

QUERY	50	60	70	80
UniRef90_D0ZFN9	Q G M Q L T G Y P A T G T P P T I	I Q Q G A N P A P I T I P N T L M A A K S T T T		
UniRef90_A9BQ61	Q G M Y L T G Y P A A G T P P T I	I Q Q G A D P V P I Q I P T G L M P A K A S T Q		
UniRef90_C9Y0Y7	Q G D N V M G Y P V D A T T G K V L	A G G Q P V P M V F P S G Q P I A A K T T T		
UniRef90_L0M3Z5	Q G M Q V T G Y P A T G T P P T I	V Q Q G A D P I P L T I P N S L M S A K E T T T		
UniRef90_J0W9Q1	Q G L Q L T G Y P A T G T P P T I	Q Q G A N P T A I L T I P N S L M P A K T T T		
UniRef90_UPI000420B29E	N L A Q L M G Y P V D P L T G Q R S A S S	P I P M V F P T G A P I A A K Q T D N		
UniRef90_UPI00035DBCCC	Q G Q Q L V T G Y P P Q D A N T P N F	T Q Q G A D P I P L T I P N S L M P A K T T T		
UniRef90_F0Q7M0	T K A Q V M G Y A L D P I T G K R T A S	N A A P L S F P T S K P I P A K Q T T A		
UniRef90_UPI00037A2D2D	Q G L N V T G Y P A S G T P P T V	Q T G A N P V A L S I P T T Q M Q A S A T T T		
UniRef90_H3RBV2	Q G L N V T G Y P A S G V P P T I Q	Q A G A N A V S L S I P T T Q M A A R A T T T		
UniRef90_UPI000381E3E8	Q G Q R L V Q G F E P I D P G S T D F E	T F E T G Q Q G D L R L Q T G A S A P Q A T S E		
UniRef90_V5AN69	Q G M K V T G F P V A G T P P A V Q S	G A N P S A I T I P N T L M A A K A T T T		
UniRef90_S6BHC0	A N D R L Q V Y P A N G V G G T T F	F N T G V L Q D L Q L P T T P S A P Q P T S		
UniRef90_UPI00047B3311	T G Y Y V T G Y S A T G T P P T I A	A G A G E P T T I N I S A G S I A A Q Q T S T		
UniRef90_UPI0004660E83	Q G M S V T G Y P P A A G T P P T I	Q Q G A D P I A L T I P T G Q M P A R A T N T		
UniRef90_D2ZHg3	Q G M Y L Q G Y P V D A N G V I	Q T G T V G N L T I S S G S L P A K A T S S		
UniRef90_G2DE77	T G S R L Q I F P P V D A D G T S F N	T G T V D L N L P V V S G A P G A T S Q		
UniRef90_N9VJ32	S G K R L Q Q G Y G I G A N G Q L	Q T G V V G D I Q V S S A S L A A K P S D K		
UniRef90_B5YIG4	N G Y L L Q A Y Q M D V N G N V T G A L	G N V Y L A G L M S D P S A T D L I T T		
UniRef90_A1JT15	Q G L S L T G Y P A T G T P P T V Q	G A N P V A L S V P Q N M I P A K A T T S		
UniRef90_E7AZU7	S G M K L Q G Y P A D A A G N V	Q T G I V S D L K I S T V G L P A K A T S K		
UniRef90_W8G8J9	Q G M K L Q G Y P A D A A G N V	Q A G J I S D L K I I N N A G V P A K A S T N		
UniRef90_C6CF59	Q G L Q L T G F P A T G T P P A I Q S	G A D P V G L S I P E N T M S A K A T N I		
UniRef90_A0A023Y457	Q G A R L Q V F A P A N D G T S F D A G R L	V G L Q L T T D S P P K Q T S K		
UniRef90_J2IXK5	Q G M R L T G Y M A T G T P P A I Q Q G S	P V G P I Q I P T G Q M P A R A S D A		
UniRef90_W7NBB2	Q G M K L T G Y M A T G T P P A I Q P G S	P V G P M Q I P T G Q M P A K A S D A		
UniRef90_UPI000468AC03	Q G M Y L T G Y Q A T G T P P T I E Q G A	A I E P I Q I P N G N M P P R A S D A		
UniRef90_C7BNX1	Q G M K L T G Y P A N G G A P E I L Q K G	A N P E P I T I S Q D M L S A K A T T K		
UniRef90_G2LS10	Q G A R L Q V F A P A N P S G N G F D V	G R L Q L T T D S P P K S T S T		
UniRef90_S6AM55	S G A R L Q Q G Y P T D A A G N L L	V G T M S D L Q L R N G N L P A K A T D T		
UniRef90_M4S367	S G A Y L Q V L P V D S R G S V T A T S	L D A T R N L Q L P L T S Q G P K A T S		
UniRef90_I0DYN1	Q G M V T V G Y P A G N G N V V V Q S	G G V P Q G L N I P T D M M D A Q A S D L		
UniRef90_G0AIJ2	G G L R V T G Y Q V G A N G S I A	G G T P A A L Q L P A A A M T P N A T T K		
UniRef90_UPI0004699E44	F G Y K L Q Q G Y A V D D G N G N L	Q N G I V S D I Q L Q T S S S Q A P R A T T D		
UniRef90_G8PQ00	G G Y K L L S A N G A P V T V D L N T	P V W Q A S S E G E L G V N L A S S T		
UniRef90_B8CVP7	A G N R L Q Q G Y S V S G T G N L Q T	G N V T D L Q V Q A G A L P A K A T S T I G		
UniRef90_K8WDB3	Q G M V I T G Y S A S L D A Q N I Q N G	S T P I P L N I S T D M M H A K A S Q L		
UniRef90_Q82XG9	S N Y N V T G F G A D A S G Q I I P N	I P V N L R L P T A D M T P N P F M T G V		
UniRef90_UPI00026CD667	Q G S S L M G Y P V D S K G N A T A T G	D G L I A L N L P Q T S G T P Q A T G		
UniRef90_UPI0003768699	U N I T G A K D G L I A L N L P Q T S G T	P Q A T G		
UniRef90_S2JZD7	T G A K L T G Y T A N A S G V L S V G	A P S P I R I N T A D L V P N I T T D V T		
UniRef90_UPI0003B3CA54	S G H R L Q Q G Y P V D A D D W N L	K V G A L L N D L R L Q S G N L P A K A T D A		
UniRef90_UPI000372104D	Q G K Y L F G F R K D F S Q G A L Q V	E T A K G Q P Q A S D D V K L N V N L N A		
UniRef90_UPI00036281D7	A G Q R L Q Q G Y P V D A A G N L V V	G T V S D L K L N S S N L P A K A T D S L Q		
UniRef90_UPI0003B3C2CA	T G A K L T G Y M A N A S G T L A A G A	P A P L S I N T A D L V P Q V T S E		
UniRef90_A0A023WX86	N N E R L Q V F P P T S N G S F A T G	S M T D L Q L Q I T E N A P K A S T K		
UniRef90_A4JII5	L G Q R L Q Q G Y P A D A T G N L Q T	G T V G D D L Q L R S G G I P A R A T D		
UniRef90_I4WQP6	Q G M N L M G Y A A D D K N G V V S	T A Q T V P L Q A P T S N I A P T P T T K		
UniRef90_S611U8	N G Q R L Q V F P P V A N G G F D N S	T L D Q L Q L T S Q N A A K A T G T		
UniRef90_D8PFH3	S G Q F L Q Q G Y P V D A A G N L Q V	G V V V G D L R L Q N G N L G A K A T D K		
UniRef90_E4RB11	S G A L L Q Q G Y Q A D T N G N I T S	T I G G I T L T S S A V P P V A T T		
UniRef90_UPI00045E9D6C	S G A N L Q Q G Y A V G E D G K I I Q	G I L T D L Q I D T S N I T P K P T S L		
UniRef90_A1K948	D G Y K L Q Q G Y D A L D G V I Q Y T	T A T P V P D L Q F E T S L I A P T A T S N		
UniRef90_C1DHJ5	T G E K L T G F Q A D T S G T Q T V F	S G E P S V I Y D Q D T T N I A P R E T G T		
UniRef90_I3ICF7	Q G A R L L Q Q G S N G A I Q I P A D G	G L Q A Q P T T E F D A T L N L D S		
UniRef90_T0S1W4	L G Q N L Q Q G Y P V D A N N N L Q V	G T I S N L A L Q N A N L P A R A T D S		
UniRef90_UPI0003708D94	D G H R V Q Q G Y R V G D D G K V T	T Q S S V L K I S E I E R P A K A T A N V D L		
UniRef90_A1WUE2	T G K R L T G F Q T D E D G S R I G D G	R D Q L Q P T D G I I P A R A S E N V E		
UniRef90_G2J2H7	D G Y K L Q Q G Y A A Q N G V I Q Y T	T A T P V P D L Q F Q T S L I S P T A T S N		
UniRef90_T0RFQ3	D G Y K V V G F K A D A E G K V T T K	E G P I R L G N T T I A A Q A T Q K V K V		
UniRef90_L9U632	D G A Q I M G Y A A D A N G D V Q A G G	D G V D T P L T V D S E A L A A S A T N E		
UniRef90_H5WS85	Q Q Q M L M A Y A K P S P G Q P P Q G P	A G P I R L E T Q G G A P Q K T G L I Q		
UniRef90_L0I0L7	N G A K L Q G Y S V D S N N N L M T G	S V G N I Q V S T S S L N A K A T D K L D		
UniRef90_UPI0002E2AEEE	Q G Y F V M G W T A Q N Q G L T G E T A	G N I G P I I Q P D M S M P P S A T T T		
UniRef90_Q7NU18	Y G A Y L Q Q G Y G V N T S G Q P Q V G	P L Q N L Q I T N T T I S P Q A T S Q		
UniRef90_I1DWP0	N G N Y L Q G F A V D P V T G E N Q S	V S T T Q P I A I P T S A G A P R A T T N		
UniRef90_Q8K9K6	Q G M Y L T G Q N Q F D L K N N L N S	S I S N L E P I N R K S D L L S A K A T S Q		
UniRef90_F9ZD28	S G I N L T Q G Y A P D A N G N I T N	G Q A T N L K L N T T D I S P R V T S T F N		
UniRef90_UPI000464648A	S G N R L Q Q G Y G V N A N G N I V N	G V I T D L K V D T A N Q P P S P T S K		
UniRef90_A3NFX5	F G R R A Q Q G Y G A S G A Y G D I R	V P T D T E P A K A S D S		
UniRef90_UPI0003821E4F	D G L R V Q A F D A N G N L G D V T I	N A V M P F I I P T N S		
UniRef90_J2W1F3	A G F Y L M G Y P T N G N V N P V A	G A N G Y Q G L E K I N S Q N D L I A D P S R		
UniRef90_B2A179	Q G L Q V T G Y P A G V A G G A G V Q	P Q P L V I S N A Q M E P R A T R A T V P		
UniRef90_U1GZQ5	Q G H Y L Q Q G Y E I N P D G T P K A	V S I N A T K P I Q P T L P A N F D R T N S		
UniRef90_UPI0002DCC646	F G Y N L Q Q G Y T V N A D G V L Q D	T I G D L R I Q S G S Q D P K P N L N S T S		
UniRef90_C6NY11	F G R R A Q Q G Y G A S G A Y G D I R	N A V M P F I I P T N S		
UniRef90_A0A011P124	D G L R V Q A F D A N G N L G D V T I	N A V M P F I I P T N S		
UniRef90_UPI00036D3EC8	A G F Y L M G Y P T N G N V N P V A	G A N G Y Q G L E K I N S Q N D L I A D P S R		
UniRef90_A4XIY4	N G L N V L G W M A D P V N N N V	P A D S K Y S M S F K V Y D S Q G K E H T L Q		
UniRef90_B0SF85	N G L N V L G W M A D P V N N N V	P A D S K Y S M S F K V Y D S Q G K E H T L Q		
UniRef90_A3QCL9	N G L N V L G W M A D P V N N N V	P A D S K Y S M S F K V Y D S Q G K E H T L Q		
UniRef90_F4GPY3	A G N Y L Q T F P V D K D G N S T S V	S T T Q P V K I P D T A G S P Q K T D N		
UniRef90_A0LT62	Q G H R L T G Y E E G G P T G N I A P A	T G V T S K V N V D A N A P L A G G		
UniRef90_UPI0002488AA9	N G A L V Q G W Q V D D R T G E I R R	V G P M T D I R I P Q V D S P P R A T T K		
UniRef90_A4XIY4	S G Y Y L L Q G Q W P L D A Q G G F	V N T G P V T A I K L P L G T S M P P S A T T T		
UniRef90_B0SF85	D G A R L Q G Y G V D A N G N I L N G	I L T D L R I D T S N S T A S V I S Q A		
UniRef90_A3QCL9	D G A R L Q G Y G V D A N G N I L N G	I L T D L R I D T S N S T A S V I S Q A		
UniRef90_F4GPY3	A G Y R L K G Q D G T V K F D T E A P I	G P I G P I N L Y S D A T N G N		
UniRef90_A0LT62	D G M N V Y G W T K Y E Q Q G D G T V	K F D T E A P I G P I N L Y S D A T N G N		
UniRef90_U1AR11	UniRef90_U1AR11	A G N F Y L V Q Q G W T A N S S G T V S Q	G P V G N L Q L T T T S I A P H A T T K	
UniRef90_UPI00039FB003	UniRef90_UPI00039FB003	G P V G N L Q L T T T S I A P H A T T K		
UniRef90_E6QM23	UniRef90_E6QM23	A G Y Y L M G Y S S S A A S P T D P S G	L T V I S P T A S T T S	
UniRef90_UPI0003B75FFD	UniRef90_UPI0003B75FFD	G N L P V Q Q G F Q P V S G S A G K F S T	V L S N L T I N E A G M P P R A T T Q N	

QUERY	90	100	110	120
UniRef90_D0ZFN9	A S M Q [N] L N S T D P V P S K T P F S V S D A D S Y N K K G T V T V Y D S Q G			
UniRef90_A9BQ61	G T M V L N L N S A N K V D K T V A F D P S K V D S Y T Y A T S M T T Y D S L G			
UniRef90_C9Y0Y7	K I D V S L N P A A G N S T A T P P V P A T P R A T Y G T S I N V Y D S Q G V P			
UniRef90_L0M3Z5	A N F V M N L N S S D D V P A Q T V T P F D P A N S S T F N K S V P L T V Y D S Q G			
UniRef90_J0W9Q1	A A M Q V N L N S T D A K P S V A T F D P A N A D S Y N K K G T V T V Y D S Q G			
UniRef90_UPI000420B29E	A S Q Q I [N] L N S T D K I P T V T P F D P T N A N S Y N K K G T V T V Y D S Q G			
UniRef90_UPI00035DBCCC	I V V S M N L D A R A T D A G P P P I P A T P R S A Y G T S I N V Y D S Q G V A			
UniRef90_F0Q7M0	V E A L L N L R S D A E A P D A D F D L T D P E T Y N F S T S L T L Y D S L G T			
UniRef90_UPI00037A2D2D	I T A E F N L D A R A P D A T A T P P V P A T P R S T Y G T S I N V Y D S Q G V			
UniRef90_H3RBV2	A S Q V A N L N S S D S T P T V T F D S T N T S S Y N A K S S M T V Y D T Q G			
UniRef90_UPI000381E3E8	S N L V A N L N S T S P I L D D T K F N V S D E T T R S A K S T I S M F D T Q G			
UniRef90_V5AN69	I E A L I N L Q S D A T V P E G D S F E D P D S Y N S T S L T V Y D S L G T			
UniRef90_S6BHC0	A A M Q M N L N S T D S T P T V T P F D P T N S D S Y N K K G T V T T Y D S L G			
UniRef90_UPI00047B3311	E V T A S L N L N S S E T V P A V A F D P A N P A S Y N S S T S T T I Y D S L G			
UniRef90_UPI0004660E83	S T Y V A N N S T T D A L A A G T T F D A T D S S T Y S W T K S M T T Y D S L G			
UniRef90_D2ZHG3	A Q L V M N L N S S D D V T T A N P F D P A N S D T Y N K S V P L T V Y D S L G			
UniRef90_G2DE77	L D F T A N L N A N E E K P K T A T F D P T D E T S Y N H T Y A T Q V Y D S L G			
UniRef90_N9VJ32	V T A S G A A E D V P T V A F N A A S Y P P N P L S Y N H S T A T T I Y D S L G			
UniRef90_B5YIG4	L E F V G N L K A D A S K I T V T P F D P N K A E T Y N F S Q S S K V Y D S L G			
UniRef90_A1JT15	Q V N L D S R E D T T T W S F T S G S T L P V A G T Y N S Y T A T T I Y D S Q G			
UniRef90_E7AZU7	G T M V A N L T S T D V I P V A T T F D P T K P D T Y S F V V N N M T T F D S L G			
UniRef90_W8G8J9	L G F M A N L P A S A K Q P T N A T F S I G S K D S Y N F M S T S T T Y D S L G			
UniRef90_C6CF59	L D F M A N L N A A A T V P S Q G T F S A G D K N S Y N F T A T S T V Y D S L G			
UniRef90_A0A023Y457	A S I I A N L N S S D S T N T W N A T D P T N T S N Y K G S I T T Y D S L G N A			
UniRef90_J2IXK5	V N V S F T L P A D A K V P T V N P F S P T D S N S Y S Q S T T G G I T V Y D S L G			
UniRef90_W7NBB2	G S I S G N L D S G N D V V T T T P F D P E D G D S Y T Y S T Q V N A Y D S L G			
UniRef90_UPI000468AC03	G T L S G N L D S G T D D T T N H P F K T D D P D S Y S Y S T Q L K A Y D S L G			
UniRef90_C7BNX1	N L K M G N L S S G T E A I D E T T N P F D P E N G S S Y N S V S Q V D A Y D S L G			
UniRef90_G2LS10	V T M T A N L N S M H K K T T G A F S P E E A D S Y N Y T T S V T T F D S L G			
UniRef90_S6AM55	V N L A F T L P G N A T A P T V T P F N P A D D K T Y S H S T G G I N V Y D S L G			
UniRef90_M4S367	L D F V A N L D A D S T V P T V V P F D P Q N L S T Y N S T Y T T R V Y D S Q G			
UniRef90_I0DYN1	L L K M A V T L P V S A D L P A N R V S Y S A D T P Y E F S R F D P N S Y N Q S S			
UniRef90_G0AIJ2	A K L T I N L N S E D K V K S K P F D I N N P D D T G S Y N F S T T M T A F D S			
UniRef90_UPI0004699E44	I N A Q Y N I D S R S T V P V T T P F N A T D S T S F N Y Q N A V T G Y D S L G			
UniRef90_G8PQ00	L D Q V F N L N S T N E V P S N T P F N P N D P T T Y N S S T S T N I Y D S Q G			
UniRef90_B8CVP7	P V R T G A V G L P S N F D Y K T S V S A Y D Q N G N V V K I D			
UniRef90_K8WDB3	L I S N L D A R V D P I D P V V N P F D P D N A A T Y H S S S T V A A Y D S L G			
UniRef90_Q82XG9	A K L T T H L N S Q E T I N A N P F D I N H P D N P Q N S H F K T V M T T Y D R			
UniRef90_UPI00026CD667	N L D A R A D V V T D P F N V A N P D T Y T H S T S G E I F D S F G N S H I L N			
UniRef90_UPI0003768699	K I A L G V N L Y A A A T P T K A F N P A D A S S Y N S T T S A I Y D S S G G			
UniRef90_S2JZD7	A V L N L D S G S T P I D G T V T P F N M D N P D T T F H N S T A V V S V Y D S L G			
UniRef90_UPI0003B3CA54	V T F V A N L D D T K P G I V N R N F D P Q D P A T Y S D T Y T T S V Y D S K G			
UniRef90_UPI000372104D	A D T T P I N A F D P T D P T T Y N Q A S S V T V Y D S L G N P H T I T S Y F V			
UniRef90_UPI00036281D7	F I A N L D A N Q G V P T V A F T P A N V D S F N S T Y T T K I Y D S Q G			
UniRef90_UPI0003B3C2A	V N A V H N F N S N K T P L S A G F D M T A P T H D S T A L S V Y D S L G			
UniRef90_A0A023WX86	A D I G V N L P G D A P L P T S T P F D P S V A T S Y N H A T S M T V Y D S L G			
UniRef90_A4IJ5	A L S F V A N L D A N Q E V P A V A F D P L A A D S Y N S T Y T T K L Y D S Q G			
UniRef90_I4WQP6	I V G Q F N L I N S Q D V V P T K T P F N A T D S A T Y N Y S T A I Q V Y D S L G			
UniRef90_S6I1U8	V Q M S L N L P S D A T T P P A T A F D P L N D P A S Y N Q A T P P F T A Y D S L G			
UniRef90_D8PFH3	L D F A V V N L D A N K D V V T V P F D P T N L N S Y T S T Q T P V Y D S Q G			
UniRef90_E4RB11	S A E I L G N L N A N A T A P T A A F S I T D T T S Y N F S T S T G M T F Y D S L G			
UniRef90_UPI00045E9D6C	I T E K I N L N S A A T S P S V T P F D P T N A S S Y N F T F N T P V Y D S Q G			
UniRef90_A1K948	V D L G V N L N S S A T A N D D P T D T T T F T S A T S V K I Y D S L G N T H D			
UniRef90_C1DHJ5	A S V G V N L N D S S E K N P K N P V G S D I N N F L N Y T A L P V E S Y N Y T			
UniRef90_I3ICF7	G S D V I T A A F D A T D E N T Y S Y A N T A T V F D S L G N S H E L T L Y F T			
UniRef90_T0S1W4	L A F V M N L D A N E T T V P V L A P F D P A N A D T F N S T Y T S K M F D S Q G			
UniRef90_UPI0003708D94	T L N L D A R E D N K I F D P Q N P S Q T S N F S K E V K V F D S T G K E R Y V			
UniRef90_A1WUE2	L N V S L N L N S G Q P V I D A D F D A G N A N T Y N Y S T N A T V F D S Q G N			
UniRef90_G2J2H7	I A A N L S A D A D V I D E G V A F D P D D N E T F T E S T T T T L Y D S Q G S			
UniRef90_T0RFQ3	V D L G V N L N N S S A T V I S P T P T V N P T D T S T Y N S A T S V K V Y D N T			
UniRef90_L9U632	S M N L D S R A E V K Q F D P L K P E E T S N F S N S M T V Y D N V G T A R L V			
UniRef90_H5WS85	L S V E V N L D S G D T A A A G Y V F D P T D N T T Y S F S T S T A V V Y D S Q G			
UniRef90_L0I0L7	L E M N L N S G A D V K D P T N A L T M D S T R A S T Y N N S T S V T V Y D D R			
UniRef90_UPI0002E2AEEE	F V I A N F D A S A K A I D K A V T P F D P A D P T S F N S N S M T V Y D N V G T A R L V			
UniRef90_Q7NU18	M T V T G N L N A N S L A S S S T T S S T L T S G T V S R T V P V Y D S L G D			
UniRef90_I1DWP0	I S W P V Q L N S N A T V P V N S P V N P T D P T T Y N W P S P T V V Y D S L G			
UniRef90_Q8K9K6	I F L S A N L D S R E L A T D A I A F D A T D R A T Y N H S T S V T V Y D S L G			
UniRef90_F9ZD28	I I K L K A D L I N D F S S T T N S I T G K N D D I S N S E I H D I T I Y D K N E N D			
UniRef90_UPI000464648A	I G F N L P S N A D A P A V T T F D A N N T Q S F N E K K S G V F F D S L G N D			
UniRef90_A3NFX5	I T S T L S L N S N A T T P K T T P F D A T D S D S Y N N W S T S V D I Y D S Q G			
UniRef90_UPI0003821E4F	L E Y V G N L S A D W A A P K N P N F D K D D D T S F N H S V A S T V Y D S L G			
UniRef90_J2W1F3	V T V S G N L S N N A G N G F L Y S Q Q F E V V T D T G S V E R I N I Y F Q K T			
UniRef90_B2AI79	K G I F T A N L P A G A E I I P A A D R P P A N T T A T A K F T A K S S V Q T Y			
UniRef90_U1GZQ5	T Q A F A S S A G S P P T S N M F N Y S T A I N V Y D S L G N K Q Q L M A Y F A			
UniRef90_UPI0002DCC646	S T P V N A F N P S D P S S Y N S T S T S T N I Y D S Q G N S H V L T Q Y F I K E			
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UniRef90_A0A011PI24	U V A V L N L D S R S S V P V L A P F D F T N P S T Y N F S T S A L T V F D T L S			
UniRef90_UPI00036D3EC8	I N C T G N L D A S A E I D D N H T T S I S V Y D S L G T K H T V E L E F K K V			
UniRef90_A4XIY4	L I F V K N G N N Q W E W F V D A P R V K K N I G T A E V Y A Y V D D M I D A N			
UniRef90_B0SF85	H V T S I N V Y D E L G N T R Q M G V I E F Y K M R E N V W K M R F K L E D A S Q			
UniRef90_A3QCL9	I G I Q M N L N A G E G T L D P A N F N P N D P D T Y N N S T S V T M Y D S L G			
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UniRef90_G8Q5P9	A P Y V F N P A D T A T F T K Q F T T P I Y D T Q G N Q H S M D Q Y M V K T G E			
UniRef90_UPI0003A7FFF2	G K F A A N F P S D A A I V P A A N L P S T N A A G A T Y T N K S S L I A Y D N			
UniRef90_F1THP2	K K I I A A K A T T Y A E F S G N L N S A Q K A V A T P P A T P P A S D E Q F I			
UniRef90_U1AR11	L S M P V Q L N S N Q K T P T G V P I N N P A D A T S Y N W P N T V Q V F D S L			
UniRef90_UPI00039FB003	L T A N L P S T A S T I A A A D L P S A N A S T S T Y T D K T S V T A Y D N L G			
UniRef90_E6QM23	L V I A N L N A N D T P I N T G T P F S P T N S A S Y N S S T T M Q V Y D S L G			
UniRef90_UPI0003B75FFD	A S F G L N D S R K Q V I A S P P Y P L F D P D D P T T Y Q F N T S V T V Y D			

130 140 150 160

QUERY	N A H D M N V Y F V K T K D N E W A V Y T H D S S D P A A T A P T T A S T T L K		
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UniRef90_UPI000420B29E	V P V S L Y F Q K T A T A N T W D I Y D K L D D P T A T P P V V A T P V G Q L V		
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UniRef90_UPI00037A2D2D	N E H Q L D M Y Y V K T A D N K W T V H A I D S S D S S A T D Q Q Y N L T F T S		
UniRef90_H3RBV2	N S H N V D L Y Y V K T A N N T W N V H Y Q M S F D A N G K L T S V S Q I T A A		
UniRef90_UPI000381E3E8	A R D A R I Y F E K T G P Q E W N A H V R I T D E D G N P E F L A S D P I T L Q		
UniRef90_V5AN69	N S H A V D V Y Y V K N S A N K W D V Y T Q D S S V A G S S Y Q K A A Q M T F T		
UniRef90_S6BHC0	N P H T A T F Y F R K T A N N A W D S Y V Y V D G N S I Q T G T T T P P A T F S		
UniRef90_UPI00047B3311	N T H V M N L Y F S K T A D N T W E V H A L D S S D S T A T A Q D L G T L N		
UniRef90_UPI0004660E83	N D H N V K L Y Y V K T G A N T W D V Y N M D T S V T T A A P A T P L T T L T F		
UniRef90_D2ZHg3	R E H T L K Q Y F V K T D D D T W Q V H Y Y M D D K S M G D A K D M T		
UniRef90_G2DE77	S A H S M N I F Y R K V A D N Q W N A F T Y V D G N N V T D I R F S S N G A L S		
UniRef90_N9VJ32	I E H S L T Q Y F V K T G D N A W Q I N Y T F D G K V M E T G T P S T P L K F K		
UniRef90_B5YIG4	N P H L V Y T Y F C Y K T A A N T W E A H V V Y N N S A T G T N Y V L S D V Y V T		
UniRef90_A1JT15	N R H E L N V F Y V V K R S E S T T A G N T W D V Y T S M T F D T N G A L Q S V T		
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UniRef90_W8G8J9	R E H S V A H Y F I K S A A T S T I A P N Q W T H T V D G V L G S N P H T L Q F		
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UniRef90_M4S367	R E H T L T Q Y F V K T A D N Q W N A H Y Y V D G N S A G A V Q A L N		
UniRef90_I0DYN1	T A T T V Y D P N S Q W E A R L F V Q G D Q E I S S D P N N P T P P V P L T L T F		
UniRef90_G0AIJ2	Q G N T H E I S V Y F V K T D D N K W T A Y A K D A G D K V A K K L G D M E F D		
UniRef90_UPI0004699E44	N P H E I T N F F V K T A A N A W D V Y Q T V D G G A S S N I G S L T F D		
UniRef90_G8PQ00	N A H S L T Q Y F V K T G A N D W T M N V L I D G R N P N V P T S T T N G T L D		
UniRef90_B8CVP7	L V Y S T Q G Q N M T G T T V D D S T W K V Q A Y S T A T P P V E L A D V D L V		
UniRef90_K8WDB3	N E H A L T Q Y Y V K T A D N T W S V H Y M M D D V D V T P A A G H Q L T F D		
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UniRef90_S2JZD7	N S Q T L Q T Y Y V K T D A D N A W Q V H Y R V D G R D A G V Q G L Q		
UniRef90_UPI0003B3CA54	K Q H A L S Q Y F V K T D A D N A W Q V H Y R V D G R D A G V Q G L Q		
UniRef90_UPI000372104D	S Q N P T T T A N S W D V H Q Y I D G T T D T L G S T T L A Y D T N G T L V S V D		
UniRef90_UPI00036281D7	A T H N G V V Y F V K G A A A N V W N A S L Y I D G T S T G A S Q Q L T F N		
UniRef90_UPI0003B32C2A	N E H M L Q T F Y V K S A A G T D W V F A A N D G V I G G S G A D G Q I G T L S		
UniRef90_A0A023WX86	T S H T A T L Y F V K D A A A N T W Q Q H L Y V D D N A V I G G A N T L T F S		
UniRef90_A4JUJ5	K E H T L T Q Y F V K T A D N S W N A H Y Y V D G A A L A G A P Q A L T		
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UniRef90_S611U8	A T H N G V V Y F V K G A A A N V W N A S L Y I D G T S T G A S Q Q L T F N		
UniRef90_D8PFH3	K Q H S L T Q Y F V K T G D N T W E A H Y Y V G N T E V G G P E P M T		
UniRef90_E4RB11	N S H Q M Q L Y F R K T A A N A W G V Y S Q I D G G A A A A Q T N M T		
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UniRef90_A1K948	L S F Y F I K G T P T A T G T D W T V P F I D G T A V V S S P A T P Q T L S F D		
UniRef90_C1DHJ5	T S M T V Y D S L G N A S L M N L Y F V R D P D V A G V S P N T W T V Y G R L S		
UniRef90_I3ICF7	K T G T N E W A V N A A L D G		
UniRef90_T0S1W4	A V S A S A A Q A L E		
UniRef90_UPI0003708D94	K E H T L T Q Y F V K T A D N N W T Y R V M S D G A D V N G T P G V M V T Q A E G N L I		
UniRef90_A1WUE2	T T F F N K T A D N N W T Y R V M S D G A D V N G T P G V M V T Q A E G N L I		
UniRef90_G2J2H7	T V Y F T K V D N N Q W Q Y N A M I D G K D F P N G Q E G Q Y P G A S G V L T		
UniRef90_T0RFQ3	A R D A T F Y F R K V G N N E W D V Y T Q V D G V D Y E Q A D T E G D Y F G P H		
UniRef90_L9U632	H D L S F Y F V K G T P T T T G T D W T V N L Y V D G T A V T S P A G P Q T L S		
UniRef90_H5WS85	N A R N I S M Y F I K D D A A P N Q W Q V Q G R L T G G P S D A E A Y N F D L I		
UniRef90_L0I0L7	G Q S V A L Q L F F Q R A P S A A D G S G F W N V Y A T V D A M V P L S P Q L N		
UniRef90_UPI0002E2AEEE	N S H T V T Q Y F T K T A D N A W E V N V Q V D G G K T P V S T I P V T F N K D		
UniRef90_Q7NU18	P V T L D L V N F S N P Q A T T N S G T S W T V T E P P S T T A L G T G T V T		
UniRef90_I1DWP0	N S H Q V T L Y Y S L A S T S A T G N T W T V T P Y V D G A P A T I P G G K F N		
UniRef90_Q8K9K6	T V T T Y F R K T T T V P P A N A E W E T W V V W D D V T G L P I Q G D N L V F		
UniRef90_F9ZD28	P H K L N I S F N Q I L D D H Q W K L N I Q L N D E K I P D N E I I I N D N F I L K		
UniRef90_UPI000464648A	H A F T Y Y F Q K S G T L A N T W D M Y M G V T L D G A A S V T L T F D D N G I		
UniRef90_A3NFX5	N S H T M T N Y F V K D A A A N N W S M Y T L V D G R N P Q T P T S T T P M T L T		
UniRef90_UPI0003821E4F	R Q H I V T Q Y F V K G Q P P S T D V I A Y Y A M D G E I V G G N T P Q T V L Q		
UniRef90_J2W1F3	G T D Q W A L L Y F T Q P D G T V Q P E A T I T F D N N G R V V S I T D K G G G N T		
UniRef90_B2AI79	D N L G N V V V L D I Y Y T K T A D N K W E A A V Y N K A N A S A S G G F P Y T		
UniRef90_U1GZQ5	K V A D S A V A P V H P T V A G G T D W Q M Y V T D V N G N A V G G A P V T L A		
UniRef90_UPI0002DCC646	G T W S M F M Y E G D K P I N I N G G T A S P G A G I P T G L Q M T F T P S G K		
UniRef90_C6NY11	P A P A A A N A W R M E I L I D G R N P S N I S D L D T P V T T P P T E P L F N I		
UniRef90_A0A011Pi24	N A Q D I T L Y F V Q N Q P N Q W D V Y Y S A G N S S G T T V A T G S L T T L Q		
UniRef90_UPI00036D3EC8	H N L T T Y Y V L N A P T P P T G G E W T V H A T L D G A N P Q I V P G G N L V		
UniRef90_A4XIY4	A N N D W S Y T V T N V D G A N I D S G D T G T I R F D T N G D V Q G I D A G N		
UniRef90_B0SF85	N N Y D E F I A R G T I T F G Q A G K V F D D E T P N V E G I Q I T G G R V Y		
UniRef90_A3QCL9	V S V D V N G T G G E N T S V S G N T E L E V S F T P D G K I L S V S D G V D S		
UniRef90_F4GPY3	E P H I L T T Y F V R P P E A A Y T G T S N W G W K G S V L S F N D T G A Y T G		
UniRef90_A0LT62	M Q Y F A K R E G T A T S S T W D V Y Y R I G G Q T V S A P I L D G A T Q M T F D		
UniRef90_UPI0002488AA9	T S N S W K L D I L P P G G G S P T N V P L S F D S T T G Q Y N G T N P Q T V T		
UniRef90_B2AI79	T A H R I T F G F V K T G A N A W V G E V A T T P P G D V I S F N P D G S L D L A		
UniRef90_U1AR11	N E W D V Y T L I D G R N L D G S S P T A A T L A V P S T M N F D A N G K L T		
UniRef90_UPI00039FB003	L G G K V I I D V Y V S K T A T G Q W E V A A Y N Q A Q A A G G G F P Y S L A		
UniRef90_E6QM23	M P Y T V F D S L G N A H E M T L T F T K A A P T G T P P T V P I P T T G T L K		
UniRef90_UPI0003B75FFD	S L G T P R V I N L F F R K Q E A D P F D P N S R N V W T L E F T T D G K L A		

170 180 190 200

QUERY	F N E N G I L E S G G T V N I T T G T I N G A T A A T F S L S F L N S M Q Q N T		
UniRef90_D0ZFN9	D S N G E L A K G T A P L T L N M A A S N G A P A Q T F K L L D F T G T R Q Q N T		
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UniRef90_C9Y0Y7	S D S N A A P A G S Q V P I S V T S L N G S A A G S F S L S F L N S M Q Q N T		
UniRef90_L0M3Z5	S N G T L S E I R N Y D T T V A I D A L N G S A A G S F S L S F L N S M Q Q N T		
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UniRef90_H3RBV2	G A I V P G T T T D S T A T L P L T G A N G A N G T V A L N F V G S Q Q N T		
UniRef90_UPI000381E3E8	F D G S G Q L T G E T E E T L E F A D D P F N G A E P L V I D D F A G T T Q Y G		
UniRef90_V5AN69	W T M M A N A T A N T Q P Q I D I N L A S L N G S A P G T F S L S F L N S M Q Q N T		
UniRef90_S6BHC0	A S G A L T S P A G G I A T L S T F T P S G G G A P L T I D L N L T G T T Q Y G		
UniRef90_UPI00047B3311	F S T S G Q L T G T T S F N V T T N S L N G S A A N T F T I D F A G S T T Q Q N A		
UniRef90_UPI0004660E83	T Q S V G G V V A G A T Q V N I P M A S L N G S A A G N F T L S F A G S T T Q Q N T		
UniRef90_D2ZH93	F N E Q G I L L K P N G A V N L T A A I P G A D S I S L D L N Y N G T T Q F G		
UniRef90_G2DE77	T G A G D V T S G G L V P L D T F T P S G G A A P I S G L N F N Y V N T T Q F G		
UniRef90_N9VJ32	P D G T I D F G T P A V L P P K L D L A P P G A D P I K L E V D L S K L S Q Y G		
UniRef90_B5YIG4	T P H T P P D P T F R P T A A L D F S S W G V T S P Q N V D I D L N N S T Q Y G		
UniRef90_A1JT15	N G T N P A S T S D F T L T I P M G V V N G A P A Q T F T L S V I A G S K Q Q N T		
UniRef90_E7AZU7	F D T S G V L T S G N S K T I T G G Y T P V G A D N Y G I D I T Y T G T T Q F H		
UniRef90_W8G8J9	T T N T G E L I A G S S Q S N L S G S F N L P G A A N Y D I D I D Y T G T T Q F S S		
UniRef90_C6CF59	L V P T P P A T A V T P V T L S M A S L N G S A A S T F T L A F T G S V Q Q N S S		
UniRef90_A0A023Y457	A G A L T S P A N G Q I T L T P F T P S T G A G Q L A T L D I S G S T Q Y G		
UniRef90_J2IXK5	F D T S G K L I T N P A D L N V Q G A A Y K G G D A L N F D I D I D L S G I T Q Q A		
UniRef90_W7NBB2	F D A S G Q L Q N T P V K L P V A G G A Y K G A D A L S F D I D L D L S K M T Q Q A		
UniRef90_UPI000468AC03	E F D T S Q G L K D P V K L P V G K D P Y N G A E A L D F E L D L T G M T Q Q A		
UniRef90_C7BNX1	G N G K L I G D N N Q F T F N V P S L N G S N A A D I T I D F N G S K Q Q K I		
UniRef90_G2LS10	T G A L T T P A N G I A M D P F T P S T G A G V L N M Q L N V T G S T Q Y G		
UniRef90_S6AM55	F S T S G T L T A P A A P V V S L S A A L P G V D P L N I A L D Y S G T S Q H		
UniRef90_M4S367	N D A G Q I Q T P L N Q V Y A D A Q P V G A I A P L S M S I D F G T T K Q A Q		
UniRef90_I0DYN1	G N G R L N S P T N A V F A F D Y Q G L N G A N N G T L Q I D L N K T R Q Q K V		
UniRef90_G0AIJ2	T A G K M L T P A A G T L A P A A V P L A N G A A P M N F T I N L T G T T Q F G		
UniRef90_UPI0004699E44	L T N W V P A A P D S S V P P V W S A N G T N T P A V P I N I D L R K A T Q F A		
UniRef90_G8PQ00	F D G S G N L M G G A P S P T E L A F T V P N G E T L T L D L S K T V T A G		
UniRef90_B8CVP7	S D G M L T G G D S L T L N I N D P A I I G G A S T L T N L A L G Y D K S T Q Y A		
UniRef90_K8WDB3	E N G S L I N A N N A V F D I A Y P G M N G A N N R T L R V D L S Q T C Q R R V		
UniRef90_Q82XG9	P S G I M T S T G S S T I N V A A S V L G A G V S P L A F E L D L T R S T Q F G		
UniRef90_UPI00026CD667	F D A A G K L T A P A S P V Q Y D S F P T S T G G L A Q T L S L D L T G S T Q A S		
UniRef90_UPI0003768699	S G A L T T A M P L A A L N V P A T A G T A S P F P V T F D Y T G T T Q F G		
UniRef90_S2JZD7	F D M Q G R L I D P M A A V D I N C Q L D G A A P L R I A M D Y Q R S T Q S A		
UniRef90_UPI0003B3CA54	G D T T T T E V N Y A P Y A I D G A E D L A I T Y N F A G S T T Q F N		
UniRef90_UPI000372104D	T F N P N G S L A A P I G T V D L S F T L P G V D P M N V A V N Y S G T S Q Y G		
UniRef90_UPI00036281D7	F N D T G A L T T G G S P L T L S G L A V T T G A A A L N F T I D F T D S T Q F G		
UniRef90_UPI0003B3C2A	D T G E L V S P A S G A V G Y P A Y A T T T G S A D I Q L T F D Y N N S T Q Y G		
UniRef90_A0A023WX86	F D T A G V L A T P I G T V A L A A P L A G G V A P L A I D L D Y S G T S Q Y G		
UniRef90_A4JUJ5	P A S A T P T A S L G Q F Q F S V P T T D G S S T P Q A L T L D L T G T T Q Y G		
UniRef90_I4WQP6	S S G A L V A P A N G K L S F P A V S V S P G A D P M Q L S L D M S K A T Q F G		
UniRef90_S611U8	F D T R G Q L I S T P V G P V N I N F A L P G V D A M N I N I D Y T R S T Q S A		
UniRef90_D8PFH3	F N A S G A V T A G G T Q T V T A T L T N G A T T P Q A M T V D L S S T Q F G		
UniRef90_E4RB11	F Q L N D W I P A Q K N A A G E W S A N G A I A N A D G V K L D M L G A T Q Y N		
UniRef90_UPI00045E9D6C	T D G N L V S G G A F S V S Y D V T P P N G S A T I Q V T S V D L T S S T Q F N		
UniRef90_A1K948	N D V V P D P A D P A L I S T G A P L E N L G T I T F N F T L D L S R S T Q W N T		
UniRef90_C1DHJ5	F T T S G L L D G Y T P T S F D F A M T N G A A D I S F E L D L T G S T T Q F G		
UniRef90_I3ICF7	N T S G Q L T T P A A A T P V N V N Y A P P G V E P M T I A I D Y T R S S Q S G		
UniRef90_T0S1W4	F N N G V L Q N E N K L V S T L N F D A D G A Q E V N F D F D G A N A S T T Y G		
UniRef90_UPI0003708D94	F N Q N G V L Q E D N T N N A l F D D T G N A L A N L D I D L S F E G S T Q F A		
UniRef90_A1WUE2	R L S F D T S G S L V D A E G D V P L L A E V D D L D I D F F G E M T Q F A		
UniRef90_G2J2H7	F D T N G V L T S S N I Q Y T A T T P N G S T T P M T I A T V D L T K S T Q F N		
UniRef90_T0RFQ3	F N D K G Q L Q Q E V E I S N S F N F N F G E S I S E G G D G T E A S T Q Y G		
UniRef90_L9U632	N D L D S T D A G F N V E G A G A N E F G P I F T D L N I A V D F Q G S T Q F A		
UniRef90_H5WS85	F P P D G S A P A N A L D P F T I A T N G S H L D I P N I Q L D L T T S T Q Y G		
UniRef90_L0I0L7	G T L A A P T G S F N V A F P A A G A N A M S V D I N L K G S T Q F G		
UniRef90_UPI0002E2AEEE	F S S S G A I T S G T S V N V S M T T D G S T S P Q K M T L N L Q G L T A D A		
UniRef90_Q7NU18	N N G S L A N T T P A N V N L T F N T T N G S S T P Q T V A I N L T G S N Q I A		
UniRef90_I1DWP0	D S S G N F V P A A P Q T V T L P A A A L N D P L N G Y L T N G A Q F T Q Y A		
UniRef90_Q8K9K6	F D S E G N L I S N S S L Q I K S K N S K N I I L D P I T L N L E C F L E K S E		
UniRef90_F9ZD28	L T A P T A P F N V S V D L A T I N P T L G A G S P L V F A L D L T T A T Q F G		
UniRef90_UPI000464648A	G W T P A A V T D S T T S P V T W G A N G A A G A T G G I S I D L T K T T Q T Q N		
UniRef90_A3NFX5	F D T N G Q L T A P N S P V D L D L G T P A G A S A L A I K V N Y A G T T Q V A		
UniRef90_UPI0003821E4F	V N G S A I S L G V P V A G G T Y T Y N F D F N Q L T H V V S		
UniRef90_J2W1F3	P P T P L T T E T F D F D A V T G K L V S A D K S I S V A V I D F S G T K Q L A		
UniRef90_B2A179	F D N A G A L Q S P A A G A V T L T Q P A V N G A Q A M A M L D L S G T T Q F G		
UniRef90_U1GZQ5	L D T T I P V A P I N G A G G A G I I N N G A D P T Q T L L E I R L G T V T Q Y N		
UniRef90_UPI0002DCC646	V D G K V N I I I S A T G V P P T G G W V P A K N Q D G G I V M D F R N A T Q F S		
UniRef90_C6NY11	F S N T Q G L V S G G T A S F T V S G W G D G S A S S T I S V N L S G S T L T N		
UniRef90_A0A011Pi24	F D T S G A L S S T P T Y T L P S W P L G A V T P W S P G V I N F T G S T Q Y G		
UniRef90_UPI00036D3EC8	T G T F T N L D G D G N G N I T D P T G G A A L N Q T I T L D F S E I T Q Y G		
UniRef90_A4XIY4	D S A N G T F T I N F V G N A V N P I T F K V N S S Q F D V N D N T N I A F F N S		
UniRef90_B0SF85	Q T T G K L K A D I S F R I P G N P S A Q K F S L N L G E A G L V G G I T Q F S		
UniRef90_A3QCL9	S D P A V I T T E T L G V G G A N V L G P T D G S Q T L T L N F N S P T Q Y A		
UniRef90_F4GPY3	Q G G R L T A P T P V V A Q M T A V P G A S P A E A L N F T V D Y A D S T Q F		
UniRef90_A0LT62	L G G Q N I S L D L S G L T A Y G		
UniRef90_UPI0002488AA9	G S S P A L F A D L D I G W A N G A G S D P I R L S L G D D G G L N G L T Q F G		
UniRef90_G8Q5P9	T D L E L D D W I P G T V T N G V W T A N G A D G A D T I V I S M A N T T Q F N		
UniRef90_UPI0003A7FFF2	T Q T L T N F N G S G Q L T T T P A N L T L T V P G G S A L T L D M S G M T Q G D S		
UniRef90_F1THP2	F D G E G K L T S D T V N S K V T M T P T A G A N P F D V T D F K K L T Q F S		
UniRef90_U1AR11	F N L N F D T S G N P I T F T T T P V V N G S A I P Q T V T V D F A N S V Q N N Q		
UniRef90_UPI00039FB003	T Q S L T F S S T D G S I T S G S S A S I D V P N G N S T L A V D L S G L T Q L G		
UniRef90_E6QM23	F N N S G Q L V S G S A G T I N V P A W G D G S A S G S I A V N L S G T T L T N		
UniRef90_UPI0003B75FFD	A E K I N G T L D K S L R I E V T W Q D G Q S S S P Q I I D L N F G T T T Q F S		

QUERY	210	220	230	240
UniRef90_D0ZFN9	G A N N I V A T N Q N G Y K P G D L	L V S Y Q I N N D G T	V V G N Y S N E Q E Q V	
UniRef90_A9BQ61	G K D G V T S K T Q D G Y K A G E L	T G Y Q I N D D G T	I T G S Y T N Q Q K Q L	
UniRef90_C9Y0Y7	S K F A V S S L K Q D G Y T A G A L	T G I N V G N D G S I	V A T Y S N G V T R T	
UniRef90_L0M3Z5	G A N N V L L T S N Q N G Y K P G D L	V G Y Q V N E D G S L	V G N Y S N E K S Q L	
UniRef90_J0W9Q1	G S N N I V A T S Q N G Y A P G D L	V S Y Q I N E D G T	V V G N Y S N E Q S Q L	
UniRef90_UPI000420B29E	T K F A V T E L T Q D G Y T S G Q L	T S Y Q I N D D D G T	V V G N Y S N E Q T Q L	
UniRef90_UPI00035DBCCC	G D F S V N D L N Q N G F A S G R L	T G V D I D D S G V V	F A R F T N G Q S T V	
UniRef90_F0Q7M0	K A F A V S N L S Q D G Y T A G E L L	T G I S I E N N G T	M T R Y S N G V T R A	
UniRef90_UPI00037A2D2D	G T T S F G N P T Q N G Y A P G D L	T S Y S I A D D D G T	T G T Y S N Q K T Q T	
UniRef90_H3RBV2	G A S T F G S P T Q N G Y A P G D L	T S Y A I N N D G T	T G A Y S N G Q T Q L	
UniRef90_UPI000381E3E8	G D F A V V N D L G Q N G F A S G S L	T G V D I D S S G V V	F A R F T N G Q A A V	
UniRef90_V5AN69	G T S G V V A I N Q N G Y A P G S L	V S Y A I N D D G T	V G S Y S N E Q S Q L	
UniRef90_S6BHC0	A A F G V V N N L I Q D G Y T S G R L	L A G V D I D T E G V I	F A R Y T N G Q S S A	
UniRef90_UPI00047B3311	S S E L L S K T Q N G Y T T G N L V	E Y A I N D D G T	N G T Y S N G Q T Q L	
UniRef90_UPI0004660E83	G A N T L L S S N Q N G Y K P G D L	L V G Y D I V G N Y S N D Q K Q L		
UniRef90_D2ZHg3	S D F S V S K N N G N G Y A S G E R	T G Q T I D K D G S V Y	A T F S N G E R L L L	
UniRef90_G2DE77	S S F A V V N D L T Q D G F T S G R L	L S G V D V D S E G V V	F A R F T N G R S V V G	
UniRef90_N9VJ32	S D F N V T R N Q S N G Y G A G E L L	T G V S V D D K G G V Y	A M F T N G Q R L L Q	
UniRef90_B5YIG4	S S N A V V F Q N Q N G Y S A G N L	I A V T V D Q D G V I S	G V F T N G Q V V K K	
UniRef90_A1JT15	G T D S I V T Q N Q T G Y A A G E F	T G F Q I N N D G S I	V G T Y S N S Q T Q L	
UniRef90_E7AZU7	A E F L P A P S K S D G Y T A G T	K N G E R I E N D G S	V Y A T F S N G K Q M L	
UniRef90_W8G8J9	Q G F T T T A N K S D G Y T S G V K	N G E R I E S D G S	V Y A T F S N G E R M L	
UniRef90_C6CF59	G S N S T K T P T Q D G Y E P G E L	T L G Y S I S N D G S	V I G S Y S N K R T Q L	
UniRef90_A0A023Y457	E K F A L R L N T Q D G Y A A G K L	N E I T V S E D G V V	V Y A R Y S N G D D K A	
UniRef90_J2IXK5	S E N T M D S P S T T G Y P P G M M	N G Y N V G D N G Q I I	I A T Y S N G K S Q L	
UniRef90_W7NBB2	S E N T M D S P T T T G Y P P G S M	N G Y T V G D N G Q L I I	A S Y S N G Q T Q L	
UniRef90_UPI000468AC03	S D T S M K S P S T T G Y A P G E M	N G F I I G D N G E V I	A S Y S N G Q R Q T	
UniRef90_C7BNX1	D A D S I L A P K Q D G Y A A G K F	N G Y R I E K D G R V I	G T Y S N L Q S Q V	
UniRef90_G2LS10	E A F A L R D T R Q D G Y A S G K	L N E I S I D T S G V V	F A R Y S N G A D K P	
UniRef90_S6AM55	S D F F V V T T N R P S G Y A P G E	Q T G M V V E K D G R V F	V N Y S N G Q R L L	
UniRef90_M4S367	A P F T I S S V S Q D G F A A G Q	L Q D G V T V G P D G L	V T A S F S N G E T Q P	
UniRef90_I0DYN1	S E S S V S A I L D V N G Y P A G E	Y T N F K V E D N G L I	V A N Y S N Q Q K R V	
UniRef90_G0AIJ2	N D N A V A K Q T Q D G Y T S G S	L T A F A I N P D G T	V T G K Y S N E Q T K T	
UniRef90_UPI0004699E44	S A F A V V N S V S Q D G Y T T G Q	L S G L E I D D T G V I	F A R Y T N G Q S R V	
UniRef90_G8PQ00	D K F S V V N K V D I D G Y G P S	T K N I R I E S D G R V F	G V Y E G S A E K L	
UniRef90_B8CVP7	S D Y N N N S S L N Q N G Y T S G	S E L N G I R L D E S G M	L Y G T Y T N G Q E Q L	
UniRef90_K8WDB3	N Q S S V S A I D V D G H S A G E	Y E M S F N I E D N G L I	M A N Y S N R Q Q V	
UniRef90_Q82XG9	S K F G V N V V M S Q D G F A S G R	L A G Y S I S D D G Q I	R A S Y S S N N V T R T	
UniRef90_UPI00026CD667	S A F A V T S R N V D G A S V G E	L S G V S V D N E G I V	S A S Y S N G D T V S	
UniRef90_UPI0003768699	S A F S V V N T L D Q N G Y T S G R	L A G F N V G D S G	V L G R Y T N G Q S A V	
UniRef90_S2JZD7	S G F V V V S A N D A S G Y A A G E	N T G V S I E K D G K V	Y A T F S N G E R L L	
UniRef90_UPI0003B3CA54	S D F S V V N S V S Q N G F A A G D	G Y T T G L E I N D K G V L	F A R F S N G N A E K	
UniRef90_UPI000372104D	S D F V V T T N L P T G Y S A G E	Q T G L S V E K D G R I	Y A N Y S N G Q R M L	
UniRef90_UPI00036281D7	S A F S I N T L N Q D G Y T S G R	L A S F N V G A D G I	V L G R Y T N G Q S A V	
UniRef90_UPI0003B3C2CA	N E F G V N T L L Q D G F T T G R	L T G I E V D A S G V V	S A R F T N G Q S A E	
UniRef90_A0A023WX86	S E F S V T N R A T G Y A A G E	Q T G M T V E K D G R	V Y A S Y S N G E R M L	
UniRef90_A4IJ5	G K D G V N N L A Q D G Y A S G T	L T T F S I V G A D G K L	T G N Y S N G Q T A V	
UniRef90_I4WQP6	N A Y A A S A L N P D G Y P T G I	L S S I I D V S R E G V	V Q A K Y S N G Q T T A	
UniRef90_S611U8	S D F V V I A T N N P N G Y P A G E	N T G V T V E K D G K V	Y A T Y S N G E R M L	
UniRef90_D8PFH3	A A S G V A S Q T Q D G Y S S G T	L D R I S V D K E G R	V M A Q F T N G E T R A	
UniRef90_E4RB11	A S S A E I A K T Q D G F A T G E	L S S G L S I D Q N G Y L	F A S F T N G K D K V	
UniRef90_UPI00045E9D6C	S S F G V N S L S A D G N A P G T	T L T S M N I I E A T Y S N G K T V S		
UniRef90_A1K948	D S G G V T T S P R Q D G Y T T G R	L L T G L S V S N T G V V Q G T F	S N G Q V R D	
UniRef90_C1DHJ5	N D F E V S S L D Q D G Y T A G S	L V G F T I E E N G N V V G N Y S N E Q S L V		
UniRef90_I3ICF7	S N F V V T T N R P S G Y A S G E	Q I G I A V E K D G K I Y A N Y S N G E R L L		
UniRef90_T0S1W4	T K S S V S K V F R A D G N K	L A T L K S I I G F G A D G M	M M Q A Y F D N G E I K D	
UniRef90_UPI0003708D94	N N S T V V N D V I Q D G Y T S G S	L V G I I T F E N D G T	V M R N Y S N E Q S R A	
UniRef90_A1WUE2	R P F N V T N V S Q D G Y A A G E	F E N I N V E G D G T I L A R Y S N G E A Q A		
UniRef90_G2J2H7	S S F G V N S L A A D G N A P G T	L T S T N I I N N Q G I I E A T Y S N G K T V A		
UniRef90_T0RFQ3	S G S A L A R H T Q D G S S A A T	L L A S L I S F N D K G I L T A V Y D N G E A R D		
UniRef90_L9U632	E Q S D P K S I S Q N G Y S S G S	L V G I I T L E D D G T V M R N Y S A N E Q S R A		
UniRef90_H5WS85	S A F G V T N L D Q D G Y A K G D L	S G I S F S N D G T I V A R Y T N G Q S Q L		
UniRef90_L0I0L7	A A F G V V S T N S P N G Y T S G E	L S G I L A G V R V E D N G M V Y A T Y T N G Q S Q L		
UniRef90_UPI0002E2AEEE	A S T S L S G T A D G Y P Q G T L	S N Y T I G S N G V I T G T F S N G Q T Q P		
UniRef90_Q7NU18	Q N Y G T G T I T Q N G S A P G L	L T G V S I A S N G V V Q A T F S N S Q T K T		
UniRef90_I1DWP0	S T F D V T N L S Q D G T T V G F L	T G V D I D A F G R V V L A S Y S N G D S A Y		
UniRef90_Q8K9K6	T N M P S I E L S Q N G Y T K G F L	K H F E I L N N G E I I I G Q Y T N E E E Q K		
UniRef90_F9ZD28	S Q F G I N L A Q S D G Y A S G R	L A G F T T S P E G I I Q G N Y S N G Q N K T		
UniRef90_UPI000464648A	G S F A V T A V T Q D G Y A T Q G M	S Q G L S F A E D G Q M Y A T Y T N G Q S K V		
UniRef90_A3NFX5	G E T T T T V N R D N G Y A A G V	P G E V M L D E D G G V V V V Q Y S N G K Q R K		
UniRef90_UPI0003821E4F	G A N D A I V T A D G V T E G Q	L E S F S F G P R G E I N A V Y S N G S V V T		
UniRef90_J2W1F3	G D Y N P I Q V K I D G N S P	P I E D V T I G A D G I V V A N Y K N G T T R P		
UniRef90_B2AI79	A D N D V K Q L S Q N G Y T S G S	S P I E D V T I G A D G I V V A N Y K N G T T R P		
UniRef90_U1GZQ5	S P F E V N K L T Q D G A T V G R	L T K V E I T P D G V V S A T Y S N A T T L K		
UniRef90_UPI0002DCC646	S A F A V N K V S Q D G Y T T G E	L A G L E I I D E N G H I F A R Y T N G Q S K V		
UniRef90_C6NY11	S P F A V T S E N V N G Y A P G T	Y S S I S V Q S T G E I D A N Y T N G Q S K K A		
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UniRef90_A4XY4	M D S S I R V A Q M T G Y S A G S L	Q G F N I D A T G K I T G I Y S N G L N Q L		
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UniRef90_UPI0002488AA9	G E S A L L S S N V D G G M L G T V	A S V E I S D T G V V S A L F E D G T A R A P		
UniRef90_G8Q5P9	A D T A R S I P T Q N G Y A T Q G I	N T L T D G S G V L L A N F S S N N Q T K P		
UniRef90_UPI0003A7FFF2	S A Y N V T K A Q L D G S P P S K I	E S I D D K D G T V Y A Q Y A D G S M K A		
UniRef90_F1THP2	G D S S V V K P S N I N G Y T T G N L	V T F N I G S D G M I T G V Y S N G Q Q Q P		
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UniRef90_UPI00039FB003	S S F S V S N P T I N G N A A S Q V	S S V I S A N G M I Q A S F S N S Q T K T		
UniRef90_E6QM23	A S F A V T S E N I N G Y A P G T Y	S A Y S A V Q S N G T I I D A N Y T N G Q S K A		
UniRef90_UPI0003B75FFD	S P S S V N F V R Q D G K T V G S S L L	I K F T V V E E D G T I I G F Y S N G V S R P		

250 260 270 280

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UniRef90_A4XY4	I G Q I A I A T F A N P A G	L Q R I G D N	Y I N T V N S G D P E I G T P G S G		
UniRef90_B0SF85	I A R V V A L A N F T N P A G	N K E G D T	M Y S F S L N S G E A N I G E A G S Q		
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UniRef90_F4GPY3	M G S L A V L V D F A N V Q G	L Q P V P G G N	A W V E T S T S G Q P L L G R P G S N G		
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UniRef90_F1THP2	L G L I A L A G F D N P A G	L Q K V G G N	L F M P T T N S G D F N K G V P G S Q		
UniRef90_U1AR11	L G Q V V A L S T F V N P Q G	Q D I G G N M W V Q T G N S G S P T V N P	P G A G G		
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QUERY	N F G K	L T N G A L E A S
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UniRef90_J0W9Q1	N F G T L	T S G A L E S S
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UniRef90_UPI00035DBCCC	N L G T I	Q S G A L E A S
UniRef90_F0Q7M0	K F G G G L	R S G A L E D S
UniRef90_UPI00037A2D2D	T F G S L	T A G A L E S S
UniRef90_H3RBV2	T F G S L	T A G A L E A S
UniRef90_UPI000381E3E8	N L G Q I	Q S G A L E A S
UniRef90_V5AN69	N F G K L	T N G A L E A S
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UniRef90_D2ZHg3	L L G A L	T S N T L E G S S
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UniRef90_A0A023Y457	N L G K V	Q A G S L E A S
UniRef90_J2IXK5	N L G S L	N G N M L E A S
UniRef90_W7NBB2	N L G T L	H G S M L E A S
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UniRef90_C7BNX1	G F G E L	L S S T L E A S
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UniRef90_M4S367	S F G T I	Q S G A L E R S S
UniRef90_I0DYN1	Q F G K L	T S G A L E S S S
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UniRef90_B8CVP7	T L G S V	A S G Y L E G S S
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UniRef90_UPI0003768699	S L G V L	Q S S A V E D S S
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UniRef90_T0S1W4	G R G N V	L A Q S I E M S S
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UniRef90_B2AI79	S L G T L	R S N A V E A S S
UniRef90_U1GZQ5	T F G S I	K S S A L E Q S S
UniRef90_UPI0002DCC646	T M G A L	Q S G A L E D S S
UniRef90_C6NYI1	G L G V I	Q S G A V E S S S
UniRef90_A0A011Pi24	S R G G V I	Q S S A V E D S S
UniRef90_UPI00036D3EC8	N A G V I	K P S N L E M S S
UniRef90_A4XY4	S R G T I	S Q G T L E M S S
UniRef90_B0SF85	G R G K I	N A G L L E M S S
UniRef90_A3QCL9	T F G S I	R S S A L E E Q S S
UniRef90_F4GPY3	G M A R I	K G Q A V E E G S S
UniRef90_A0LT62	S R G Q L	A A G E L E G S S
UniRef90_UPI0002488AA9	G S G A I	A A G T L E A S S
UniRef90_G8Q5P9	T L G S I	V S N S L E E E S S
UniRef90_UPI0003A7FFF2	K N G K I	V S G A V E E N S S
UniRef90_F1THP2	G V G T L	S P G T L E M S S
UniRef90_U1AR11	N A G T L	S S S G Q V E D S S
UniRef90_UPI00039FB003	S M G S I	A S D Q L E G S S
UniRef90_E6QM23	G L G V I	Q S G A V E A S S
UniRef90_UPI0003B75FFD	G R G K V	V A K S L E Y S

1 10 20 30 40

DLS| E G E G F F | I V K G S N A D T F F T R A G N F G L | D K L G N | L V S G
 LDVA| Q G D G F F M V V K N S S D N A T M Y T R S G N | L T T D A N G T L | L R T A
 LDGM| Q G S G F F V L S D N G S L | S Y T R A G T F K S D K D G Y V T S S
 LDLA| Q G S G F F V M S D G A | N E F Y S R D G A F S L | G S D G D L V N A
 LDLA| V D G N G F F I V V S D S T G S Q A L | T R A G S F V P | D G Q G Y L V N T
 LDLA| Q G D G F F I V V S G E D G V E Y L | T R A G A F T L | Q D D G S L Q N S
 LDMA| Q G G G F F V Q K G G D G S L | E Y T R S G A F R A D K D G Y I T N N S
 LDMG| N G S G F F V L S E N G S M S Y T R A G T F K V D K D G Y V T N S
 DLAI| E G A G F F V T R D G A G N | I A Y T R A G S F T P | D S A G Y L K N A
 DLAI| Q G S G F F V L V Q G S D G T T Y L | T R A G S F T Q N D A G E L V N A
 DLAI| N G G G F F I V V Q G N G G E N F L | T R A G S F V P | D K D G N L V N T
 DLAI| Q G N G F F V V V Q D G G G T P | Y L | T R A G S F V K N A E G Y L E N A
 A LDLA| Q G N G F F S F R D A N G A | I L Y G R N G A L | S L D R N G R I V D Q
 MDMA| S G N G F F V I K D T N G | V S Y S R N G Q F K L | D R E G F I V N N S
 DLAI| N G N G F F V V R D G T K V A Y T R A G S F S P | D D S G F L K N S
 ATDVA| Q G N G F F V L V K N G E | E T F Y T R A G A F G L | D S D G T L V N P
 AFDLA| S G A G G L F V L K G A N D E | I L Y S R A G M F D W N P D G L L I N P
 ATDMM| S G D G F F V T N K G G Q Q Y F T R A G S F G L | D A S G H L V G P
 LDVA| N G N G F F R M T N T D G S V Y Y S R N G Q F Q R M D D G R I L V N A
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UniRef90_S6I635	D G A R L Q G Y G V D A N G N I V N G V L T D L R I D T S N L A P K P T G S V T
UniRef90_C0GJH4	N G F K P L G W Q A D A F G N I N T N G P L Q P L N I P L G H N V T T R A T E N
UniRef90_B9QZF9	A G M Y L Q G Q Y P I T N G N A P S V V A G G L E P V N I T Q N Q L E A T P T S T
UniRef90_H4F0M6	A R Y T L M G Y E Y D S A A D P T I V V N G F D G L T E V N D
UniRef90_I4L4V7	T G S R L Q G Y A A D E N G K I N K G G L V D L Q L N L A N L P P K A S T K V D
UniRef90_A0A059L7E4	D G A R L Q G Y G V D A N G K I L N G V L T D L R I D T S N L A P K N T S T V S
UniRef90_I9C5K3	G G Y Y L Q G W P L D A Q G A Y V V N N G A A T S K L Q M R A N L D S T T S A F T
UniRef90_UP10003FFE164	A G Y K L M G Y S V A S G K S S A D G V A G L Q V V N V S S A A L K A T P T T S
UniRef90_W8I4I1	A G F K L M G Y E Y K A G A D P T V V V N G F D G L T E V K L K D E G L V A S G
UniRef90_F0L6D2	A G F Q L M P Y G A N A P A V V V N G F T G L E A V V V N V N F G L T A S P S T Q
UniRef90_T0Z583	G G H I L Q G Y S A D A A G R I Q P K V G D I P P K A S Q N V Y S R I N L D A N
UniRef90_UP10003B3B1BF	G G S N L Q G W A V D E N T G R V L E G T Q T S M R V D N S L L E P R P T D F P
UniRef90_UP1000382C1AB	S G Y Y L Q G W P L D S N G N F T N N G T N Y K A L S G T A E P T T F A N V Q
UniRef90_F4LPN2	N G L R V Q G W M A N K N T P E I L E G A S E S D I M K G T W S T E Q K V Y D S
UniRef90_Q67K22	A G M K V Q Q W M A V D G V I G R T D R A T M Q D I Q I V R G T V S L P Q A T T
UniRef90_UP1000380B87D	D G G I L Q G W L G D A S G R V N T G G P T T D L L L T P T T T M P A R A T T S
UniRef90_UP100036CAE1C	S G I L Q V T G Y P A G T T P Q P I V I S N A Q M P P Q A T N N I K A Q F Q L D S S
UniRef90_T0SJ16	D E Y K V L G F T V D T E G S P I K L G N T I P A K A T E S V G V N M N L D S S
UniRef90_I0X787	N G M R V Q Q W M A Q E V N G Q I P V G S K D P A R E T T N V N F A C N L N K N
UniRef90_UP100036BD117	E G A V V Q G W S A N N G L I D T N A P V G D I Q L P V G A V L P P V A T S T
UniRef90_N6V618	A G Y T L M G Y S Y A S G A P A V V V V N G G L I P I V N V N Q D G L A N S A S T S
UniRef90_A6WQK1	A G N F L Q T F P V D K D G N S T S V S T A T K P V Q I P D T A G S P I K T E N
UniRef90_UP100037E6D7D	T G D A V Q Q W T A T N G I V N A A G K P G D Q M P L G A T I S P K P T L N
UniRef90_I3E4S3	D G Y K V Q S Y S N G T L Q D I K V D V N A I V P A Q I T T
UniRef90_E6PZG6	D G L A V Q Q G Y P A T G G V V N T N A P I G P L T I P V I G Q V E P P A A T T G
UniRef90_A0A038G9E3	A G M K L Q G Y N V D A N G S V V T G A L S D L K V D S S N L E P K A T T A
UniRef90_UP10003AA32B4	A G L T L Q G Y P L N G G V A A V S A N G T T Q N V N I S A M S L E A T P S T Q
UniRef90_E6PMB3	A G G K L I G T P A V S G A L T G G A G P L R V T A T I L A P Q A T S G L S
UniRef90_J3ANR2	E G Y Y L K G L P T D A D G N V L A S N S S D E T I N L D S I G G T A K A T A N
UniRef90_U4R569	D G M N V Y G W T K Y E T L G D G T V K F D T E T Q I G P I N L Y S D A T T N G N
UniRef90_K2K352	Q G N Y L Q G Y Q V D R N R S G N T S S T A T T Q P I R I P D T A G A P Q A T S N
UniRef90_F2NT01	N G L R V Q Q W M A N K N T P E I P D N P T A D Q V I E G T W Q T E I D I Y D T
UniRef90_U1J548	Q G N F L Q Q G F P V D A S T G A T T S V S S T A A M Q I P D A S G A P R A T T
UniRef90_D8JVZ9	A G F T L L G Y D N G G S S V I N S A A G L V P V G T A N L G L K A T P S T S
UniRef90_J6UFC4	N G Y Y L L G W R T T D A E G N V T E N S A S L E R I D T G T V Q S I A K A T T T
UniRef90_B9JZL6	S G Y T L L G Y S Y D N G E P A S V I N G G L E P V K I D T S E V T A S A T T T
UniRef90_UP100038161A7	A G Y T L L G Y E Y G D G D D P T V V V N G F D G L S K V N L A S D G L V A T G
UniRef90_J2UKP1	UniRef90_H8FWC3 D G A R L Q Q G Y V D S N G K I L N G V L T D L R I D T S N L A P K S T S T V S
UniRef90_J2IWS8	N N Y Y L N Q G A K T D T Y G K L V G N L A N P E P I K V N L N D K Q A I P T T T
UniRef90_V8R5U6	A G F K L M G Y S Y D A G A P A V V V V N G G L V P V V N V N Q S G L T A I A S T T
UniRef90_X7F9V2	D T S R L Q G Y G V D A N G K I I N G V L T D D L K I D T S N P K S T S A V A S T
UniRef90_K0X6E3	A G F Y L S G Y A Y G P D G T L G T P D G A S F T A M R L A G N L P S Q A T G L
UniRef90_R5ZXX1	D T S R L Q G Y G V D A N G K I I N G V L T D D L K I D T S N P K S T S L V T S S
UniRef90_I5BYM5	G G A N V M G W Q V D E S G N A K R D L V S K L Y V N S P D V A Y T S P E R T T
UniRef90_G7FCQ7	A G Y K L M G Y S Y A N G V P A V T A N G Y A G L E T V T I A Q S E L V A T P S S
UniRef90_D0YZA3	K G N F L Q Q G F P V D E A T G D T T S V S L S T S S A Q I P D S S G S P R A T S
UniRef90_J2KWT5	E G K F L L G Y E V N S D T N T V T S S Y E P K S M K I D D V F G K P T P S K T
UniRef90_R1GW09	A G F T L M G Y P W N G F D G L V P I N V L G D Q D K L A A V P T A N G S W T G N N
UniRef90_UP10003178C84	E G Q F L L G Y N V D N E T L Q V G S F E P K A L N V P D Q F G Q P R A S E N H
UniRef90_W6RQ72	N D Q Y L L G Q Y Q V N K D T G D V L S Y E P E P L N I P A E F G K P K Q T S D H
UniRef90_B5FGS8	A G F K L M G Y S Y D A G A P A V V V V N G G L V P I V N V N Q S G L T A I A S T T
UniRef90_L0RYH8	N D E F L L G Q Y E V D P E S G N V S S Y E P K A L K L P D Q F G K P K P T E N
UniRef90_A8IPL6	N G L R V M G W Q D T E K H E V P A D K S P Q S I R S I E I R
UniRef90_A5F681	A G Y T L L G M Y D I N N V T P V V N S T A G M V P V N I G S I A L A A V P T T S S
UniRef90_UP10003FC86FF	N D E F L L G Q Y E V N P D T G D V L S Y E P K P I N P P Q F G K P K Q T A N
UniRef90_Q01PQ4	N G D Y L L M G F P V N D D G T S A V I S T T V P V R I P D S S G S P Q Q T T E
UniRef90_A0A023C3H5	T G E S V Q Q W T S L D S T T G V L D T N G A I G D I V V P V G A A K Q P I A S
UniRef90_UP1000463121B	A G D K L L G V N G V I Q I P T T G M Q A S A S T E L D A E L N L D A S K S V I
UniRef90_K2JUP2	A G F Y L L G T T T P D D L Q V V S I S S T G L T A S P S T E G V F A P N L P A
UniRef90_F7NH09	G G Y Y L L Q G W L L N S D G T I V N S T S Q D Q L T S L Q T V N V A G F S S V G
UniRef90_A6DYV2	D G S Y V Y N T N K E V E P I N I F S D I Y N G N K Q I I N P T P T T A A T F T
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UniRef90_UP100036E2AF4	N N G Y I C N M I A G E G I S A S A S I M N D R T K T M A G Q A T S E G Y M K G
UniRef90_UP1000468CB38	Q G L A L T G Y P A G T T T G G G A V Q P Q P L V I P N T T M A A R A T T S
UniRef90_UP100047D675E	S G L V L L G W P A Q P D G T I P P S Y P R D T A D G L E P V Q I N V N Q F S G E
UniRef90_C2PD26	R I D K S Q V L G T D A E G N L V Q I S I A G M R S I A G T A T R N V R F T G N D
UniRef90_A8T893	G G Q Y V L G Y G V K P G T Q E V F D F S S Q P S A I K L P V G T A I G G S V T D
UniRef90_UP10003B4521C	N D E F L L G L Y Q V D P D S G E V A S Y E P Q A L N I P V G V N L P A N A D L K
UniRef90_E4S8Q7	S G Y Y L L Y G W P V D E T N P I P T G P T D L E P V R V S N I G G A A Q A T E N S
UniRef90_M9RDS6	D V Y I N K I K D P S M S V L D K Y Q K I L N K I G D D M K S S I S
UniRef90_R7ND78	S G Q F L L T T Y P V N E D G S V T A K D I D S A V P L R L P V T S G D P Q G T T
UniRef90_UP10004797833	S G A S V L G W Q V D S E T G E I L K D K V S P L Y L E S D A V K Y P E R T T G
UniRef90_R6K099	D G F Y V R G S G P D A E N A G A T Q R I Q V I P I D N E G N I E K M A G A P T
UniRef90_M5E6A2	S G A N V M G W Q I D A T T G E V V V K D K V S K L Y L D S P E F R Y P E R T T G
UniRef90_D5RP49	D P V V S G I F G A L S E D E F T P Y V L N S F D P L D Q D T Y N N A T S T T I
UniRef90_N9VKR0	S G Y A L E G G W P V V A N G G L I Q V D E A P Y A P E A T T Q I G I G A N L P A S
UniRef90_C5BRS0	D G L I E E G F N L L P G N A K P L A A G T G A A D A S K F N P K D S K T Y T A S
UniRef90_A0RRQ1	N A F D P T D Q G T Y N S A T S M N V I Y D S L G V S H I M T
UniRef90_D2C610	E G N P L A T T N P D G T V N V P V N N D T F T N D Y N M H L A L T G L S D P N
UniRef90_UP1000225F15B	T G Y K V Q G W T A V Q D P E T G E R Y I D T N K P I G D G M T M P A K K T S N
UniRef90_UP10003B42392	S G L V L T G W P A N S D G T I P A Q S G G L Q P L M I N A S Q T A A A P T T R
UniRef90_UP1000469D055	S G N A L Q V L P V D Q L G N V T A T G A G A M K T L H V P T T N G N P K A T T
UniRef90_E1QHF0	S G I G V L L M G W P A Q A D G T I P T F P R D T A D G L E P I Q I N V N Q F T G E
UniRef90_F2N1N3	Q G Y R L L Q G F A I G D D G E P I V G N L I D L Q I P V E N L P G E A T T I V G
UniRef90_G6XK85	D G V K L L A L R T A N A T F N P A D P T T Y N S S T S L N I Y D S Q G N A
UniRef90_UP100036C570B	S G Y Y L L E G Y N V T S S N G A L L S S D L K P I Q V S N V N F T P T K T T T L
UniRef90_C8RX43	N G N F V C G Y S V A S T Q S T T N V G T K I T F G N L T D G E K N G Q G Y L
UniRef90_UP100046AC7ED	S G L V L L G W P A N A D G T I P D T I A G L T P V V I N S N Q Q A G D P T T E
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	90	100	110	120
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UniRef90_UPI00036D5400	M S I S A N □ D A T S P V V A A G A E S A T N V	S F S T S M E V Y D S L G		
UniRef90_S6I635	S E I N L N S S S D A I D Q T K V P F D P T V S T S Y T K K F S T M V Y D T Q G			
UniRef90_C0GJH4	L T F S S N L D S L A E I H M A E S L V Y N S Q G G S H L V E I I F T K T			
UniRef90_B9QZF9	A T L H A N V D E D S A I V A A A N L P S A N A A T Y S H K T S M V V Y D N L G			
UniRef90_H4F0M6	L S G S G I S A V A S T S G A L S V N L P N Y E A D G Y V K T T S L K V F D S Q			
UniRef90_I4L4V7	S A S N L N S S S P V I D Q T K N P F D P T K S E T F T T Q Y G T T L Y D S Q G			
UniRef90_A0A059L7E4	S T I N L N S T A T I I D Q T I □ N P F D P S K E A S F T K Q F S T P I Y D T Q G			
UniRef90_I9C5K3	G T Y T A G D L A A G T T P D Q F K R S F D I T D A Q G G S H A V T L A F L K T			
UniRef90_UPI0003FFE164	G T F A A N □ D A T A A T D A G N P S S N T V P V T Y T S K S S L V T Y D N L G			
UniRef90_W8I4I1	S T K G T M E A N L P S G A A V G D E K P T S L V V Y D S Q G N T R I L D F V Y			
UniRef90_F0L6D2	G S F P A N □ N R D E A A V A A G S R P S D N L A T S T I G N K T S L T A Y D S			
UniRef90_T0Z583	M T E K L K A G K T F S K S S N I F D S L G I E H L L T Y K F H P T N T V G Q W			
UniRef90_UPI0003B3B1BF	A G A G E I K W A F N □ D S R Q T S L D P A N F D P A N P A T Y N H T T S T N I			
UniRef90_UPI000382C1AB	I N L Q S S T Q E I T G Y T A G D □ A K G N V T A Q F S R P I T V Y D E Q G G E			
UniRef90_F4LPN2	F G N E H M L S V A F A R V P G N P N Q W Q A T V L I D P D N A D V T Q T R V G			
UniRef90_Q67K22	K V T F K G N L D A A A E D S T Y E T I I N A Y D S L G R D I P I T L R F T K			
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UniRef90_I3E4S3	K I T I D G N F P S S V V S G T T T Q L Q Q I K V V D N I G D E H T V E L K V E S			
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 UniRef90_UPI00046AC7ED D T H Q I S V Y Y Q R V D D Y A G T V P E G G Q T V W K A S T F E T Q D G E Q V
 UniRef90_D2C610 A Y N L S F D A N G K L I S A M T A A D V V V G G N P V S T P T A L G G A L G V I
 UniRef90_A7HW68 D A Q T Q S D T D K S Q T T W T V T S D A D G S T L G T V S F S T S D G S I I S
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 UniRef90_I3E4S3
 UniRef90_E6PZG6
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 UniRef90_UPI00046AC7ED
 UniRef90_A7HW68

170 180 190 200

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

	210	220	230	240
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UniRef90_S6I635	T D S S R N P P T Q D G Y A T G Q I N N L T D G S G V M F A N F S S N N Q S R A			
UniRef90_C0GJH4	G H S N A Q V R Y Q D G F P A G E L T E F T G K T G V I S G I Y T N G L V V E			
UniRef90_B9QZF9	A G F T V T V N V D A D G N A P S S V E K V E F G E D G T L Y S I Y T N G D R R P			
UniRef90_H4F0M6	S D F S V Q N G K V D G N A A S K V K G Y E D D T G V V S V A Y E N G D L V P			
UniRef90_I4L4V7	S A S Y R N P P V T D G Y A T G Q I T G L K V D G S G V L F A T F S N Q Q S K A			
UniRef90_A0A059L7E4	A D T A R S I P T Q N G Y A T G Q I T N L T I D T S G V M L A N F S S N S Q T K P			
UniRef90_I9C5K3	G T S S M I S S T V D G G G L L G S V S S I R I S D A G V V I S A V F E D G T S R A			
UniRef90_UPI0003FFE164	S S F S V V S T A T A N G N A P S A V K S V Q I T S D G T L S E V Y A D G T S T A			
UniRef90_W8I4I1	G D F T S T G G G I D G S K P S K M S G F E I D K E G V V Y V K Y G D G N L I P			
UniRef90_F0L6D2	T K F T P G T A I L N G N G P S Q I K D V E I G K D G V V T A V Y Y Q D G G R R N			
UniRef90_T0Z583	E P S T T I E E T Q D G Y K A G D L S N I A I D R E G R I V G G S F S S N G T E H N			
UniRef90_UPI0003B3B1BF	A Q F S N N D I I Q P G Y P P S V V T N L E V S K D G I V V S A R Y S N G Q N K T			
UniRef90_UPI000382C1AB	D A S G L I G S S V D G G G L F G A V V T G T V S D S G V V V I S A V F D K G E I R P			
UniRef90_F4LPN2	S Q S S T K A Y Y Q D G Y T M G Y L D N F K I D S S G I I T G V Y S N G T N R V			
UniRef90_Q67K22	A R S T V E L D T R D G R P M G S L E A V Y V N E L G E I I G R Y T N G D S Q L			
UniRef90_UPI000380B87D	G S A T V A A T G Q D G Y K A G N L L E A F S L G A D G S L L V G A F S S N G V R Q T			
UniRef90_UPI00036CAE1C	A D N D P K S I V Q N G Y T S G S L L I G F A V Q S D G T I L G S F S N E Q T K S			
UniRef90_T0SJ16	S Q S S V A R H T Q D G S S A A T L A S L S F N D K G I T A V Y D N G I A R D			
UniRef90_I0X787	S K S T T K A Y Y Q D G Y T M G Y L D N F K I D S S G T I T G V Y S N G T N R T			
UniRef90_UPI00036BD117	G Q N S S L A A T G Q N G S A M G T L Q A F T M M S P D G T I I G V F S S N G L K S P			
UniRef90_N6V618	G T F T I L D P S T N G Q A A S P V T G V T I D K S G V V Y A N Y K S G D P K P			
UniRef90_A6WQK1	A P F A A T E L T Q D G T T V G R L T N V E I G A D G L I T A S Y S S N G S S V P			
UniRef90_UPI00037E6D7D	G L S D A R V F D T D G Q T A G A L T S Y T V S D T G Q I I G V Y S N G L K Q V			
UniRef90_I3E4S3	G N N L N A L F S P D G T Q G S L E S F N I I G Q Y G E I I N G V F S S N G R V L Q			
UniRef90_E6PZG6	S A S A V I S A T N Q N G Y S S G E Y Q S F S V V N T D G T V M A S F S S N G Q Q Q A			
UniRef90_A0A038G9E3	S V S G L I T Q D Q D G Y A T G Q L S A M S V D S T G N L F A T Y T N G K S Q V			
UniRef90_UPI0003AA32B4	D E F Q I L K S D V N G N K P S S V E F A G D G T L Y A V Y G N G A R V V G			
UniRef90_E6PMB3	A P S A V V S I T D N G Y G V G Q L S S N L S I N P G G V V Y G V Y S N G Q S S I			
UniRef90_J3ANR2	S T S S T L S I T Q D G A N Y G E L A G I T I D A Q G Q L V T A N F D N G V S L A			
UniRef90_U4R569	A D S S V K P S N V N G Y T T G N L V T G N L V G S D G M T G V Y S N G Q Q Q P			
UniRef90_K2K352	D D F T Q E S L D Q D G T T V G R L T N V E I D S S S G I V A T Y S N G D V Q Y			
UniRef90_F2NT01	S K S T T K A N Y Q D G Y K L G Y L D N F K I D Q S S G I I T G V Y S N G S V R T			
UniRef90_U1J548	S R F E V K A L E Q D G A T V G R L A G V D G T D G K I V A S Y S S N G D S T Y			
UniRef90_D8JVZ9	G A Y I P V D A S A N G N G P S A V D R L E S A Q A G I V T A V Y A D G S R V D			
UniRef90_J6UFC4	A T P A V K S L D Q D G L A Y G S L T G V S I A N G G D V T A T Y S S N G E T L L V			
UniRef90_B9JZL6	A T S T S I E G S A N G S A A S S S D Y T T G S D G V I S T V V S S D G T T T D			
UniRef90_UPI00038161A7	Y K F N P D G G T I D G N A P S K V A G F Q D D D G I V V Y V K Y E N N T L E P			
UniRef90_J2UKP1	A D T A R S I P S Q N G Y A T G Q I T N L T D G S G V L L A N F S S N N Q T K P			
UniRef90_H8FWC3	T G L S I T S V G D G A V P S Q Y T G V E G K D G T I F A K Y D N G L Q V P			
UniRef90_J2IWS8	I T D T V T S G T P N G Q A A S P V K D V T T D K D G T V Y A K Y S D G T S K P			
UniRef90_V8R5U6	A D T S R T I P T Q D G Y A T G Q I T N L T D G T G T L F A N F S S N N Q S K A			
UniRef90_X7F9V2	G D Y T G L S T D V D G R E A G V L A R T E D E T G T V Y G F D N G A R V V P			
UniRef90_K0X6E3	A D T A R S I P T Q D G Y A T G Q I T N L T D G T G T L F A N F S S N N Q S K A			
UniRef90_R5ZXX1	S G I T M F S E K T N G K A V G K M T S V G V D S S S G Y I V A S Y S S N G V T K N			
UniRef90_I5BYM5	T D F S V T G K V D G S A P Y A I D S V E I S E D G T V F A Q Y A D G S R R A			
UniRef90_G7FCQ7	S R F E V K A L E Q D G A T V G R L A G I D G T D G K V V A S Y S S N G D S T F			
UniRef90_D0YZA3	S P S V I N M V N V D G A T T T G Y L S K V D D P D G N V L A S Y S S N G K D R I			
UniRef90_J2KWT5	G D N F S G T G N V D G Q Q G A N S P V I D T D S D G I V Y Y S K Y D D G S T K P			
UniRef90_R1GW09	S P F E M R K F T E D G A T T T G Y L A K V D D P K G T I M A T Y S S N G E N V A			
UniRef90_UPI0003178C84	A P F E I T K S N Q D G A T T T G F L T K I D F D E Y G S V L G T Y S N G Q N V T			
UniRef90_W6RQ72	A S E F A G S G T P N G Q A A S P V W D S V S I D K D G T V Y A K Y K D G T S K P			
UniRef90_B5FGS8	A P F E M R F F S E D G A T T T G Y L S K V D D I D K S G N I V G S Y S S N G K D V T			
UniRef90_L0RYH8	K E T N V D L S Y Q N G Y P A G T L T D V T T D T T G V I T G I F D N G Y N R Q			
UniRef90_A8IPL6	S N D Y S I K A P T N G S P A T S A S D I K V N S Q G I V Y A V D G N G N T T N T			
UniRef90_A5F681	A P F E L T K F D Q D G A T T T G F L T K I D F D E N G S V L A T Y S N G I N T T			
UniRef90_UPI0003FC86FF	T N F A L D A T N Q D G L P V G R L T G V I D I G P D G L V R A T F S N G T S E P			
UniRef90_Q01PQ4	Q P S S A S A S S Q N G S A A A Q L I R V G L A D G G K M L A Q Y S D G Q Q V V			
UniRef90_A0A023C3H5	N D S S V T D L T Q N G Y T S G S L V S F T I D E T G T V V V A T Y S S N D Q T K N			
UniRef90_UPI000463121B	A D Y T A R A P A V N G S G T G F D A I S I D L D G T V S A L N R N G S V I N			
UniRef90_K2JUP2	G G Y E L K L A N Q D G S A P S G L D Q V I D E N G L V T G V F A N G Q T R A			
UniRef90_F7NH09	T D S G V T V S Y I D G Y A A G E L Q D I S I G S N G V I T G Y S N D Q T Q P			
UniRef90_A6DYV2	G P F G A I A V S Q N G T R Q D L L S S V D V R Q D G T V W A S Y G A E T S V I A			
UniRef90_UPI0004786DAE	N S M G G T S S T I Q G Y P N G E L S S G I S I T Y G D Y T N G Q T V K			
UniRef90_UPI00036E2AF4	U N I D N T K P P V Q D G Y A A G S L L G F A V Q P D D G T I L G S Y S S N Q K T Q A			
UniRef90_UPI000468CB38	D N F A P I S I S K D G S P V G N M T N I E V D P N G Y V F A Y F D T G I T R V			
UniRef90_UPI00047D675E	N L S T I I A M T S Q D G S A P G Q L A N V T F D E G G T L L V A T Y S S N G K T A D			
UniRef90_C2PD26	T G K T I T A T D V A G R P A A I A N D Y S I S D G F G V M M R Y S D G S M K V			
UniRef90_A8T893	A P F E L T K F D E D G A T T T G F L T K V D F D E N G N V L G T Y S N G E N V T			
UniRef90_UPI0003B4521C	T P N E L L V E S T V D G R A Y G V L S S V E V D K D G Y V N A L F T N G L S R S			
UniRef90_E4S8Q7	L D S S I L R A K K V S G Y A A G S L Q Q G F N V D A T G K I I G V Y S N G L N Q I			
UniRef90_M9RDS6	G R S S T R V P S Q P A A L T G E A S G F D F G D E G			
UniRef90_R7ND78	K S S T T G N Y I G G G K A V G T M T S Y G D T M G R I N A S Y S S N G D V K T			
UniRef90_UPI0004797833	S G S S L S E A H R G D G Y P E G D M N G V A I A R D G T I T R L Y S S N N Q N R V			
UniRef90_R6K099	G D P V S G A Y V V G G G K A V G T M T S Y G D T T G R I V A S Y S S N G D T Q V			
UniRef90_M5E6A2	S S F S V N E V N Q N G Y S T G R L T G L E I D Q E G I I F A R F T N G Q A Q T			
UniRef90_D5RP49	A T Y Q Q N S S V T A N G A A P G A Y T G V G I K E N G E V V V S Y D N G K S R T			
UniRef90_N9VKR0	G D F E V V N N L K Q D G S T V G R L T K V E I T P D G I V V S A T Y S S N A T T			
UniRef90_C5BRS0	T D F S V D D T D Q D G Y A S G R L S S G L A I D E N G V I F A R Y T N G E G Q P			
UniRef90_A0RRQ1	N T S T T D N I L V Q D G Y T A G T L N E L R V D E S D G T I I G A F T N G R S F G			
UniRef90_D2C610	G T T T V S S G F T I S D P D I V S G Y S A D D T R N V T A S S N G S I S D			
UniRef90_UPI000225F15B	T D F T S A N V T K N G S P V G S L T A L E E I D E N G S L Q A T Y D T G F T R T			
UniRef90_UPI0003B42392	G S F A T V T S S Q N G N T I I G Q L S S D L T V G D N G I V V T A T Y S D G S S Q K			
UniRef90_UPI000469D055	D N F A P I S I S K D G S P V G N M T S V E V D P N G Y V Y A Y F D T G I T R V			
UniRef90_E1QHF0	E G Y S T S T N T Q D G F A E G G L V S A V S E D G F V T A Y Y S S N G E M V D			
UniRef90_F2N1N3	S A F A V V N S V A Q D G Y T T G E L A G L E L D D T G V I F A R Y T N G Q S K V			
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UniRef90_UPI00036C570B	G D G T G K E N V V K K I N T K G E M M K N I S V G T D G T I T G E G T D G T I Q I			
UniRef90_C8RX43	D S F A P T S I T K N G S P V G N L M E V E V D E N G Y V L T A S Y D T G F T R R			
UniRef90_UPI00046AC7ED	D T F A P V S I T K N G S F V G N M T S V D V D G N G Y V V H A T F D T G V T R T			
UniRef90_A7HW68	G T V K T T E L D Q N G Y P S G E L V S I A V S E N G R I T G T Y S S N G K T V D			

250 260 270 280

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UniRef90_UPI00036D5400	M G Q L A M A N F V N P D S L L A V G N N N Y A V T G A T S N A S I G V P G S G	
UniRef90_S6I635	I G Q I S L A S F T N E Q G L Q P V G G T A W K E T Y S S G M A G Y D A P K I G	
UniRef90_C0GJH4	L G Q I A L A S F D N P E G L M K A A G N M Y Q V S N S G Q A R V G G A G L E	
UniRef90_B9QZF9	I Y K I P L A D V P S P D K L D P V S G N I Y R P S I D S G D V R V G F P G D G	
UniRef90_H4F0M6	T F R V A L A S V Q S P D N L N P V A G N L Y T Q S N D S G V V V M G Y A G S S	
UniRef90_I4L4V7	I G Q I S L A S F T N E Q G L P A G G T W K E T F A S G Q P G Y D A P E A G	
UniRef90_A0A059L7E4	I G Q I S L A S F T N E Q G L Q A I G G T S W K E T Y A S G I P G Y D A A N T G	
UniRef90_I9C5K3	V Y Q L P L A S F Q N A D G L T R L P G N A Y S V S D E S G S V A I N P P G S L	
UniRef90_UPI0003FFE164	I Y K I P L G T V P S G D G L T P L A G D V Y Q Q S I D S G H I V V G S A G Q S	
UniRef90_W8I4I1	K F R I A L A T V Q S P D R L L P Q S G N V Y S Q G T D S G V I V T G F A G S G G	
UniRef90_F0L6D2	I Y Q L A V A T V P S V D N L S P Q N G N V Y L P S N E S G V V T I G F P Q T G	
UniRef90_T0Z583	L G A I A V A S T F N N P N G L V S I G A N L Y Q E S I G S G I A N I G R A N Q G	
UniRef90_UPI0003B3B1BF	I G Q V I L A N F P N Q Q G L Q S I G N N R W I Q T Y Q S G T P T L N N P G S T	
UniRef90_UPI000382C1AB	I Y Q L P I A T F A N P D G L T A Q G N A Y T V S D D S G N A L I N P A G T Q	
UniRef90_F4LPN2	L G Q I A L A T F S N Q G G L E K A G D N T Y V Q S N N S G L A N I G T S G I A	
UniRef90_Q67K22	L A Q I A L A H F N N M A G L I K E G N S T F A E S P A S G V P Q I G T A G T G	
UniRef90_UPI000380B87D	V G R V A L A R F T N P E G L E K A G D S S Y S S T A N S G G P Q I G Q A G D A	
UniRef90_UPI00036CAE1C	L G Q I A M A T F G N V Q G L K P E G N N V W S A T G A S G Q E L L G T A G G	
UniRef90_T0SJ16	I S Q I A V G K F E N N E A L F K V G K N L F K E S R Q S G Q A A M G K P G E A	
UniRef90_I0X787	I S Q I A L A T F A N E R G L F K A G D N T Y V E S S N G M A R I G E S G V A	
UniRef90_UPI00036BD117	L A Q V A L A N F N N P P G L E K V G G S M Y R T T V N S G T E Q L G T A G T A	
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UniRef90_A6WQK1	L A R V A L V R F A N E Q G L T Q V G N T S W K A S L N S G P A L A G E A N S G	
UniRef90_UPI00037E6D7D	L G Q I G M A T F K N V N G L E K T G D S S M Y R S T V N S G Y A Q V G Q P G S A	
UniRef90_I3E4S3	L G T L A L A K F S N P S G L T K A G N N L F Q E S I N S G T A N I N V P G D	
UniRef90_E6PZG6	V G R V A L A N V T N L Q G L K E L G N G E Y S V T L A S G A A V V S G V S G S A G	
UniRef90_A0A038G9E3	I G Q T S L T N F A N V Q G L A Q A G G T N W R E T F A S G V P V S G T P Q S G	
UniRef90_UPI0003AA32B4	I Y Q I P L A T V P S D K L T P E A G N A Y S V S A D S G N L Q L G F P G T A	
UniRef90_E6PMB3	L G Q I T L T N F A A P Q N L Q R V G N N Y Y A A T Y Q S G Q P L T G Q P S S N G	
UniRef90_J3ANR2	I Y Q I P V A T F S N P G G L T H I S G T V Y D E N T N A G Q V H V N L P G D G G	
UniRef90_U4R569	G G L I A L A G F D N P A G L Q K V G G N L F I P T T N S G D F I K G V P G S G Q	
UniRef90_K2K352	L G Q V A L V R F A N E Q G L T Q V G N T A W R Q S I S S G E P L A G E P N T G Q	
UniRef90_F2NT01	I G Q V A A M S F T N Q G G L E K K G D N T Y A E S I N S G M A N I G E S G T Q	
UniRef90_U1J548	L G Q V A A M V R F S N S Q G L Q Q V G N T S W K K S L T S G E P I A G E P A S G G	
UniRef90_D8JVZ9	A F K I P L A N V A S P D N L T A I S G N V F A T N K E S G D L Q L G T A N S G G	
UniRef90_J6UFC4	I Y K V A V A T V A S P D N L T L S G G I Y E E S L A S G G A T L H E S G V G G	
UniRef90_B9JZL6	T Y K I A L A T V A S P D N L E E V G G T A Y K V D A D S G T V V V G F A G T G G	
UniRef90_UPI00038161A7	R Y R I A L A N V Q S P D N L L V P Q A G N V Y S Q G V D S G V I V T G F A G S G G	
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UniRef90_H8FWC3	I S K C M A I A T F P N D G L S A M S N G I Y A Q S S S S G K H I Y H V A G D G	
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UniRef90_V8R5U6	I G Q V A L A S F T N E Q G L L Q A I G G T S W K E T F A S G I P G Y D A P E T G	
UniRef90_X7F9V2	I Y Q I P L A T V P N A N G L A R V D G N A F R L S Q D S G P L N L L A A G T A G	
UniRef90_K0X6E3	I G Q V A L A S F T N E Q G L Q A V G G T S W K E T F A S G I P G Y D A P E T G	
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UniRef90_I5BYM5	L Y R I P L A T V Q S P D Q L K V I T G N V F S E S A D S G G V Q L G F S G S G G	
UniRef90_G7FCQ7	L G Q V A A M V R F S N S Q G L Q Q V G D T S W K K S L T S G E P I A G E P G S G G G	
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UniRef90_R1GW09	L G R V A A M V R V S N Q Q G L S Q A G N T Q W K V T Q Q S G E A V W G E A M Q G G	
UniRef90_UPI0003178C84	L G R V G M V R V P N E Q G L D K K G G T Q W D S T Q F S G D K I W G E S G K G G	
UniRef90_W6RQ72	L Y R V P L A T V A S P D N M T L L M S G N V Y S A N G Q S G V T V T G F P Q T N G	
UniRef90_B5FGS8	L G R V A A M V R V T N Q Q G L L Q A N G G T Q W S T T Q A S G A A W G E A N Q G G	
UniRef90_L0RYH8	L A Q V A A L A N F D N P A G L I K A G Q N M Y R Y S N N S G E P Q I G E S G T G	
UniRef90_A8IPL6	L Y R I P V A T V K S P D N L T P V S G N A Y Q V T Q E S G A M Q I G L S G S A G	
UniRef90_A5F681	L G R V A A L V R V A N E Q G L D K K G G T Q W D A T Q F S G A K I W G E S N K G G	
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UniRef90_K2JUP2	I Y Q I P T A T F P A Q A R L D R D N G N A F S L T S N S G D V V L N R P G V G	
UniRef90_F7NH09	L G M I A L A V F S N P E G L E K I G T N L Y T T S A N S G D F T G G V A G S G G	
UniRef90_A6DYV2	V G Q V A A V A N F S D I Q G L G S I G S A T Y R A S R E S G D V R L G V P G T S G	
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UniRef90_UPI0004797833	UniRef90_R6K099	A G R I V V A E F A N V T G L E K Q G E N L Y A V T P N S G P A R N M Y V D D D
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UniRef90_N9VKR0	I A Q V P I V T F Q N A D G L Q R E D G Q F T A T Q A A Q F R V L A A G E Q G	
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UniRef90_UPI00046AC7ED	I Y Q V P L V L V P N P N M G V S L D S Q T F Q P S V D S G S F F L W D A G D G G G	
UniRef90_A7HW68	L A Q V S L A T F N A S D K L K L D G T A F A T Q E S G E P M L G	

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UniRef90_UPI00036D5400	G R G Q I L G G N L E S S
UniRef90_S6I635	S L G A I Q S N S L E D S
UniRef90_C0GJH4	G R G V I E T G T L E M S
UniRef90_B9QZF9	G L G E L A V G A L E G S
UniRef90_H4F0M6	G F G S I I S G A L E D S
UniRef90_I4L4V7	T L G S I K G S S L E A S
UniRef90_A0A059L7E4	T L G E I N S N S L E E S
UniRef90_I9C5K3	G A G S I S A N S L E A S
UniRef90_UPI0003FFE164	G L G T I K S S Q L E D S
UniRef90_W8I4I1	A F G N I Q S K A L E N S
UniRef90_F0L6D2	S F G Y I Q K G A L E G S
UniRef90_T0Z583	G R G Q V L A N S L E Q S
UniRef90_UPI0003B3B1BF	N T G L I Q S Q A L E G S
UniRef90_UPI000382C1AB	G S G K I T E N M L E G S
UniRef90_F4LPN2	G K G S M L A G S L E M S
UniRef90_Q67K22	G R G T L V P G N L E G S
UniRef90_UPI000380B87D	G F G S L V G G A L E M S
UniRef90_UPI0003CAE1C	S M G T L Q S G A V E D S
UniRef90_T0SJ16	G R G E V L S K S I E L S
UniRef90_I0X787	G K G T L M A G A L E M S
UniRef90_UPI00036BD117	G R G L L S S G Q L E M S
UniRef90_N6V618	G L G Y I Q S N S L E A S
UniRef90_A6WQK1	T F G S I S S S A L E Q S
UniRef90_UPI00037E6D7D	G M G Q V S G A L E M S
UniRef90_I3E4S3	G R G T I A A S S L E M S
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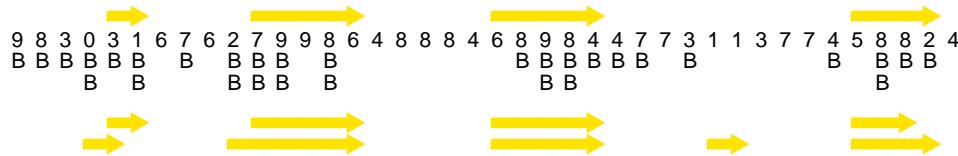
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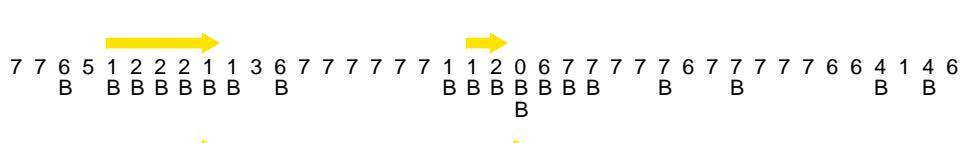
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I G S T P A E G Q F S Y D P S S G I L T F A S N F D T I H Y I D P A G S G T N N
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M G L T F N S S G A L T G I S N A S A S P F S V S P D L K V T L N S A T G T P P
M K L E L M D G T T V V N T S E M V F V N G K P T P A T S T
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T M S V M G E D S S G N T S S T P [L] T Y T V S F D S D A T G N V V G T G Y T G
L L M T F T P T I V P A T G T A N E W Q L Q F D P S R A G G G T L L G V T D N L G
D A N G A K H [V] L K V S F A Q D T G V M P G R W K V T V A D R D G T P L Q I G T
S N D A T D P F F A M F K R W D A T Q D T A [L] G Q T Q F A Y Q T T L K V Y D E N
D G G T E W N M I I Q V P E P A K I [N] Y T G E G P D N V V T G S L R F N S N G S
D S L G N S H T V T Q Y F T K T S D N E W Q V N V E V D G A P T T P A T A Q T V
N N W T M V I R D S A N A D K V I G I Y T M Q F S D N T V T L D G T T Y T V E N
A S N T W T M T I T D S A S G G A V V G E Y E L T F D D S R G A G G T L A S V T
S P H [V] L T I K F T K T S N N N W N W S C T V P P A D G T L S G A S G T I T F N
P Q M P A S T Q P L T A N I V F D S H G S V A S L T G S P G L T S S N G N L L Q
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C L T E S H A L H S Q G N L S Q T N N S
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lupas_21
 lupas_14
 lupas_28
 jnet
 conf
 sol25
 sol5
 sol0
 jhmm
 jpssm

The figure displays a grid-based sequence alignment of numerous protein sequences from the UniRef90 database. Each row represents a different protein sequence, identified by its UniProt ID. The columns represent the positions of amino acids in the sequences. Blue shading indicates conservation of amino acids across the alignment. Other colors (red, green, yellow) are used to highlight specific substitutions or gaps. The UniProt IDs for the sequences are as follows:

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- UniRef90_Q0FVC2
- UniRef90_Q48SP3
- UniRef90_I3Y649
- UniRef90_G3ISV5
- UniRef90_J7IV70
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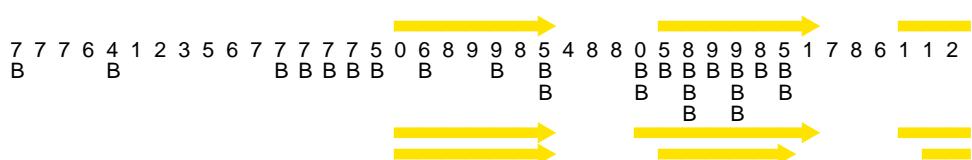
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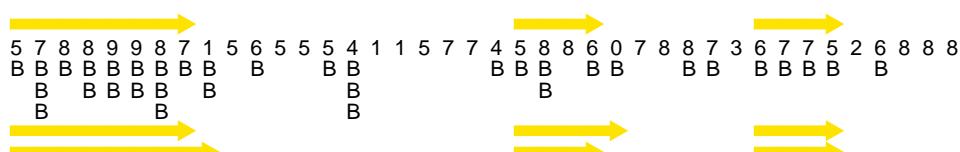
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UniRef90_G7QBX4	UniRef90_R9MVA6	UniRef90_UPI00046D3FD5
UniRef90_A0LDL2	UniRef90_C4XPFF7	UniRef90_UPI0003B3D0EB
UniRef90_UPI00040335AD	UniRef90_Q310Y8	UniRef90_A7ZE88
UniRef90_U1X2L5	UniRef90_A0EP78	UniRef90_UPI00046FEE32
UniRef90_M3AGF2	UniRef90_M1R6V4	UniRef90_I5RZA1
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UniRef90_E71K7	UniRef90_R7PP17	UniRef90_UPI000466015D
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UniRef90_U1X2L5	UniRef90_UPI000262CAB1	UniRef90_UPI000262CAB1
UniRef90_I0EP78	UniRef90_R7HAR0	UniRef90_R7HAR0
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 jnet
 conf
 sol25
 sol5
 solo
 jhmm
 jpssm

