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 Q E Y V I N I H K C I H G V G F K K G P R A L K E I Q K F A M K E M G T P
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 R E D T I N I H K H I A V G F F K K R A P R A L K E I R K F A M K E M G T R
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QUERY		50	60	70	80
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UniRef90_L9LAG7	D	M C I D T R L N K S S W A K G M R N L Y R I H V Q L S R K R N E D E E			
UniRef90_UP10002740C89	D	V C V D T R L N K A V W A K G I R N A P R C I R V Q L F R K S N E D E E			
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UniRef90_UP1000337C42	D	D M R I D T R L H K A V W A K G I R N V P Y C I Q I W L S R K Q N E D E E			
UniRef90_UP100038C2D6E	D	V Q I D T R L N K A V W G K G I R N V S Y C I R V H L S R K R N E D E E			
UniRef90_R7TDJ1	D	V R V D T R L N K F I W Q H G I S N V P F R I R V R V M A R K R N E D E E			
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UniRef90_UP100000258FD	D	V C I D T R L N K A V W A K G I R N V P S R I R M H S R K H N E D E D A			
UniRef90_M2Y1D4	D	V R V D T R L N R E I W K Q G I R N V P F R I R V R L E R I S N D D E D A			
UniRef90_UP100046B1C86	D	V L L S D T R L N K A V W A K X I R N V P Y H V H V R L S R K R N E D E D A			
UniRef90_L9KI51	D	V R T D T R L N K A V W A K G I R N V P N R I C V Q L S R K R N E D E D E			
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UniRef90_UP10003F117A2	D	D M R V M D T R L N K A V W A K G I R N V T Y L I W V L S R K R N E D E D A A			
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UniRef90_G3S5R9	D	A H F D T R L N K A V W A K G I S N V S Y C I H V R L S R K C N E D E D E			
UniRef90_L9AJ4	D	D M R I Y T R L N K V V W A K G I R N V P P Y R I R V R V Q L S R K R N E D E D E			
UniRef90_L9KSM4	D	V R I D T T L N K A V W A K G I R N V P Y Q V C V Q L S R K R N E D E D E			
UniRef90_L9L589	D	V R I D T S L N K T V R A R G G I R N V P Y Q V C V H M R L S R K Q N E D E D E			
UniRef90_C1MIC2	D	V R V D V K L N K H I W S K G I R N V P R R I R V R V S I L S R K R N D D E D A A E			
UniRef90_UP10003F16CA6	D	D M R I D T K L N K A V W A K A I R N I P Y C I R V R V S R K C N E D E D E			
UniRef90_A8UF1	D	V R I D E A R L N K H I W S R G G I R N V P F R I R V R V L S R K R N E D E D E			
UniRef90_K9IRJ8	D	D M C I D T R L N E A V W S K G G I R N V P Y Q V C V Q L S R K R N E D E D E			
UniRef90_F1SLI2	D	V G I D R L N K A I W A K G G I R N V P Y Q I R M R L S R K P N E D E D E			
UniRef90_G1ME11	D	V C I V T K L N K A V L A K E T M R N V P P Y H I H V W L S R K L N K D E D E			
UniRef90_S7MNM3	C	D T R F N K A V W A K G I R N V P P Y H I H V W L S R K R N E D E D E			
UniRef90_L9KYT0	D	V H I D T R L H T A A P A K G I R N V P Y R I P V R V P V R L S R K R N E D E D E			
UniRef90_W4XMH8	D	V I R D T R L N K H I W S Q G G R V R S V P F R I V R V R L S R K R N E D E D E			
UniRef90_H2NLH4	D	V H I D T R L N K A V W A K G I R I V P Y R I P V W L S R K R N E D E D E			
UniRef90_L9LKG5	D	V C I D T S L N K V I W K G G I R N S L Y H I H V W L S R K L N E D E D E			
UniRef90_UP100027FB36D	D	V R I D T R L S K A V W A K V I R K V P H R I R V R V W S S R K L N E D E D E			
UniRef90_UP100027FAE89	D	V H I D T R L N K A V W D K G G I G N V P Y Q I H V Q L F R K C H E D E D E			
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UniRef90_G3RQA4	D	V R I D S R F N K A L C A K G G I R N V P Y R I R V R R L S R K R N D D E D A A E			
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UniRef90_A0A058ZF13	D	V R I D L S L N N A V W N N G G I R N V P K R M I R L A R I R L S R K R N D D E D A N A T E			
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UniRef90_L8Y5B8	D	V G I D T R L N K A V W A K R G I R N V P Y R I H V Q L S R K H E D D E D S			
UniRef90_D8SF05	D	V R V D V K L N K H I W S R G G I R N V P R R I R V R R L S R K R N D D E D A K E			
UniRef90_S7PTV5	D	V R I D P K L N Q A L W E Q G G I K N V P H R I R V R V K L E R K R N D D E D A N A K E			
UniRef90_I1FYQ6	D	V R L D T K L N K E V W S K G G I R N V P P F R I R V R R L H R K R N D D E D D D			
UniRef90_UP100046B63BD	D	C T D T S L T K A V W T K R I K N V P Y H I H V Q L S R K G N E D D E D D E			
UniRef90_L9KI02	D	V R T D T R L N T A V W A R G G I V K N V P H R I H V R V R V S S R K G N E D D E D D E			
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UniRef90_L7QK54	D	V R I D I K L N K A V W S Q G G I K N V P R R L R I V V V Q R K R N E D D D K E			
UniRef90_Q54XB5	D	V R I D D N K L N K F I W S Q G G I K N V P H R I R V R V T L S R K R N E D D E D E N A T E			
UniRef90_F7HTB1	D	V R I D T R L N K A V W A E G G I S N V P Y R I H V Q L S R K R N E D D E D E N A T E			
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UniRef90_F1SRB7	D	V R N D T R L N K A V W A K G I R N V P R R L R I V V V Q R K R N E D D D K E			
UniRef90_F8NSD1	D	D R V L D P K L N Q A L W A Q G G I K S V P H R I R V R V K L E S G K R N E D D E D E N A K E			
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UniRef90_M3X8L7	D	V P L D T R L N K T V W V K G G I R N V P Y R I V C V W L S R K R N E D D E G			
UniRef90_R4X9I5	D	D R V L D P Q L N K K I W E N G G I V K N V P D Y R I R V R L R I A R K R N E D D E G			
UniRef90_G7PHK3	D	V H T D T R L N K A V W A K G F R N V P Y R I L V R L S R K R N E D D E G A K E			
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QUERY A E
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UniRef90_E2RNA5	R E Y T I N	H K R I G V G F K K R V P W A	L D L	E I C M K E M G T P		
UniRef90_L1K1X1	R E Y T I N	H K R L L G M T F K R A P R A V	V S E	V K K F A K T C A M G T	S	
UniRef90_F4NTD7	R E Y T I H	H K V F G A T F K K R A P K A	I K A I	K T F A T R A M G T	S	
UniRef90_S8DUV8	R E Y T I H	H L H K L V H G S F K K R A P H	A V K S	V V A F A Q K A M G T	S A	
UniRef90_D3ZAY5	R D Y T I N	H K R T H G G F K K R A P Q A	L K E I	W K S A M K E M R T P	P E	
UniRef90_Q2MHI2	R E Y T I N	H K R L H G V F K K R A P T A	V K E I	F Q Q G T	S	
UniRef90_F4RBQ1	R E Y T I H	H L H K V H G G F K K R A P R A	V K A	V T E F A R K A M G T Q	S	
UniRef90_Q9XFT6	R E Y T I N	H K R H K T T F K K K A P K A	V K Q	R E F A M K M M G T	S	
UniRef90_M0R691	R E Y T I N S	H K K R K A P W A L K E	R N F V V K E M G T P			
UniRef90_A0DTB2	R D Y T I N	H K V H K E T F K R A P R A V	S Y I	V N F A R K N M L T E		
UniRef90_G9L1T3	R E Y T I S	H K K I H G V G F K K R A P R A L	K E I	R K F A T K E M G T P		
UniRef90_V4ACCS2	R E V T I H	H K K I H S V S C K R K A P R A L	K E I	R K F A L K M M K T P		
UniRef90_J3A380	E R V V T V P	R G V K N A P S Q K Q A D R A M	K L	V R E H L A K H F K V D E R		
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UniRef90_L9L3R8	Q E Y T I N	H N C	H G M G F K K A	R K I	W K F A L K E M G T P	
UniRef90_H0Y1D2	K E Y T V N	H K R I Q G V G F K K R D P P A	L K K	Q K F A M K D M W T P	D V L	
UniRef90_UP10002C44C28	R E Y A I N	H R C V H G V R F K K A P R A	L K E I	P K F T I K E M G T		
UniRef90_G1TN61	Q K Y T I S	H K I H G V S S K K H A P G T	L K E I	W K F A M K E M G T P		
UniRef90_A0A024GFD4	R D Y T I N	H K R L H G V T F K R A P R A I	R E I	K I F A Q K A M K T	C	
UniRef90_R1DUW7	R E Y T I H	H K K L L H G G F K K R A P R A V	K E I	R K F A K K M M G T D		
UniRef90_I2JVF3	R E Y T I N	H K R L H G I F K R R A P R A V	K E I	K K F A T L H M G T E		
UniRef90_I0Z4B1	R E Y T I N	H K R L N S S F K K R A P P A	K E I	K K F A A K H M K T K		
UniRef90_A8QCG3	R E Y T V N	H R R L H G G F K K R A P Q A	K E I	K K F A E E Q M G T K		
UniRef90_P0C2H8	R E Y T I N	H K R L H G V F K K R A P R A V	K E I	K K F A K L H M G T D		
UniRef90_L9JYN4	R E Y T I N	H K I H G V G F K K R A P R A L	K E I	R K F A T K E I G T R D S		
UniRef90_G4LWK0	R E Y T I H	H K R I H G V G F K K R A P R A I	K E I	K M F A K K M M G T E		
UniRef90_R9PF58	R E Y T V N	H K R H D I A F K K R A P R A I	K E I	V V A F A Q K A M G T K		
UniRef90_A8E691	R E Y T I N	H R R I F G G S K K R A P P A	K A	R D F A V V K Q M G T P		
UniRef90_K8YY51	R L Y T I N	H K R L H K I T F K R A P R A I	R E I	K K F A L K A L G T K		
UniRef90_E9CFL3	R E Y T I N	H K R L H G V G F K K R A P R A C	D E	R K F A Q K M M G T K		
UniRef90_U1PUF4	E R V V T V P	R D A K Q A P S S Q Q A D R A M	M L	R R H L G K H F S V D E D		
UniRef90_G1MPP3	R K H T I N	H K I H G V S F K K H D P Q A L	K G	Q K F V L K D M R T P		
UniRef90_UP1000443A2AB	R D Y T I N	H K H I H S V D F K K H A P R A H	K E I	R K F K		
UniRef90_UP10002C33D48	R E Y T V N	H N I H G V G F K K H A P Q A L	K E I	Q K F S M K E I I G T P		
UniRef90_S9WK92	K E Y T A N N	H N K R T Q G V G F K K H A P Q A L	K E I	W K F A M R E I G Q P		
UniRef90_UP10003F08175	R E S T T N	H R I P G V G F K K R A P R A L	K R I	W K F A V K E M G T P		
UniRef90_T2MF27	R D Y T I H	H M S K R L Y G V S F K K R A P P A	R E I	R Q F A T K A M K T	S	
UniRef90_G1MND8	R E Y T I N	I T R I Q R V G F K K L A P H A L	K E I	Q K F S A M K G M G I P		
UniRef90_K0TDS1	R D Y T I H	H L S K R T H K T T F K K T P K A	V K E	V K F F A E K A M G T K E		
UniRef90_X8JB8U8	R E Y T I H	H M K V H D R S R F K K R A P W A V	K S	V V A F A Q R A M G V K		
UniRef90_F7IKC9	R E Y T I N	H K R I H G G F K K H A P W V L	K E I	Q K F A M K E M G T P E P		
UniRef90_B7FY06	R D Y T I Q	H S K R I H K M F K R R A P R A V	K E I	R K F A Q T A M G T	S	
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UniRef90_G3UJD3	R E G T I H	P R C L G V G F K K R A P W A L	K E I	E S Q K F A M K G M G T P		
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UniRef90_M7X2T0	R E Y T I H	H K V H G K G F K H R A P S A V	V K A	V R T F A Q K A M G T K		
UniRef90_A0A024UQ51	R D Y T I N	H K R L H G A T F K K K A A K V	R E I	K K F A Q K A M G T T		
UniRef90_A9V0S9	R E Y T I H	H K I H G V G F K K H A P R A V	K E I	K K F A A K A M S T	S	
UniRef90_UP10002C58D2F	R E S T I N	I Y K P I H G V G F E K C F Y A	L R E	R K C A M K E M G I P		
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UniRef90_UP10003F0DE8E	R E Y T I N	H K R I H G E G F K C A P W A L	K D I	W K F A M K E M G A P		
UniRef90_A0A024JKB3	R E Y T I H	H K R V G V Q F K K R A P R A V	K V A	V K D F A K Q Q L G T	S	
UniRef90_L0P940	R D Y T I H	H K R V F G C F K K R A P S A I	K A	R K F A Y L H M G T K		
UniRef90_J5R7J4	R E Y T I N	H K R T H L S F K K K P K S V	K A	V K E F A E K A M G V K		
UniRef90_UP100022335C7	R E C P I D	H K V H G V G F K K H A P W A L	K E I	Q K F A M P G M G M P		
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UniRef90_G1M836	E D T V N	I P K H I H G V F K K C A T Q	K Q	W R F A M K E M G T P		
UniRef90_E7QN12	E R V V T V P	R D V K A E A K H R A N K A M K	L V	R G H L A Q H F K V D E D		
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UniRef90_UP100038EED52	R E Y T I N	H K C I L G V G F K K H A R V L	L S T	R E H L A Q H F S V A G D		
UniRef90_Q5CR24	R D Y T I N	I S K V H K I S F K K R A P R A I	K G	T R K F A L K E M G N P		
UniRef90_UP100020ABA46	R E Y T I N	H K H I H V G F K K H V P Q A L	K E I	R E F A G K V M K T E		
UniRef90_UP100029D80DF	R E Y T I N	I Y K C I H G V G F K K H A P R T	L K D I	R K F C H E G D G T P	R L	
UniRef90_UP10002744750	R K H I N S	H K S H R V D L K K C G P W A L	K E I	W K F A M K E M G I P		
UniRef90_L9L934	Q E E T I N	H K R I H G G F K K H A P R T L	K K E I	Q K F A M K E M G T	L	
UniRef90_H0XW53	H I S I S	H K L I H A A G K K H A P W A L	K E I	R K F A M K E I G A P		
UniRef90_S9X1F0	R D Y T I V S	H K I H G V G F K K R A P R A L	K E I	W K F A M K K M G A P		
UniRef90_U1P8Y8	E R V E T T V P	R G A K A V P T Q E R A D R A M	T I	R E H L A Q H F N V A D D		
UniRef90_F7I4M3	R E Y T I N	H K C I H G V S F R K A L K S	L R E	F R K F A M K E M G T P		
UniRef90_G0QRBO	R E F T F H	H K R V H G G F K K R A P R A I	K E I	V A F A T K T M G T K		
UniRef90_Q4KTF3	R E F T F H	H I H W D V G F E K R A P R A I	K E I	I Q K F A E K Q M R T P		
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UniRef90_L9K52	R E Y T I N	H K C I H G V S F K K H A P Q L	K E I	Q E F A M K E M G T P		
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UniRef90_G2MWH8	E R V V T V P	R D A K V A K Q E R A D A A M S E	I R	R S H L A K F A V D E D		
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UniRef90_J9IFV3	R D Y T I N	I S S R L H G I F K K R A P R A I	R E	R K F A V A E M F T K		
UniRef90_D3ZWE6	R E F T F H	H G V D F K K R A P R A L	K G	Q K F A M K A M G A P E		
UniRef90_B9LUU9	E R V V T V P	R D A N D K P I Q E R A D F A M	K I	Q K F A M K A M G A P E		
UniRef90_G3H7Z8	R E H T V S	H K R I H S E L Q E A R S S G I	K E I	W K F A M K E I G T P		
UniRef90_C1BRY4	R E Y T I N	H K R I H G V G F K K H A S Q A L	K E I	V K K F A E Q Q M G T	A	
UniRef90_UP10003336994	R E H T V S	H K R I H S E L Q E A R S S G I	K E I	R K F S M K E M G A P P		
UniRef90_UP10002655EEF	R E Y T I N	H K R I H G V G F K K H A S Q A L	K E I	W K F A M K E M R T P		
UniRef90_L8YA87	E Y I N	H K R I H G V G F K K H A S Q A L	K E I	W K F A M K E I G T P		
UniRef90_E4NRP2	E R V V T V P	R D V K A V P S Y E R A G R A M	K I	R E H L A Q H F S V D P E		

50 60 70 80

UniRef90_D2HTS6	D V L I D T R L N K A V G A K G I R N V L Y L I Y V P L S S C N K G E
UniRef90_E2RNA5	D V C I N T R L N K A V W A K G I R N S P Y C I H V Q L S R K C N E D E
UniRef90_L1K1X1	D V R V D Q K L N K F L W S K G V K N V P Y R V R V R I A R K R N D D E D A K E
UniRef90_F4NTD7	D V R I D P S L N Q L W E R G I K S P P H R I R V V K L E R K R N D E E N A K E
UniRef90_S8DUV8	D V R T D T R L Y K A V W A K G R R S V P P Y C I H V C L S R I R N E D
UniRef90_D3ZAY5	D V R L D P K L N K H I W A N G V K S V P P H R I R V V C L S R I R N E D A K E
UniRef90_Q2MHI2	D V R I D P S L N A A I W N K G I R N V P P R R I R V V R I A R Q R H D D E D S K E
UniRef90_F4RBQ1	D V R L D V K L N K A V W S Q G I K N V P T R V R I Q V L S R R N D N E D A K E
UniRef90_Q9XFT6	D V R M D T R L N K A V W A E G I R N V P P Y R I R V V R L S R K R N E D
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 R E Y T I R L S K I H K I C Y K R R A P R C M A M I R K F A Q T A M C T E
 R E Y T I H M H K R L H G T F K K R A P Q A I K Q I K L F A A K S M G T T
 E Q I Y T I P L R S I K Q V P R W K R A S K A M I A I R A Y L T K H M K V E P G
 R E H T I N I H R I H G V G F K K C A P R A L K E I Q K F A M K E M G T P
 E Y T I N T H K I H G V G F K K R A P R A L K E I R K F A I K E I G A P
 E Q I Y T I P L R K V K S A P R W K R S H K A M A L I R Q F L L R H T K S L P S
 R D Y T I N L H K A V H K E T F K R A P R A V S H I I R F A Q K N M L T E
 E Q I Y T I P L R E A K L A P R W K R T G R A M S L I R K Y L V R H M K A D P S
 E Y T I N I H K H I H G L R F K K R A L K E I Q K L A M K E T G I P
 E R V Y V I N I R R T E V S R T K R S P Y A V R L I R K F V A R L H M K V D P E
 E R V Y T I P L R N V K N V K R T C A P R A I R E V K N F L M K H M K V E
 T I N L S K L L T H K V I C Y K R A P R A I K E I R S I A G K L M H T K
 E M I F N V P L R K A M V P T R R A N Y A I K L R A Y I S R H M K V P I E
 R E H T S N D S K C I H G V F K K H A P W A H K G I V K F A M K E T G T P V
 R E Y I L I N I H K H I H G G F K K S V S Q A L N D I K K F A M N W L G T P E
 E Q I Y T I P L D T E G Y P R W K K A N L A V K L I R Q Y L S R H M K V V E E D
 E R I I N I T L R K T R A V P T Q R A R R A I S E L R S N V A R H M K V S E D
 R E Y T I N L G K V L L S V D T H R A P R A I N M I K E F A R H H M K T E E
 E Q I Y T I P L R S I K E L P R Y R R A D K A M T L I R N Y L T K H M K V E S K
 E R V V T I V P L R D A R T A P K S E R A D A A M S I V R D H L A T Q F S V S G S
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 Q E C T I D I H K R I H G G F K K H A P W V L K E I W K F A M K D M G T P
 E Q V Y T I P L R D A K L A P K W K R T T R A M T L V K K Y L V R H M R A S P G
 E R V Y T I P L R D A K K A P L K K R A P R A V K A L R Q F I E R H M K A E E
 E Y T I V N I C K H H R V A F K K C A P R A L K G I W K F A M K E M G T P D
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 E Q I Y T I P L R D V K R S P R W K R S N T A M K D I R A F L A K H M K S E
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 R E D T I N I H E S I H G M G F K K A P W T L R E T Q I F A M K E T G T P
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 E Q I Y T I V P L R H V K R V P R W R R A K R A V S E L K S Y L S R H M K A P L D
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 E A I Y T I P L S R R V Y W G R R T N R A A R A I K L V R K F I A R H F G V K E E
 E Q V Y V I P L R D V K R V P C Y K R A N A A I K D I R G Y L E H H M K S D
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 E R V V T I V P L R D V K K G A N H E A A D Y A M R L V R E H L A K H F A V D E D
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UniRef90_H3FZX9	D V R I D S R L N K A	V W S K G I R N V P Y R V R V R L S R R N D D E		
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UniRef90_Q757D7	D V R L D P R L N T E I	W K R G V K G V P F		
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UniRef90_T1BT97	E R E Y V I P L R A S M H Q P R R R R S G H A L E T V R R F I S R M K G K P E				
UniRef90_D2RG81	E R V Y S I R L H K L K R Y P R W L R A V K A M R Y I R R F I S R H M K V S E E				
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UniRef90_Q3ITD6	E R V M T V P L R D V L A E S K G Q R A D K A M S L V R S H A Q F N V E E D				
UniRef90_F7IG3	R K H T I T D I R D V L H G A A F Q K P A P R A L E R S R K F A M K E T G T P				
UniRef90_C5KGU0	D H T H V H K V H K T F K K R A P K V V R A I K A F A Q K Q M K T E				
UniRef90_G3GZT2	I H G V N L K K K C P Q A L N E I Q K F S M K M G S P				
UniRef90_K0IJ55	R V Y T I N L L G R A W L T P E H K R T D R V I N M I R K F V M K E M G T P D G				
UniRef90_M9SCQ5	R I M V I P L R G A R L A P R S R R T E R A V K E V R A A I M R H M K V D A E				
UniRef90_O27649	E R I Y V I P L R K A K N V P R T I R A P K A V K I V R E F F L M K H M K A D T				
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UniRef90_G1MBH8	R E H T S N D S D K H Q G V G L K R A P R A V V R E I W K S A M K E T G T P D G				
UniRef90_D3S0Y6	E R V Y S I R L H K M K R Y P R W L R A K K A R Y Y V R R F I S K H M K A D E D				
UniRef90_Q2NGQ8	E R I Y T I P L R D V K R V P R T K R S P K A M K Y I R E F F L Q K H M K A E				
UniRef90_A0RW54	E R V Y T I P L G K V L L S P D N R R A M R A I N M I R E F F A T H H M K N A				
UniRef90_A3CWZ5	E H Y I P L R E V K R A P R W K R G N T A I K D R A F L V R H M K S E				
UniRef90_B0EFP9	R E M T H M H A Y L H K S F K K R A P K A I K I R F L A I K T M K T H				
UniRef90_UPI0003F0A322	R E Y T I H L H K R I H G G F K R R A P R A V V K E V R K F A E K M M G T P				
UniRef90_E3GXD8	E R V Y T I P L R K V K N V P R T I R A P R A I R F I R E F M K R H M K A E E				
UniRef90_F0T9X3	E R V Y V I P L R D V K R V P R T I R S P K A I R I V R E F M Q R H M K S D				
UniRef90_A9J5T3	T I N M H K R I H G V G F K R A P Q A K E I K K F A K M I A R T E				
UniRef90_U6LKL5					A K M A
UniRef90_F7FTA0					
UniRef90_G0EEM7	E M V Y V I P L K R V Y W G R R T N R A A R A V V K L V R Q F V A R H F G V E P E				
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UniRef90_D7DV66	E R I Y T I P L R D V T K V P T T K R A P R A I K K I R E Y L Q K H M K S D				
UniRef90_A0A023BA61	R G Y T S N I Q K I R G V G F K K R G P Q A L K E I Q K F V M K E M G T A D A				L
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UniRef90_UPI0002C3DA47	UniRef90_G1Q1F9	K E M T L Y M H R F M H K E G F K R A P K A I K V I R F I A M K T M K T H			P E
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UniRef90_H3ZMG5	E R I Y V V P I R K V K K V P R W K R A P R A A R F V R R D F I L K R H T K S D				
UniRef90_A6UT96	E R I Y T I P L R D V T N S P S T K R A P R A M R K I R D F I L K R H T K S D				
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UniRef90_A1RXF2	R T Y V I N L R R V Y S A P R K K R A K V A V R A I R D F I A R H L R F P D				
UniRef90_G3HZS0	R E Y T I S I H K C I H G G F K K R V P Q A I L E T E F A I K E M G T P				
UniRef90_A9BKC2	E C N L H K R M H G K F K R R V P Q A I L E K K F A A Q K V M N S K				
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UniRef90_G3N0P1	R E N T I N I H K C T H G G F K K H P G A C Q E T G K F T M G G S P				
UniRef90_F6BEM9	E R I Y T I P L R D I M K S K R T K R A P R A I R K I R E F F L K R H M K A E I				
UniRef90_H0Y131	Q E Y K I S I H K R G V G F K K R A P G A L K D I Q K F A M K E M G A P				
UniRef90_LOAAP2	V Y V V P L K R I Y F G R K S N R A K R A I D Y I R K F V S R H A K V N L E				
UniRef90_T0NAVO	E T I M N I P L R G T R D S S R S R A D T A I S M I R A Y V S K N T R L E E T				
UniRef90_G0U3A4	E A T I H L S K L K K T F K R A P M A I K R I R A F V I A K A M R T K D N				
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UniRef90_E9BSK4	E I I M N I P L R E A K L S S R K R R A D T S I S I R N Y V S K K L K V D T S				
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UniRef90_G3N023					M K E R G T P
UniRef90_S7ND13					M K F A K K M M G T E
UniRef90_G7Y7E6					
UniRef90_L9LG50					

50 60 70 80

UniRef90_G5BIT7	D V H V D T R L N K A V W A K G I R N R A P H R
UniRef90_UPI0003D6E451	D V R I D T R L N K D I W A Q G M R D V L Y C I Q V R L L R K C N E D E
UniRef90_M1V650	D V R I D A K V N K E V W K N G I R G V P
UniRef90_UPI0003F1786C	D V R I D T R L N K N C L G Q R N Q E A H T R I W M Q L S R K H N E D K
UniRef90_F2UEC9	D V R I H A D L N K F I W S R G I R N V P P R R V R V L S R K R N E D E E A
UniRef90_R4W7N0	A V R L D P S I N E A V W N A G N A S P P R K L R V R A A R F Q
UniRef90_M3XTW3	D V C T D S E L S K A V W V W R G V R N V L Y H T C V Q L P R K C N E G E
UniRef90_L9JE62	D V R I D T R L N K A V W A K G I
UniRef90_V6ATZ5	I K I D Q E L S Q V W Q R G I R S P P R K I R V K M A K T D D G
UniRef90_F6TER1	D V L V D T S L D K A V S I H V W L S R K R N E D E
UniRef90_T1BT97	D V W I D P R I N L Y I W K R G I Q H P P R Q V H V K A I R F E D G L I E V
UniRef90_D2RG81	N I K I D P S I N L K I W E R G I Q K P P A K I R I R A V K F D D G
UniRef90_L9KPJ5	D V R I D T R L N K A V W A K G I
UniRef90_Q3ITD6	A V R L D P S I N E A V W E R G R S K P P S E L R V R A A R F
UniRef90_F7IIIG3	D V P T D T R L N K A V W R A K R I R S V P Y R I R V L W S R K R N E H E
UniRef90_C5KGU0	D V R I D T K L N K F I W S K G I R N I P
UniRef90_F7GDK1	N V W I D I R F N K A V W A E G I R N V T Y H V H V Q L S R K C N E D E
UniRef90_G3GZT2	S I D N R L N K A I W A K G I R R
UniRef90_K0IJ55	V K L E Q D L N R Q I W S R G K T N P P R K V R V K M V K D E D G V V T V S L
UniRef90_M9SCQ5	H V W I D K T L V N E K L W E N G I R N P P S K I T V K A V K F D D G L V E V S L
UniRef90_O27649	V K L D E S I N E K L W E R G I Q K P P R I K V K A V K D E D G V V E A T L
UniRef90_Q2FS98	D V R L G Q D I N E K V W S R G T E K P P A R V R V R A R M K L E D G H V Q A E L
UniRef90_UPI0004541E11	N V H I N T R L N K A V W A K G I R N P Y N W V C L S G K Q N E D E
UniRef90_G1MBH8	L S D T R L N K A V W A T G I G N A P L Y C L S R K Q N K D E
UniRef90_D3S0Y6	K I R L D T K I N E K I W E R G A Q K P P T K I R I R A V K F D D G V V E
UniRef90_Q2NGQ8	D V I I D Q A I N E K V W E R G R E K P S K I K V K A V E D D
UniRef90_A0RW54	N I R I D E E V S H Q W L R G I K S P P R K I R V R M V R A D D G
UniRef90_A3CWZ5	D V K L D K S I N E K V W E N G S S K P P R K I R V R A R M K F E D G Q V Q A E L
UniRef90_B0EFP9	V V K F D M G L N Q F W S Q G I R S V A D R I R V R M A R L P E G E E
UniRef90_UPI0003F0A322	D V R T D T R L N K H V W S Q G V R
UniRef90_E3GXD8	V K I D R S V N E K V W E R G I Q K P P K I K V K A V K D E D G V V K V S L
UniRef90_F0T9X3	D I V I D S A V N E K I W E R G I Q K V P P K I K V K A T K E E D G S V L V T L
UniRef90_A9J5T3	D V R V D T D L N K Y I W S K G V N H V P F R L R L E K R R N E D K E S I
UniRef90_U6LK35	D V R I D T K L N K H I W S N G I R N R L P R R V R V R L A R K R N E D E A P E
UniRef90_F7FTA0	D V H I D T R F N K A V W A K G I R N P Y P Y R T R M L S R K R N E D E
UniRef90_G0EEM7	K V W I S N E V N E Y I W Q F S I E K P P R R V K V Y V V K D E E A G L V R V
UniRef90_D5VR76	V K I S N E L N E K V W E R G I E K P P A R V R V R V K A V K T E D G T
UniRef90_D7DV66	N V K L D N S I N E K V W E R S L N K I P A R V R V R V K A V K Q D D
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UniRef90_UPI0000D9FB71	D V R L D T R Q N K A V W N K G T S N V P Y G I R V Q L S R K H N E I E E
UniRef90_G1Q1F9	A L T P G S V S V P Y G I R V Q L S R K H N E I E E
UniRef90_T0YPS0	N V W I D P R L N E F I W T R S R G H P P R V R V K A I R F E D G L V E V D L
UniRef90_L5LL68	D I C I D T R L N K A A S A K G I R N A P Y C I W M Q L S R T W N E D
UniRef90_T0LJY2	N V W I D D S V N R F I W K R G I E K P P R K L R V K I L K L E D N S A E V
UniRef90_A3MX75	A V K L G Q A L N E A L W A R S I E K P P R R V H V V V E K L D D G T V R V
UniRef90_D3ZZ45	D V C T D T L N R D I W D K G R R N I
UniRef90_D4ACA9	D V Y I D T R L R K H
UniRef90_V4JD15	S V V I L N D V N N F V W S R G I K P P R R V K V
UniRef90_G3C9E8	D V K L D P A L N E L I W S R G I R A S W R R I R V K V S K E E D K
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UniRef90_X1H3X2	S L I S Q E V N E A I W A R G I Q K P P R K I K I R A T K N D G L V V C Y L
UniRef90_H3ZMG5	V I I G T D V N E K I W E R G I E K P P S K I R L R V K V T I E E R E G V K V A E
UniRef90_A6UT96	N I K I D N S I N E K V W E R S L N K I P A R I R V K V V K E D D
UniRef90_UPI0004545CF9	D V R I D T R L N K A V W A K G I R R
UniRef90_J7G5N3	D V R I D T R L N T S I W R N G P K H S P I R I R V R V L S K
UniRef90_M8BBX3	D V R I D V K L N K L I W S S G I R S V P R R V R V R I A R R R R N D E E D A K E
UniRef90_A1RXF2	R I K I S P E L N I V W S R S I E K P P R K V K D V S F K V E D G R V T E
UniRef90_G3HZS0	D M R D T S L N K
UniRef90_A9BK2	N I R I D T Q L N K F I W L K G T K H T P I R V R I L L V K K R
UniRef90_G7PLE4	D V H I D T R L N K A
UniRef90_T0LWH3	N V W I D S K I N E E I W K R G R F K I P T S I Q V K V L K L Q N E E I E V
UniRef90_UPI0001DEC951	D V C I D N T R L Y K T V
UniRef90_R7WDC3	D V R I D V K L N K H I W S S G I R S V P R R V R V R I A R R R R N D E E D A K E
UniRef90_UPI000333C6EB	D V R I N T G L N E A A W T K G I R N A S S G I H
UniRef90_UPI0002C57805	D M C I D T R I H K A V
UniRef90_S5ZVB1	A I K I D P R L N E L L W S R S I E K P P R R V K L D V K F T V E D G E
UniRef90_T0LLE1	N I W I D N K V N E E I W K K G K Y K I P S H I T V K I K L Q E G T T E V I
UniRef90_S9WF04	D V C V D T R V S R A V W V N G M R K V L H L I S V L L S R R W K E D E E
UniRef90_B3V5Q9	D V I I S E E V S E K I W E R G I R H P P R R I K V R L V K D K E G
UniRef90_Q9HM17	K I W I D P K V S E K I W E R G R E H P S K M S V K V K L E E G T T E I I
UniRef90_G3N0P1	D V C I S T P S R A V G Q R G A E R P T P I R V R L S R K R G G D
UniRef90_F6BEM9	V K L D N S I N E K V W E R S I E K V P P R I R V R L S R K V E G D
UniRef90_H0Y131	D V C T D T A Q S C L G K S I G N V P H G L C E R L S R K G D E G D
UniRef90_L0AAP2	D V V I M D D V N S Y I W S N S I E K P P R R V K I L V E M K E E E G A Y K K
UniRef90_T0NAV0	K I W I D S R V N E D I W K R G R E N V Q S K I T V K V K L Q D G T A E V
UniRef90_G0U3A4	D V R I D S S L N R Y V W H K G V K G V P G R V R I R A E R K S E T L E G
UniRef90_A0CQV2	D V R I D P S L N E A V W A R G I R N L P R R I R V R L Q R K K K E E D
UniRef90_A0A031LR86	K V I D P V L A N A I S T N G Y D K V V S R V R V I T S K I D E K T Y L V K L
UniRef90_H8ZEL9	D V K I D M D L N K A I W A R G K K N L P T R I R V E I G K
UniRef90_F8AEH3	V I D P K L N E K W E R G I E K P P S K L
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UniRef90_S9VER4	K V T I Q K D L N K F I F S K G Q Q K V P R R I R V R K L E K I P D K D
UniRef90_T0L7W9	K V I D A S L N T Y I W H K G V K G V P G R V R V L I Q R K S E T T E G
UniRef90_E9BSK4	K I W I D P K V S E T I W K K G R E K P P S K L S L K I K L E E G T T E I I
UniRef90_Q97CU1	D V Y T D T R I S K A V W A K G K R N V Q C W I H V R L S R R K R N K D K
UniRef90_G3N023	D V N I D T R L N K A G W A K G I R N V T Y C I Q V Q L S R R K R N G D K
UniRef90_S7ND13	D V R I G V R L N E K W E R G I E K P P S K L
UniRef90_G7Y7E6	D V H I D T R L H Q

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lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
inssm

Sequence logo showing the conservation of amino acids at each position of the protein sequence. The x-axis represents positions 50, 60, and 70. The y-axis lists UniProt IDs. Colored boxes indicate the presence of specific amino acids: yellow for C, red for H, blue for P, and green for S.

Position	50	60	70
UniProt ID	C, H, P, S	C, H, P, S	C, H, P, S
50	C, H, P, S	C, H, P, S	C, H, P, S
60	C, H, P, S	C, H, P, S	C, H, P, S
70	C, H, P, S	C, H, P, S	C, H, P, S

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
ipssm

UniRef90_B5XG70	
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UniRef90_A8MAL4	Y Q
UniRef90_M4FBW4	
UniRef90_F8AMW0	
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UniRef90_A3DNH4	
UniRef90_L9L8Y9	
UniRef90_V6LDD4	<input checked="" type="checkbox"/>
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UniRef90_Q74MC9	
UniRef90_Q5JGT5	
UniRef90_Q9YD25	<input checked="" type="checkbox"/>
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UniRef90_E3PYB6	
UniRef90_I0A2P0	
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UniRef90_L2GQU5	A
UniRef90_C4XW25	
UniRef90_H0A9Z7	
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UniRef90_A4YH80	A
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lupas_21
 lupas_14
 lupas_28
 jnet
 conf
 sol25
 sol5
 solo
 jhmm
 jpssm