

QUERY	1	10	20	30	40
UniRef90_Q8R702	R	E	E	E	E
UniRef90_C6A280	I	S	P	V	V
UniRef90_L8XRV8	I	S	S	V	V
UniRef90_F6BDV9	I	S	F	V	V
UniRef90_R6QEF9	E	I	N	M	V
UniRef90_K1YEQ5	I	H	A	M	V
UniRef90_U5Q793	K	S	A	M	V
UniRef90_B3T3R9	K	S	N	P	T
UniRef90_W1UGE4	K	V	T	H	E
UniRef90_E3HDQ0	K	V	T	H	E
UniRef90_D2Z7Y0	V	V	T	T	K
UniRef90_F0LMS1	I	V	D	L	S
UniRef90_G7W815	Q	V	D	L	S
UniRef90_I3ZV18	I	V	D	L	S
UniRef90_F6B3Y9	K	I	V	D	L
UniRef90_C6PY56	I	I	D	L	S
UniRef90_K0INP4	R	V	I	D	L
UniRef90_K0BBE0	K	P	I	D	L
UniRef90_L1QIH3	K	Y	I	D	L
UniRef90_Q3AP91	Q	Q	I	D	L
UniRef90_R4KJU8	Q	F	I	D	L
UniRef90_Q2Y4M0	I	V	D	L	S
UniRef90_A0R958	K	V	I	D	L
UniRef90_S5ZIV0	K	I	I	D	L
UniRef90_K6U433	K	I	I	D	L
UniRef90_D5UA78	R	I	I	D	L
UniRef90_D9TIL4	I	V	D	L	S
UniRef90_V6AVR7	I	V	D	L	S
UniRef90_W7L7M6	R	I	H	D	L
UniRef90_B5EC91	K	I	I	D	L
UniRef90_T2GHI6	K	V	I	D	L
UniRef90_F2L0X4	K	V	I	D	L
UniRef90_UPI00037BC876	K	V	I	D	L
UniRef90_R6GMA1	K	Y	V	D	L
UniRef90_A4XHN8	K	T	I	D	V
UniRef90_B3EIF3	R	V	I	D	L
UniRef90_UPI0001E2E6A4	R	L	D	I	S
UniRef90_Q47P62	F	I	V	D	L
UniRef90_K6U340	K	I	V	D	L
UniRef90_J7IVV1	K	V	T	D	L
UniRef90_D7AG61	K	L	I	D	L
UniRef90_K2A7V2	Y	L	D	L	S
UniRef90_D8K0N3	W	I	D	L	S
UniRef90_B1C6A5	I	I	D	L	S
UniRef90_S7Q7B0	R	I	I	D	L
UniRef90_R5A7H3	K	L	I	D	L
UniRef90_Q1Q6G7	F	Y	D	V	T
UniRef90_B6FZ07	K	A	I	D	L
UniRef90_UPI000464A7A1	K	L	I	D	L
UniRef90_F7KGX7	K	L	V	D	L
UniRef90_F9CUH3	K	P	L	D	L
UniRef90_R7SMM1	K	Y	V	D	L
UniRef90_R5E6D5	K	V	I	D	L
UniRef90_D6TVR1	K	R	L	V	D
UniRef90_D5WSG0	K	I	V	D	L
UniRef90_K4KXE9	H	I	D	L	S
UniRef90_A0REX1	E	W	I	D	L
UniRef90_H2C189	K	T	I	D	L
UniRef90_E4S4Z2	R	L	I	D	V
UniRef90_E5WP89	W	I	D	L	S
UniRef90_A0A024PYE6	K	W	I	D	L
UniRef90_UPI00047DCA5E	W	I	D	L	S
UniRef90_A0A021W6V9	R	Y	I	D	L
UniRef90_A4YGB6	K	I	Y	D	L
UniRef90_I8U279	E	L	I	D	L
UniRef90_S0FVM1	K	Y	V	D	L
UniRef90_D1Z171	K	I	F	D	V
UniRef90_G8MWY1	K	L	I	D	L
UniRef90_UPI0004725D6A	Y	I	D	L	S
UniRef90_R7D493	R	V	I	D	L
UniRef90_UPI0004248515	K	L	Y	D	L
UniRef90_B5Y7K2	I	I	D	L	S
UniRef90_M5TTE3	M	I	D	L	S
UniRef90_UPI0004787AFB	K	V	I	D	L
UniRef90_G0L1W1	R	L	I	D	L
UniRef90_UPI00036C6313	K	W	L	D	L
UniRef90_X0S686	I	V	I	D	L
UniRef90_R6Q7M4	K	V	I	D	L
UniRef90_Q8ZZX2	Y	L	D	L	S
UniRef90_K0BF36	I	V	I	D	L
UniRef90_M0LP11	I	I	D	L	S
UniRef90_UPI000373C393	E	I	I	D	L
UniRef90_A4BUN4	W	L	D	L	S
UniRef90_J3EUX9	M	Y	D	L	S
UniRef90_D2QDU9	R	L	I	D	L
UniRef90_B9LMM1	I	D	L	S	P
UniRef90_K6DNX0	K	I	Y	D	V
UniRef90_J3CAW6	L	I	D	L	S
UniRef90_R6TG73	I	I	D	L	S
UniRef90_UPI00034655C5	R	V	I	D	L
UniRef90_E2LG31	K	L	I	D	L

QUERY 50 60 70 80  
UniRef90\_Q8R702 L C T H I D Y P K H V G L E N R I P F K D G I J K G K G Y C I S L D D F P G N K  
UniRef90\_C6A280 S G T H V D A P A H F I P D E K G R T I E K L P V D F Y S G E A V I V D V S L E G V D  
UniRef90\_L8XRv8 T A T H V D T P L H C I I P D E K P T T E N I D L S H Y V I G N A Y C I D D D F D F N K  
UniRef90\_F6BDV9 I S T H V D Y P K H V G L D N G D S V V D V I V G E G F C V N I G N L E E F L  
UniRef90\_R6QEF9 T G T H M D A P A H F V K N G R K T I D N V N L K K C I G K A V V V H D K L E E H  
UniRef90\_K1YEQ5 T G T H I D A P A H F I L K N G R G M V I D V T N C P E G V I E K K H M E K H S K E E  
UniRef90\_U5Q793 T G T H I D A P C H I L L A G K R D N F E A D K F V G D A M V I D V S V C P G E E  
UniRef90\_B3T3R9 T G T H L D A P A H F L E K G S K I H E I K S R K K R N E T I T K T D I Q K F E  
UniRef90\_W1UGE4 T G T H M D A P A H V R E L D G G I T L D K A D K F V G K A I V V D C S D L S E G D  
UniRef90\_E3HDQ0 T G T H M D A P K H I I P Y G K G L D E F S A D K F L G K G V V V D A R Y E E K  
UniRef90\_D2Z7Y0 T G T H M D A P A H L L K D G P T L D Q I L E S A D R F V G R A V V A D S D L S E G D  
UniRef90\_F0LMS1 S G T H V D A P A H F I L K G G K A V L P L E K F F G R A I V V D V S N G Q G E V  
UniRef90\_G7W815 T G T H I D A P A H M I E K A L C L D D L E I D K Y I G T A V I V D V S Y A E T K  
UniRef90\_I3ZV18 T G T H V D A P A H F V P D G K T L D E M P L E R F M G E G L V L D S D L S E G D K  
UniRef90\_F6B3Y9 T G T H M D S P A H L F V K D Q G A T A F T P E Y F Y G P A M I L D V S A K T G E V  
UniRef90\_C6PY56 T G T H M D S P A H L F S K R T T L D S A E Q F V G K G L V I D C S D L K E G E  
UniRef90\_K0INP4 T G T H V D A P S H F A P C L A S I L D M V P A S R L V C S A I E R E D F F E N P  
UniRef90\_K0BBE0 T G T H L D A P F H F V K N D Q I P L D R L M S P I T K S E I L Q F E K K N G N  
UniRef90\_L1QIH3 A G T H I D A P K H I L Q T D K Y I S D Y P I E R F V G N A I E V K D E Y Y R S E  
UniRef90\_Q3AP91 T G T H V D A P S H L F K G G A T V M D V S R F V G R A V V L D V R S L L G E E  
UniRef90\_R4KJU8 T G T H I D A P A H L L E G G C T D L P A S H F H G R A T V M D V S R T P G V D  
UniRef90\_Q2Y4M0 F S T H I D A P F H M L E E G K K L D E Y P I E K F I G E A I Q N T D P N L D A  
UniRef90\_A0R958 V G T H C D S P A H F I E G A T T I D Q L P L D Q F V G E A V R K E V L H N A D  
UniRef90\_S5ZIV0 T G T H V D S P A H F I E G A P T I L D K V P L E R F M G K G I V E K A L K G K G  
UniRef90\_K6U433 T G T H M D A P A H L F D Q R A T L L P V E Q F V G K G L V I D C S D L Q G Q R T  
UniRef90\_D5UA78 S G T H I D T P L H G I N N K P S T I L D L N Y F I L G S A Y C I F P H N F D F G T  
UniRef90\_D9TIL4 T G T H I D A P A H F I K N D K I P L E R L I G K V R V L D V G K E D I E S S Y E  
UniRef90\_V6AVR7 A G T H V D A P F H F L P R G K K I H Q L D P G R F P N Y A I T K S D I K S Y E  
UniRef90\_W7L7M6 T G T H V D V P A H V F K D G K T L P V E M F S G R A Y V V R L E E L D S I N  
UniRef90\_B5EC91 S G T H L D A P F H F D D A G T T V D E I A L E T V I G K A I G R Q E L E K F R  
UniRef90\_T2GHI6 T G T H I D A P L H A H C S A L T V I G L E E L T G E G F L V S E R E I  
UniRef90\_F2L0X4 T G T H I D A P A H F V P G E R I P L E R F V W K R P G E A I T A S D L F S D E K  
UniRef90\_UPI00037BC876 V G T H M D A P A H I F E D K K T A L P A S T F T G P A C I V D V S G L H F S E R K  
UniRef90\_R6GMA1 V G T H I D I P M H Y K S S K Y I S E Y P L D R F I G N I I C L K E E Y Y K K H  
UniRef90\_A4XHN8 T A T H I D A P A H F I K G D K I P L E H L M G K V K I F E V P E E D S L E K K H  
UniRef90\_B3EIF3 T G T H V D L P L H M S A G L D A F G A E R F V G L G V V L D V E S V S G G T  
UniRef90\_UPI0001E2E6A4 T S T H I D A P L H F T A G G V D V S A N L D K F I G F C I K A S D L S G L D  
UniRef90\_Q47P62 A G T H V D A P S H M V A D G A H L D R Y P V E R F V G R G R Y I D A R G G F A  
UniRef90\_K6U340 T G S H V D A P Y H F L N G A N T I D D L R M F F G E A V V I K V T H K N K R E  
UniRef90\_J7IVV1 T G T H I D A P A H M H L N T A I L L D F S R S N T Q V L D I E S I S H E E T  
UniRef90\_D7AG61 A G T H I D V P R H I R D D S G K T P L D L L T G K H D V I A I G R R E L A S H L P  
UniRef90\_K2A7V2 I G T H L D A P S H L F K D G Q T D F P V R S F V G D G V L I D A R G V A S R E  
UniRef90\_D8K0N3 S G T H V D A P A H F L K D G A S I S D M S V S Q L I G P A V T V E E L S G Y G  
UniRef90\_B1C6A5 T G T H I D A P F H F S K N N V S D Y G V D R F I G R G A V I D V S D E P F G E A  
UniRef90\_S7Q7B0 T G T H V D A P F H F F A D N G K T I D H F P L S T F V G P A I V W D L J A P Y Q  
UniRef90\_R5A7H3 T G T H M D A P F H L F G D R T K L N E M P A A Q F V G K A L V I P C M Q G E E  
UniRef90\_Q1Q6G7 C G T H I D A P F H F L E N G R T I D Q L A L E N L I G E A I D V S D L K Y K L R  
UniRef90\_B6FZ07 V G T H M D P P A H I Y P L R R T T L D E F P Q F I G K G L V I D C R D L Y G K K  
UniRef90\_UPI000464A7A1 S G T H I D S P M H L T D C N Q Y I L S L E S F I A D G C V I K L K A E Y D T L  
UniRef90\_F7KGX7 S G S H V D A P Y H F K N D G L T V D E L S Y F M G N A Q S I D A S D K G E F  
UniRef90\_F9CUH3 T G T H L D A P Y H F V K N H Q L P L D I K I R K G K N V S I T K N D L L F E  
UniRef90\_R7SMM1 T G T H V D A P N H F C Q N G A P I D Q L P L S T F I G N A I S W A D L A A Y E  
UniRef90\_R5E6D5 V G T H I D P A H V Y E K G L T A L P L S T Q F I G Q A L V I D C R H R K S E D  
UniRef90\_D6TVR1 T G T Y L D C P F H R F E H G K D L S E E R L A D L E G I V I R V D H K E T F A  
UniRef90\_D5WSG0 T G T H V D A P Y H F S E G G A L P L E W F P G K G P R E C I C L E E V I A P W R  
UniRef90\_K4KXE9 C G T H L D A P S H C L T G D R I L P L E L I G A A R A G S I L P D H L I P K G  
UniRef90\_A0REX1 T G T H I D A P F H F D N E G K K V I D L D V Q V Y V G P A I G K K E L E K F H  
UniRef90\_H2C189 T G T H I D A P Y H F D E R G T T V I D L N V L V N K G Y C I R P K Y N S K Q E  
UniRef90\_E4S4Z2 T G T H I D A P A H F L K D E G K T P L E Y L I G E V K V F E V Y E D D L E S K N  
UniRef90\_E5WP89 T G T H V D A P F H F N D E G E K I L D L D I E L Y I G P A V D S E V L K S G D  
UniRef90\_A0A024PYE6 I G T H V D A P F H F L N D G K R I L D M D I D R Y I G P C I D E A A L K S K Q  
UniRef90\_UPI00047DCA5E T G T H I D A P F H F D N E G K I D L D V N L Y I G P A K V I H I K E L S D Y E  
UniRef90\_A0A021W6V9 T G T Y I D C P F H R Y E D G K D D L D A I V V R V P A S V R A I L D D S H F R D  
UniRef90\_A4YGB6 T G T H I D A P Y H F D E Y G V I T V I D L H V L V N K G Y C I S P K E T T A E A  
UniRef90\_I8U279 V G T H I D A P A H M I A S G K T L D A F S V H H F T G Q A I T L E A L Q K Y E  
UniRef90\_S0FVM1 A G T H I D G R M H M L D V D E Y I M P L E Q F S G R G G I I H S E N E S V I S  
UniRef90\_D1Z171 I G T H V D P P I H F V A G D K I P L D H L Y G P A V V V G L P G I D A V S A R  
UniRef90\_G8MWY1 S G T H I D A P F H F C E H R L D D V L S L T Y F L G R G I V I S A T G K A E E G  
UniRef90\_UPI0004725D6A T G T Y L D C P F H R F E N G K D S E V S I E R F E G T V I S I P H L R N Y E  
UniRef90\_R7D493 T G T H M D P P S H L F P N R T T L D E F P Q F I G K A L V I D C C D L Y G D K  
UniRef90\_UPI0004248515 I G T H I D A P F H F T N E G E K V I D L D P G L F V G K A I G A S D M E N I D  
UniRef90\_B5Y7K2 G G T H L D A P W H V L K G G A D V I A L E R L I L P C Y V V D M S A S K K E  
UniRef90\_M5TTE3 C G T H M D A P R H F L S D G A T L D E Q D L S V C V G E A I D V E D L H A E T  
UniRef90\_UPI0004787AFB G G T H C D A V W E Y F T S G E T I E N M P L E Y F F G S A I C I D K S A K E E  
UniRef90\_G0L1W1 S G T H M D A P Y H F E P S Q E T I D E L P H F I S E A W V V D I L T S I S P S E  
UniRef90\_UPI00036C6313 T G T H V D A P Y H F D E N G E K I H E L D V N I Y I G T A I G R E E L E C F D  
UniRef90\_X0S686 T G T H M D A P L H F L G I D K M P L E A T V G R A R V I E I H P C E M L A H H R  
UniRef90\_R6Q7M4 T G T H V D P P V H L F P N R T A L D E F P Q F I G K A L V I D C E T M L Y A N Q  
UniRef90\_Q8ZZX2 T A T H V D A P A H F I P G G K T L E E D F S H V S P R G V I K L R E F R G V E  
UniRef90\_K0BF36 T G T H L D A P A H F V K N G Q K I N E I Q L D R L I G K D I L F E K N G N K  
UniRef90\_M0LP11 T G T H I D A P Y H T E P N G D T L E D R D V G E Y V F D A R F V D V S P C E  
UniRef90\_UPI000373C393 T G T H L D T P R H I L P E G K D L G Q I P L D H L I G L A V C A D D L K Q I A  
UniRef90\_A4BUN4 T G T H M D A P L H Y L P G T A S M D A L P F T A I G P A I S Q C H M L S A G  
UniRef90\_J3EUX9 A G T H L D A P A H L L A D G R T L D D Y D R F V F D A H V V D T G L D A D A  
UniRef90\_D2QDU9 T G T Y L D C P F H R Y A D G K D L S E I H V P H T D T L A I T E A H L Q S Y E  
UniRef90\_B9LMM1 A G T H V D A P R H T L P E G S I D E R A V G E F P R E A I T A E E L P E P N  
UniRef90\_K6DNX0 T G T H V D A P F H R F L N G E S I E L D L D Y I G P A R V I D M R E D L M G I D  
UniRef90\_J3CAW6 T G T Y L D C P F H R F A E G K D I V M I H I P F T E T L E I T E D H F K N R E  
UniRef90\_R6TG73 T G T H M D A P R H L L P D R L D K L P A S Q F C G R A A V L D V S H L Q N G F  
UniRef90\_UPI00034655C5 T G T H A D A P Y H F L S D G L G D L P L E L F T G P A V V V D A T G L A P R R  
UniRef90\_E2LG31 T G T H V D A P S H W F E H W V I D L R E I V E K G E R R I T W D H L S P F F T

QUERY	90	100	110	120
UniRef90_Q8R702	L P A C D I L L I Y T	G F S K Y W G R	D E A Y F E K P E L	P F L D D I I K S N
UniRef90_C6A280	L R V A E I V I F R T	G G S K Y W R E	D E A Y F E K P E L	P F L D D I I K S N
UniRef90_L8XRV8	I R G N D I V L F R T	G G W K A K Y L T	E E E E E E E E	G A R Y L L I V D L K R V I
UniRef90_F6BDV9	I R N I D V L L I Y T	S I S S L W G R T	E E E Y F E R G I N I	D D Y L N D L L L S L L G I V I
UniRef90_R6QEF9	I K I S S L V L F R T	G W L Y K A G T	E E E Y F Y K H F I	S S T A E Y L L K N L K G V I
UniRef90_K1YEQ5	I E A S D F I L F R T	D W D K R W G S T	E E S Y F E F P T L	S S S A K W L C Y K N I
UniRef90_U5Q793	L T Q V D F L L F Y S	G W D S K W G T	E D Y Y S E F P V L	T H A I W L C Y Q R N L
UniRef90_B3T3R9	K K H G A E F V L F	W T G W Q R N L Q K	E D N Y F T K P N G	L S V A N Y L L A S S K N
UniRef90_W1UGE4	I E D A E F V L F K T	G W D K Y W G T	E K Y Y G K F P V I	S E A D Y L L I S S S K N
UniRef90_E3HDQ0	I E K S D F I L I N T	G W D R N W G K E	N Y Y N G F F P C M	T K A Q W L S S S K K T
UniRef90_D2Z7Y0	L K G C D F F L Y R T	G W S D M W G S D A	G Y F E G F P V L S T	C E F L V D N K G I
UniRef90_F0LMS1	I I K G E V P K T D L E	G K I V L F Y S	G G R E L S V E L A E	F L V N A G I S G
UniRef90_G7W815	I I N Q A D F L V L K T	G W S R F W G Q	P N Y Y S G F P A L	S K A G W L S G F A N L
UniRef90_I3ZV18	I R L D E I P D	S G Y Y D R I V L G	F L T G G F E L S P	E V A L F L V I A E G V L
UniRef90_F6B3Y9	I L A R V N F L L L Y T	G W H N F W G L E	E K Y Y F A G F P V	L S P A R W L L I G S S K
UniRef90_C6PY56	A D K A Q F L L F H T	G W D K Y W G T	S S Y F G E Y P Y I	E V A E Y L L I G S S K
UniRef90_K0INP4	V R E G E V V M I A T	G W E K R V A K S N	Y M T E N P G L S	E A R Y L A R A K K V I
UniRef90_K0BBE0	I P N N S S V F F F T	G W S K N L K N N	N Y F T E N P G L	S A A R Y L L I Q K K I
UniRef90_L1QIH3	I K E N D I V L L F T	G H D K I Y G T	E N Y Y T D H P V V	S E A D L L V K K K I L
UniRef90_Q3AP91	I I T C Q F V L L Y T	G W S H F W G T	E A Y F D H Y P C L	S S A A Q W L T S M E G L
UniRef90_R4KJU8	I I T K D D F V I F Y T	G W Y H K W S T	P A F F D N F P S T	E T A H Y L L A G M G I
UniRef90_Q2Y4M0	I K K D D I V F F H T	G H A K E M Y S	N N Y F N H L S I	E T A Q E L L I A K G I
UniRef90_A0R958	I K E G D I V I E H S	N L G S T K W N T	E A Y E Q E A F Y L	S E A E E L V Q E L K V L
UniRef90_S5ZIV0	V K G E G W V L I M T	G Y D S K A G T	P D W F N H P G L	S G A K E Y L A Q L L E L
UniRef90_K6U433	I T K A E Y I L F Y T	G W D E R W G T	S A Y F G N Y P Y I	E V A E Y L I H S K K
UniRef90_D5UA78	I K G Y D L L I N T	S W H K N I N T	D T Y Y K Y F P Y L	S F A N Q L V N L K K V
UniRef90_D9TIL4	I Q Y N E R I F F K T	K N S W Y L K R S	G F F E E N P G L	S E S A Y L V S K K T
UniRef90_V6AVR7	I E N G S T I V F A T	G W N S N L L G R	S G F F E E N P G L	S E S A Y L V S K K T
UniRef90_W7L7M6	V D V D V L L I Y T	G G R E L	T L E Q A K K V	K S R V T
UniRef90_B5EC91	I E G E E R L L L K T	G D N S K L W Q Q	K G F S E E Y A A L	L T K A Q Q Y L R D A G V
UniRef90_T2GHI6	L T G G D I A V I K T	G W S S R W G S	E G Y F R D Y P G I	H L A E E L V I E H E V
UniRef90_F2L0X4	I S R G R A V V I F S T	G F S S K Y G T	E E F L Y N W P Y L	S R A D Y L A N A G V L
UniRef90_UPI00037BC876	I S O C D F P T I F S S	G H E K H W G T	A K Y F S P F P T L	E A A T W L T T Q N L
UniRef90_R6GMA1	I K E N D I V L F Y T	G Y S S K F G E	D D Y F E N H P V I	S E A E F L V I K K I
UniRef90_A4XHN8	I E R E K A I F F K T	K N S H Y L N S T	S N F Y Q K Y T S L	S A A E Y L I E K G I
UniRef90_B3EIF3	I E G V E F V L L H T	G W G H H W G T	E K Y L S G Y P N L	E A A A W L A G F K K I
UniRef90_UPI0001E2E6A4	I Q S G D I V L F K T	S N S S L D M T	G S F N T G F V Y L	S A A S W L V D K D V
UniRef90_Q47P62	I A A G D I V V F H T	G M A D R Y Y E	P S Y F T D Y P P L	P I A E Y L V I E C R G V
UniRef90_K6U340	I K E N D I L F N T	N W Y K K V G T	D E Y F D H Y L S I	E V A E F L I E K G V
UniRef90_J7IVV1	I Q T I D F L I L K T	G W S K Y W G N	P K Y Y K G F P Y L	T E A K W L S Q F A L T
UniRef90_D7AG61	I V K G E E R I I L K T	A N S R L W S H A	G F L D S Y A S L P	A R Y L A E V I G T
UniRef90_K2A7V2	I K P N Q I V L F Y T	N H S A D F W K	E D Y F T S G P Q M S	P A E Y L A S R S V
UniRef90_D8K0N3	L Q Q Q E R V L F K T	A N S A L W T R	S E F S E N F V H L	T T A E Y L A G L P L
UniRef90_B1C6A5	L K S D F A V I V T	G Y D K Y L N N E	E E Y I S H P Y L	S K E A S Y L L K V A T M G I
UniRef90_S7Q7B0	M G E G V I L L V C T	G W S D Y W G R	P E Y F E H P Y L	A D A A Q K L V A T M G V
UniRef90_R5A7H3	I D E A D F L L F H T	G W S R Y W G K	A E Y F G D Y P S L	E V C R Y A L E I S G K
UniRef90_Q1Q6G7	F D N V K R V L F K T	V N S S Y W K F	S T F K K D F V Y L	L T K A Q Y L V D K G I
UniRef90_B6FZ07	A E K V D F L L F N T	G W D K Y W G T	D K Y F G D Y P C V	D V L D Y V L V N G N Y
UniRef90_UPI000464A7A1	V K E N S I V L L Y T	G F D T Y Y G A	K E Y F E N Y P C M	D I C K F L I E K N I
UniRef90_F7KGX7	M E K A D I V L F R T	D W Y Q Y E G H	D K F F R H P Y L	S A E A Y L L N R G I
UniRef90_F9CUH3	I P K N S I F F Y T	E W Q K N L N N S	C Y F I N N P G L	S E A T Y L V S K K I
UniRef90_R7SMM1	L D I G A F V L L H T	G W S K H W K S	Q M Y Y E H F L E A	E A A K R L L E L G V
UniRef90_R5E6D5	A E T A D F L L F N T	G W D K F W G S	E E Y F G D Y P C I	D D L D F I L L G N Y
UniRef90_D6TVR1	I N A G R A V L V H T	G W D N Y W N T	E N Y F E H H P H L	T E A L Y L V E C G V
UniRef90_D5WSG0	A E P G Q L V L F A T	G W W R K A G E	A D Y V R H Y V E V	R V I E A L L E R G V
UniRef90_K4KXE9	I R E G E R I L F K T	R N S G L L K D N A	F Q P E Y T Y L S S	A E Y L A A K K V
UniRef90_A0REX1	I L E G V E R L L R T S	S H G K A N E F	P D I I P H L R A D I A	P F L S A E K G I
UniRef90_H2C189	I T D G K T I L I D T	G W S K R A F T	R E F L Y E F P G L	S M A E F I M E H K V
UniRef90_E4S4Z2	I D L E D R I F F K T	K N S Q Y L S T	S E F C E K Y V Y L	S A A Q F L I E R K V
UniRef90_E5WP89	L T G V E R V L L R T	S V P N H S E V F	P N Q I P E L T V D	M A D Y L G S K G V
UniRef90_A0A024PYE6	L T Q A E R L L I R T	S L P N N P E R F	P D E V P P V T P D	G A Y M K K L G V
UniRef90_UPI00047DCA5E	L G G V T R L L I R T	D S L E D R Q E F	P S A I P E I E P E	L A S Y L A R F G V
UniRef90_A0A021W6V9	L E R G R A V L V H T	G W D V H F A T	P A Y G V D H P L	E F L T E A A W L R D C
UniRef90_A4YGB6	L K E G K T I L I R T	G W D K R A F T	K E F L Y D F P G L	S G A E F I I S H G V
UniRef90_I8U279	L H Q I E Y L L L K T	G W S K Y W G S	E Q Y F K N Y P T L	S E A A K W L T S F P L
UniRef90_S0FVM1	L K P G D I I L F H T	G M D R F Y G S	E K Y N D H P D I S	I C K L A A N N I
UniRef90_D1Z171	D L I Q G D I L L K T	K N S A L W D S	G K F H E D Y V Y L	S A A R W L V D H K V
UniRef90_G8MWWY1	L S P G T L V L F H T	G W S Q Y A G T	K R Y F E H N Y V A	P D V I E A M L E R G V
UniRef90_UPI0004725D6A	I R N R A V L I H T	G W D E Y W G T	D F Y F E H N P Y L	T K A E Y L R D C D V
UniRef90_R7D493	F S Q A D F L L F N L	G W D E Y W G T	D A Y F G D Y P C I	L E V L D L I I A G G Y
UniRef90_UPI0004248515	L N G I P R L L F K T	G S W C D R S T	P E A I T P L R A D L A	P Y L A E K G V
UniRef90_B5Y7K2	D R L A K L T G R F T	D L K D K A S T	N E K L S A N I L P	E E V E V L I T G G V
UniRef90_M5TTE3	I G R G A R L L F R T	D W H K R F G T	P E Y R N E L P S L	N L A N W L V I E R Q V
UniRef90_UPI0004787AFB	L S K G D I V L M Y T	G H Y D R F K T	D K W Q T S Y S G L	S Y A K Y L A D C G V
UniRef90_G0L1W1	F R K G E S I L L R S	G W S K R A G T	D S Y R N S L P G K	E L A K W L G N N G V
UniRef90_UPI00036C6313	L D G V E R L L L K T	S D G R G I S R F	P E K F T V F R K N	I G S F L K E K G I
UniRef90_X0S686	I R R G E R V L F K T	Q N S L R W N T	E S F I E D F V F I	S K A R F I V D R G V
UniRef90_R6Q7M4	V E Q A D F L L F H T	G W D K Y W G S	S K Y F E E Y P C I	I E V L S F I M N S S L
UniRef90_Q8ZZX2	L G P G W V V L I K T	G F D K Y I G T	E K W L E Y P I S V	E L A E R L A E L G V
UniRef90_K0BF36	I P N N S S I F F Y T	E W Q K N L K N E	N Y F T E N P G L	S S A K Y L T S K K I
UniRef90_M0LP11	P R E A D L L A I R T	G H D A H W N T	D A Y R D H P L A	P E A A S L L R E A G
UniRef90_UPI000373C393	Q W R A T W V L I A S	K F D Q K W G A	P S Y F T G H P Y L	S T A A R L A G A G I
UniRef90_A4BUN4	I Q V G E R V L L K T	R N S D H S W S	K R A F N P A L S L	E A A R W L A A R Q R I
UniRef90_J3EUX9	A P D C E L L V H T	G W D T H W G T	S R Y D N H P H L A	P D A A Q W C A R D R G
UniRef90_D2QDU9	I R N R A V L I H T	G W A D F W N T	D A Y Y E N H P F L	D A A T Y L R D C G A
UniRef90_B9LMM1	V P A V D L L V F R T	G W A A H W G T	D R Y R D H P Y L T	A G A A R R C Q K L G
UniRef90_K6DNX0	I D G C K R L I F R T	L A W V N P S E F	P E K I P H L E P D	L A P Y L A S K G V
UniRef90_J3CAW6	I R N K A V L I Q T	G W D K H W N T	E L Y Q D H P Y L	T Q A I Y L R D C N V
UniRef90_R6TG73	L R T A D Y V L L Y T	G W E K K W D T	P A F L D E P F D E	E A A R Y L V R C G L
UniRef90_UPI00034655C5	L E P G A V V L R T	G W D R H Y G T	E A Y D H P Y L	S G A A Y L V A R G V
UniRef90_E2LG31	P E S G S I V I Q T	G W S R Y W G K	P D Y L Q N Y P F L	C R A Q E L A K C G V

QUERY	130	140	150	160
UniRef90_Q8R702	K A I V G L D T D A C T S P D G F F E E H K R L L L G S N N K V L I G I I E N N L T T N L N L E N A I L D K K K			
UniRef90_C6A280	K A V G L D N T S T V D G D S L E T H K V L L S N N E N I S C I F E E S L T V N L N L E E K L L T G R K			
UniRef90_L8XRV8	K T V G L D T P S T V I G D S L E T H K V L L S N N E N I S C I F E E S L T V N L N L E E K L L T G R K			
UniRef90_F6BDV9	K A I V G V D C A S I V I G D S Y D V I H K S L L L N G I L I I E N N L T T N L N L D D L L V N K T T			
UniRef90_R6QEF9	K A V G V D D M L N V A D K T C I P N H K I F L L G N N D F L I I E N N L T T N L N L D D K L L D T T G C			
UniRef90_K1YEQ5	K G I G F D C C I S A D P V L P N H K I F L L G N N D F L I I E N N L T T N L N L D D K L L D T T G C			
UniRef90_U5Q793	K G V G Y D S L S A D P V L P N H K I F L L G S N M I I I E N N L T T N L N L D D K L L M G S Q			
UniRef90_B3T3R9	G L V G I D S P S I D E D K F P V M H H K V L L F A K K G M L V I I E N N L T T A N L N L D D K L L K S D K			
UniRef90_W1UGE4	K G I G L D A I S I V I D D P L V N H N I F L K K E L V I I E N N L T T R A N L L E E K L L P S G K			
UniRef90_E3HDQ0	K G L G I D A I S I V I D D P L V N H N I F L K K E L V I I E N N L T T R A N L L E E K L L P S G K			
UniRef90_D2Z7Y0	K G I G V D A I S I V I D D P L V N H N I F L K K E L V I I E N N L T T R A N L L E E K L L P S G K			
UniRef90_F0LMS1	K A V G T D G M S I V I G D D F P I H R H R V L L S A E I P I F E E N L T T A N L L E E K L L S G K			
UniRef90_G7W815	K G I G I D A I S I I D D D F P I H R H R L F S E K N I L I I E N N L T T A N L L E E K L L S G K			
UniRef90_I3ZV18	K A V G T D A M S I I G D D E A P I H R H R L L L S E E V I P I F E E N L T T V N L N L D N R L L G R K			
UniRef90_F6B3Y9	K A V G V D A I S I I G D D Q L P I H Q T L L A N D I L V I I E N N L T T T N L N L D N R L L A G R K			
UniRef90_C6PY56	K G V G L D V I G I D D P I L I H K K L L A K S D I L V I I E N N L T T C N L N L D S K V L G D D			
UniRef90_K0INP4	N A V A I D G P S I L D S K F T A H N I L L P R S N I L V I I E N N L T T C A N L N L D S K I S M S T			
UniRef90_K0BBE0	N L V G I D S P S I L D S F T A H N I L L P R S N I L V I I E N N L T T C A N L N L D S K I S M S T			
UniRef90_L1QIH3	K I L G I D A P S P D P Y N V H K K L L E N D L F I V I I E N N L T T N L K E L L L Y N E Q			
UniRef90_Q3AP91	H G I G V D A L S I V I D D E L P I H R H R L L L Q K N I I I E N N L T T R G N L L A G K L L H Q R			
UniRef90_R4KJU8	K G V G T D T L S I V I D D R F T I H K I L L L Q K N I I I E N N L T T T N L N L A G K L L S G R			
UniRef90_Q2Y4M0	K I V G L D A F S P D D N F E V H K L L L K N D I L V I I E N N L T T I N L N L D K L L T G I			
UniRef90_A0R958	K S V G L D D F S P D D E V T T H H L L L G N N I Y L I I E N N L T T T N L N L D A I L V T K			
UniRef90_S5ZIV0	N A V G I D A P S I D D E Q F P G H K N L L P R G I V I I E N N L T T T N L N L K E L L V G K			
UniRef90_K6U433	K G V G L D V I G I D D P I L I H K Q L F H K T D I V V I I E N N L T T R A N L L G V V G S D			
UniRef90_D5UA78	K T I G I D S P S I V I D D I N N I L I H F S H D I C I V I I E E G L T T A N L L D D K V S N E G			
UniRef90_D9TIL4	E V I G I D S I V I D D E N F P V H R L L L K S N D V I V I I E E G L T T C C C N L L S K I K G S			
UniRef90_V6AVR7	N L V G I D S P S I I D D K F S A H H I L L L K S G N V L I I E N N L T T C C C N L L S K I K G S			
UniRef90_W7L7M6	G V I D S M S V I G S M E V H K E L L L S R G G L I I E N N L T T V N L N L D D K L L N K G			
UniRef90_B5EC91	R L V G I D S I S I V I D D S P D I H R L L L K S G I W I V E N N I T A N T D L L P P K			
UniRef90_T2GHI6	L G V C I D G P S V I D D S P D I H R L L L K S G I W I V E N N I T A N T D L L P P K			
UniRef90_F2L0X4	A A V G V D G M S V D V V Y V H R L L L S S G V L I I E N N L T T A N L N L S I L G G P			
UniRef90_UPI00037BC876	K G I G I D T S I V I D D P M D I T R I L L L G S G L V L I I E N N L T T A N L N L T I T A P			
UniRef90_R6GMA1	K M L G I D A P S P D P Y N I H K I L L L K S N D I P L L E N I T T N L N L D L V Y V E G			
UniRef90_A4XHN8	K V I G I D Y T V D E Y P V H K I L L L H G V L V I I E E G L T T N L N L G L K E G M			
UniRef90_B3EIF3	K G I G V D T V S V I D D S Y P V H K N F F L A N D I L V I I E N N L T T Y P D R R L F G M			
UniRef90_UPI0001E2E6A4	A T V G I D Y L S V I D D Y Y A H K L L L K K G I G I I E N N L T T R G L D D V P E G			
UniRef90_Q47P62	S M V G V D M C S V D E Y F A V H Q T L F A K S N C M I G E N L T T M A Y F D R V A G F E			
UniRef90_K6U340	K F I C I D T I N A V D E F V H D L F A K S N C M I G E N L T T M A Y F D R V A G F E			
UniRef90_J7IVV1	K G I G I D A I S I I D D D F P V H K I L L L E K N I I I E N N L T T A N L N L D S I E D T K			
UniRef90_D7AG61	R L V G I D Y L S I S I G D P F E V H Q I L L L D A G I L I I E E G L T T N L L A D L V E P G			
UniRef90_K2A7V2	S M V G I D S Y S I L G D Y Y P A H K I L L L K A S V L I I E E G L T T N L L G S L D N K			
UniRef90_D8K0N3	A V V G V D Y L S V I G G F H V H R I L L L E S G I W I I E E G L T T S D L S A V S S G			
UniRef90_B1C6A5	R L V G I D A Y S V D D N F D A H R L L L S N D L I A E N N L T T S N L D G S L D Y K			
UniRef90_S7Q7B0	R L V G I D A Y S P D D W G A H E T I L L G A G G I I A E N N L T T R S N L D G S L L G K			
UniRef90_R5A7H3	K G L G F D T I G I D P I A T R H R L L L Q R D I V I I E N N L T T N L N L D S K I G E G			
UniRef90_Q1Q6G7	R L V G V D Y L S I V D K F T E H H T L L R R N D V I L E E G L T T K N L L E L L C G D K			
UniRef90_B6FZ07	K G I G F D T I G I V D P T E R H K K L F K D K D I V N I E N N L T T K N L L E L L C G D K			
UniRef90_UPI000464A7A1	K M V G M D I P A P D P F E I H K L L F K N N L Y V M E N N L T T N L D D Q L L N I D			
UniRef90_F7KGX7	Q T L A I D T L N L D R F P V H E M Y A E A G G L I A E N N L T T A N H F N K I F F D			
UniRef90_F9CUH3	N L V G I D S P S I L D D F K V H K I L L A K N N I L I V E N N L T T A S N L N K I F S K			
UniRef90_R7SMM1	K V I G V D A L S P D D D F A V H D L V L G A G A V I A E N N L T T A N L N L E A I R K D			
UniRef90_R5E6D5	K G I G F D V M G I D D P L H R H K K L F K N K Y I I N T E N L T T A N L D Q Q L C G S G			
UniRef90_D6TVR1	K L V G I D S V N I I D D T P V H T Q I L T A G A G L I V E H L C C C N L N L Q Q A V D F A			
UniRef90_D5WSG0	R V F G I D S M S I I D D P Y P V H R A I T A A G G I I I E N N L T T C C C N L N L Q Q A V D F A			
UniRef90_K4KXE9	Q L V G I D Y L S I D D D Y S S H T H R Q L G A G N S A V L E E G L T T D L S D E V A D G			
UniRef90_A0REX1	R L I G V D V P S I V D D A S H H Q L F K H G I H I L E N N V V I A N D L S D H V A D G			
UniRef90_H2C189	K L V G I D T L G I E P F H V H K R L L G A G V T V I E D L A N D D Q L V E G K			
UniRef90_E4S4Z2	K V V G I D Y L S I E D F A V H K L L S N N V I I E E G L T T A N D L S D N V C G G			
UniRef90_E5WP89	R L L G V D V P S I V D E M E T H H A L Y R N G I V I I E E N I M D L D E I F E E G			
UniRef90_A0A024PYE6	K L V G V D T P S I V D P L A G H H A L H E N D I Y I L E N V M D L D H V E E E G			
UniRef90_UPI00047DCA5E	R L L G L D L P S I V D D P L T A H H E L T R H G I H I L E E G L V L N Q I L P S D S			
UniRef90_A0A021W6V9	K L V G I D S V N I I D D T P V H S T L T G A G I L V E H L R A N L N L A A L P S D S			
UniRef90_A4YGB6	K L V G I D T L G I E P F R V H K K L L S S G I V V I E D L A N L N L D Q L P G K			
UniRef90_I8U279	K G I G L D A L S I D D P F E I H R L L L D Q K E I L I E N N L T T A S N L N L D A I S D A			
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P T P A D L V V C W T G W D V H W G T E Q Y L E H S P Y L S P A A A E T C V E R G  
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V H A G R A A L Y T G F S G L R G S E D Y L H A W P Y L S R A D Y L A G V G V  
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130 140 150 160

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

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

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

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

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

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

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V S L A H T L E T H K A P D V P S P L V H E M I E H G Y A A D R L D L G Y H

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

R Y L K L S Y N L T E D T H P D L T K I K I T P K E G A D Y N T S V I T V E N H

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UniRef90_F9X6W3	S	F	F	V	V	S	K	P	V	N	V	P	G	G	V	A	S	P	P	N	L	V	A	I	F	
UniRef90_S5NYJ0	R	F	L	L	T	A	P	P	L	H	I	R	G	L	V	G	S	P	V	N	P	V	A	T	V	
UniRef90_UPI00035D1E9D	A	F	L	L	T	A	P	P	L	Y	L	P	G	G	V	A	S	P	V	T	P	V	A	T	V	
UniRef90_W3XE19	T	F	F	L	T	S	M	P	L	N	M	P	G	G	V	S	S	P	P	N	A	Q	A	I	F	

lupas_21																									
lupas_14																									
lupas_28																									
jnet		→											→												
conf	4	5	8	8	7	4	3	6	7	7	7	7	7	7	3	1	8	9	9	8	6	2	9		
sol25	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
sol5	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	
sol0	B	B	B													B	B	B	B						
jhmm	→											→													
jpssm	→											→													