

QUERY	G	R	H	M	V	L	L	L	D	V	T	P	L	S	L	G	I	E	T	M	G	G	V	M	T	T	L	I	A	K	N	T	T	I	P	T	K	H	S	T	Q					
UniRef90_V9EAI4					D	L	L	L	D	V	A	P	L	S	L	G	I	E	T	M	G	G	V	M	T	T	L	I	P	R	N	T	T	V	P	P	A	K	K	K	S	T	Q			
UniRef90_F4NSN3					T	Q	D	L	L	L	D	V	A	P	L	S	L	G	E	T	A	G	G	V	M	T	K	L	I	P	R	N	T	T	V	P	P	T	K	K	S	E	T	Q		
UniRef90_R7I743					T	R	D	V	L	L	D	V	T	P	L	S	L	G	E	T	L	G	G	V	M	T	K	L	I	P	R	N	T	T	V	P	T	T	K	H	Q	Q	E	Q		
UniRef90_R4PKI1					K	D	V	L	L	D	V	T	P	L	S	L	G	I	E	T	M	G	G	V	S	T	K	L	I	E	R	N	T	T	V	P	T	S	K	R	S	T	K	E		
UniRef90_UP1000378BE16					K	D	V	L	L	D	V	T	P	L	S	L	G	I	E	T	L	G	G	V	F	T	K	I	I	E	R	N	T	T	V	P	T	S	R	S	T	K	E			
UniRef90_Q05866					Q	D	V	V	L	D	V	T	P	L	S	L	G	I	E	T	V	G	G	I	M	T	Q	L	I	K	R	N	T	T	V	P	T	K	K	S	S	T	Q			
UniRef90_F8A8I7					K	D	V	L	L	D	V	T	P	L	S	L	G	I	E	T	L	G	G	V	F	T	V	I	I	P	R	G	T	T	V	P	T	R	K	K	S	S	Q	Q		
UniRef90_E9C7E4					Q	D	V	V	L	D	V	A	P	L	S	L	G	I	E	T	A	G	G	V	M	T	A	L	V	K	R	G	T	R	I	P	T	K	K	S	S	Q	Q			
UniRef90_A2E4W5					K	D	I	L	L	D	V	A	P	L	S	L	G	I	E	T	A	G	E	I	M	T	V	L	I	P	R	N	T	T	V	P	T	A	K	K	S	N	Q	Q		
UniRef90_D3E0R5					K	D	V	L	L	D	V	T	P	L	S	L	G	I	E	T	L	G	G	V	S	T	T	L	I	E	R	N	T	T	V	P	T	A	K	K	T	Q	Q			
UniRef90_H8YJQ9					Q	D	V	L	L	D	V	A	P	L	S	L	G	I	E	T	A	G	G	V	M	T	V	L	I	A	R	N	T	T	V	P	T	A	K	K	T	Q	Q			
UniRef90_F8X4F9					K	D	V	L	L	D	V	T	P	L	S	L	G	I	E	T	M	G	N	V	M	T	K	L	I	E	A	N	T	T	V	P	T	K	K	S	E	Q	Q			
UniRef90_W6L5X4					T	E	G	L	L	D	V	T	P	L	S	L	G	I	E	T	A	G	G	V	M	T	S	L	I	K	R	N	M	T	V	P	T	K	K	G	Q	Q				
UniRef90_UP10003793D9E					G	L	S	D	V	V	L	D	V	T	P	L	S	L	G	I	E	T	L	G	S	V	M	T	K	L	I	E	K	N	T	T	V	P	T	K	K	S	Q	Q		
UniRef90_Q4N486					K	D	V	L	L	D	V	T	P	L	S	L	G	I	E	T	L	G	G	V	F	T	R	L	I	N	R	N	T	T	V	P	T	K	K	S	Q	Q				
UniRef90_W0RM47					K	D	V	L	L	D	V	T	P	L	S	L	G	I	E	T	L	G	G	V	M	T	V	L	I	P	R	N	T	T	V	P	T	T	K	K	T	E				
UniRef90_H9J9W8					Q	D	V	L	L	D	V	T	P	L	S	L	G	I	E	T	A	G	G	V	M	T	R	L	V	D	R	N	S	T	V	P	C	T	T	Q	K	K				
UniRef90_Q2MM06					G	K	Q	D	V	V	L	D	V	T	P	L	S	L	G	I	E	T	A	G	G	V	M	T	A	L	V	K	R	N	T	T	V	P	C	K	K	Q	Q			
UniRef90_D1CCZ1					K	D	V	L	L	D	V	T	P	L	S	L	G	I	E	T	L	G	G	V	A	T	P	L	I	P	R	N	T	T	V	P	T	R	R	S	Q	Q				
UniRef90_L1MTR9					G	V	S	D	V	V	L	D	V	T	P	L	S	M	G	I	E	T	L	G	G	V	M	T	K	L	V	E	A	N	T	T	V	P	C	K	R	S	Q	Q		
UniRef90_UP100035D2A57					K	D	V	L	L	D	V	T	P	L	S	S	L	G	I	E	T	L	G	G	V	F	T	R	L	I	E	K	N	T	T	V	P	T	K	K	S	Q	Q			
UniRef90_D9QV87					D	D	V	L	L	D	V	T	P	L	S	S	L	G	I	E	T	M	G	G	V	F	T	K	L	I	E	R	N	T	T	V	P	T	K	K	S	Q	Q			
UniRef90_A5CD87					K	D	I	L	L	D	V	T	P	L	S	S	L	G	I	E	T	L	G	G	V	F	T	K	L	I	D	R	N	T	T	V	P	T	K	K	S	Q	Q			
UniRef90_E1I9Z8					K	D	V	L	L	D	V	T	P	L	S	S	L	G	I	E	T	L	G	G	V	M	T	K	L	I	P	R	N	T	T	V	P	T	K	K	Q	Q				
UniRef90_B5YMV8					K	D	I	L	L	D	V	T	P	L	S	S	L	G	I	E	T	L	G	G	V	F	T	R	M	I	P	R	N	T	T	V	P	T	K	K	Q	Q				
UniRef90_W6KJ50					V	L	L	L	D	V	T	P	L	S	S	L	G	I	E	T	L	G	G	V	M	T	K	L	I	P	R	N	T	T	V	P	T	K	K	S	Q	Q				
UniRef90_T1HA76					Q	D	V	V	L	D	V	T	P	L	S	S	L	G	I	E	T	E	G	R	E	M	S	K	V	I	E	R	N	S	K	T	P	C	N	Q	T	Q	S	Q	Q	
UniRef90_UP10004707C03					K	D	M	L	L	D	V	T	P	L	S	S	L	G	I	E	T	L	G	G	V	M	T	K	L	I	A	K	N	T	T	V	P	A	K	E	S	Q	Q			
UniRef90_K2GY68					G	T	E	D	I	V	L	L	D	T	T	P	L	S	L	G	I	E	T	V	G	G	V	M	T	S	L	I	K	R	N	T	T	V	P	I	S	K	S	Q	Q	
UniRef90_V5RTT0					K	D	V	V	L	D	V	T	P	L	S	S	L	G	I	E	T	L	G	G	V	S	T	P	L	I	K	R	N	T	T	V	P	T	K	A	S	E				
UniRef90_UP1000362F64D					K	D	L	L	L	D	V	T	P	L	S	S	L	G	I	E	T	K	G	G	V	M	T	K	L	I	E	R	N	T	T	V	P	T	K	R	S	E				
UniRef90_E2MYT1					T	T	D	V	L	L	D	V	T	P	L	S	S	L	G	I	E	T	L	G	G	V	M	T	P	L	I	E	K	N	T	T	V	P	T	Q	K	S	Q	Q		
UniRef90_J4V5C6					U	D	Q	V	824B2	D	V	V	L	D	V	T	P	L	S	L	G	I	E	T	L	G	G	V	M	T	P	L	V	E	R	N	S	R	I	P	T	K	R	S	Q	Q
UniRef90_W8AYS4					U	D	Q	V	W8AYS4	D	V	V	L	D	V	T	P	L	S	L	G	I	E	T	A	G	G	V	M	T	K	L	V	E	R	N	S	R	I	P	T	K	R	S	Q	Q
UniRef90_A0A023B7C4					G	R	D	D	L	L	D	V	V	I	P	L	S	L	G	I	E	T	M	G	G	V	F	T	R	L	I	D	R	N	T	T	V	P	T	K	R	S	Q	Q		
UniRef90_UP10003B4554A					R	K	D	V	L	L	D	V	T	P	L	S	S	L	G	I	E	T	L	G	G	V	F	T	K	L	V	E	R	N	T	T	V	P	T	K	R	S	Q	Q		
UniRef90_K9VI26					K	D	L	L	L	D	V	T	P	L	S	S	L	G	I	E	T	M	G	G	V	F	T	K	L	V	I	P	R	N	T	T	V	P	T	K	K	T	E			
UniRef90_D4W7A5					T	Q	D	D	L	L	D	V	T	P	L	S	S	L	G	I	E	T	E	G	G	V	M	T	V	L	I	P	R	N	T	T	V	P	T	K	K	S	Q	Q		
UniRef90_E4TZ49					G	V	E	D	I	V	L	L	D	V	N	A	L	T	S	G	I	E	T	A	G	G	V	M	T	P	L	I	K	R	N	T	T	V	P	T	K	K	S	Q	Q	
UniRef90_A7TJ69					R	K	D	V	L	L	D	V	T	P	L	S	S	L	G	I	E	T	L	N	G	V	F	T	K	L	V	E	R	N	T	T	V	P	T	K	K	T	E			
UniRef90_A4A1F7					K	D	V	L	L	D	V	T	P	L	S	S	L	G	I	E	T	L	N	G	V	F	T	K	L	V	I	P	R	N	T	T	V	P	T	K	K	T	E			
UniRef90_UP100036B60AA					T	Q	D	L	L	D	V	T	P	L	S	S	L	G	I	E	T	E	G	G	V	M	T	P	L	V	I	P	R	N	T	T	V	P	T	K	K	T	E			
UniRef90_A0A015JWA6					K	D	I	L	L	D	V	T	P	L	S	S	L	G	I	E	T	L	G	G	V	M	T	K	L	V	I	P	R	N	T	T	V	P	T	K	K	T	E			
UniRef90_B2XTF6					K	D	V	L	L	D	V	T	P	L	S	S	L	G	I	E	T	L	G	G	V	M	T	K	L	V	I	P	R	N	T	T	V	P	T	K	K	S	Q	Q		
UniRef90_R5ZEU6					K	D	V	L	L	D	V	T	P	L	S	S	L	G	I	E	T	M	G	G	V	M	T	K	L	V	I	P	R	N	T	T	V	P	T	K	K	S	Q	Q		
UniRef90_B0CAY9					K	D	L	L	L	D	V	V	S	P	S	M	G	I	E	T	M	G	G	V	F	T	K	L	V	I	P	R	N	T	T											

QUERY	50	60	70	80
UniRef90_V9EAI4	V F S T A E D N Q S A V T I H V L Q G E R K R A A D N K S L G Q F N L D G N P			
UniRef90_F4NSN3	T F S T Y T D N Q P G V L I Q V F E G E R T M T R D N H L L G K F F N L D G P			
UniRef90_R7I743	T F S T F A D N Q P G V L I Q V F E G E R T R T R D N N L L G K F F N L D G P			
UniRef90_R4PK11	V F S T A E D N Q P A V T I K V Y Q G E R R Q M A E G N K L L G E F N L E G P			
UniRef90_UPI000378BE16	V F S T A S D N Q P Q V E I H V L Q G G E R E F A Q D N K S L L G R F I L D G P			
UniRef90_M4Q924	L F T T A A D N Q T T V E I H V L Q G G E R P M A K D N F S L L G R F Q L T D G P			
UniRef90_Q05866	T F S T Y Q D N Q P A V L I Q V F E G E R A L T K D N H L L G K F F E L L S G P			
UniRef90_F8A817	I F T T A A D N Q T S V T I H V L Q G G E R P M A K D N K S I L A R F E L L V G P			
UniRef90_E9C7E4	V F S T F A D N Q P A V T I Q V Y E G E R A M T R D N N L L G K F F D L T D G P			
UniRef90_A2E4W5	I F T T F A D N Q P A V T I K V Y E G E R T R T R D N N L L G R F Q L V G P			
UniRef90_D3E0R5	L F S T A A D N Q P S V D I H V V Q G E R K M A A D N T T L L G R F Q L E G P			
UniRef90_H8YJQ9	T F T T Y A D N Q P G V L I Q V F E G E R Q L T K D N H K L L G Q F F N L E G P			
UniRef90_F8X4F9	T F S T A A D N Q P S V Q I V V L Q G E R P M A R D N K Q I L G V F N L D G P	C H		L P
UniRef90_W6L5X4	V F S T Y Q D N Q P G V H I Q V F E G E R T M T K D C H L L G K F F D L I G P			
UniRef90UPI0003793D9E	V F S T A A D N Q T A V S I H V L Q G G E R E M A S G N R T L L G K F F D L V G P			
UniRef90_Q4N486	I F S T A A D N Q T Q V G I K V Y Q G G E R G M A A D N Q L L L G Q F F D L V G P			
UniRef90_W0RM47	T F S T A D D N Q T T V E I H V L Q G G E R E L A I Y N K T I L G K F F Q L T D G P			
UniRef90_H9J9W8	I F T T Y A D N Q P A V T I R I V L Q G G E R V L T K D N N L L L G T F F N L S G P			
UniRef90_Q2MM06	V F S T Y S D N Q P A V T I Q V Y E G E R P L T R D N N L L L G K F F D L T D G P			
UniRef90_D1CCZ1	V F T T A A D N Q T Q V E I H V V Q G E R P M A S E N K T L L A R F I L D G P			
UniRef90_L1MTR9	T F S T A E D N Q P E V T I H V L Q G G E R T M A A Q N K S I L G R F F N L L A G P			
UniRef90UPI00035D2A57	T F S T A E N N Q P A V T I R V F Q G G E R E M A N D N K L L G N F F E L T D G P			
UniRef90_D9QV87	I F S T A A D N Q T T V D I H V L Q G G E R E M A K H N K T L L G Q F F Q L T D G P			
UniRef90_A5CD87	I F S T A E D N Q S A V T V R V F Q G G E R A M A A D N K L L L G Q F F N F E G P			
UniRef90_E119Z8	I F S T A S D N Q G S V E I H V L Q G G E R A E A R F N K S I L G K F F E L L A G P			
UniRef90_B5YMV8	T F S T A V D N Q P Q V Q I K V M Q G G E R E M A A D N K N L L G E F F D L L V G P			
UniRef90_W6KJ50	T F S T A A D N Q T Q V G I K V F Q G G E R E M A S D N Q L L M G Q F F V G P			
UniRef90_T1HA76	S F S T C D D Y Q T V V K I S V Y E G E R A L T R D N N L L L G T F F E L L T D G P			
UniRef90UPI0004707C03	V F S T A E D N Q S A V T V H V L Q G G E R E R S S D N K S I L L G R F F D L L Q G P			
UniRef90_K2GY68	T F S T Y Q D N Q P S V T I Q V F E G E R T M T K D N H F L L G K F F D L D G P			
UniRef90_V5RTT0	T F S T A A D N Q P G V E I I N V L Q G G E R N M A A D N K S I L L G R F F K L L G G P			V P
UniRef90UPI000362F64D	T F S T F A D N Q T E V E V H V L Q G G E R S M A Q D N R T L L G S F F E L L G G P			
UniRef90_E2MYT1	T F T T A E D N Q P S V Q I Q V F Q G G E R E M A A A A N K I L L G S F F E L L G G P			
UniRef90_J4V5C6	V F S T A E D N Q T A V T V H V I Q G G E R P Q A S Q N K S I L L G Q F F N L T D L P			
UniRef90_Q824B2	I F S T A A D N Q P A V T I Q V L Q G G E R P M A K D N K E I L G T F F N L N T D L P			
UniRef90_W8AYS4	T F T T Y A D N Q P A V T I Q V F E G E R A M T K D N N L L L G T F F N L N T D L P			
UniRef90_A0A023B7C4	L F S T A V D N Q D K V N I K V F Q G G E R E L I M A N S N K L L L G Q F F E L L A G P			
UniRef90UPI0003B4554A	L F S T A D D G Q T T V H V K V F Q G G E R E I I A A H N K I L L G D F F V L T D G P			
UniRef90_K9VI26	M Y S T A A D G Q T S V E I H V L Q G G E R A L V K D N K S I L L G K F F L L K G D P			
UniRef90_D4W7A5	V F S T A A D N Q P A V D I H V L Q G G E R P M A S D N K T L L G Q F F Q L T D G P			
UniRef90_E4TZ49	V F S T A E D N Q P T V T I Q I F E G E R A M V K D N N L L L G R F F E L L T D G P			
UniRef90_A7TJ69	L F S T A A D N Q P T V T I Q I F E G E R A M V K D N N L L L G R F F E L L T D G P			
UniRef90_A4A1F7	T F S T A E D S Q S A V T I R V F Q G G E R P M A E D N R L L L G Q F F N L D G P			
UniRef90UPI00036B60AA	T F T S T A S D N Q P S V E I H V L Q G G E R E M A T A N R T L L L G Q F F H L D G P			
UniRef90_A0A015JWA6	I M S T D L D N Q S R I L L R I Y E G E S T R T G D N N L L L G N F F E F K P			
UniRef90_B2XTF6	I F S T A T D N Q P N V E I H V L Q G G E R E M F Q D N K S I L L G N F F R I L D G P			P L
UniRef90_R5ZEU6	I F S T A A D N Q P G V E I V M V Y Q Q G E R P M A A D N K F S I L L G R F F S L L E G P			R P
UniRef90_B0CAY9	S F S T A T D G Q T C V I Q V Y Q G G E R A M V K D N K C I L L G R F F T L T D G P			
UniRef90_R7GK40	I F S T A A D N Q P A V D I N V L Q G G E R A M A K D N K Q L L L G L F K I L D G P			E P
UniRef90_L1J0D3	S F T T T S D N Q A V V N I A V Y E G E R T M V R D C H K L L L G Q F F D I L T D G P			
UniRef90_D4M7D0	V F T T A A N N Q A Q V E I M V L Q G G E R S M A A D N V K L L L G Q F F V L T D G P			
UniRef90_Q04EE1	V F S T A A N N Q P A V D I H V L Q G G E R P M A A D N K T L L L G R F F D L L K G P			
UniRef90_U5U3E6	E F S T Y S D N Q T A V T I Q V F E G E R A F T K D N N L L L G R F F D L L K G P			
UniRef90_J3LMH2	G F T T C S D N Q T A V L I Q V F Y E G E G E R T K D N N L L L G T F F R I L T D G P			
UniRef90UPI0004785DEF	I F S T A T D N Q T A V E I K V I Y Q G G E R P M A A D N K I L L L G T F F E L L T D G P			R P
UniRef90_K7Y988	V F S T A T D N Q T A V T I Q I F E G E R P M A A D N K I L L L G T F F E L L T D G P			
UniRef90_A0B747	V F S T A A D N Q T S V E I H V L Q G G E R P L A K D N N I S L L G R F F T L L V G P			
UniRef90UPI000174586C	T F S T A S D N Q P G V E V V V I Q G G E R P M A R D N K T L L L G T F F K L L T D G P			
UniRef90_H3NPK9	I F T T A A D N Q T S V D I K V L L Q G G E R K M S T D N T V I L G N F F Q L L T D G P			
UniRef90_B2KAX0	V F S T A A D N Q P A V T I N V L L Q G G E R P M A K D N V P L L G K F F D L L D G P			
UniRef90_R7CGK1	I Y S T A A D N Q T S V E I H V L L Q G G E R E M A M Q D N K T L L L G K F F Q L L T D G P			
UniRef90_Q465Y6	V F S T A A D N Q P S V E I H V L L Q G G E R G V A S E N K T L L L G R F F T L L D G P			
UniRef90_V4SC53	V F S T Y Q D Q Q S T V T I K V Y E G E R S L T K D C H E L L G R F F D L L S G P			
UniRef90UPI00037BBD7D	V F S T A A D N Q S S V E I H V L L Q G G E R A K A Q D N R T L L L G R F F H L D G P			
UniRef90_TOLY56	V F T T A A D M Q T A V T I H V V Q G G E R P M A A D N V S L L G M F F V L T D G P			
UniRef90_W3APT4	V F S T A E N N Q T A V D I H V V Q G G E R E F A R D N K T L L L G Q F F R I L T D G P			
UniRef90UPI00034C7886	V Y T T A D D K Q P A V T V K V Y Q G G E R E I V A G N K I L L L G E F F N L L V G P			A P
UniRef90_Q54BE0	T F S T H T D N Q S G V L I Q V Y E G E R T M T K D N N I L L L G K F F E L L T D G P			P P
UniRef90_E1R342	I F T T A A N F Q T S V D I H V L L Q G G E R D M A K H N K T L L L G K F F K L L T D G P			R R
UniRef90UPI0003B65F5C	V Y S T A A D S Q T S V D I H I V V Q G G E R P M A A D N K S I L L L G Q F F R I L T D G P			
UniRef90_Q8EUH7	I F S T A A D N Q P A V D V H V L L Q G G E R Q M A A D N K S I L L L G R F F I L L D G P			E P
UniRef90_F1LAS1	V Y S T A V D N Q P S V D I H V L L Q G G E R K M A A D N T T L L L G Q F F Q L L T D G P			
UniRef90_B5Y7H4	I F T T A A D F Q T S V Q I H V L L Q G G E R P L A K D N N I S L L G Q F F Q L L T D G P			
UniRef90UPI00032895FA	M F T T Y F D N Q T C V T M K V Y E G E R A L A K S N K I L L L G N F F K I L T D G P			S P
UniRef90_C6KIT6	V F S T A I D N Q P S V E I K I L L Q G G E R E F A K D N K S I L L G I F T L L S G P			D P
UniRef90_X0XC05	V F S T T E D G Q D V V R I H V L L Q G G E R P M A A D N V S L L G M F F V L T D G P			
UniRef90_B7PYG7	P F T T Y S D N Q T G V T I Q V Y E G E R T M T K D N N I L L L G R F F I L L T D G P			
UniRef90UPI000366C985	P Y S T A A D N Q P S V E I H V L L Q G G E R S M S K D N R P I L G R F F V L L V G P			
UniRef90_D4JQY2	I F S T Y S D N Q P S V D I N I L L Q G G E R E F A K D N K S I L L G T F F R I L D G P			A P
UniRef90_Q661A3	V F S T A A D N Q T S V D I K V L L Q G G E R E M A A Q N R I L L G N F F I L L D G P			
UniRef90_J6EVL4	I F S T A V D N Q P T V Q I Q V Y E G E R S M T K D N N K I L L L G Q F F D I L T D G P			
UniRef90_R5PGP4	I F S T A V D N Q P S V T L R V L L N G V R P L A K D N K E I L L G M F F D I L T D G P			
UniRef90_Q7NDH1	T F S T A A D G Q T S V E I H V L L Q G G E R S M A G D N K S I L L G R F F R I L D G P			
UniRef90_F0XXF8	T F S T F Q D N Q P G V L I Q V F E G G D R A M T R D N R E L L L G K F F E L L G S G P			
UniRef90UPI000179A753	T F T T Y A D N Q P G V S I Q V Y E G E R A M T R D N H R E L L L G K F F E L L G S G P			
UniRef90_S9VXF4	I F S T A A D S D N Q T V V L I Q V F E G E R T M T K D N N I L L L G Q F F D I L T D G P			
UniRef90_M7NM95	V F S T A A D G Q T A V E I K V Y Q G G E R E L V R D N K Y L L L G N F F V L L S G P			
UniRef90_A0A014P1H8	T F S T A A D N Q P S V G I Q V F Q G G E R E I I A A Y N K K L L G T F F D L L D G P			
UniRef90_G0QTY4	V F S T A A D N Q T V V S I R V F Q G G E R P M V A Q N K I L L G Q F F D I L T D G P			
UniRef90_Q2TF00	T F T T Y A D N Q P A V I I Q V Y E G E R A M T K D N N L L L G Q F F D I L T D G P			P H
UniRef90_B8GIW4	V F S T A A D L Q T S V T I H V L L Q G G E R P L A A D N V S L L G Q F F N L L V G P			

QUERY	90	100	110	120
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UniRef90_R7I743	A P R G V P Q I	E E V T F D V	D A N G I	T T T N D S
UniRef90_R4PKI1	S P R G L P Q I	E E V T F D I	D A N G I	E I K A S
UniRef90_UP1000378BE16	A P R G G M P Q I	E E V T F F N I	D A N G I	T T Q N S S
UniRef90_M4Q924	A P R G G V P Q I	E E V T F F D V	D A N G I	K A S D
UniRef90_Q05866	A Q R G V P P K I	E E V T F F D V	D K N G I	T T T N D S
UniRef90_F8A8I7	A P R G V P P Q I	E E V T F F D I	D A D G I	V V V K P S
UniRef90_E9C7E4	A P R G G V P Q I	E E V T F S F D I	D A N S I	T T T N D S
UniRef90_A2E4W5	A P R G G V P Q I	E E V T F F D V	N A D G I	T T T S S
UniRef90_D3E0R5	A P R G G M P Q I	E E V T F F D V	D A N G I	T T T N D S
UniRef90_H8YJQ9	A P R G G V P Q I	E E V T F S F D I	D E N G V	T T T N D S
UniRef90_F8X4F9	A R R G E P P Q I	E E V T F F D I	D A N G I	R I E A S D
UniRef90_W6L5X4	A P R G G V P Q I	E E V T F F D V	D A N G I	T T T N D S
UniRef90_UP10003793D9E	A P R G G V P Q I	E E V T F F D V	D A N G I	T T T E S S
UniRef90_Q4N486	S P R G I P P Q I	E E V T F F D V	D A N G I	T T T Q S S S
UniRef90_W0RM47	A P R G G V P Q I	E E V T F F D V	D A N G I	R I E A S D
UniRef90_H9J9W8	A P R G G V P Q I	E E V T F F D V	D A N G I	T T T S N D
UniRef90_Q2MM06	A P R G G V P Q I	E E V T F F D V	D A N G I	T T T T N N
UniRef90_D1CCZ1	A P R G G V P P Q I	E E V T F F D I	D A N G I	R I E A S S
UniRef90_L1MTR9	A P R G G V P P Q I	E E V T F F D V	D A N G I	T T T T A S S
UniRef90_UP100035D2A57	A P R G G V P Q I	E E V T F F D I	D A N G I	Q I Q A S D
UniRef90_D9QV87	A P R G G V P Q I	E E V T F F E I	D K N G I	T T T E S S D
UniRef90_A5CD87	A R R G E P P K I	E E V T F F D I	D A N G I	V T Q A S S
UniRef90_E1I9Z8	A P R G G V P Q I	E E V T F F D I	D A N G I	T T T K S C
UniRef90_B5YVM8	A P R G G V P P Q I	E E V T F S F D I	D A D G I	L I T A N
UniRef90_W6KJ50	A P R G G V P P Q I	E E V T F F D I	D A N G I	I T K N N
UniRef90_T1HA76	A R R G E P E P Q I	E E V T F F D I	D A N G I	R I T G Q
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UniRef90_K2GY68	A P R G G V P Q I	E E V T F F E V	D V N G I	L T S I Q G G
UniRef90_V5RTT0	A P R G G L P P Q I	E E V T F F D I	D A N G I	T S S Q G G
UniRef90_UP1000362F64D	A P R G G V P P Q I	E E V T F F D I	D A N G I	T T T D Q K
UniRef90_E2MYT1	A P R G G V P Q I	E E V T F F D I	D A N G I	T T T Q D G
UniRef90_J4V5C6	A P R G T P P Q I	E E V T F S F D I	D A N G I	V I K A S S
UniRef90_Q824B2	A P R G G H P P Q I	E E V T F F D I	D A N G I	R I E A S S
UniRef90_W8AYS4	A P R G G V P K I	V D V V F D L	D A N G I	T T K N D S S
UniRef90_A0A023B7C4	A P R G G V P Q I	E E V T F F E V	D A D G I	V T T K S S T
UniRef90_UP10003B4554A	A P R G G V P P Q I	E E V T F F D I	D A N G I	T T T T G S T
UniRef90_K9V126	A P R G G V P P Q I	E E V T F F E I	D A N G I	Q T S N T
UniRef90_D4W7A5	A P R G G I P P Q I	E E V T F F D I	D A N G I	T T T S G S D S
UniRef90_E4TZ49	A P R G G V P P Q I	E E V T F F D I	D A N G I	T T T S N D S
UniRef90_A7TJ69	A P R G G I P P Q I	E E V T F F A L	D A N G I	V T K E Q S
UniRef90_A4A1F7	A P R G G M P Q I	E E V T F K F D I	D Q N G I	H V V K E Q S
UniRef90_UP100036B60AA	A P R G G V P K I	E E V T A F F D I	N A D G I	T T T T G H
UniRef90_A0A015JWA6	A P K G G V P K I	E E I T F F D I	D E K S I	T T T T N D
UniRef90_B2XTF6	A S R G G V P K I	E E V T F F D I	D V N G I	L S V N Q A S
UniRef90_R5ZEU6	A R R G E G P R I	Q V T F F S L	D V N G I	L T V T A K D L D T N K
UniRef90_B0CAY9	A P R G G V P P Q I	E E V T F F D I	D A N G I	L N V T A K D K A T G
UniRef90_R7GK40	A P R G G L P P Q I	E E V T F S F D I	D V N G I	V N V T A K D R G T G
UniRef90_L1J0D3	A P R G T P P Q I	D E V T F F E I	D A N G I	L V V S A A L E K G
UniRef90_D4M7D0	A P R G G I P P Q I	E E V T F F N I	D V N G I	L N V S A K D K G T G
UniRef90_Q04EE1	A P R G G V P P Q I	E E V S F F D I	D R N G I	L N V S V A K D K G T G
UniRef90_U5U3E6	A P R G G V P R I	E E V T F F D V	D A D G I	L T V T S A K D Q S T
UniRef90_J3LMH2	A P R G G V P K I	K V V S F F D I	D A N C I	V L K V T A K D K T T
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UniRef90_K7Y988	A P R A V V P P Q I	E E V T F F D I	D A D G I	L N V S A K D V G T G
UniRef90_A0B747	A P R G G V P P Q I	E E V T F F D I	D A N G I	L N V T A K D C K S S
UniRef90_UP1000174586C	M P R G T P P Q I	E E V T F F D I	D A N G I	L H V S A K E K T T
UniRef90_H3NPK9	A R R G G V P P Q I	E E V T F F D I	D A N G I	L H V S A K D L L G T G
UniRef90_B2KAX0	A P R G G V P P Q I	E E V T F F D I	D A N G I	L N V S A K D L L G T G
UniRef90_R7CGK1	A R R G G V P P Q I	E E V T F F D I	D A N G I	L N V S A K D L L G T G
UniRef90_Q465Y6	A P R G G I P P Q I	E E V T F F D I	D A N G I	L H V G A K D L G T G
UniRef90_V4SC53	A P R G G V P P Q I	Q V V T F F D V	D A N G I	L L H V T A E D K A A K
UniRef90_UP100037BBD7D	A P R G G V P P Q I	E E V T F F D I	D A N G I	L L H V T A E D K A A K
UniRef90_TOLY56	A P R G G I P P Q I	E E V T F F D I	D A N G I	L H V T S A V D K G S G
UniRef90_W3APT4	A Q R G G V P K I	E E V T F F D I	D A N G I	V N V S A K D Q G T G
UniRef90_UP100034C7886	A P R G G V P P Q I	D E V S F F D I	D A N G I	L H V V Q A K D K A T
UniRef90_Q54BE0	A P R G T P P Q I	E E V T F F D V	D S N G I	L N V T A E D K T K V
UniRef90_E1R342	A P R G G V P P Q I	E E V T F F T I	D A N G I	V K V T A S A K D L G T
UniRef90_UP10003B65F5C	A P R G G V P P Q I	E E V T F F D I	D A N G I	L K V S A I D K A S G N
UniRef90_Q8EUH7	A P R G G V P P Q I	E E I T F F N I	D A N G I	L N V K A V D K K T N K
UniRef90_F1LAS1	A P R G G V P P Q I	E E V T F S F N I	D A N G I	V N I T A K D K G T G
UniRef90_B5Y7H4	A P R G G V P P Q I	E E V T F F S I	D A N G I	V N I T A K D K G T G
UniRef90_UP100032895FA	A Y R G G I P K I	Q V V T F F D I	D T N G I	L S V T A T D Q N S G
UniRef90_C6KIT6	A P R G G V P P Q I	E E V T F F D I	D V N G I	L S V T A R D K G T G
UniRef90_X0XC05	A P R G G V P P Q I	E E V T F F G I	D T D G I	V E V S A K D L G S G
UniRef90_B7PYG7	A P R G G V P K I	E E V T F F D I	D Q N G I	V E V S A K D L G S G
UniRef90_UP1000366C985	A P R G T P P Q I	E E V T F F N L	N A D G I	L E V N V S A K D K G
UniRef90_D4JQY2	A P R G G I P P Q I	E E V T F F D I	D A N G I	V N V S A K D L G T G
UniRef90_Q661A3	A P R G G V P P Q I	E E V T F S F D I	D A N G I	V H V S A K D M G T G
UniRef90_J6EVL4	A P R G G V P P Q I	E E V T F F E I	D A N G I	L K V S A I L D K G T G
UniRef90_R5PGP4	A K R G G V P P Q I	E E V T F F D V	D A N S I	L T V T A V D K A T G
UniRef90_Q7NDH1	A P R G G V P P Q I	V E V T F F D I	D A N G I	L S V T A K D K A S G
UniRef90_F0XXF8	A P R G G V P P Q I	E E V T G F D V	D A N G I	L S V S A N D K A S G
UniRef90_UP1000179A753	A P R G G V P P Q I	E E V T F F N I	D A N G I	L N V S A E D K S T G
UniRef90_S9VXF4	A P R G G V P P Q I	E E V T F F E V	D A N G I	V L T V S A V D K S K
UniRef90_M7NM95	A P K G G V P P Q I	E E V T F F D I	D A D G I	V N V S A K D R G T G
UniRef90_A0A014P1H8	A P R G G V P P Q I	D V T F D I	D A N G I	V H V S A R D Q G T G
UniRef90_G0QTY4	A P K G G V P P Q I	E E V T F F D I	D Q S G I	V H V S A I L D K G T G
UniRef90_Q2TF0	A P R G G V P P Q I	E E V T F F D V	D A N G I	L K V T A C D K S T G
UniRef90_B8GIW4	A P R G G V P Q V	V D V T F D I	D A S G I	L N V S A K D R G T G

QUERY	S G
UniRef90_V9EAI4	K G
UniRef90_F4NSN3	K G
UniRef90_R7I743	S G
UniRef90_R4PKI1	G
UniRef90_UP1000378BE16	S G
UniRef90_M4Q924	K G
UniRef90_Q05866	K G
UniRef90_F8A8I7	S G
UniRef90_E9C7E4	K G
UniRef90_A2E4W5	K G
UniRef90_D3E0R5	T
UniRef90_H8YJQ9	K G
UniRef90_F8X4F9	S G
UniRef90_W6L5X4	K G
UniRef90_UP10003793D9E	S G
UniRef90_Q4N486	G G
UniRef90_W0RM47	S G
UniRef90_H9J9W8	K G
UniRef90_Q2MM06	K G
UniRef90_D1CCZ1	S G
UniRef90_L1MTR9	S
UniRef90_UP100035D2A57	G G
UniRef90_D9QV87	T G
UniRef90_A5CD87	G G
UniRef90_E1I9Z8	S G
UniRef90_B5YMV8	G G
UniRef90_W6KJ50	G G
UniRef90_T1HA76	K G
UniRef90_UP10004707C03	S G
UniRef90_K2GY68	K G
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UniRef90_Q824B2	S G
UniRef90_W8AYS4	K G
UniRef90_A0A023B7C4	G G
UniRef90_UP10003B4554A	S
UniRef90_K9VI26	G G
UniRef90_D4W7A5	S G
UniRef90_E4TZ49	S G
UniRef90_A7TJ69	A G
UniRef90_A4A1F7	S G
UniRef90_UP100036B60AA	S G
UniRef90_A0A015JWA6	K G
UniRef90_B2XTF6	S
UniRef90_R5ZEU6	S G
UniRef90_B0CAY9	G G
UniRef90_R7GK40	T G
UniRef90_L1J0D3	K G
UniRef90_D4M7D0	
UniRef90_Q04EE1	
UniRef90_U5U3E6	K G
UniRef90_J3LMH2	K G
UniRef90_UP10004785DEF	S G
UniRef90_K7Y988	R G
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UniRef90_R7CGK1	T
UniRef90_Q465Y6	G G
UniRef90_V4SC53	K G
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UniRef90_W3APT4	S
UniRef90_UP100034C7886	S G
UniRef90_Q54BE0	K G
UniRef90_E1R342	
UniRef90_UP10003B65F5C	S G
UniRef90_Q8EUH7	S G
UniRef90_F1LAS1	T
UniRef90_B5Y7H4	T
UniRef90_UP100032895FA	N G
UniRef90_C6KIT6	
UniRef90_X0XC05	S G
UniRef90_B7PYG7	K G
UniRef90_UP1000366C985	T G
UniRef90_D4JQY2	T
UniRef90_Q661A3	
UniRef90_J6EVL4	
UniRef90_R5PGP4	
UniRef90_Q7NDH1	S
UniRef90_F0XXF8	K G
UniRef90_UP1000179A753	K G
UniRef90_S9VXF4	K G
UniRef90_M7NM95	S G
UniRef90_A0A014P1H8	S
UniRef90_G0QTY4	G G
UniRef90_Q2TTF0	
UniRef90_B8GIW4	T

	1	10	20	30	40
UniRef90_Q6F149	D	V L L L D V T P L S L G I E T M G G V M T K L I D R N T T P T E K S Q			
UniRef90_D8TTA3	K	V I I I D R T P L S L G I E T A G G V M T P V S R N S V P A K K S Q			
UniRef90_P83784	Q D	V V L L D V T P L S L G I E T M G G V F A R L S R N T T P A K K S Q			
UniRef90_Q4N3K7		L L L L D V T P L S L G I E T V G G V M S K I E R N T M P A K K S Q			
UniRef90_F9VKP6		L L L L D V T P L S L G I E T L G G V V S T I I E R N T T D R P V T K S Q			
UniRef90_C8W8U2		L L L L D V T P L S L G I E T L G G V V D K V P R N S V P T K S Q			
UniRef90_T1E1U7		L L L L D V T P L T M G I E T V G G V M T K L P R N T V P T K S Q			
UniRef90_B3PNB9	G S	V L L L D V T P L T L G I V V E G N L V A P L P R N T T P V T K S Q			
UniRef90_V9VI70	A G	V V L L D V T A P L S L G I E T V G G V M S K I E R N T V P T R K T Q			
UniRef90_M5A17	K D	V L L L D V T P L S L G I E T K G G V M T K L I E R N T T P T K R S E			
UniRef90_W5DVU9	K D	D L L L D V T P L S L G I E I V G G F M S V V P R N T T P S K D R			
UniRef90_Q0EZ43	K D	D L L L D V T P L S L G I E I V E G G F L F N K I E K N T T P T K K S Q			
UniRef90_D3AY31	K G	I I L I D V T P L S L G I E T Y G G V F T R L K N T N P A S K T D			
UniRef90_X1BRP3	E Q	V L L V D V A P L S L G I E T A G G V M N V M V P R N T T P H L K T E			
UniRef90_F6ZFZ7	D V	D L L L D V T P L S L G I E S L G V F T K L I P R N S T T P I A K A Q			
UniRef90_B6BUL3	D D T	D L L L D V T P L S L G I E T M G D L V E R I L I P R N S T T P I A K A Q			
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UniRef90_J3JS43	Q D L L L L D V T P P L S L G I E T A G G V M T V L I P R N T T I P T K K E Q																																																																				
UniRef90_UP100021A4390	T K G F E L F E V T P R S L G I K T L G I S S C F V K R N T R L P C S N Q E																																																																				
UniRef90_Q63718	T R G L L A L D V V S M S L S L G I E T D A G K M H T L I R R N T A I P T V V T R																																																																				
UniRef90_M5WGS8	Q D L L L L D V T P P L S L G I Q T V G G V V T T L I E R N T T I P T N K E R																																																																				
UniRef90_E6TT44	E E G I I M T D V N P Y T L G I R V L C H Y M S I V I P R N V T I P V V R K S S																																																																				
UniRef90_Q71M12	Q N L M L L D V A A F S L G I E I C G T M I P F I D S N T T I P T K K S E																																																																				
UniRef90_A1XM63	E D S I I I T D V N P Y T L G I R V V D N R M A V I I P R N V T I P V T R S E																																																																				
UniRef90_K6SXJ8	T E G L L L L D V T P P L S L G V E T A G G V M S T L I P R N T T V P V Q K S Q																																																																				
UniRef90_A0AFF5	D V T P Y S L G I E T C N D G F F T L I K R N T L P V I C E R K																																																																				
UniRef90_E1R5V2	Q E M I L T D V C P F S L G I S I S G G H Y L P I I E R N T T I P T L K K R																																																																				
UniRef90_M5X425	Q D L L L L D V T P P L S L G I E T A G G V M T L I P R N V T I P T K Q T Q																																																																				
UniRef90_L7JVZ6	K E V I L T D V C P F T L G T E V S K E I F Y P I I E R N T V I P A S R T E																																																																				
UniRef90_F7NEV7	G K E K P V I I H M T P F S L G V G L Q N D Q F A A L I D R N S T Y P T D A K D																																																																				
UniRef90_UP100021A4390	Q D T F L L N V I P F S F G V E T A G G V F M A M I K R N S T F P A K V Q E																																																																				
UniRef90_Q48EQ2	E E V V L T D V C P Y T L G I E T T Q Y V F N P I I E R N S V V P V S R V R																																																																				
UniRef90_Q63718	UniRef90_M5WGS8	Q D Y T L K D V T P P L T I G L E F S D N K K F V K L I P R N S L I P V K K K																																																																			
UniRef90_E6TT44	K D G L M V I D V C P Y T L G T E I V K D V F D P I I P R N S T I P I S E T K																																																																				
UniRef90_Q71M12	K D V V L L D V T P P L S L G I E T M G G V F T K L I D R N T T I P T S K S Q																																																																				
UniRef90_A1XM63	K E L V L T D V C P Y T L G V A I A Q R M Y L P I I E R N S P V P I S I V K																																																																				
UniRef90_K6SXJ8	D E F V L T D V C A H T L G T E I V D G I F S P I I E R N S T I P I S R I E																																																																				
UniRef90_A0AFF5	L F H D V T P P L S L G V E I E G G N V V T T L E K N S P L P A V G V K Q																																																																				
UniRef90_E1R5V2	E N F T L L D V T P P L S L G V E G D M S V I I P R N K R T P L K I K K D																																																																				
UniRef90_M5X425	L L L L D T V P P L N I S I E T L L G G V A T T I K K N T V I P T A K T E																																																																				
UniRef90_L7JVZ6	R E V I L T D V C P F T L G T E V V D G L F C P I I E R N T I I P A S R T E																																																																				

T F S T Y C D N X P G I L I Q V Y E E R A M T R D N N M L G H F E L C S I P P  
UniRef90\_UPI000273FBE8 E F S T Q S V N Q P G L S I Q V Y E G E S A R T R D N N L L G K F V L S G I S L  
UniRef90\_B8LRY7 Q Y T T A I D G Q V N M K S V F Q G E R D L I K D N R K L A E F D L K G I P P  
UniRef90\_H8KPC2 I F T T Y G D N Q T S V Q I N I Y E G E R T A M V K D N T L G S F S L D G I P P  
UniRef90\_A0A059EYP3 T F S N A E D D D T V T I Q I Y E G E R P L T R D N H F L G S F D L S G I P P  
UniRef90\_UP10002C33654 C G T T C V D N Q F T V C F P V Y E G E S S V A K N N N F L G E F C I E G L P P  
UniRef90\_G7JYI2 G F I T D Y D N Q V C V G I Y V Y E G E R A K A S D N N L L G S F D L N G I P P  
UniRef90\_M8CM50 R Y T T E F D N Q K S V R I K V Y E G E G A W T K D N N K L L G E F M L E G L V P P  
UniRef90\_UP10003FFA44F I F T T A E I N Q T S M D V N I L Q G E R E M A I D N I S L G E I R L S G I H P P  
UniRef90\_B4UIH4 L F T T V Q D D Q T S V R I A V L Q G E S E R A I D N E L L G E F V L D G I R P P  
UniRef90\_M4DBC8 V Y T T G S D Q T S I R F Y V L Q G E R Q F A R D N K C L G S F L L D G I P P P  
UniRef90\_F7WB19 V F S T F S D N Q P G V L I Q V Y E G E R Q R T K D N N N L L G K F E L T G I P P P  
UniRef90\_Q54TS8 V F S T Y Q D N H D Q V L I K I Y E G E H S M T K D N G L L G K F N L S G I L P P  
UniRef90\_M1LU44 E F T T I K D F Q K A I S I H V L Q G E S N L A S E C R S L S Y F E L N D I P L  
UniRef90\_D6TW78 V F S T A R N N Q S S I V A I H L Q G E E S N L A S E C R S L S Y F E L N D I P L  
UniRef90\_UP10001DEC899 T F T T H S D N Q L G V L I Q V Y E G E H D M N M G N N L L X Q  
UniRef90\_A6G046 I F T T V R D N Q T S V K I L V L Q G E S E N A T Q N E L L G E F I L S G I R E  
UniRef90\_U5N6W6 D F T T Y V E G Q T A L A L H V V Q G E R D M A A D C R S L A R F E L R G I P P P  
UniRef90\_U5TP84 I I S T D F N N Q S S I S I Q V Y E G N N T R S I E N N F I L G E F E L T G I R P P  
UniRef90\_K7TQM1 V L S T D S D N Q P C V I L Q V Y E G E G A M A R D D N N L L G E L E L S E I S P P  
UniRef90\_U9U5E2 I I S T N F D N Q S S I L K I Y E G E R T R T R D Y N H L L G E F Q I S S G I E R  
UniRef90\_A4RYG3 E F T T V Y D N Q D E I D V R I F E G E R S N T D G N H L L G Q F E L S G I T P P  
UniRef90\_UP100032AAC71 Q Y Q T V I E D D Q P A V S I D V Y E G E R E V A S E N N L L G K F E L S G I P P P  
UniRef90\_O48606 V F S T Y S D N Q P G V T L Q V Y E G E R T R T R D Y N H L L G K F E L S G I P P P  
UniRef90\_T110A2 T F T T Y S D N Q P A V T V Q V Y E G E R A M T K D N N L L G T F D L T G I P P P  
UniRef90\_UP10003EABA7A N Y C T R Y D N Q T G V L F A V Y E G E S A S T K D N H L L G Q F E L S G I R P P  
UniRef90\_L2GJN9 V F S T A A D N Q T S V I E I V I T Q G N R S Q S A D N Y L L V G R F V L S G I T P P  
UniRef90\_W5ME70 T E C S N I A T G C L Q V Y E G E R A M T K D N N L L G K F E L T G I P P P  
UniRef90\_R5VTG4 V F S T A A D N Q T E V T I H V L Q G E R P M A A Q N K S I L G Q F N L T G I A P P  
UniRef90\_A2XF42 M Y T T H Y D N E T A V L I N V N E G E G R R R T K D N N N P L G K F V L T G I P P P  
UniRef90\_V9R628 E F T T Y V D D Q Q R E V E V H V F E G E R P L T R H N H K L G S F I L D G I S P P  
UniRef90\_G0UD35 UniRef90\_UP10002C33B3D T I Y T V Y D D Q S A I V F P I F E G E S E S T L N N L L G K F S L V D I P P P  
UniRef90\_G7KZ01 S Y H T V Y D N Q S Y V T I K V Y E G E R T R A S D N N L L G L F D F S V  
UniRef90\_B8QX95 T F S T A A D G Q T T V D I H V L Q G E R E F A D D N K T L L G R F D L S G I A P P  
UniRef90\_X1V7F4 I F S T A A D G Q T T V D I H V L Q G E R E F A D D N K T L L G R F Q L T D V P P  
UniRef90\_G7KWR9 T F C T L E D D Q S S D V W K I D V Y E G E R M V V G E N N L L G L F D L E V P R  
UniRef90\_B9WJV9 M F S T A V D G Q T G V E I G V Y Q G E R T L V K D N K H I G Q F K L S N I P Q  
UniRef90\_L2GSZ9 V F T T S E D G Q E E V I V N I Y Q G E D E N V V K N N C F L G K I I L K N I K K P  
UniRef90\_P27894 I F S T Y A D N Q P G V H I Q V F E G E R A M T K D C H L L G T F D L S A I P P  
UniRef90\_G7KYY7 T Y V T C D D Y Q S Y V L N E V Y E G E R M K A S E N N L L G F F N L S V P R  
UniRef90\_W6L402 E Y S T V I E D Y Q T D V D I Q V F E G E R P L T R H N H K L G E F S L L E S G I T T K  
UniRef90\_N1QPM3 V Y T T C Y D D N Q T E V V L I Q V Y Q G E G S E T K Y N I L L G K F T L S S G I R R  
UniRef90\_A9TM12 L F T T V H D D Q D S I V C I Q V Y E G E S T R T R Y N I L I A T F E L S S G I L P P  
UniRef90\_A9CTQ1 I F S T A A D N Q T A V T I R T Q G N R A A D D N Y H V G Q F N L E S G I A P P  
UniRef90\_W5GXA5 N F V T T M D N Q S S M S I G V Y E G E R A M V D D N S L R G K F M L S G I T T L  
UniRef90\_UP1000333636B L X T T Y S D N Q L L V L I Q A D E G E R A M T K D N N N L L G R V E L S G I L P P  
UniRef90\_M7YHQ4 V F S T A A D N Q T Q V G I K V L Q G E R E M A T D N K K L L G E F D L V G I P P P  
UniRef90\_E9GQL9 I F T T K I Q N Q S S V L Q V Y E G E G A M T R E N S L L V G K F I L S G I Y P P  
UniRef90\_J0FRS6 V Y S T A A D N Q P A V D I H V L Q G E R P M A S D N K T L L G R F Q L T D I P P P  
UniRef90\_I1EL17 T Y K N N E D Y Q T E A T E V F E G E E K T A K K N R L L G R F I V P G L P P P  
UniRef90\_Q8RP43 T F T T A D D N Q P S V E I Q V Y Q G E R E I A A Y N K K L L G T F Q L T G I P P P  
UniRef90\_K2E851 UniRef90\_UP1000360E861 T F S T A G D N Q T Q V E I H I M Q G E R P L A R D N K S I L G R F T L D G I P P P  
UniRef90\_M4CZD7 I N P D G V L I Q V F E G E R A R T K D N N N L L G K F E L S S G I P P P  
UniRef90\_UP1000360E861 R F T T Y V D N Q T A I N F H I V Q G E R E M A V D C R S L A V F E L T N I P L  
UniRef90\_K1QZE9 T V T T N H D F Q E T V T I N V Y E G E G S K V K V N N Q L L G K F D L T G I Q T  
UniRef90\_B4M560 T F S T Y S D N Q P G V S I I F P I V Y E G E R A R T K D N N N L L G K F D L S G I P P P  
UniRef90\_H3G014 V R V N A F D N Q T S L I N F P I V Y E G E R A R T K D N N N L L G K F D L I G V P K  
UniRef90\_F2EK15 I F S T Y S D N Q P G V L I Q V F E G E R A R T K D N N N L L G K F E L S G I P P P  
UniRef90\_E1SRN7 E F T T F K D G Q T A M A I H V V Q G E R E M V D D C R S L A R F V L Q G I P P P  
UniRef90\_G7YBX1 R Y S T A Y D N Q T V I Q D I Y E G E R V L Q K H N N L L G T F T L T G I R A  
UniRef90\_M7BG76 T F T T F D D H Q P D L L H A Y E G E R A T A K E N H L L G H F L L N G I S P  
UniRef90\_M4DQD2 V F T T C S D K Q P G V L I Q L H V  
UniRef90\_F8URE8 N Q N A V T I R V F Q G E R E M A A D N K M L G Q F D L M G I P P P  
UniRef90\_Q6CIA7 T F T T V G D H Q T T V Q F P V Y Y Q G E R V N C S E N T L L G E F D L K N I P P P  
UniRef90\_N2ATL1 I Y Y T T S Y D N Q D A A K I E V Y Y Q G E R H D D V R L N H F L G E F V I S G I P M  
UniRef90\_G5AZ64 V F S T A A D G Q T Q V E I K V C Q G E R E M A G D K L L G Q F T L V G I P P P  
UniRef90\_U9SW02 I I S T S H F N Q N Y I I I S I V Y E G E N N L T R N N R L I G K F K L T K I S S P  
UniRef90\_N2AA80 T Y F T T S S D N Q T I A H I E V Y Y Q G E S S S A S R N H F L G D F E I H G I P P P  
UniRef90\_Q4L0F1 T F S T N A D N Q R S V E I K V Y E G E R P L V A Q C A C L G T F F T L T D I P P P  
UniRef90\_W6U2Y9 S S Q T A S D N Q T S V L T S I F E G E R A M A K D N Y F L G E F L V K G F P A  
UniRef90\_A1QZ60 I F T T T N D Y Q E E I E I H V L Q G E Y K K A S L N Y S I G R F F F S N I Q K H  
UniRef90\_F0X9Z0 S F T T V S D S Q G T T V S F P C Y Q G E R A N C E D N T S L G E F T L A P I P H  
UniRef90\_UP1000376AAB7 R V Y T I H D N Q T E L R V K I Y Q G E S R R V E N N V Y L G S I D V N L P A  
UniRef90\_H2RGH2 T F T I Y S D N Q P G V F I Q V Y E G E R A M T D H N L L G R F E L S S G I P P P  
UniRef90\_D9SV82 R L Y T V R D N Q S K L R I N V L Q G E S R F A S N N L S I G E L L I D I P K  
UniRef90\_UP100020363FE I F T T T R D F Q D A I S F P I Y E G E E Q I A S E N T F L D L L R I E G I T P M  
UniRef90\_UP1000366AA03 UniRef90\_J3JS43 T F T T Y Y D N Q T N I V I K V Y E G E R A M T K D N S L L G K F L V S S G I P P K  
UniRef90\_UP100021A4390 T V N T V A D N Q E H V L L R I F Q G E S R L V K D N I A L G E L N I P V P K  
UniRef90\_Q48EQ2 T F T T Y S D N Q P G V L I Q V Y E G E R A M T R D N N N L L G R F E L S S G I P P P  
UniRef90\_Q63718 I K C P I K D N P V S V D F R M Y E G E S S T P A N L N F I G E C S L R Y I P P K  
UniRef90\_E6TT44 R Y Y T A Y D N Q D V V V V N V Y Y Q G E D Q Y V K N N I F L S D D I L E N I P P K  
UniRef90\_Q71M12 V F S T A A D N Q P A V D I H V L Q G E R P M A A D N K T L G R F Q L T D I P P K  
UniRef90\_A1XM63 V F T T T H D N Q T T E F P I Y E G E R T Q T K D N N N L L G E F T L S G L P P P  
UniRef90\_K6SXJ8 E L V P I A D N Q T R M T I K I Y Q G E S R K V E N N I A L G E F K I A L P R  
UniRef90\_A0AFF5 R Y Q T V S D L Q S Y I E V G I Y Q G E S R M V K D N L K L G N L T I E M P P  
UniRef90\_E1R5V2 H F T T I C D G Q R S V E I H V L Q G G N S K R V E A N T S L G R F L L G G I R R N  
UniRef90\_M5X425 G F T T T M Y D Y Q R I G R V S I Y E G E S T V A L D N N F I G E F I L D E I S P P  
UniRef90\_L7JZV6 V F S T A S D N Q T S V T V I N I F E G L G E M V E H H N N L I G S F N L C G I T P K  
UniRef90\_F7NEV7 R L Y T V R D N Q T K V R V N I L Q G E S R F A K N N L S L G E L S I E V P K

	90	100	110	120
UniRef90_UPI000273FBE8	A P R G   V   P   Q   I   E   V   T   F   D   I   D   V   N   G   I   L   S   V   M   A   □   D   R   S   T   G   K   A   N   K   M   T   V   T   N   D			
UniRef90_B8LRY7	A P S D   V   T   Q   I   K   K   V   C   F   D   I   D   A   N   S   I   F   N   V   S   A   E   T   T   T   G   Q   K   N   K   I   S   I   T   D			
UniRef90_H8KPC2	M P A G   F   P   K   V   D   I   N   F   L   L   N   A   D   G   I   L   T   V   Q   A   □   E   L   R   S   G   V   K   Q   E   V   E   I   K   P   T			
UniRef90_A0A059EYP3	A P R G   V   P   Q   I   E   I   C   C   E   V   D   H   S   G   C   L   K   V   T   A   R   D   T   S   T   S   N   N   K   E   L   V   I   T   D   M			
UniRef90_A2E1T4	G P R G   T   V   L   F   E   V   S   F   E   L   D   Q   N   N   I   L   T   V   S   A   K   D   I   S   S   G   H   E   E   S   I   T   I   S   A   N   D			
UniRef90_UPI0002C33654	A P Q G   V   P   K   F   N   V   W   F   E   I   D   A   N   G   I   L   S   V   S   A   E   D   K   S   T   G   Q   K   K   G   I   T   I   N   S   D   S			
UniRef90_G7JYI2	A P R G   H   P   V   K   V   C   F   T   I   N   E   N   G   I   L   V   V   S   A   Y   E   K   S   T   G   I   M   K   E   A   I   T   T   N   S			
UniRef90_M8CM50	A P R G   V   P   K   I   I   E   T   M   E   V   E   A   N   G   I   L   K   V   T   A   V   D   M   T   T   G   S   K   K   S   I   N   I   T   T   N   T			
UniRef90_UPI0003FFA44F	Q P Q G   Q   S   R   V   E   V   S   F   S   I   D   A   N   G   I   L   A   V   S   A   K   D   L   Q   T   D   N   E   V   G   I   K   I   D   S   T			
UniRef90_B4UIH4	A R R G   E   V   E   I   I   E   V   T   F   F   E   I   S   A   D   G   I   V   G   V   S   A   R   D   V   A   T   G   L   Q   Q   S   I   S   V   T   A   T			
UniRef90_M4DBC8	A P R G   V   P   N   I   D   V   K   I   D   I   D   A   N   G   I   L   S   A   T   A   T   D   R   A   T   G   N   K   Q   E   I   T   I   T   G			
UniRef90_F7WB19	A P R G   V   P   N   I   D   V   K   I   D   I   D   A   N   G   I   L   S   A   T   A   T   D   R   A   T   G   N   K   Q   E   I   T   I   T   N   D			
UniRef90_Q54TS8	L P   A   S   L   K   G   V   P   K   I   E   I   N   F   K   I   D   V   N   G   I   L   H   V   T   A   F   D   L   K   S   G   S   E   Q   S   I   T   I   S   N   D			
UniRef90_M1LU44	M K   A   G   I   P   R   I   E   V   L   F   Q   I   D   A   D   G   I   L   K   V   F   A   K   D   L   N   T   N   I   E   A   S   V   I   V   K   P   S			
UniRef90_D6TW78	A P   R   G   V   P   R   I   E   I   V   T   F   D   V   N   S   D   G   R   T   M   L   S   A   R   D   K   S   T   G   R   E   Q   K   V   M   V			
UniRef90_UPI0001DEC899	G I   P   Q   I   E   V   T   F   D   V   Y   A   N   S   I   L   N   A   S   A   V   D   K   S   S   G   K   E   N   K   I   T   M   T   N   D			
UniRef90_A6G046	A P   K   G   H   V   E   V   K   V   T   F   S   I   S   A   D   G   I   V   S   V   A   A   Q   D   L   E   T   G   R   E   Q   S   I   T   V   T   A   T			
UniRef90_U5N6W6	M A   A   G   A   A   R   I   R   V   T   F   T   I   D   A   D   G   I   L   Q   V   V   S   A   Q   E   S   T   S   G   V   Q   A   S   V   R   V   R   P   S			
UniRef90_U9TP84	A P   K   G   V   P   Q   I   A   V   T   F   D   I   D   L   N   G   K   L   K   V   V   S   A   V   D   K   T   T   G   R   M   N   E   I   T   I			
UniRef90_K7TQM1	A P   K   G   V   P   Q   I   T   I   T   F   H   I   D   A   D   C   I   L   D   V   V   A   A   E   D   K   T   T   G   E   K   M   R   K   T   I   T			
UniRef90_U9U5E2	A P   R   G   V   P   Q   I   T   I   T   F   H   I   D   A   D   C   I   L   D   V   V   S   A   V   D   K   T   T   G   R   P   N   K   I   T   V   T   N   D			
UniRef90_A4RYG3	A S   A   G   E   P   K   I   D   V   T   F   E   V   N   T   N   G   I   L   L   T   V   T   A   K   D   R   V   T   G   V   E   A   N   V   S   L   Q   H   D			
UniRef90_UPI00032AAC71	L   A   P   R   G   L   P   V   V   N   V   C   F   A   I   D   A   D   G   I   L   N   V   S   A   E   E   V   T   S   G   N   K   K   D   I   T   I   T   K   D   D			
UniRef90_Q48606	A P   R   G   V   P   Q   I   T   V   C   F   D   I   D   A   N   G   I   L   N   V   S   A   E   D   K   T   T   G   Q   K   N   K   I   T   I   T   N   D			
UniRef90_T110A2	A P   R   G   V   P   Q   I   E   V   T   F   D   I   D   A   N   G   I   L   N   V   S   A   K   E   N   S   T   G   K   T   K   N   I   V   I   H   N   D			
UniRef90_UPI0003EABA7A	A P   R   G   A   A   R   I   L   E   A   T   F   E   I   D   A   N   G   V   L   N   V   S   A   E   N   T   D   T   G   G   K   N   S   I   T   I   T   N   H			
UniRef90_L2GJN9	A P   K   G   V   P   Q   I   E   I   T   F   E   V   D   A   N   N   V   L   K   V   T   A   V   D   K   S   T   G   N   K   Q   I   T   I   T   N   D			
UniRef90_W5ME70	A P   R   G   V   P   Q   I   E   V   T   F   D   I   D   A   N   G   I   L   N   V   S   A   V   D   K   S   T   G   K   E   N   K   I   T   I   T   N   D			
UniRef90_R5VTG4	A R   R   G   V   P   Q   I   E   V   T   F   T   Y   S			
UniRef90_A2XF42	A P   R   G   V   P   Q   I   N   V   T   F   S   I   D   A   N   G   I   M   M   N   V   S   A   E   D   K   T   T   G   R   S   N   S   I   T   I   K   S   D			
UniRef90_V9R628	L   P   A   G   A   A   K   I   I   I   V   E   F   K   V   D   M   D   G   I   L   L   I   V   S   A   Q   E   K   S   T   G   I   K   Q   S   V   S   I   N			
UniRef90_G0UD35	A P   H   G   E   P   T   I   T   V   T   F   S   V   D   A   D   G   I   L   T   V   T   A   S   E   K   L   A   N   K   R   K   T   L   V   V   S   N   T			
UniRef90_UPI0002C33B3D	A P   K   G   Y   P   F   D   V   W   F   E   I   D   E   N   G   I   L   S   V   S   A   E   D   K   S   T   G   Q   K   K   G   I   T   I   A   S   D			
UniRef90_G7KZ01	A P   R   C   S   I   P   I   K   E   C   F   S   I   D   S   D   G   I   L   N   V   S   A   E   E   E   T   N   A   S   K   K   A   I   T   I   T   N   E			
UniRef90_B8Q9X5	A P   R   G   V   P   Q   I   V   E   V   I   I   F			
UniRef90_X1V7F4	A P   R   G   V   P   Q   I   V   E   V   A   F   D   I   D			
UniRef90_G7KWR9	R   A   P   R   G   H   I   I   Q   V   C   F   D   I   D   A   D   G   I   L   N   V   S   A   K   E   E   T   S   G   N   K   K   E   I   T   I   T   N   E			
UniRef90_B9WJV9	G   P   K   G   T   P   Q   I   I   A   V   S   F   E   I   D   A   D   G   I   I   N   V   T   A   T   D   K   T   P   G   K   P   N   T   V   A   I   Q			
UniRef90_L2GSZ9	A P   K   G   V   P   R   I   E   V   G   F   E   A   D   V   N   G   I   Y   R   V   T   A   R   D   L   L   T   G   K   E   Q   S   A   E   V   T   G			
UniRef90_P27894	A P   R   G   V   P   Q   I   E   V   T   F   D   I   D   A   N   G   I   L   N   V   S   A   E   E   K   G   T   G   K   R   N   H   I   T   I   T   N   D			
UniRef90_G7KYY7	A P   R   G   L   P   H   I   K   V   C   F   D   I   D   A   D   G   I   L   N   V   S   C   E   D   E   T   S   G   N   K   K   D   I   T   I   T   N   E			
UniRef90_W6L402	A K   K   G   H   P   T   I   T   V   T   F   S   I   D   A   D   G   I   L   T   V   S   A   T   E   A   L   A   N   K   T   K   S   L   V   V   Q   N   S			
UniRef90_N1QPM3	A P   S   G   E   P   K   I   I   N   V   T   F   E   I   D   A   D   S   I   L   L   Q   R   K   I   T   I   T   S   D			
UniRef90_A9TM12	A P   Y   G   V   P   Q   I   L   V   R   F   D   I   D   A   C   G   I   L   T   A   T   V   K   D   K   T   T   G   G   Q   K   I   F   V   Q   N			
UniRef90_A9CTQ1	A   R   K   G   E   P   Q   I   E   V   T   F   E   V   D   A   N   N   I   L   T   V   K   A   V   D   K   K   T   N   S   E   K   I   T   I   M   N   D			
UniRef90_W5GXA5	A P   K   G   V   T   K   V   N   V   R   F   E   V   D   E   D   G   I   L   H   V   S   A   E   D   K   K   S   A   Q   K   E   K   I   T   I   T   R   S   D			
UniRef90_UPI000333636B	A P   R   G   L   P   P   I   E   V   T   F   D   I   D   A   S   G   I   L   S   V   T   A   T   D   E   N   T   G   K   A   S   K   I   T   I   T   S   D			
UniRef90_M7YHQ4	A P   R   G   T   P   Q   V   E   V   T   F   D   I   D   A   N   G   I   V   T   V   S   A   K   D   K   A   T   G   K   E   Q   Q   I   T   I   R   S   S			
UniRef90_E9GQL9	A K   R   G   L   P   R   I   E   I   T   F   E   I   D   A   N   G   M   L   T   V   T   A   A   D   K   S   T   G   R   E   N   K   I   T   I   Q   S   S			
UniRef90_J0FRS6	A P   R   G   V   P   Q   I   E   V   T   F   D   I   D   K   N   G   I   V   N   V   T   A   K   D   L   G   T   N   K   E   Q   N   I   T   I   Q   S   S			
UniRef90_I1EL17	R   P   R   G   Q   V   E   I   P   V   A   F   S   L   D   V   N   G   V   L   E   V   S   A   Y   V   K   G   E   G   T   K   K   S   L   V   I   K   K   D			
UniRef90_Q8RP43	A P   R   G   V   P   Q   I   V   E   V   I   I   F			
UniRef90_K2E851	A P   R   G   V   P   Q   I   V   E   V   S   F   D   I   D			
UniRef90_M4CZD7	A P   R   G   V   P   Q   I   T   V   C   F   D   I   D   A   N   G   I   L   N   V   S   A   E   D   K   T   T   G   Q   K   N   K   I   T   I   T   N   D			
UniRef90_UPI000360E861	G   P   A   G   S   I   N   V   E   V   N   F   A   I   D   A   D   G   I   L   F   V   N   T   V   E   K   K   T   G   V   T   E   F   I   C   V   K   P   T			
UniRef90_K1QZE9	A   L   K   G   E   P   N   I   D   V   F   V   D   V   D   S   I   L   T   V   S   T   V   D   R   G   T   N   N   S   I   W   I   V   G   S			
UniRef90_B4M560	A P   R   G   V   P   Q   S   R   A   P   S   T   W   T   P   M			
UniRef90_H3G04	R   P   R   G   E   N   K   M   Q   V   T   L   S   I   D   A   D   G   I   L   N   V   H   V   K   D   K   D   T   G   K   E   A   E   T   T   V   T   S			
UniRef90_F2EKI5				
UniRef90_E1SRN7	M   A   A   G   T   A   V   I   R   V   T   F   Q   V   D   A   D   G   I   L   L   S   V   T   A   M   E   K   T   S   G   V   Q   A   A   I   E   V   K   P   S			
UniRef90_G7YBX1	A   K   E   G   E   V   K   I   I   L   V   N   F   E   D   E   S   G   C   L   T   V   S   A   E   E   R   E   D   N   M   R   N   Q   I   V   I   Q			
UniRef90_M7BG76	A   P   R   G   M   V   L   V   E   A   T   F   Y   I   N   A   D   G   I   I   L   V   F   A   E   D   K   T   T   E   Q   R   N   K   I   T   I   T   N   D			
UniRef90_M4DQD2	V   C   F   D   I   D   A   N   G   I   L   N   V   F   A   E   D   K   T   T   E   Q   R   N   K   I   T   I   T   N   D			
UniRef90_F8URE8	A   P   R   G   M   P   Q   I   E   V   T   F   D   I   D   A   N   G   I   V   N   V   S   A   K   D   K   A   T   G   K   E   Q   Q   I   R   I   Q   A   S   S			
UniRef90_Q6CIA7	M   K   A   G   E   P   V   L   E   A   I   F   E   V   D   A   N   G   I   L   K   V   T   A   V   E   K   S   T   G   R   S   A   N   I   T   I   S   N   S			
UniRef90_N2ATL1	R   P   E   G   E   E   R   I   E   V   E   F   S   Y   N   L   N   G   M   L   E   V   S   A   R   I   P   P   S   G   E   E   A   S   V   E   I   N			
UniRef90_G5AZ64	A   P   R   G   V   P   Q   I   E   V   T   F   D   I   D   A   N   G   I   V   H   V   S   A   K   D   K   G   T   G   H   E   Q   P   I   V   Q   S   S			
UniRef90_U9SW02	D   V   P   Q   I   E   V   T   F   D   I   D   S   N   R   I   L   K   V   T   A   V   D   L   I   T   G   G   S   N   M   T   T   I   N   N   N			
UniRef90_N2AA80	K   K   A   K   A   E   R   I   H   V   E   F   S   Y   N   L   D   G   M   L   N   V   K   A   S   I   P   S   T   G   A   D   S   I   E   I   N			
UniRef90_Q4L0F1	A   P   R   G   K   P   R   I   T   V   T   F   D   I   D   A   N   G   I   L   N   V   F   A   E   D   K   T   T   E   Q   R   N   K   I   T   I   T   K   Y			
UniRef90_W6U2Y9	K   P   R   G   E   I   K   F   E   D   T   F   E   I   D   E   N   G   I   L   H   V   V   S   S   V   E   K   S   T   G   K   Q   N   S   I   T   I   T   R   M   T			
UniRef90_A1QZ60	A   L   R   G   M   P   K   I   E   I   L   F   S   L   D   E   S   G   I   L   S   I   V   S   A   K   D   L   D   T   H   V   S   K   S   I   Q   I   R   M   T			
UniRef90_F0X9Z0	M   R   A   G   E   P   V   L   E   V   I   F   E   V   D   V   N   G   I   L   K   V   T   A   T   E   K   T   S   G   R   S   A   N   I   T   I   N   N   S			
UniRef90_UPI000376AAB7	A   P   R   G   E   E   S   V   D   V   R   Y   T   Y   D   I   S   G   V   L   E   V   E   V   T   V   V   S   T   G   E   K   K   T   M   I   E   K   N			
UniRef90_H2RGH2	A   P   G   P   Q   I   E   V   T   F   F			
UniRef90_D9SV82	A   K   A   G   E   E   A   I   D   I   T   Y   T   Y   D   I   N   S   I   L   E   V   Q   V   K   V   V   S   T   G   E   I   K   K   T   I   I   K   G			
UniRef90_UPI00020363FE	A   P   R   G   V   P   Q   I   E   V   T   F   E   I   D   V   N   G   I   L   K   R   V   T   A   E   D   K   G   T   G   N   K   N   K   I   T   I   T   N   D			
UniRef90_UPI000366AA03	A   P   R   G   V   P   R   I   E   V   T   F   D   I   D   A   N   G   T   M   H   V   S   A   K   D   K   Q   T   G   R   E   Q   A   I   T   I   K   S   S			
UniRef90_J3JS43	A   P   R   G   C   P   K   I   T   I   T   F   S   I   I   N   S   N   Q   I   I   E   M			
UniRef90_UPI00021A4390	A   K   A   G   E   V   E   L   D   V   R   F   T   Y   D   N   G   L   L   E   A   D   V   R   I   Q   M   T   G   E   N   H   K   L   V   I   E   N   N			
UniRef90_Q48EQ2	A   P   R   G   V   P   Q   I   E   V   T   F   D   I   E   P   Q   R			
UniRef90_Q63718	A   K   A   G   E   V   E   L   D   V   R   F   T   Y   D   N   G   L   L   E   A   D   V   R   I   Q   M   T   G   E   N   H   K   L   V   I   E   N   N			
UniRef90_M5WGS8	A   P   K   L   V   H   N   F   D   V   F   F   E   D   P   D   G   I   L   S   V   F   T   E   D   K   S   S   G   Q   K   N   E   I   I   N   R   D			
UniRef90_E6TT44	R   Q   A   R   M   E   A   I   D   V   T   F   T   Y   D   I   N   G   M   L   Q   V   E   A   K   V   L   S   T   G   L   V   K   K   E   A   I   Q   S   Q			
UniRef90_Q71M12	A   P   R   G   V   P   E   L   E   V   I   V   E   V   D   A   N   G   I   L   K   V   T   A   E   R   T   S   G   L   S   A   N   V   T   I   A   N   K			
UniRef90_A1XM63	D   K   A   G   Q   K   V   V   D   V   R   Y   T   Y   D   I   N   G   L   L   E   V   E   A   T   V   K   S   T   G   V   K   E   T   L   I   I   E   K   A			
UniRef90_K6SXJ8	N   S   K   A   G   F   P   I   D   I   R   F   T   Y   D   K   N   G   I   L   E   V   V   K   I   P   A   T   G   E   E   K   Q   L   I   I   Q   N   S			
UniRef90_A0AFF5	G   C   K   G   E   P   L   E   V   S   F   R   V   D   E   D   G   I   L   H   A   L   A   R   D   V   D   T   G   S   Q   H   V   T   I   S   R   E			
UniRef90_E1R5V2	A   P   E   G   I   P   K   I   R   N   C   F   A   I   D   S   N   S   I   L   S   V   Y   A   E   D   K   S   I   R   R   K   K   R   I   T   I   N   C   D			
UniRef90_M5X425	A   R   R   G   V   P   Q   I   E   V   T   C   D   V   D   N   G   I   L   V   V   T   C   T			
UniRef90_L7JZV6	A   K   A   G   E   E   A   I   D   V   T   Y   T   D   V   N   S   I   L   E   V   E   V   K   S   S   V   S   T   G   E   T   R   Q   I   I   I   N   N			
UniRef90_F7NEV7	A   K   A   G   E   E   A   I   D   V   T   Y   T   D   V   N   S   I   L   E   V   E   V   K   S   S   V   S   T   G   E   T   R   Q   I   I   I   N   N			

UniRef90_UPI000273FBE8	K G
UniRef90_B8LRY7	K G
UniRef90_H8KPC2	Y G
UniRef90_A0A059EYP3	K G
UniRef90_A2E1T4	
UniRef90_UPI0002C33654	
UniRef90_G7JYI2	K
UniRef90_M8CM50	K G
UniRef90_UPI0003FFA44F	
UniRef90_B4UIH4	S G
UniRef90_M4DBC8	
UniRef90_F7WB19	K G
UniRef90_Q54TS8	
UniRef90_M1LU44	N G
UniRef90_D6TW78	
UniRef90_UPI0001DEC899	K G
UniRef90_A6G046	S G
UniRef90_U5N6W6	Y G
UniRef90_U9TP84	
UniRef90_K7TQM1	
UniRef90_U9U5E2	K G
UniRef90_A4RYG3	R G
UniRef90_UPI0003AAC71	N G
UniRef90_O48606	K G
UniRef90_T110A2	K G
UniRef90_UPI0003EABA7A	S G
UniRef90_L2GJN9	
UniRef90_W5ME70	K G
UniRef90_R5VTG4	
UniRef90_A2XF42	K G
UniRef90_V9R628	
UniRef90_G0UD35	
UniRef90_UPI0002C33B3D	
UniRef90_G7KZ01	N G
UniRef90_B8Q9X5	
UniRef90_X1V7F4	
UniRef90_G7KWR9	N G
UniRef90_B9WJV9	
UniRef90_L2GSZ9	
UniRef90_P27894	K G
UniRef90_G7KYY7	I G
UniRef90_W6L402	
UniRef90_N1QPM3	K G
UniRef90_A9TM12	
UniRef90_A9CTQ1	
UniRef90_W5GXA5	V G
UniRef90_UPI000333636B	K G
UniRef90_M7YHQ4	G G
UniRef90_E9GQL9	
UniRef90_J0FRS6	S
UniRef90_I1ELI7	K G
UniRef90_Q8RP43	
UniRef90_K2E851	
UniRef90_M4CZD7	K G
UniRef90_UPI000360E861	F G
UniRef90_K1QZE9	S
UniRef90_B4M560	
UniRef90_H3G014	K
UniRef90_F2EKI5	
UniRef90_E1SRN7	F G
UniRef90_G7YBX1	
UniRef90_M7BG76	K G
UniRef90_M4DQD2	K G
UniRef90_F8URE8	G G
UniRef90_Q6CIA7	V G
UniRef90_N2ATL1	
UniRef90_G5AZ64	G G
UniRef90_U9SW02	
UniRef90_N2AAB0	
UniRef90_Q4L0F1	
UniRef90_W6U2Y9	K G
UniRef90_A1QZ60	S
UniRef90_F0X9Z0	I G
UniRef90_UPI000376AAB7	P G
UniRef90_H2RGH2	
UniRef90_D9SV82	
UniRef90_UPI00020363FE	
UniRef90_UPI000366AA03	G
UniRef90_J3JS43	G G
UniRef90_UPI00021A4390	P G
UniRef90_Q48EQ2	
UniRef90_Q63718	
UniRef90_M5WGS8	G
UniRef90_E6TT44	A G
UniRef90_Q71MI2	
UniRef90_A1XM63	A G
UniRef90_K6SXJ8	P G
UniRef90_A0AFF5	P G
UniRef90_E1R5V2	P
UniRef90_M5X425	
UniRef90_L7JVZ6	
UniRef90_F7NEV7	

The figure displays a sequence logo for a protein multiple sequence alignment. The x-axis represents the position of the amino acid, ranging from 1 to 40. The y-axis lists various UniProt IDs. Each position is represented by a vertical stack of colored bars, where the height of each bar corresponds to the frequency of a specific amino acid at that position. The colors represent different chemical properties: yellow for hydrophobic (I, L, V, F, Y, W), blue for polar (G, S, T, C, P, H, D, E, N, Q, M, K, R), red for acidic (D, E), green for basic (R, K), and purple for aromatic (F, Y, W). Conserved regions are highlighted with yellow boxes.

UniRef90\_R6FFE7  
 UniRef90\_X6MKS7  
 UniRef90\_A0A024EGM4  
 UniRef90\_Q0TU17  
 UniRef90\_G8Q484  
 UniRef90\_W6N486  
 UniRef90\_H3G017  
 UniRef90\_J5L0F2  
 UniRef90UPI0002D4F645  
 UniRef90\_R5UON7  
 UniRef90UPI0003456277  
 UniRef90\_K8E3D7  
 UniRef90\_C7NB3J  
 UniRef90\_G4T1F9  
 UniRef90\_A2ZC99  
 UniRef90\_U1QPB5  
 UniRef90\_R7H9A3  
 UniRef90\_Q08Z63  
 UniRef90UPI0002C2F3DE  
 UniRef90\_A7HA13  
 UniRef90\_A0A023UL06  
 UniRef90UPI0004162AC3  
 UniRef90UPI0003797AA9  
 UniRef90UPI0003B43874  
 UniRef90UPI000422AB0A  
 UniRef90\_M0T775  
 UniRef90\_D5BWE5  
 UniRef90UPI0003784583  
 UniRef90\_X0V1U5  
 UniRef90UPI00006CB7AD  
 UniRef90\_E3N348  
 UniRef90\_L1IGW3  
 UniRef90\_C0JP89  
 UniRef90\_M5WF04  
 UniRef90\_W118G8  
 UniRef90\_U6HD62  
 UniRef90\_U6BBY1  
 UniRef90\_G5AHP9  
 UniRef90UPI00046E25E0  
 UniRef90UPI00041ED9E8  
 UniRef90\_E1ZK85  
 UniRef90\_J1QC35  
 UniRef90\_G7JJ9  
 UniRef90\_G0QQK5  
 UniRef90\_V4MZ11  
 UniRef90\_R6Q3P4  
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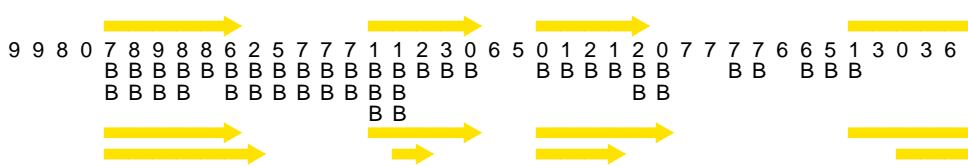
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UniRef90_W6N486	S P A G E Q A I   D V R Y T Y D I N G I   L E   V E   V T V L S N G L K K R A   I E K N S			
UniRef90_H3G017	R P I G E N E M A T T F S I D V N G I   L Q   L H   V K D   I D T G K E A Q T T I   E T S			
UniRef90_J5L0F2	M A A G A A H V R   V T Y Q V D A D G   L S   V T A M E K S T G V Q S S   I Q V K P S			
UniRef90_UPI0002D4F645	A P A G S E M V D I T F R Y N   L N G I   L E   V T A R G V S   K D E A I T V T			
UniRef90_R5UON7	G R A G E E A V D V T Y T Y D I N S   I L E   V E   V K V V S S Q K Q V K E V F K G S			
UniRef90_UPI0003456277	K P A G E L Q V E V H F D F D   L N G I   L T   V T A T E K G K G Q K D T L V V V N N			
UniRef90_K8E3D7	V P K G E P V D V T F R Y T D H D G I   L E   V I V T V P R T K T N R I V I E N T			
UniRef90_C7NBJ3	N L A G R E N V E V T R F T Y D I N G I   L E   A E V T A L S T G K R N K L I I N G			
UniRef90_G4T1F9	V P A G N I I T L T A L D L N G M L H   V S A K E K A T G L E K S I T I N N			
UniRef90_A2ZC99	A P R G V P Q   D V T F E F D A N G   V L H   V S A K D M G T G S K N N I A I T N H			
UniRef90_U1QPB5	R P P G E P S L A V E F R I T T D G R   L A V T G E D L K T G K Q V E T E I E S			
UniRef90_R7H9A3	A P E G E Q V V K V T F I Y D I N G I   L D V N   L E S S V I E K V H K V I V N K Q			
UniRef90_Q08Z63	D K A G R V V Q V E I T F D V S V E G I   L T M R A R D P A T G R E M R T T V			
UniRef90_UPI0002C2F3DE	G P K G K P K I I C F E I D   G P R G M V K   A V G F E L G A E C L L T V T A R E L N T G R E			
UniRef90_A7HA13				
UniRef90_A0A023UL06				
UniRef90_UPI0004162AC3	K P A G Q A G A D   V R F T Y D I N G   V L E   V E A T A F P   D G V K R A M V I E E N			
UniRef90_UPI0003797AA9	K P A G E I S L E   V R F T Y T L D G I   L E   T E C T   L D S G E R H R L V I E K N			
UniRef90_UPI0003B43874	A P A G D P L V   V R F D D L D G I   L N V   T A T E K A T G L E K S I R I E H			
UniRef90_UPI000422AB0A	V P A G N T I   T V T L D L D   L N G I   L H   V S A R E K E T G L S K S I T I N N			
UniRef90_M0T775	A P R G V P Q I N V C F   V P A G N P   I V M R L S   L D L D G V L N V   S A V E K S T G   L E K S I T			
UniRef90_D5BWE5	N K A G E E S   I D V T Y T Y D I N S   I L E   V E V C V T S S G Q R Q R Q I I K G			
UniRef90_UPI0003784583				
UniRef90_XOY1U5				
UniRef90_UPI00006CB7AD	I Q Q G K I   E V E I T A Q I   E W M G   L V N   T A V E K S T N   V M N S   T F Q S N			
UniRef90_E3N348	K K R G E S V V D V T   L E   V D H N G I   L Q A T A L D   L N T K G I   T T T I			
UniRef90_L1IGW3	A K A G V P Q I L V T F D I D A N G   I L K   V T A M D K V T N A K A N   V I S N			
UniRef90_C0JP89				
UniRef90_M5WF04	A P K N   L T E F E V C   L A I   D A D G   I L S   V S T E D K Y T G Q K K A   S F N S D			
UniRef90_W118G8	P Q A G D A I I T   T F A L D   I N G I   L Q V T T I   E K K T G K K E S I T   D N			
UniRef90_U6HD62	K P R G E I N I T   I T   T F K Y N   L N G   L L E   V S A E V L G F G   Q K Q   L E V R P K			
UniRef90_U6BBY1	R P A G Q V E L   E V T F K Y N   L N G   L L E   V S A E V L G F G   Q K Q   L E V R P K			
UniRef90_G5AHP9	T K R G E P Q Y A G E F H I E   K D P S G N   Y K L F I D N N			
UniRef90_UPI00046E25E0	A L N N L P G F   C I C   C F S   I D A D G   I L S   V S S E H K Y T W Q K K G I   T F N R D			
UniRef90_UPI00041ED9E8	K K A Q E N P   D V R F T Y D V N G   V L Q V E V E V I A T K Q R H E   L I L E K N			
UniRef90_E1ZK85				
UniRef90_J1QC35	R R A G E V K   I D   V R F T Y T   L D G   I L E   V E   C K V Q G E S T A S T   L I I E K A			
UniRef90_G7JJ9	S G P R G Q T F E G C F A   I D E N A I   L T   V S V K E T S T G N T N E   I T L T N D			
UniRef90_G0QQK5	T R K G W L Q   I K V E F D I D   L L G Q C K   V S I R E K			
UniRef90_V4MZ11	R P A G E V F   I E V R F T Y D I N G   I L E   V D V H   V P M T G E R R Q   L V I			
UniRef90_R6Q3P4	D K A G N Q W A K V   T F M Y D I N G   I L Y   V S V Q   S C T G E   I K E K E I V N E			
UniRef90_UPI00006D01CC	L P K G V P E   I K I T   T I K D K D I   L V   V N V K D M N S   L K E Q E A I I E S Y			
UniRef90_F6VZF8	N A P G F L H   S E V T F H   I D S N D I   L N V S A M H R N T S   S K E D K I			
UniRef90_B5SC20	R P A G Q V Q   L D   V R F T Y D V N G   I L E   A E G T   L V E T G E T H   V L V I E E N			
UniRef90_A2WHG1	K P A G Q A G A R I   R F T Y D V S G V   L E   V E A T A F P   D G V T R K   L V I E E N S			
UniRef90_M7TRC5	M K A G D A V   L E V V F   E V D V N G   I L K   V T A T E K T S G R S A N I   T I A N S			
UniRef90_A1TV08	K S R E E S S V D V   R F S Y D V N G   I L Q   V E A T V   P S T Q K T F S V V I E G N			
UniRef90_I8AGP5	G K A T Q E T I   D I R Y T Y D I N G   I L L E   V E A T V V S T G K K E R L   F L Q Q S			
UniRef90_W6M1E6	A P A N N P   I I Q F A   L D L N G   I M Q   V T A R E K N T G   L E K S I R I D N			
UniRef90_G7IQ96	A P R G V P Q   I S V C   F D I D A N G   I L D   V F A E D K T T C   Q S T K I T I T N D			
UniRef90_G1N8R5				
UniRef90_UPI000377CFA4	R P A G E V T V   D V R F S Y D A S G   I L A   V D V E D K V G G R K A N K V I			
UniRef90_L1JK08	R R G R E I T   I N V T M S   V D K D G   I L T   V T G T A E G T D   I K K D   S V R A N			
UniRef90_G7K2D5	A P K G V P E   I S V C   M D I   D A A N V   L R V			
UniRef90_A7BPD2	V P Q G N P   I L L K   L E   L D L N G   I L H   V S A I E K N T G F E K S I F I D N			
UniRef90_V4Q7P3	R P A G E V T A   D C   R F T Y D I N G   I L E   V D V H   P M T G E K H Q L V I			
UniRef90_M0U1N3	A P K G T A E   I S V C   M D I   D A A N T   L R V   F A			
UniRef90_UPI00036DD83E	A R A G E E S   I E V Q F D Y D   L N G   I L E   V K A T I   M S T G G S   I N K   I D N			
UniRef90_UPI00031C013B	K P A G E V G V   E V R F T Y D T S G   I L D   V D V N V P   L T G   L T R N L V V			
UniRef90_S3YVP8	P N D D Q L   S I   D V R F S Y N P   G N G   I L D   V D V E   V P A T G E K K Q V V V N H Q			
UniRef90_Q7UVU8	G P A G S P   I I Y V R F T Y D L S G V   L E   V E A Y A P G   G E R F R T V L T N			
UniRef90_Q4VG09	A P K N V   P K I   E V T F E S D A N G   I C K   I T A R D A   L T K K E Q S   L E L L P S			
UniRef90_X6L7N0	A S S G I   S Q I   E V T F D Y D V H E			
UniRef90_U3B529	A T G E   I Q A   L D   D V R F S Y D I N G   I L L E   V D V T L L A N G E R   H A H S I D R S			
UniRef90_S9S3Q0	L P R A Q C   A V D   V R F T Y D V N G   I L L Q V E A T V Q K T Q E T V S L I I E D N			
UniRef90_M0TD77	A P R G M P Q			
UniRef90_G0JXM7	G P L H E R S   V T A R F T Y D V N G   I L L Q   V E V T E D A T G K R Q E   L I L E Q N			
UniRef90_G1PY32	A L C A   V Q P   F E V T F D   I D T N G   I T F N I   S T V D E S G K E N K I   T I T K H			
UniRef90_Q2FPF2	M P A E E N K   I E V T F A   F V G E E G I   L N V R A Y D T D S G N E R T V K F E S R S			
UniRef90_H3FHQ8	K N V G E N R   V Q A T F S V   D A N G   I L S   V N L K D E D T F K E S S L K V Q T S			
UniRef90_T0KVA3	C P A G   T R I   N V T   V D V P   E L L G S F N   V S A R V V I M E T E E S L R V E H A			
UniRef90_K9PQY0	K P A G G I Q   E V H F D F D   L N G   I L T   V T T E K G K G Q Q G T   L V V N N			
UniRef90_C6M609	K P K G Q V S   I D V R F S Y D I N G   I L L E   V D D V N L   P D S G D N F T K V I D R S			
UniRef90_C6DJ45	K S Y K Q S   I E V R F S Y D I N G   I L L E   V D D V N L   P D S G D N F T K V I D R S			
UniRef90_A0A023MTI8	G H   I Q A   I D I R F S Y D I N G   I L L E   V D V L L E   D G K S E S R I I S H N			
UniRef90_U6JJH1	D L L G L V K F Y   L T I E   D E S G I L H   V S A V K K T F W K R K S I T			
UniRef90_K2JF76	K H D Q L   E G   L V T F T Y D I N G   I L D G V   L E   V V T T I   E S T G M Q A K			
UniRef90_UPI0002C3F4FD	Q P K G S P   I V R F   I D S S G   L E T   V E A K M E G   G   Y H S L L I V E			
UniRef90_L9L0H6	A P R G T K K   I Q L T M S   L D Q N G   I L T M S V E			
UniRef90_A0A0311G1	R P A G E V R A D V   R F S Y D A S G   I L E   V D V T   P I T Q   T F Q R   V V S E G			
UniRef90_D5WS49	S L P V G S P   V E L T Y R Y D E N R   R I T   V V A K E L T G G R Q A T C E I H W S			
UniRef90_UPI0004080E20	N H T G Y E E   V D I R F T Y D V S G V   L E   V L V T S V   S D Q K T Q R V V I E G N			
UniRef90_R7JZD9	K P K G Q V K   I K V K F D Y D L   S R T   L Q   V T A Y E E   G K E D K K T			
UniRef90_M5BZV8	T P A G G T V   S   E V K L Y   L E G Y S K   V V E A V E S T G S R K V T S V V Q R D			
UniRef90_D3BIX6	A P K G I S K   Q V I F D I N I N G S F T   I F A I D   L G S R I S A S L D I			
UniRef90_G7TQA8	A P W G V P   Q I V L V   K T K T C   Q Q L I K I   T I T N D			
UniRef90_D8LZ22	A P K G T K K   I Q L T M S   L D Q N G   I L T M S V E			

UniRef90\_R6FFE7  
UniRef90\_X6MKS7  
UniRef90\_A0A024EGM4 P G  
UniRef90\_Q0TUJ7 K G  
UniRef90\_G8Q484 A G  
UniRef90\_W6N486 P G  
UniRef90\_H3G017 K  
UniRef90\_J5L0F2 Y G  
UniRef90UPI0002D4F645  
UniRef90\_R5UON7  
UniRef90UPI0003456277  
UniRef90\_K8E3D7 P G  
UniRef90\_C7NB3  
UniRef90\_G4T1F9  
UniRef90\_A2ZC99 S G  
UniRef90\_U1QPB5  
UniRef90\_R7H9A3 I G  
UniRef90\_Q08Z63  
UniRef90UPI0002C2F3DE  
UniRef90\_A7HA13  
UniRef90\_A0A023UL06  
UniRef90UPI0004162AC3 P G  
UniRef90UPI0003797AA9 P G  
UniRef90UPI0003B43874  
UniRef90UPI000422AB0A  
UniRef90\_M0T775  
UniRef90\_D5BWE5  
UniRef90UPI0003784583  
UniRef90\_X0V1U5  
UniRef90UPI00006CB7AD P  
UniRef90\_E3N348  
UniRef90\_L1IGW3  
UniRef90\_C0JP89  
UniRef90\_M5WF04 K  
UniRef90\_W118G8  
UniRef90\_U6HD62  
UniRef90\_U6BBY1 S  
UniRef90\_G5AHP9 S G  
UniRef90UPI00046E25E0 K  
UniRef90UPI00041ED9E8 P G  
UniRef90\_E1ZK85  
UniRef90\_J1QC35 P G  
UniRef90\_G7JJ9 K  
UniRef90\_G0QQK5  
UniRef90\_V4MZ11  
UniRef90\_R6Q3P4 K  
UniRef90UPI00006D01CC S  
UniRef90\_F6VZF8  
UniRef90\_B5SC20 P G  
UniRef90\_A2WHG1 P G  
UniRef90\_M7TRC5 V G  
UniRef90\_A1TV08 P G  
UniRef90\_I8AGP5 S  
UniRef90\_W6M1E6  
UniRef90\_G7IQ96 K G  
UniRef90\_G1N8R5  
UniRef90UPI000377CFA4  
UniRef90\_L1JK08 K G  
UniRef90\_G7K2D5  
UniRef90\_A7BDP2  
UniRef90\_V4Q7P3  
UniRef90\_M0U1N3  
UniRef90UPI00036DD83E  
UniRef90UPI00031C013B  
UniRef90\_S3YVP8 S  
UniRef90\_Q7UVU8  
UniRef90\_Q4VG09 G G  
UniRef90\_X6L7N0  
UniRef90\_U3B529 P  
UniRef90\_S9S3Q0 P G  
UniRef90\_M0TD77  
UniRef90\_G0JXM7 P G  
UniRef90\_G1PY32 K  
UniRef90\_Q2FPF2 S  
UniRef90\_H3FHQ8 K  
UniRef90\_T0KVA3 P  
UniRef90\_K9PQY0  
UniRef90\_C6M609  
UniRef90\_C6DJA5 P  
UniRef90\_A0A023MTI8  
UniRef90\_U6JJH1  
UniRef90\_K2JF76  
UniRef90UPI0002C3F4FD  
UniRef90\_L9L0H6  
UniRef90\_A0A031I1G1 D G  
UniRef90\_D5SW49 S  
UniRef90UPI0004080E20 P G  
UniRef90\_R7JZD9  
UniRef90\_M5BZV8 K  
UniRef90\_D3BIX6  
UniRef90\_G7IQA8 K G  
UniRef90\_D8LZ22

UniRef90\_A6VV43  
 UniRef90\_A0C707  
 UniRef90\_U5YP43  
 UniRef90\_K1TV98  
 UniRef90\_J6CXN9  
 UniRef90\_A2E407  
 UniRef90\_X6NA88  
 UniRef90\_W1Q3A7  
 UniRef90\_UPI000234EE3C  
 UniRef90\_V5GBY4  
 UniRef90\_R1FCU9

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

lupas\_21  
 lupas\_14  
 lupas\_28  
 jnet  
 conf  
 sol25  
 sol5  
 sol0  
 jhmm  
 jpssm



lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm

The figure displays a sequence alignment of eleven UniRef90 proteins. The proteins are listed on the left: UniRef90\_A6VV43, UniRef90\_AOC707, UniRef90\_U5YP43, UniRef90\_K1TV98, UniRef90\_J6CXN9, UniRef90\_A2E407, UniRef90\_X6NA88, UniRef90\_W1Q3A7, UniRef90\_UP100234EE3C, UniRef90\_V5GBY4, and UniRef90\_R1FCU19. The alignment is shown as a grid of amino acids, with positions 90, 100, 110, and 120 indicated at the top. A central motif, including positions 100-104, is highlighted in yellow. The sequence is highly conserved, with most positions showing identical amino acids across all proteins.

lupas\_21  
lupas\_14  
lupas\_28

The diagram shows a sequence of numbers: 7, 7, 7, 7, 7, 1, 5, 8, 8, 9, 9, 8, 8, 6, 1, 2, 2, 1, 8, 8, 8, 9, 9, 9, 6, 4, 8, 8, 8, 0, 3, 8, 8, 9, 8, 6, 0, 6, 8. Arrows above the sequence group the numbers into segments: (7, 7, 7, 7, 7), (1, 5, 8, 8, 9, 9, 8, 8, 6, 1, 2, 2), (1, 8, 8, 8, 9, 9, 9, 6, 4), (8, 8, 8, 0, 3, 8, 8, 9, 8, 6, 0, 6, 8). Below the sequence, the letters B are placed under specific digits: B under the first seven 7's, B under the first five 8's, B under the first four 9's, B under the first three 8's, B under the first two 6's, B under the first two 1's, B under the first two 2's, B under the first two 8's, B under the first two 9's, B under the first two 6's, B under the first two 0's, B under the first two 3's, B under the first two 8's, B under the first two 9's, and B under the first two 6's.

UniRef90\_A6VV43  
UniRef90\_A0C707  
UniRef90\_U5YP43  
UniRef90\_K1TV98  
UniRef90\_J6CXN9  
UniRef90\_A2E407  
UniRef90\_X6NA88  
UniRef90\_W1Q3A7  
UniRef90UPI000234EE3C  
UniRef90\_V5GBY4  
UniRef90\_R1FCU9

T

lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
solo  
jhmm  
jpssm

9 9