I P T V L Y G H G A E S V S L
UniRef90_UP10004259DFA	I K I T A E A R D R A G K G A A R A A R R A G M I P G V I Y G D N K P P V L F
UniRef90_UP100034A08B5	I T V E C K T R P E G S K P R A L R R E G L I P A A L Y G H G A N S I S L
UniRef90_UP100035E86EA	I T L K A D K R K I L G R K V K K L R K E G I L P A N L F G K N I K S Q A L
UniRef90_B6WT08	T L L S V Q K R E G S G K G P A G R A R T Q D M I P G V F Y T A K G D N I A V
UniRef90_X2GXZ2	L N I A T T R H K G Q R S T L T K L R Q S G A I P G I V Y Y G Y Q M E P T S I
UniRef90_LOG7E1	L E I I I G F K R A N L D S P S I S E I R E E G N V P C V V Y G P G K E Q I H F
UniRef90_Q837L6	L L E V K V E R A I R P R S L R N Q L R H E G K V P A I V Y G Y Q I E S T P I
UniRef90_UP100036B04E9	K L L K V E K R T I L G K K L R K D G I P A N V Y G K N I K S E S S V
UniRef90_Q8KCQ1	L S V N L R E V K K N G A A K L R R L Q G V P A V V Y H K G E A T V V A I
UniRef90_V8CHZ0	L E G Q I I R E S I S K A N A K A L R K D G Y L I A N I Y A K G V E N I H C
UniRef90_Q2GEAO	V V S I E C I P R T S F G R N S A N V L R R S G F V P A V I Y G K E R E N I N V
UniRef90_U2Q209	M E C N K R I K S L G H S G R K S R K N G K V P G V I Y G K G I E N M I F
UniRef90_UP100034AAE92	L S I A G T T R T P N T N P R A L R R S G R I P A T V Y G H G A E S T A I
UniRef90_H3GZX7	V L Q L Q V A V R E G E G S R A S R R L R K Q G F L P G V L Y G E G E E R V L V
UniRef90_UP100040B253E	I E I V G F R R E T L G T K S A K D L R N E A L A P C V L Y G K D Q V H F
UniRef90_W4C251	S F Q A E N R I I P L N T S R L R D L R K S G R L P G I V F G K N T E N E M I
UniRef90_T0GFC4	K I T V K K R T E T G K N V N N R L R A S G M V P I N I I G S G K A S S G
UniRef90_U4V2W3	N L V I A S A R T G T G K G A R Q A R R D N M V P G V V Y G G G V D P L A I
UniRef90_K2A585	I N L Q A K T R S I L G K K V K Q L R S N G F I P V A L Y G Q Q G K G A E N I
UniRef90_J9FQC0	I N L Q A K T R S I L G K K V K Q L R S N G F I P V A L Y G G N L P A T P I
UniRef90_V7PVZ1	M N I L T A T K R S K A N K L D A I R N N G M V P A V V Y G A R V E N T I
UniRef90_R2SF46	S L E V K E R A V R P R S L R N Q L I R H T G Q V P A V V Y G F E I E S T P I
UniRef90_K2AM85	I I L K A N E R K I L G R K V K T L R K V G L L P G V V Y G K G V K S A S V
UniRef90_UP100047BA1BB	T L L Q V E R R E V G S R Y E L N K I R K S G K V P G V I Y G K G S S P M P I V
UniRef90_C6CRK0	A E Q R T T T M K S E L R S I L R E S G R V P G V I Y G K Q A S P A S V
UniRef90_E4RSN3	V T E I V G F K R A N L G R Q S A Q E L R A E G Y V P G I L Y G G E E Q I S F
UniRef90_Q492J6	M L T I K A N L R I Y H K K G A T R R L R K Q N K C P A V I Y N R G Q E P I P I
UniRef90_K2F0I9	T L L E A K A R A E R G R K V N K G R K E G M V P A V V Y G N K I D S V S I L
UniRef90_UP10003691918	K I A A E S R T E F G K G A R R T R R A G R V P A V L Y G R G T D P V H L
UniRef90_K2C444	S I K A E V R K S A G T S A N N K L K T K G R I P A I L Y G R G K E S T M L
UniRef90_UP10004697D5E	I L E G I I I R E S I D K K A T K A L R R D G F I I A N I Y G K G I E N I H A
UniRef90_G6FWZ6	L T I E C K K R P E G S K P N A L R R S G L I P A N L Y G H G S E S V S L
UniRef90_A6LJD8	K L E A L T R N V G V K K A V R R L R K Q G L V P G V V Y G P D I E P L S I
UniRef90_L8MW74	L Q I L I N A T T R P P A N N R A L R R D G Q I P A T V Y G H G A E S I S I L
UniRef90_B1196	L L K A R P R A G R G K G Y R N R L K Q N G L I P A V I Y G K E V G S L L L
UniRef90_R7ZY69	I E I I G F K R A N L D S R E L T Q I R E E G N V P C V V Y G P G S E Q I H F
UniRef90_A0ZIR2	I Q I V E S Q K R P E G S K P N A L R R S G L I P A N L Y G H G A E S I S L
UniRef90_A6Q1Y9	L L E G I V R E S T G K K A T K A L R R D G Y L I A N I Y G K D F P N I H A
UniRef90_R9CBX7	M N S L N L N K R E A N I P N N A K K L R R T G K V P G I L Y G K N S K D F M F
UniRef90_UP10002D63354	F K A V T R T N E K R S A L R G L R N E G R I P C V I L D K G S S T M I V
UniRef90_A0A015NL96	S I Q L N E R A S V F K S Q M K Q S R K Q G L I P A V L Y G R G K D T V A V
UniRef90_K5Z7J6	F Q L L E G K G R E V A Q K R A L K A M R K N Q E I P A V L Y G G E K V T H F

50 60 70 80

UniRef90_V5RWD7	Q A A N V M E K [L] Y R Q A G T Y T P V H I T V A G K K R I A M I K E V D H H
UniRef90_S7TZ68	Q P E L A L S K A Y E K V G [L] S H V L T L K I E K D D K P S L V R E L K R H
UniRef90_D1C5V0	A I D G K E F D R [L] Y R N V G P T T L V D L D L D G T T H T V F I R G V D R D
UniRef90_S3L2N1	T V N E S E F T K V W K V A T P T T L V S L S V D G K E N T S V L I K A T D Y D
UniRef90_SOLOY0	A V D A S Q L E K V L R E N G V N T V I T L D L D G K K V N T L I H N Y T S D
UniRef90_K9YW0	V A K A K D V E M L L K N A S I N N S L V E V A V T D W K G K A L I R E V Q K H
UniRef90_XOYFA1	K V N S R V L R T A L I D G S A L I D L K V G G A T L P V I V K D R Q L D
UniRef90_A8ZXZ4	A V D D H T F R L L L K D A G Q Q A L L V I D D G A A S K T V M K E L L Q Q H
UniRef90_B3ERN9	Y T P M A I L K D I V Y T P Q A Y F V T L N L E G A I Y N C I L Q D I Q F H
UniRef90_Q89AV5	E L S Q N D F I N I M K N S D F Y K S E V I L I V D D K V K Y I V K I Q E I Q R H
UniRef90_UP100047CBB10	H A P M I L F R D L L Y T P E V A T V K L N V E G T E Y N A I V Q A A Q F H
UniRef90_I2GIY5	Y A P M I L F R E L L Y T P D V Y E V G D Q Y R A I L Q E T Q F H
UniRef90_M7N6E1	S T P M Y L F K D L V Y T P E A A F V K V N I E G K E F D A L L Q D I I Q F H
UniRef90_A6TJB2	Y L N T K E L E K I L S I Y G G S S R I A L D H E G K K C F A I I K E I Q K N
UniRef90_D4ZRD4	T I D A K T A E N I M K K G A V N H T L I Q N I P D W A G K A L R E V Q T H
UniRef90_E0NKS0	T V V E K D L V K A L M K K G A V N H T L I Q N I P D W A G K A L R E V Q T H
UniRef90_UP1000315C5EC	K V K A L E L D Q L L R K Q P T N V P L T L S V D G Q E Y A V M M Y E L Q R H
UniRef90_UP10003178C33	H V D S K E I G K L A R R G R T E T F H L K I E G N P I Q T L I K E M Q K N
UniRef90_D5QBP1	A L D P R I V A R E L H K P G W R S R I Y D I S I D G K T E H A L L R E I Q L H
UniRef90_D1B0D0	A F K A N E F I K A A K S K D S L I F P V K V A G T E Y N A V V V I Q D Y Q R D
UniRef90_B3QWH6	S V K E Q S L R K V I Y T T E S H E N L R F D G T E K P S V M K D Y Q F N
UniRef90_A9WCQ8	Q I N E R D F E Q I F R T V P K G E S F N L D I E G T T Y P V V I Y V V Q R H
UniRef90_U7D7E0	E V D Y K E F A K L V E Q K R H H N N F I E L K G E G I P G N A V V R E F D N D
UniRef90_K2FE58	W L K Y L D F S R A Y E K A G E N S I E I E I G D K Q M P V L V Y D T Q T D
UniRef90_C6VZ77	Y A P N M L F R E L L T P D I F N V T L N I E G T E Y N A I L Q E T Q Y H
UniRef90_L7LBJ0	L L P K L E L A A I L R G H G T N A V I D L Q I D G E S Q L A L T R Q V D V Q
UniRef90_U7UKY1	Y A V E K D L V K A Y Q N A G L S N I I K A D F D G E E K N I L F K D V Q K H
UniRef90_UP10004221422	A V Q E V F I K V L R E V G K N G I S L K T E D N E T F N V M V Q D M Q K D
UniRef90_L8LVZ1	V I S S D K V T N L L K K A V N N T L V E L D V T D D W N G P V L I R E V Q S H
UniRef90_I0AH45	E V P E S A I K P L V F T S K T S W I S L S L D G E K Y D C V I K D V Q F D
UniRef90_UP100034DA0BE	T I A A K T V E R L L K K A A S V N N T L I Q L N I P D W S G K T L L R E V Q T H
UniRef90_F5SHW0	H L E A G Q V K M L Q Q E G T S A I Y E L L Q Y G G K S R Q V M I R E L Q Q D
UniRef90_W4BEE2	H V D D E K E M L K V A R T G R S E M F N V V G G K T L P V L I K D Q Q E R R
UniRef90_UP10004779BA1	H V E E K Q L A K V A R T G R S E L F D L H I G G G S F P V L I K E M Q R R
UniRef90_G2IDX1	V L N K R D V E E L I A H G C E H N T V E V N V E G K K Y N A I I K E I Q K C
UniRef90_Q1MQD6	Q L P E L P F T K I F S E V G R T T V F N L K I E S D K H P V I I W E L Q Y Y
UniRef90_K2CDY8	S V K G V D F L K V L K V I K E A G E T G L V D L R I G E E K V R P V L I R G V Q L D
UniRef90_L1Q3E7	E V G E L E L A H E I G V N G E H G V I S F D L D G E E H K G L I K E V Q R D C
UniRef90_UP100046466BE	A F K R N D F I K Y L R N K N T L A F D V S V A G K T L K V V V Q E Y Q K C
UniRef90_R6G4F6	E I G E M D L V D E V T A N G Q F G V M V N Y N G K E H K A L I K E M Q R D
UniRef90_R7L6A7	L I N N K D L S A A L S V A G K A V L I E M T F D D G T E S A M L K D V E R H
UniRef90_W0JG45	S L D K K E T L A I L R K A R R T D I F E V S F D N E T F R C I K E V Q K H
UniRef90_D0JBG5	L T S L E S L K K I V Y T T E V Y G V I V Q I E G Y N K N I N A V Q K E I Q F D
UniRef90_K2AD10	Q V W Y S D F L K T F R T G W H T H V E L T V D W K Q D V L I H E V Q K H
UniRef90_D3EJD6	Q L S A K E F G K W A R N G K G G I L E L L H F E D E P I P V L L E S V Q R D
UniRef90_UP10001E2FB9F	E M R E D E I R H V L A G K M D Y D L I L N I S F N N R Q F K A K V K E V Q R E H
UniRef90_UP100031FB796	V I D A K I V E R L L I K G S V N N T L I D L N V T D W R G K T L L R E V Q S H
UniRef90_UP10003725620	H V D A K D L M R H V Q L G G A D I F S L L D V D D G S P M Q V M I K D I Q R
UniRef90_UP1000464055C	E I S A L E L V E A F H G R G T E K V L I D L Q V E G G D K L A F L Q A I Q E H
UniRef90_F4Y2G1	T M T A K A A E D L L K T A S V N N T L I E L S I P D W N G P V L L R E I Q S H
UniRef90_UP10004259DFA	S V N A H S M L K I L R D P A A L T H Y D I E I G S E R H H C L A R D I A L D
UniRef90_UP100034A08B5	T I P P A K E A Q I L L R N A A I N N T L V D V K I P D W Q G K A L I R E V Q A H
UniRef90_UP100035E86EA	Q T K N S E F K S V Y E Q A G E T N L V Y L V V N D N V N D E L P V L I S N V Q V H
UniRef90_B6WT08	Q A P A L P E L K E M Y T E M G R T A V F N L E I D D N V H P V M F W E V Q K H
UniRef90_X2GXZ2	S L D A R M F A K V L S E I G S K S V F Q L D V E G K K I N A V L N E V V Q R C
UniRef90_LOG7E1	Y A P A I L F R E L L Y T P E V H M V E L L N V E G T K V K A I L R E A Q F H
UniRef90_Q837L6	Y F E E K D L S K I L R E H G A N T V V I K M T V D G K N I T L M S K A Q L D
UniRef90_UP100036B04E9	Q V K A D E L E K V Y K E T G E T G L V D L E F S G K S I P V L I H N V Q K N
UniRef90_Q8KCQ1	S V E E I S L N K V H S S E S H M I D L Q Y D G K S V R S F I K D V Q F D
UniRef90_V8CHZ0	A F K I N D F I R T I K T K T S L V F P V K V G G K T L D V V V I Q E Y Q K D
UniRef90_Q2GEAO	A I S V R D V S K H F A V L S G S G V E L S C E G K V Y K V V P K A Y E L H
UniRef90_U2Q209	E I S E L N N E E I L Q N G G H G F V N I L N L E G E N H K A L I K E I Q R D
UniRef90_UP100034AAE92	S L D G K E T T A L L R Q A K V N N T M I D L S V S D G D F K A I L R E V Q M H
UniRef90_H3GZX7	S L E T R T F E R V H R K T S V E N Q V F Q V Q V Q D Q T V K A Y M R D V Q L D
UniRef90_UP100040B253E	A V P L I L F R D L Y T P E V A E V E L N I E G E I R R A I L Q D A Q F H
UniRef90_T0GFC4	H I P T L Q F Q K W L K Q G Q L T P F V R V I C R D V Q R D
UniRef90_U4V2W3	A V N E K E L D K L V H S G I R Q S T L I D L E V E G E T H K V Y V K E I Q R F
UniRef90_K2A585	E V P F N E L F K R L K A G R F L S T L F N L Q V E G E D V R V I C R D V Q R D
UniRef90_J9FQC0	S V L A K D F R K A Y K K A G K S A L V D L K I E E K N I K I I K D V Q R H
UniRef90_V7PVZ1	E L E H N P I F Y A L R K E K F H A S I L T M E L D G K E E L V V L R A F Q M H
UniRef90_R2SF46	S V P S I E F S K L L K V A G E T S A I V L E I K G D K K V D V L I H E I Q K D
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UniRef90_C6CRK0	A I Q E K E L L L R T H P A N V I D L D I P G G Q S V M I A E I Q R D
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UniRef90_Q49J26	I L N Q N D I L H A V I Q Y K N N V I L F I E N Q P I T V K V Q E Y Q K D
UniRef90_K2F0I9	W V K E I D M K R L V K K Y G E S V I V E M N L D D K K R N V L I Q D I Q K O
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UniRef90_K2C444	T L T K L D F E N I F K K N N I Y S V N F N D G A K D L V K N T L I K D L Q Y D
UniRef90_UP10004697D5E	A F K T N D F V R A V K N K T S L A F P V K V G G T E Y K V V V V Q E Y Q K D
UniRef90_G6FWZ6	V V D A K T V E Q L L K K A R V N K T E F E L N V D W R G T T V I R E V Q T H
UniRef90_A6LJD8	S I K K S N L L K L L Y E V T E A S I S L S V K D E T H D V F I K N I Q Y D
UniRef90_L8MW74	A L D A K E A T T L L R E A T I N N T L I E V N V W G D F K G K T L L R E V Q N H
UniRef90_B11196	E V E T R A V Q D I L T K T G R N A L I Q L R V E P K K Y D A I I K D V H M H
UniRef90_R7ZY69	Y S P I I L F R D L Y T P E V H M V N L N I E G K E I K A V L K E A Q Y H
UniRef90_A02IR2	V V D A K T I E R L L K Q A A V N K T E E L N I P E W N G K T V L R E V Q S H
UniRef90_A6Q1Y9	A F K K G D F I R T V R H K E K L A F P V K V G D K E L E V V V V Q E Y Q K D
UniRef90_R9CBX7	E V G E L D L C R E I S K T G E H G V L N F E L D G S S S H K A L I K D L Q R D
UniRef90_UP10002D63354	H I D S K E F T K W V R L K N P R A I L Q A S F E A G V V P V L I Q S I Q R H
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90

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UniRef90_S7TZ68	P V K R Q I L H V D F L
UniRef90_D1C5V0	S L G K E L L H V D F Y
UniRef90_S3L2N1	I I T D K N R H V D F H A V
UniRef90_SOLOY0	T F K G N L T H V E F L S V
UniRef90_K9YW0	P W R P D I Y H V S F F A V
UniRef90_XOYFA1	P V R D E V I H I D L L E V
UniRef90_A8ZXZ4	P V S L K L I H A D F H E V
UniRef90_B3ERN9	P V N E V I L H I D L L Q
UniRef90_Q89AV5	A F K S K I L H I D F L K V
UniRef90_UP100047CBB10	P V N E V L L H V D F L E
UniRef90_I2GIY5	P V S D V L L H A D F L Q V
UniRef90_M7N6E1	P V N E M I M H A D F L Q
UniRef90_A6TJB2	M L K N S L L H V D L Q
UniRef90_D4ZRD4	P W K G F P Y H L S F F
UniRef90_E0NKS0	P F K N Q I L H F D
UniRef90_UP1000315C5EC	P V Q G N V L H A D F
UniRef90_UP10003178C33	G A W I H V D F Q Q V
UniRef90_D5QBP1	P V S D V P L H V D Y Q R
UniRef90_D1B0D0	P V N S N L L H V D L
UniRef90_B3QWH6	P L T D S I T H A D F Q
UniRef90_A9WCQ8	P V T R K F L H I D F
UniRef90_U7D7E0	P I K D R Y Y N I D F Q K V
UniRef90_K2FE58	T M S G K F S H I D F L Q V
UniRef90_C6VZ77	P V N D A L I H A D F L Q
UniRef90_L7LBJ0	P V R N Y I E H V D L L I V
UniRef90_U7UKY1	P F K N Q I M H Y D
UniRef90_UP10004221422	S L K D S L T H I D F L V V
UniRef90_L8LVZ1	P W K R N I Y H V S F F S V
UniRef90_I0AH45	P V T D K I V H F D L I
UniRef90_UP100034DA0BE	P W K G N P Y H L S F F
UniRef90_F5SHW0	R I K D K I I H I D F N E V
UniRef90_W4BEE2	N G R L L H V D F L Q
UniRef90_UP10004779BA1	N G K V T H V D F Q K V
UniRef90_G2IDX1	H I T N N I L H V D F
UniRef90_Q1MQD6	P V K N R F M H V D L Y G V
UniRef90_K2CDY8	P R T G D L F H I D F Y Q V
UniRef90_L1Q3E7	P V T N K I I H L D L
UniRef90_UP100046466BE	P I T S D L L H V D L M
UniRef90_R6G4F6	P V T N K I I H L D E E V
UniRef90_R7L6A7	P I S E A P L H V D F V E V
UniRef90_W0JG45	P V T S D I Y H V D F Y
UniRef90_D0JBG5	P I S D K I L H V D F F Q
UniRef90_K2AD10	P V T W D F Q H V D F M
UniRef90_D3EJD6	P V T R E Y I H V D F L R
UniRef90_UP10001E2FB9F	A I S G E I R H V D L M
UniRef90_UP100031FB796	P A K R T P Y H L S F F A V
UniRef90_UP10003725620	L I N G R I I H A D F
UniRef90_UP1000464055C	P L T D R I L H V D L H E
UniRef90_F4Y2G1	P W K N S L Y H L S F F S V
UniRef90_UP10004259DFA	P V T D R A I H M D F L R V
UniRef90_UP100034A08B5	P W K R T L N H L S F F T V
UniRef90_UP100035E86EA	P V T S N Y L H A D F Y Q V
UniRef90_B6WT08	P Y K K A F T H V D F Y G V
UniRef90_X2GXZ2	A L K G H V K H V D F
UniRef90_LOG7E1	P V S D V L L H A D F L
UniRef90_Q837L6	T F T G Q M L H V E F L S V
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UniRef90_Q8KCQ1	P V T D R V I H A D F Q
UniRef90_V8CHZ0	P V Y G T I L H I D L M
UniRef90_Q2GEAO	P V S S V V L H L D F
UniRef90_U2Q209	P L T R K L V H I D L
UniRef90_UP100034AAE92	P Y K N D I Y H L S F F
UniRef90_H3GZX7	P V T D A P V A V N F L R
UniRef90_UP100040B253E	P V N E S I L N V D F L E
UniRef90_W4C251	P V T R D L L H V D F Q Q V
UniRef90_T0GFC4	P E I D R I R H V D F Y K V
UniRef90_U4V2W3	V V K D L P I H F D L M R
UniRef90_K2A585	V V S E D I L H A D F Y
UniRef90_J9FQC0	P Y K P Q V M H I D F Q R
UniRef90_V7PVZ1	P I K D F P I H I D F L
UniRef90_R2SF46	T F T N Q M K H V E F L A V
UniRef90_K2AM85	P V S G E P I H A D F L Q V
UniRef90_UP100047BA1BB	P M T Q L V K H I D F R R V
UniRef90_C6CRK0	K L S R K L I H V D F Q Q
UniRef90_E4RSN3	P V N D S L I H V D F L L E
UniRef90_Q492J6	P F K S K L I H I D F T R V
UniRef90_K2F0I9	P V R G Q Y V H V D F F Q V
UniRef90_UP10003691918	P I K G F I E H V D L
UniRef90_K2C444	P I K M R I T H V D F Y E
UniRef90_UP10004697D5E	P I N S T L L H V D L R V
UniRef90_G6FWZ6	P A K G T P Y H L S F F
UniRef90_A6LJD8	K L T D E V K H I D F Y
UniRef90_L8MW74	P Y K N S I Y H L S F F
UniRef90_B1196	P Y K N E F F H V D F H Q
UniRef90_R7ZY69	P V S E M I L H A D F L
UniRef90_A0ZIR2	P A K G F I Y H V S F F
UniRef90_A6Q1Y9	P V T Y D L L H V D L M
UniRef90_R9CBX7	P V S H K I I H L D L
UniRef90_UP10002D63354	P V T N E I L H V D L L
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UniRef90_K5Z7J6	P V T D A I M H M D F M E V

1 10 20 30 40

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

50 60 70 80

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UniRef90_W2EBD8	A L E E K K H V L A L L K T H P N A V I D L D L E V G K R P V M I S Q V Q R D
UniRef90_W4WBW7	E V N E K E L L E M L R T N P R A I L Q A K L P D G T T L P V V V Q N I Q K Q
UniRef90_E6LIF1	S L D S A E I E K V L R Q H G L N T V L T M S I D G K K V N T L I H N Y T T D
UniRef90_U5MRD0	E I G A M E L D K E L S I T G E H G V V N F D L N G Y N G T A I I K D I Q K D
UniRef90UPI000382D883	S V G E K A L L L A I K E N G H A I L N A S I P E I G N K P V V I Q N I Q R D
UniRef90UPI000363B56B	V V D A K A A G F L V R D A A P N K S V V E V N I P S W N G K T V M R E V Q T H
UniRef90UPI00031A0CF6	E M A E E S T R H L L E K M S G M H E L V P I N V E S W T A Q V L L R E I Q K H
UniRef90_A7ZCE8	A F K V N D F I K K F K Q A G Y S T A L T L E G K G I E E L V L I Q D I Q V D
UniRef90UPI0003D02DF7	F C N K N D F I K K F K Q A G Y S T A L T L E G K G I E E L V L I Q D I Q V D
UniRef90_D6YVM0	A V D A A D F E T V L R T V K S T T K L A L V D G T G K E R N V L V K D I Q Y H
UniRef90_C9RL0	S V S E D L R K V L A P G K R Y T L L D L E I D G K A G N A L V Y S V Q K D
UniRef90_C5ZX7	A F K R N D F I R E V K N K T D L I F E V E V G T Q K Y P V V I Q E Y Q K D
UniRef90_S3XG71	A F K T N D F M K Y A R D K E N L A F E L K V D G K T Y K V I V E E Y Q K D
UniRef90_F3YC51	F F D E K E L L Y I L H H N N G S N V V I T M T I N N K K I T N T L T N T Q L D
UniRef90_K9ANX0	S L E G H A T M M A L K H A N A L L E I E S T D G A K N V L A I A R D V Q L E
UniRef90_Q5L563	V V V D A H V F S K F L E S G A L S S T I F S L S Y E G R T L K A L V K D I Q Y H
UniRef90UPI0002892658	Y V N S A D F L K T I R T T G R N G I I K L A L D N N E H S V M L H E I Q T D
UniRef90_A712W4	A F K V N D F I K K F K Q A G Y S T A L T L E G K G I E E L V L I Q D I Q V D
UniRef90_B3T8K4	Q C N T S Q L I R V L A K A G A T P I T I Q G E S G T H L A F A R E I Q W D
UniRef90_B0JXF5	V V V G E K A A L T L L K K A S V V N N T L D V V N V M P W T G K A L I Q E V Q S H
UniRef90_Q30TD5	A F K E N E Y I R T V R N K E T L S F P I K V D S K E M N V V V Q A Y E A H
UniRef90_Q65PG9	A L D S I E L L K I L R A E G K N T I I N L D I N G D Q H S V M V T E L Q T D
UniRef90_T2IHM7	A V N T K E V A L M L R G V T V N E T V I D L N I P D W N G Q A V I K E I Q A H
UniRef90_B1QTT8	E I G E M D L V S E L N T G E H G V I N F D F D G Y N G T A I K D I Q K D
UniRef90UPI0002F0F202	S V R N T E V T H A E I N H K L F Y N I I H L N I D G A L E S V L V K D V Q R H
UniRef90_G7Q4F2	M V E H L P L K K L Y A K A H V F D L L I E S E N G K E T K P A L V W K L E H H
UniRef90_R5LR32	A V E L K E F Y K V F S L A G Q H S I I T L D I E N D K A R E V L V K D Y Q I D
UniRef90_K2FBG1	S V G Y K D L V K T Y K M V G E T G I V Y I S L D K E N I P V L I K T I Q K H
UniRef90_Q057Y4	L L D H N I F N L Q K E K N F F S S N N F L I K L K K N S F F S I L Q D I Q F H
UniRef90_K2AS43	Q L P Q K E F E N V F K D V G E T G L V D V A V N G E T K P S I H N V Q Y D
UniRef90_D7CRT7	S V E L R E F D K A F R S Q G V A S L I N L Q L D G E S H D V L V K A V Q M D
UniRef90_U6BAG7	A F E E K E L L K I V R E N G E N V L I S L K S L D G K N I V L I N R R D M D
UniRef90_Q7NNL2	E L E Q R T A E D L L K R V T I N N T I L P L K V E G W S G D V L L R E V Q H D
UniRef90_X1GVZ8	E V D I K E L R S F L S Q S D K A K I I T L L E I T D Q K H N V I I K D S Q W D
UniRef90_D8K247	Q A D T A A L E Q V I A T A G S S R L V S L E F K G K K R M A F V R E V Q R P
UniRef90_A3SLV5	N I P F N E L F K R L K A G R F K S T L F N L K V E G E D V R V I C R D V Q R D
UniRef90_E8N4Z3	L L D A H N A G L K L A K V S S S T L V Y I E L D G E T H A A L V R E K Q R D
UniRef90_K9VXS4	V M N S K Q F G D L L K A S S G K K P E V Q L T I P S W S G T T V L Q E V Q I H
UniRef90_A6QBZ3	A F K R G E F M R A V R N K D S L A F P V K V G D K E L N V V I Q E Y Q L H
UniRef90_G7LZP9	E V D E S A L L K E I S T H G E H G V I K F D L E G N K G T A V I K E V Q K N
UniRef90_A4SE17	S V N E L E L N K L V H T A E S H I I D L R F D G K V K R S F I K A V V Q F H
UniRef90_A6DUE9	Q I A Q K D L Q V A I K A A G T T N I I E L D V D D G T K H E V L L R E V L R T
UniRef90_N9WFR3	E V S E L E L N R E V S N I G E H G V L N F S L D N E E K K A L I K E V Q R D
UniRef90_K2EQV7	W I N G L E F G K V F Q E A G E N T V V T L E I G G E K E N V I I Y D Y Q M D
UniRef90_E1JUC6	M V E H L P L Q K L Y A K T A S S H V F D L K I G E E T K P S L M W K V E H H
UniRef90_B9L0T5	A V D E R E F E R A F H H V G T A R L V D L V V D G T T Y P V F I R E V A L H
UniRef90_K4ZIL9	H V D S R E F A K L A R V G T E V F Q L Q I E G K P V Q A L I K D V
UniRef90_Q17V74	A F K L K N P F I K Y L K E K K H L P V K L G D T F E V V V Q E Y Q K N
UniRef90_F8L349	I V N G S E F H T I L R K G Y L P T T I F E L D L D D G K K S K A I V K D I Q Y H
UniRef90_D6TNM7	Q F E A K V F K R L Q H E N R A G S I Y A L N L P G K A E T V L V H V E H N
UniRef90_K7W2U5	V L D A K V V E R L L K Q V P N K T Q V E L S I A E W T G T T V L R E V Q I H
UniRef90_S2Z335	T T D R L A L T A I V R N H G T N A V V D V D I E G E K H L T L I K H I D Q N
UniRef90_K9Q5A4	V V V N Y K E A L N L K K A A T P N E T L V E V K T P G W S G S A V I R E I Q S H
UniRef90_D3DF10	Y V S L K D L M S L L P H G E T F L I E A D V D D G E K R V C L L K D I Q V G
UniRef90_X1AC66	K V K D A E L L K L L S A K S H G L I D L E V V N D G K K K V L A V I K D L Q Y N
UniRef90_M7AMF1	N I P A R E F A I L R N H G T N A V V E L D D E G T N Q L A L T K Q V D V H
UniRef90_S9UID5	H L D E K F K S M W V R D T K S S Q L R D T K S S Q L P I T A T V K E I Q R H
UniRef90UPI0004798227	T L P T V E F A R V I R E N G R N A V L T L D I G D K N E L A L C K E I T T H
UniRef90UPI00030D0D01	V I D R K T A E T L L R K A R V N D T P I E L K L G Q W V G N T V I K E V Q A H
UniRef90_Q7VRX2	Q L S N K D L S H P E N V H Y F N N K V Q L I N N E F T T A K I Q D V Q Y H
UniRef90_A0A024G2B88	S L K K T L F D R L H P T K S L D N Q V F K V Q V E D Q P V L A I M R D V Q F H
UniRef90_M1WLR4	K M D M V P L Q Q A Y A K V G N A Q V F L V L E K D G K T E P A L M W R V R N E
UniRef90_A8U5R4	S L D S K D L D N V L K T L G K N A I F D V V V K D G E T H Q V I I K E I Q S A
UniRef90_W5WZ36	S V L E K D I V K Y N T R A Y E N A L Y N L K G T G T K I V V L L K D V D V H
UniRef90_B8HY85	V V V K A K T A E L L V R D A K L N K T P I Q V Q I S D W S G Q V V L Q E V Q A H
UniRef90_R7DJI4	T V S T E S V R K L V Y T P E I F A I D L T I G D K K T K A V I K D I Q F H
UniRef90_W4C1G1	T A D A K T I S G I L A S N P R A V L T L E L P D S G K K N V V I Q E I Q R Q
UniRef90_K4RK88	T F K I N D F I R F V K H P N L D F M V K I G Q A S Y N V V V Q A Y Q K D
UniRef90_D9R705	A V K K D V F R R S M K E F G R N G V F K L V V P D D G Q S Y T V M A K E I H E
UniRef90_E1IAT3	Q V S A R E F D L V F R K A G R T T L I D L N I G S Q G V S A V V Q D I Q R H
UniRef90_H8GS15	A I D R K A F D R A F R T Q G T A G L F D I S V E G G Q T F P A L V K T V Q M D
UniRef90_I2F433	Y V I K E D A V R Q I V E G K H H L V E L N I E M G R Y P A L V Q E I Q R E
UniRef90_F8L024	S L D K V E I L R I M N R I A E T T S V V I S I D G K E Y H T F L K G V Q R D
UniRef90_R5H5F1	K I G Q R E V E R I L L K T S N K G S Q L M L E V D G K T Y D V L I K E I D Y D
UniRef90UPI00036BA02	Q I P F N D L L K R L K A G R F L S T L F N L K V E G D D V R V I C R D V Q R D
UniRef90UPI00036E2DC6	Y V I K E D A V R Q I V E G K H H L V E L N I E M G R Y P A L V Q E I Q R E
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UniRef90_D3SNW3	Y M K V K D L L S L P H G E T F L L V A E I L E G E K R V C L L K E V V Q T G
UniRef90_Q65ZY8	K I K S N E F N K K F A K F T D N T V L I L D D D G K L E R C V F I K D V S E N
UniRef90_W6RXQ5	E I S E M E L A S E L A R E G S S G M C N V H Y G N E D F T A I V R E V Q K D
UniRef90_E7A928	T F H T N D F I R F L K H K P T L D F Q V K V G E K A Y Q V V V Q N Y Q K D
UniRef90_C4L193	V F D E M D L R K L L R D H G D N A L I E L H Y D G N K I N T L V H G S E T D
UniRef90_B2V6V3	Y I N K K S L L S K P H G N F L I S L V V E G G D P E P C I L K D I Q Y S
UniRef90_K9S459	V L N A N A A Q L L L K N A T I N N T L V Q V K L P D W Q G Q A L V R E V Q A H
UniRef90_B1QTT9	D V D V L D L E R E L A V S G E H G V L E F D F E G K G T Y D V L I K E L Q K N
UniRef90_W7YQJ8	S V D V A K D L A K I A R T G R T E M F N L K V E G S D L S V I I K D Y Q K K
UniRef90_R4I1J5	E I V Q D S I K N I E V K P E F Y S E N I I L V I N G Q K K L S L I K D Y Q K K
UniRef90_H7EH72	T V N S V E F N K V W R N I T K T T L V T L D V D D G K S C D A F I S D V E Y D
UniRef90_F1W526	S L D H N A Y H A L K K E T F H P H S S I L D L E I D G K V E K V L L R D F Q V H
UniRef90_B5Y8L0	L L E R S Q V I R E R V T L G R S E L L D V D D G K I V R V I V K E E Q V Q D
UniRef90UPI0003B78C90	Q A P T L P L E K I Y E E V G H T T V F N L E I D E N T H P V L I W Q V Q R H

90

UniRef90_W7U4F2	P G T A M P I A V N F L R
UniRef90_W2EBD8	P I N G D V V H L D L H Q
UniRef90_W4BWB7	S M S G K V L H V D F Q H V
UniRef90_E6LIF1	T F T S K L T H I E F L S V
UniRef90_U5MRD0	P V T H K V M H I D L
UniRef90UPI000382D883	A L T N K I I H D F H Q
UniRef90UPI000363B56B	P W K G S L Y H S F F
UniRef90UPI00031A0CF6	P Y Q H Q I T H D F
UniRef90_A7ZCE8	V V T S D L K H V D L
UniRef90UPI0003D02DF7	P V S D V V V L H I D F L A V
UniRef90_D6YVM0	V T Y N V L H L D F
UniRef90_C9RLL0	A L T Q K I T H V D F I
UniRef90_C5ZX7	P I T S E I T H V D L M
UniRef90_S3XG71	P V L N T L T H V D L R V
UniRef90_F3YC51	T F N K Q M R H A E F L S V
UniRef90_K9ANX0	P V R R E I E H V D L I I V
UniRef90_Q5L563	V T S Y R V I H L D F
UniRef90UPI0002892658	P I K S E I I H A D F Q I V
UniRef90_A712W4	P V T N A L K H V D L R I V
UniRef90_B3T8K4	P K R D D L L H V D L L A A
UniRef90_B0JXF5	P W K R N L Y H L S F F S V
UniRef90_Q30TD5	P V T G K L L H V D L M
UniRef90_Q65PG9	P L K D S I V H A D F K V V
UniRef90_T2IHM7	P W K R N L I H L S F C Y V
UniRef90_B1QTT8	A L T H K V M H I D L E E V
UniRef90UPI0002F0F202	P F K P L I Q H L D F L R
UniRef90_G7Q4F2	P T K P R I T H V D F Y G V
UniRef90_R5LR32	G I K R I T H I D F Y E
UniRef90_K2FBG1	P L S S S L L H I D F
UniRef90_Q057Y4	V F K P I L H I D F L
UniRef90_K2AS43	Y I R N P L H A D F F Q V
UniRef90_D7CRT7	K R R R E P L H V D F Y A V
UniRef90_U6BAG7	V F T P T V D H V E F I A V
UniRef90_Q7NNL2	A V G G K L L H L S F F A V
UniRef90_X1GVZ8	L I K G D L Q H L D F Y A V
UniRef90_D8K247	P V G N S I L H V D F Y Q V
UniRef90_A3SLV5	V V K D L P T H L D L M R
UniRef90_E8N4Z3	Y I K N R L L H V D F Q V V
UniRef90_K9VXS4	P W K K F P Y H V S F F
UniRef90_A6QBZ3	P V H G E V V H V D L
UniRef90_G7LZP9	S F G N K A I H V D F
UniRef90_A4SE17	P V T D R I I H T D F Q
UniRef90_A6DUE9	T N Q Q H F V H V E F Y
UniRef90_N9WFR3	P V T H K I I H I D L
UniRef90_K2EQV7	S L S G R V T H I D L L R V
UniRef90_E1JUC6	P T K P R I T H V D F Y G V
UniRef90_B9L0T5	P V T R E I L N V E F Y
UniRef90_K4ZIL9	V K G D Y A H I D F Q Q V
UniRef90_Q17V74	P V T N E L I H V D L L A V
UniRef90_F8L349	P T T Y Q I L H L D F L
UniRef90_D6TNM7	T V S G E L Q H V D F S R V
UniRef90_K7W2U5	P A K G T P Y H I S F F
UniRef90_S2Z335	V L T L H I D H V D L L
UniRef90_K9Q5A4	P W K R S L Y H L S F F
UniRef90_D3DF10	Y I G D D P V H V D L Y
UniRef90_X1ACC6	L L K R Q I V H V D F Y G V
UniRef90_M7AMF1	P I R N Y I E H A D L L
UniRef90_S9UID5	P V T N D I V H A D L L R
UniRef90UPI0004798227	P T K N Y I E H V D M M P V
UniRef90UPI00030D0D01	P A K G T L Y H L S F F
UniRef90_Q7VRX2	P Y K S N I I H I D F I
UniRef90_A0A024G2B8	P V T D L P L T V N F I R
UniRef90_M1WLR4	P V T G H P E H V D F Y G V
UniRef90_A8U5R4	T L V N Q I L D V E L Q V V
UniRef90_W5WZ36	P L S R R P Q H V D F F
UniRef90_B8HY85	P W K T Q I Y H L S F M
UniRef90_R7DJI4	P V T D A I L H M D F L E V
UniRef90_W4C1G1	P I S K Q L L H I D F Q Q
UniRef90_K4RK88	P V T S A L I H V D L L
UniRef90_D9R705	P V K N E I S H L D F Q M V
UniRef90_E1IAT3	P V S R A I L H I D F K V V
UniRef90_H8GS15	K R R R A P I H V D F F M V
UniRef90_I2F433	K V T D S V I H L D F Y
UniRef90_F8L024	V T N Y D V I H L D F
UniRef90_R5H5F1	T M K N Q V T E I D F Q
UniRef90UPI00036BAA02	V V K D L P T H L D L M R
UniRef90UPI00036E2DC6	S V I N R K V I I H I D F
UniRef90_K9GM72	P V T D D P Q A V D F L R V
UniRef90_D3SNW3	W L G D D P L H V D L Y
UniRef90_Q65ZY8	I A S K L I Y H I D F Y E V
UniRef90_W6RXQ5	P V T R K I I H I D L
UniRef90_E7A928	P V S N A L M H V D L L
UniRef90_C4L193	P F T N F Y Q H V E F M A V
UniRef90_B2V6V3	Y I G D E P I H V D L Y E V
UniRef90_K9S459	P V S G V L Y H L S F F S V
UniRef90_B1QTT9	H F G N K V I H M D L E E V
UniRef90_W7YQJ8	A G V L S H V D F L Q
UniRef90_R4I1J5	
UniRef90_H7EH72	
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UniRef90_A4S4Y1	T V C E R E M N A A V R K H G V A C E V F D L L E V E T R R V R A L A K Q V Q M H
UniRef90_H0UI4	K T D A K A A E A Y L V G D F K S C Q Y D V T L P G T V K T C S I K S A A K N
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UniRef90_UPI00042B1C37	Q I N Q R K L V K H L G Q S F F L S R L F D L E V R S E K V R V L P R K L H L H
UniRef90_R6T8K8	K M D A A A V D R I L L K T S N K G S Q I M L D I D G E S H N V L I K E V D Y N
UniRef90_F0RWX9	I L D S R E F T T K M R H F S E T A L L K I S V G K K S Y E C L M K D Y Q E N
UniRef90_G4HDQ1	A V D L K E T A K L F H T G R S E V F H D I P G G Q I P V L I K D I Q K R
UniRef90_M4D238	S V Q T N Q I R K L V T H L G F L A R L F D V E V R S E K V R V A L P R S I H L H
UniRef90_W9QX27	R T N Q R K L V N Q L G R S F F L S R L F D L E E V R A E K V V R V L P R K V H L H
UniRef90_W5CSH4	S V P S K Q I R K L V D H L G F L S R L F R L Q V W S E S V R V L P R K V H L H
UniRef90_K7V6X5	R A N Q R K L V D H L G R S F F L S R L F F S L Q V W S E S V R V L P R K V H L H
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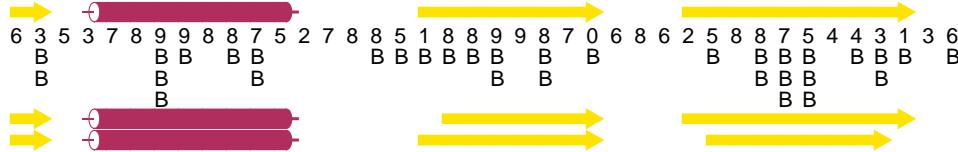
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UniRef90_R5N2Y0 P I E K Q L M A L D F Q
UniRef90_A8Z5Q8 P I N D D V I H V D F Y E
UniRef90_R4PW31 P A K G V I R H V A F H A V
UniRef90_K2CIU4 V T S Y N I A H I D F L
UniRef90_K9SJY2 P F R R R Q V F H S F F
UniRef90_B1GYU9 F L T Q H T I H D F
UniRef90_A8MEE3 S I H N E I L H D F Q
UniRef90_B5RMX8 L T K K F I Y H D F Y E V
UniRef90_R6DKM9 P V T K H I M Y I D F Q
UniRef90_D7GU86 A M T R K I D E I D F Q
UniRef90_T0QAF5 P V T D V P L T V N F L R
UniRef90_E7G1D1 P I S N T L M H V D L M
UniRef90_H9UBV0 K V T D E V R H V D F Y
UniRef90_Q896W8 A V T S S I I H D I Q E V
UniRef90_UPI00037AB4EB P V D G N A V H V S V Q
UniRef90_D4G7N7 P Y T G E I I H D F F E V
UniRef90_K2DPE5 P I K G N L Y H D F H Q V
UniRef90_Q6MJR4 P L T R R P Q H V D F F F
UniRef90_A0RMV5 P V T S A L K H V D L K V V
UniRef90_C7M0L0 P V R R E L S H L D F L A V
UniRef90_B5TB45 W L G N N P I H I D L Y
UniRef90_J7LCG0 A I K G F L E H V D L L V V
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UniRef90_UPI000401EAAF S M K K Q I M A L D F Q
UniRef90_A9B076 S V T N R I I H A D L R V
UniRef90_F5Y7C9 I M D G K I L H V D F Y E V
UniRef90_W5SVT3 L T K G F I Y H V D F Y E V
UniRef90_XOSA18
UniRef90_L7VNJ2 L I N R E P I H I D F Y
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UniRef90_B6BME2 P V T G T L L H V D L M
UniRef90_R5QRE2 P A K N N M L M E I D F Q
UniRef90_UPI000288B7D1 P L T N K I V H I D I Q F V
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UniRef90_F6BA28 P I T G K V L H I D L Q T V
UniRef90_X4ZN09 P L S K K I L L H I D F
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UniRef90_UPI000417F34B Y R N E I I H V D F Q
UniRef90_W2V0B7 P V T M R L M H V D F L L V
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UniRef90_F8E696 H V G Y K I L H V D F Q E
UniRef90_W6RTD2 N Y G K V I H I D F Q Y V
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UniRef90_Q00YQ0 A Y N K S V E N V C F L E V
UniRef90_K9RW17 P A K N T L Y H L S F
UniRef90_UPI00037FDA89 P A K F Q V L H L D F L R V
UniRef90_I4A540 I T I G K T I H I A M Q V V
UniRef90_M4V9Z7 P L T R K P E H V D L F
UniRef90_UPI00047BC994 G V K E G F L H I D F M
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UniRef90_G4LJ23 P A K G F V M H A D F L R V
UniRef90_R6M2L5 N M A K H V L D I E F Q
UniRef90_F2NKW0 K R R R R P E H V D F F
UniRef90_X1ESL1
UniRef90_T0RRX0 H M G D F I Q H I A F
UniRef90_D7BAQ9 K R K R R P S H V D F Y
UniRef90_V9H837 N L H E I V H V D F Q
UniRef90_X0XKK2 Y L G T T P I H V D L A Q V
UniRef90_H2J5T8 K V S D K P I H I D F Y
UniRef90_F0RJ67 K R R R E P I H V D F Y M V
UniRef90_W6U496
UniRef90_C1FIU8 A T N I N V E N V N F M
UniRef90_B9RCJ6 A I S D T P I N V T F I R A
UniRef90_B9GK0 A G T D E P L N V T F I R A
UniRef90_B2TQ54 P R E I L H V S F Q S V
UniRef90_L8JXL6 P V S E V I L H V D F L I Q
UniRef90_A4S4Y1 A Y N Q M V D N V C F L E V
UniRef90_H0UI4 H G T D Q L L H I D F Y
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UniRef90_W9QX27 S A T D A P L N V T F I R A
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UniRef90_K7V6X5 A G T D E P L N I T F M R A
UniRef90_R1DZZ6 A I H I T F Q R

Sequence alignment of UniRef90 entries showing conserved regions and mutations. The alignment shows multiple rows of amino acid sequences with positions 1, 10, 20, 30, and 40 indicated at the top. Conserved residues are highlighted in yellow, while mutations are shown as different colors (e.g., blue, red).

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm

	50	60	70	80
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UniRef90_I0YM14	S V D S K E A T S L V R R K G L L S R I F Q L D L P V Q S Y P V L P R L V H I N			
UniRef90_W1P9C5	Q T K Q I R K L S G Q M G F L S T L F D L E V R P E K V R V L P R K L H L H			
UniRef90_X1MYV4	T L D M R Y A S Q T L E K L S P S A L V V V D V D G E Q H Y T L V R D K Q R N			
UniRef90_V8CI36	K M E K A D V E K L L K V E N K G G Q V M L E V D G Q T Y D A L I K E V D Y N			
UniRef90_F0YYM8	Q M D E G I A R R L I R Y K R E G S K L K L D L D R Q L I P V Q I K E K T I N			
UniRef90_R6ZJE9	K I S K N E A E R L L K T N G K G G S Q V L L N V D G T E M D V L I K E I D Y N			
UniRef90_B7FST1	K T P W A V L Q R E L D R Y H F E S R V Y D I T V E G T T H R V L P Q N L Q R H			
UniRef90_R7R650	K I E R L E A E R T L R G C M K G T Q I M L D V E G K M Y D V L I K E I D F D			
UniRef90_R5TFE3	K I E R T V V E R L L K T C N K G S Q I L L D V D G Q A Y D V L I K D I S F N			
UniRef90_D3AY05	V V E W G R I Y G L T K T S N F Y K N R K Y V L N M N E N E K V V V R H V E A H			
UniRef90_Q8XIS7	S V K I S D L D K F L A K H G D H S D L E I N L E G E V I N T S I I E V Q R D			
UniRef90_R6VIS6	K I S E F E A R F M R K N M K G S R T V L Q I G E Q K Y N A I V K D V D Y N			
UniRef90_W5XY8	Q A P V D A L R H A M A H V D S H G R M I Q I G G E G G S R Q A I V K H V E Q D			
UniRef90_R5TDR6	K M D R F E V E R L L K T D H K G S Q I M L N V E G Q D Y D V L I K E V D Y N			
UniRef90_R5HV26	K F T K K E I E V L L K N N N K G S Q V M L E L D G K T Y D A L I K E V D Y N			
UniRef90_T0ED23	K I P K T S F L R Y I E N N K S L N I D L L L D N E V K S C T I T E I Q S Q			
UniRef90_D4IZB0	Q F E V K E A E A L R K S K H T Q M T L D E G K K Y N V L L K E L H F D			
UniRef90_X1EFW2	A I E N S E I V K A F K T G D D T T L I K V L I D N Q G K K L V M I R E T Q R H			
UniRef90_R7JS92	K M V K R D V E K L L K T D H K G S Q I M L D V D G A A Y D V L I K N V D Y N			
UniRef90_R6MG78	Q M T Q K E A E K F L K A N G K G S Q I M L D D G E Q M D V L V K E V D Y D			
UniRef90_J3S589	R S D Q R K L V N H G R S F F L S R L F H L Q V L H E N V R V L P R S I H L K			
UniRef90_R7C6A9	Q I E K Q E A E R I E R E C M K G S Q L Y L E L D G K T Y D V L I K E M D Y R			
UniRef90_UP100035D30A8	Q F E E T E A L R F V K A N K E G A Q V T L D M G E D Q V D A I V K N I D Y D			
UniRef90_R9YJY1	L I K K E L I E R F F Q H H K N Q T Q I I R V A L K N K I Y T A V L I A S Q H Q			
UniRef90_R7N9S3	K I E K K E A E R F L S V C N K G S E A K L T I D T T D Y D V L V K E V D Y D			
UniRef90_R6G2B8	F L S S N L L E Q Y I V I T D Y C K D L D V K F E N E I I H V H I K E A Q R H			

lupas_21
 lupas_14
 lupas_28
 jnet
 conf
 sol25
 sol5
 sol0
 jhmm
 jpssm



UniRef90_T0RA38
 UniRef90_I0YM14
 UniRef90_W1P9C5
 UniRef90_X1MYV4
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90

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

lupas_21
 lupas_14
 lupas_28
 jnet
 conf
 sol25
 sol5
 solo
 jhmm
 jpssm


 7 8 8 7 4 3 5 4 2 2 1 0 3 8
 B B B B B B B B B
 B B B B B
 B

