

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

QUERY		90	100	110	120																																										
UniRef90_K2GYT7	A	L	R	D	T	D	M	V	F	I	T	S	A	G	G	G	G	T	G	T	G	A	S	P	V	I	A	K	T	A	K	E	M	G	L	L	T	V	A	V							
UniRef90_R5WDW1	I	L	K	Q	D	A	N	M	V	F	V	T	C	C	C	G	M	G	G	G	T	G	T	G	A	A	P	V	V	A	E	M	A	R	K	N	D	M	G	I	L	L	T	V	V	G	V
UniRef90_W3APC3	A	L	K	Q	D	A	N	M	V	F	V	T	C	C	C	G	M	G	G	G	T	G	T	G	A	A	P	V	V	A	K	R	I	A	K	E	L	G	I	L	L	T	T	V	V	G	V
UniRef90_H1HSU4	A	L	K	Q	D	T	D	M	V	F	V	T	C	C	C	G	M	G	G	G	T	G	T	G	A	A	P	V	V	A	N	I	A	K	E	L	G	I	L	L	T	T	V	V	G	I	
UniRef90_K1YHQ3	M	L	K	Q	D	T	D	M	V	F	V	T	C	C	C	G	M	G	G	G	T	G	T	G	A	A	P	V	V	A	N	I	A	K	E	L	G	I	L	L	T	T	V	V	G	I	
UniRef90_R5W6J2	I	A	K	D	A	D	M	V	F	I	T	A	G	M	G	G	G	G	T	G	T	G	A	A	P	V	V	V	A	R	A	A	K	E	R	S	G	I	L	L	T	T	V	V	G	V	
UniRef90_G5ZZ46	E	L	A	D	S	H	M	V	F	I	T	A	G	M	G	G	G	G	T	G	T	G	A	A	P	V	V	V	A	R	A	A	K	E	R	S	G	I	L	L	T	T	V	V	G	V	
UniRef90_X1T5K2	I	E	L	S	E	G	A	D	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	E	D	L	G	K	Q	S	G	A	L	L	T	T	V	V	G	V
UniRef90_W5XF16	E	L	S	E	G	C	D	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	E	D	M	A	R	R	S	M	G	I	L	L	T	T	V	V	G	V
UniRef90_K2EQT9	V	V	K	G	A	D	M	V	F	V	T	C	G	L	G	G	G	G	T	G	S	G	V	A	P	I	V	V	A	E	V	A	K	E	S	G	A	L	L	T	T	V	V	G	V		
UniRef90_R7F5F3	A	L	R	D	G	T	D	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	G	I	A	K	E	M	G	I	L	L	T	T	V	V	G	V		
UniRef90_E8U8A4	Y	L	D	G	T	D	M	L	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	G	I	A	R	E	M	G	I	L	L	T	T	V	V	G	V			
UniRef90_UPI0002F5D2CC	H	L	E	G	V	H	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	R	M	A	R	E	R	G	V	L	L	T	T	V	V	G	V			
UniRef90_UPI0003B58118	E	M	L	R	G	A	D	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	R	I	A	K	E	L	G	C	L	L	T	T	V	V	G	V		
UniRef90_D7FPY0	E	L	E	G	S	H	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	E	A	C	M	E	A	G	I	L	L	T	T	V	V	G	V			
UniRef90_D3PTI3	Y	L	E	G	A	D	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	Q	I	A	K	N	L	G	A	L	L	T	T	V	V	G	V			
UniRef90_F8A110	A	L	E	G	A	D	M	V	F	I	T	C	G	L	G	G	G	T	G	T	G	A	A	P	V	V	V	A	S	I	A	K	K	M	G	A	L	L	T	T	V	V	G	V			
UniRef90_D8PBC5	S	L	V	G	A	D	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	S	I	A	R	E	L	G	A	L	L	T	T	V	V	G	V			
UniRef90_K2DKM3	I	L	D	G	T	D	M	V	F	L	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	R	A	A	K	E	L	V	G	A	L	L	T	A	V	V	G	V		
UniRef90_A9F171	C	I	Q	G	A	D	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	Q	L	A	R	E	E	G	C	L	L	T	T	V	V	G	V			
UniRef90_UPI000428209A	A	L	Q	G	A	D	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	E	I	A	S	K	E	L	L	G	I	L	L	T	T	V	V	G	V	
UniRef90_Q92GV7	A	L	E	N	S	N	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	S	A	P	V	V	V	A	R	I	A	V	K	E	L	L	G	I	L	L	T	T	V	V	G	V	
UniRef90_UPI0004785EB4	E	L	K	G	A	D	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	S	S	P	V	V	V	A	S	L	A	K	E	L	L	G	A	L	L	T	T	V	V	G	V		
UniRef90_B5YFS8	C	I	E	G	S	D	L	I	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	S	L	A	K	E	L	L	G	I	L	L	T	T	V	V	G	V		
UniRef90_E1YBV9	A	L	E	D	S	H	M	V	F	I	T	A	G	F	G	G	G	T	G	T	G	A	A	P	V	V	V	A	K	T	A	S	K	E	D	L	G	A	L	L	T	T	V	V	G	V	
UniRef90_K2FPM4	V	L	K	S	G	S	D	M	V	F	I	C	A	G	M	G	G	G	T	G	S	G	A	P	I	V	V	A	E	T	A	K	E	S	L	G	A	L	L	T	T	V	V	G	V		
UniRef90_B5YNW2	M	V	K	S	G	A	D	L	C	F	I	T	S	A	G	M	G	G	G	T	G	S	G	A	P	I	V	V	A	E	V	S	K	E	S	G	A	L	L	T	T	V	V	G	V		
UniRef90_F4LJJ4	I	L	K	G	A	D	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	R	I	A	V	K	Q	Q	G	A	L	L	T	T	V	V	G	V		
UniRef90_S9PF10	M	I	E	G	A	D	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	S	A	P	I	V	V	A	D	I	A	K	E	S	L	G	C	L	L	T	T	V	V	G	V		
UniRef90_E7NQ72	A	V	K	G	A	D	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	S	A	P	I	V	V	A	I	A	K	E	S	L	Q	G	A	L	L	T	T	V	V	G	V		
UniRef90_K3X941	A	L	Q	D	S	N	M	L	F	I	T	G	G	M	G	G	G	T	G	T	G	A	A	P	I	V	V	A	S	I	A	R	E	L	G	I	L	L	T	T	V	V	G	V			
UniRef90_UPI00021970B5	A	L	N	D	A	D	M	V	F	V	T	S	G	M	G	G	G	T	G	T	G	A	A	P	I	V	V	A	K	I	A	K	A	D	A	G	A	L	L	T	T	V	V	G	V		
UniRef90_D9SJN5	M	L	S	G	A	N	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	I	V	V	A	Q	I	A	R	E	A	M	N	L	L	T	T	V	V	G	V			
UniRef90_F5WTJ6	A	V	K	D	A	D	M	V	F	V	T	A	G	L	G	G	G	T	G	T	G	A	S	P	L	V	V	A	K	I	A	Q	E	E	G	A	L	L	T	V	V	G	I				
UniRef90_Q3B134	Q	L	E	G	A	D	M	V	F	V	T	A	G	M	G	K	G	T	G	T	G	A	A	P	V	V	V	A	R	A	A	R	N	K	M	G	I	L	L	T	T	V	V	G	V		
UniRef90_UPI0003B57439	A	L	D	D	G	A	H	M	C	F	I	A	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	R	A	A	R	E	K	G	I	L	L	T	T	V	V	G	V		
UniRef90_UPI00047C25C9	S	L	Q	G	A	D	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	I	V	V	A	E	V	A	K	E	M	G	I	L	L	T	T	V	V	G	V			
UniRef90_H4GL72	A	L	E	G	A	D	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	K	L	A	K	D	S	G	A	L	L	T	T	V	V	G	V			
UniRef90_UPI0003B6F925	A	J	K	G	S	D	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	L	V	V	A	K	I	A	S	K	E	E	G	A	L	L	T	T	V	V	G	V		
UniRef90_B9L286	L	V	R	G	A	D	M	I	F	I	T	A	A	G	M	G	G	G	T	G	T	G	A	S	P	V	V	V	A	R	L	A	R	E	A	G	A	L	L	T	T	V	V	G	V		
UniRef90_V2XZ92	A	L	S	G	A	D	M	V	F	V	T	C	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	E	I	A	K	E	M	G	I	L	L	T	T	V	V	G	V		
UniRef90_Q04VM8	S	V	R	G	A	D	M	V	F	V	T	A	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	K	I	A	K	E	M	K	C	L	L	T	V	V	G	V			
UniRef90_UPI00046FBB97	I	L	E	N	T	K	M	A	F	I	T	C	A	G	M	G	G	G	T	G	T	G	G	A	P	I	V	V	A	K	I	C	R	E	L	G	I	L	L	T	T	V	V	G	I		
UniRef90_W1U2V7	A	L	Q	G	A	D	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	G	A	P	I	V	V	A	E	C	A	K	E	M	G	A	L	L	T	T	V	V	G	V			
UniRef90_E8MYN6	A	L	K	G	A	D	M	V	F	V	T	A	A	G	M	G	G	G	T	G	T	G	A	A	P	L	V	V	A	Q	I	A	K	E	V	G	A	L	L	T	T	V	V	G	V		
UniRef90_K2AJ64	V	L	K	G	S	D	M	V	F	V	T	Y	G	S	G	G	G	T	G	T	G	A	G	P	M	V	V	A	A	I	A	K	E	L	L	G	A	L	L	T	T	V	V	G	V		
UniRef90_A0A059E6Y6	R	L	E	G	A	H	M	V	F	I	T	A	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	R	A	A	K	E	M	N	L	L	T	T	V	V	G	V			
UniRef90_B1WVS7	A	L	E	D	T	D	L	V	F	I	T	A	A	G	M	G	G	G	T	G	T	G	A	A	P	I	V	V	A	E	I	A	K	E	K	G	C	L	L	T	T	V	V	G	V		
UniRef90_K5YYQ9	H	L	E	N	T	H	M	V	F	I	T	A	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	R	M	A	R	E	R	D	I	L	L	T	T	V	V	G	V		
UniRef90_R6T1Y7	S	L	S	G	A	D	M	V	F	I	T	C	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	E	V	A	K	S	L	G	A	L	L	T	T	V	V	G	V		
UniRef90_R6FTJ3																																															

QUERY UniRef90\_K2GYT7 UniRef90\_R5WDW1 UniRef90\_W3APC3 UniRef90\_H1HSU4 UniRef90\_K1YHQ3 UniRef90\_R5W6J2 UniRef90\_G5ZZ46 UniRef90\_X1T5K2 UniRef90\_W5XF16 UniRef90\_K2EQT9 UniRef90\_R7F5F3 UniRef90\_E8U8A4 UniRef90\_UPI0002F5D2CC UniRef90\_UPI0003B58118 UniRef90\_D7FPY0 UniRef90\_D3PTI3 UniRef90\_F8A110 UniRef90\_D8PBC5 UniRef90\_K2DKM3 UniRef90\_A9F171 UniRef90\_UPI000428209A UniRef90\_Q92GV7 UniRef90\_UPI0004785EB4 UniRef90\_B5YFS8 UniRef90\_E1YBV9 UniRef90\_K2FPM4 UniRef90\_B5YNW2 UniRef90\_F4LJJ4 UniRef90\_S9PF10 UniRef90\_E7NQ72 UniRef90\_K3X941 UniRef90\_UPI00021970B5 UniRef90\_D9SJNI5 UniRef90\_F5WTJ6 UniRef90\_Q3B134 UniRef90\_UPI0003B57439 UniRef90\_UPI00047C25C9 UniRef90\_H4GL72 UniRef90\_UPI0003B6F925 UniRef90\_B9L286 UniRef90\_V2XZ92 UniRef90\_Q04VM8 UniRef90\_UPI00046FBB97 UniRef90\_W1U2V7 UniRef90\_E8MYN6 UniRef90\_K2AJ64 UniRef90\_A0A059E6Y6 UniRef90\_B1WV57 UniRef90\_K5YYQ9 UniRef90\_R6T1Y7 UniRef90\_R6FTJ3 UniRef90\_B0BYG5 UniRef90\_D9QVN4 UniRef90\_B7IDH7 UniRef90\_I0GKL4 UniRef90\_K0DCP7 UniRef90\_K2BQI3 UniRef90\_Q04ET3 UniRef90\_UPI00036FC59C UniRef90\_S4XBT9 UniRef90\_D5E962 UniRef90\_A7NI86 UniRef90\_G0EKM5 UniRef90\_E3PT06 UniRef90\_UPI00047CD0A0 UniRef90\_E0MJG0 UniRef90\_UPI0004793F51 UniRef90\_Q39YL4 UniRef90\_R5PV45 UniRef90\_UPI000346F039 UniRef90\_C4LA29 UniRef90\_M1VLP4 UniRef90\_UPI0003B78294 UniRef90\_R5FW86 UniRef90\_G0QDW0 UniRef90\_E7MM19 UniRef90\_UPI000476C43C UniRef90\_R7K169 UniRef90\_Q47AA9 UniRef90\_R5INM1 UniRef90\_B0VH45 UniRef90\_C6WYI1 UniRef90\_M2NRH8 UniRef90\_V5SHU0 UniRef90\_W1TPY7 UniRef90\_H0E908 UniRef90\_Q75ZR3 UniRef90\_M5A157 UniRef90\_F7YUA4 UniRef90\_B5YEK8 UniRef90\_N1ZLX1

130 140 150 160

A T L P F R F E G P R K M E K A L K G L 140 E K L K E S S D A Y V I H N D N K I K S  
V T T K P F F A F E E G W Q R R R A M F Q A W L L K D G G F L E K L K K E S V D D T L I T I P P N D D K K L L L L Q  
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QUERY  
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I C D K R R T T P L P D A L R K K A D Q V L Q Q Q A V R Q Q G G I V T D D L I N K P P G L I N N  
I V D R R R T T M P D A L R K K A D E V L E Q Q A V R Q Q G G I T T D L I N M P P G L I N N  
I V D R R R T T S M P E A F T G K A D E V L E Q Q A V R Q Q G G I T T D L I N M P P G L I N N  
V I D K K R T T S F K P E A F T M I D E K I L F L G V R Q Q G G I T S D L I I K P P G D I N N  
I C D R R R T T M P E A F L K K A D E V L Q Q Q G V R Q Q G G I V T D L I N Q T S M I N N  
L A N E R T T T L A D T F H M A D A V L H Q Q G V C G G I V T D L M I K P P G L I N N  
L C D Q K R T T G V D N A F K L A D D V L R R H G V Q Q A G I T S E V I T V P P G L I N N  
F V I D K R T T V M Q D A F A A A D D V L R R Q G V R Q Q G G I S D L I I L L P P G L I N N  
I I D K K T T L I N S F K I V D D V L R R Q G V R Q Q G G I S D L I I T K P P G L I V N N  
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A V D K K V S F R E A F L I A D R V L R Y Y G V R K G G I S D S D L I I N V E G M I N N  
K A N E R T T F A E A F K M A D D V L Y M G V R G G I V T D L M V N P P G L V N N  
N I T D K K T S V K E S F R K A D D V L C Q Q G V R E S G I V T S N I T T N P P G D V N N  
M V D K Q T S L L D S F R L A D D V L L A G A V R S G I V T D L I M V N P P G L I N N  
A L D K K V S A K D A F M I A D R V L Y H G V R K G G I T T D V I N L P P G Q I N N  
V A P N L P I H M A F K K V A D D E I L V I Q A V R K G G I T T E L I T K P P G L V N N  
I V D K A T P L L D A F K V A D D V L R Q A I V R Q Q G I S D L I T T T P P G L I N N  
I V D K K L S L V E A F K V A D S V L T Q Q A V R Q Q G I S D L I T M P P G L I N N  
L G D E D L S F V E A F R K A D D V L Y Q A I V R Q Q G I S D L I T Q N G L I V N N  
I V D R N T P M L E A F R E A D N V L R Q G A V R Q Q G I S D L I A V P P G L I N N  
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L A T R N T S M L E A F R M A D D V L R R Q G I R Q Q G I S D L I T M P P G L I N N  
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Q V I Q K D T P I R A E F S L A D N V L K K S V R Q Q G I S D L I T I P P G E V I N N  
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V I G R I P F Q E A F K E A D N V L R R Q G A V Q T I T D L I A V P A M I N N  
I A E E G V S A T E A Y N M A D D V L Y R A A K G G I A D I T S H G H I V N N  
I A N A N T F K D A F A M A D Q V L H R Q G V R G G I T D L M I M P P G L I N N  
V A E K K T S I V D A F R I A D D V L R R Q G V R Q Q G I S D L I A V P P G L V N N  
I T D K K T P M M E A F K K A D D V L R R Q G V R Q Q G I S D L I I N P P G Y I N N  
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M V D P K T P L T E T F R I A D D V L R R Q G I R Q Q G I T D L I T R P A G L V N N  
I M D R R T T Q P D E A F A K A D E V L R Q Q G V R Q Q G I T D L I A E D A D L V N N  
V V D K S T P I P E A F Q V I D I L L N A V R G G I T D L I I N N P A G L I N N  
Q Y G N L K M K D A F G K A D N V L A T A A K C I T D I I N S R G H I N N  
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I A N D R T T F A E A F R M A D D V L Y S G V R Q Q G I T S D L I M V M P P G L I N N  
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E L S W D I P F V E A F A K A D E V L Y Q Q G I K G G I S E L I T K R G L I N N  
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L I D K K T P L T E A F T V V D D V L R R Q G V R Q Q G I S D L I T V H G M I N N  
I M D R K A S L A D S F R A A D N T L L Q G V R Q Q G I S D L I T K P P G I N N  
T V N L D T S I Q M D A F K M A D D I L R R Q A V R Q Q G I S D L I T R P P G L I N N  
A G D P A L Q I Q N D A F R I A D E V L H S G A V E G G I T K L I T T P P G V I N N  
V V I P R L P L Q A A F K V S D E V L M R A V R K G G I T E L I T K P P G L V N N  
T A S K N T S M L Q A F Q M A D N V L R R Q G I R Q Q G I S D L I T Q R G L I N N  
M V M D D Y S Y E E A L S V V D D I L R R Q G V R Q Q G I S D I I T Q T G F I N N  
I C S K D T K M E D A F E M A N E V L K Q Q G V R Q Q G I T D L I K V P P G L I N N  
I V I Q K N T S M L D A F S I A D D V L K Q Q G V R Q Q G I S D L I A V P P G L I N N  
V A D E K T T F A G A F A M A D Q V L Y S G V A C I T D L M V K E P P G L I N N  
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V I P P E T P L Q E S F R M A D D T L R Q G V R Q Q G I S D I I T I P P G L V N N  
V L G R G V S L L D A F K A A N N V L M G A V R Q Q G I A E L I T R P P G L I N N  
I V P E N T P L Q D A F R V A D D I L R R Q G V R Q Q G I S E I I I R P P G L I N N  
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V A S E R T T F S E A F V M A D Q V L Y S G V A C I V D L I L K E P P G L I N N  
I S D Q N T M V D A F S A D E V L H S G V R Q Q G I T D L I T T S A L V N N  
L V E K R T S L Q E A F R S A D N I L R R Q G V R Q Q G I S D L I T I P P G L I N N  
V V G E S T P L Q D A F L A D D V L R R Q G V R Q Q G I S D L I T I P P G L V N N  
V A N D K T S V L N A F K M A D E V L L Q G V R Q Q G I T G L I T T P P G L I N N  
E L P S D V T V V N A F L K A D E T L H Q A V R K G G I S E L I T K R G Y I N N  
I G D K N T P I L E S F K K A D E V L R Q A V R Q Q G I T E L I T V P P G L I N N  
I T D K K T T L T E A F K K V D E V L R Q Q G V R Q Q G I A D L I S K P P G L I N N

	1	10	20	30	40																																									
UniRef90_A3ZA81	A	R	E	V	I	G	V	G	G	G	S	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L		
UniRef90_C0VZB5												S	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L	
UniRef90_F8AGL7		K	I	A	I	I	G	V	G	G	S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L	
UniRef90_UPI0003744A1F												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_UPI0003700764												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_R7FV71												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_D8UAE3	A	R	I	K	V	I	G	V	G	G	G	G	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L	
UniRef90_D6Z3P6												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_R5HHR0												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_S6BAH2												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_Q3SMG7	A	V	I	K	V	I	G	V	G	G	G	G	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L	
UniRef90_UPI000405A258	A	N	I	K	V	I	G	V	G	G	G	G	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L	
UniRef90_W0DX18			I	K	V	I	G	L	G	G	G	S	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L	
UniRef90_R7RNR6												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_K0YHB9												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_M2U2Q6												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_E6QM40	A	R	I	K	V	I	G	V	G	G	G	G	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L	
UniRef90_UPI00036B4F5E												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_C1MRQ5	A	T	I	K	V	I	G	C	G	G	G	G	S	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_UPI0003B71572	A	T	I	K	V	I	G	V	G	G	G	G	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L	
UniRef90_H0JH65												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_UPI00046CC05D												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_C7N4V1												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_D5MI49	A	R	I	K	V	I	G	V	G	G	G	S	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L	
UniRef90_R5DSD3												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_Q5NTW8	A	R	I	K	V	I	G	V	G	G	G	S	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L	
UniRef90_D7BNB2												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_T0Y4Q0	A	V	I	K	V	I	G	V	G	C	G	G	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L	
UniRef90_UPI0002195A08												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_UPI00046D0EAD												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_X0VC54	A	K	I	K	V	I	G	T	G	G	A	G	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_T0YV15												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_R6GW54												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_R7DRJ8	A	R	I	I	V	I	G	V	G	G	A	G	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_Q67Q39												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_L0DXB6	A	T	I	K	V	I	G	V	G	G	G	G	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L	
UniRef90_Q70ZZ7												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_A2RMU1												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_UPI000479FCDC												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_H1LCH6	A	N	I	K	V	I	G	V	G	G	G	S	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L	
UniRef90_B6FYU8												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_Q89AQ5												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_Q3J795												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_M1E6T1												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_W0PCD4			I	K	V	I	G	V	G	G	A	G	G	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_Q9M7M6	K	I	C	V	F	G	V	G	G	G	G	C	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L	
UniRef90_B4RFF3												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_E8T226												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_R6QR91			I	K	V	I	G	V	G	G	G	G	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L	
UniRef90_E8Q5Q7												S	N	N	A	V	N	R	M	I	L	R	D	S	G	L	V	L	E	G	V	A	Y	R	V	L	N	T	D	A	S	Q	A	L	L	L
UniRef90_K2AN39	A	K	I	R	V	I	G	V	G	G	G	G	N	A	V	N	R																													





		90	100	110	120
UniRef90_A3ZA81	A	L	I	A	A
UniRef90_C0VZB5	V	L	Q	G	A
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UniRef90_UPI0003700764	A	L	S	G	A
UniRef90_R7FV71	L	I	R	G	A
UniRef90_D8UAE3	M	V	Q	G	A
UniRef90_D6Z3P6	L	L	E	D	T
UniRef90_R5HHR0	A	L	K	G	A
UniRef90_S6BAH2	A	L	D	G	A
UniRef90_Q3SMG7	L	I	D	G	A
UniRef90_UPI000405A258	A	L	D	G	A
UniRef90_W0DX18	H	L	K	D	A
UniRef90_R7RNR6	A	L	K	G	S
UniRef90_K0YHB9	S	L	K	G	A
UniRef90_M2U2Q6	A	L	E	G	S
UniRef90_E6QM40	A	L	E	G	A
UniRef90_UPI00036B4F5E	V	L	E	G	A
UniRef90_C1MRQ5	A	V	A	G	A
UniRef90_UPI0003B71572	A	L	S	G	A
UniRef90_H0JH65	V	L	E	G	A
UniRef90_UPI00046CC05D	L	L	K	G	A
UniRef90_C7N4V1	A	L	A	E	A
UniRef90_D5MI49	L	L	E	D	G
UniRef90_R5DSD3	A	L	D	G	A
UniRef90_Q5NTW8	A	V	L	G	A
UniRef90_D7BNB2	T	L	K	D	A
UniRef90_T0Y4Q0	M	V	Q	G	A
UniRef90_UPI0002195A08	A	L	K	G	A
UniRef90_UPI00046D0EAD	A	L	D	G	A
UniRef90_X0VC54	S	I	D	G	A
UniRef90_T0YV15	V	I	Q	G	S
UniRef90_R6GW54	S	L	E	R	G
UniRef90_R7DRJ8	L	V	E	R	G
UniRef90_Q67Q39	A	L	R	G	A
UniRef90_L0DXB6	L	L	Q	G	A
UniRef90_Q70ZZ7	A	V	V	D	A
UniRef90_A2RMU1	A	L	E	G	S
UniRef90_UPI000479FCDC	L	L	T	G	A
UniRef90_H1LCH6	A	L	E	G	A
UniRef90_B6FYU8	L	L	E	D	S
UniRef90_Q89AQ5	I	L	K	D	A
UniRef90_Q3J795	V	V	S	G	A
UniRef90_M1E6T1	L	L	S	E	G
UniRef90_W0PCD4	A	L	N	G	A
UniRef90_Q9M7M6	Y	I	A	D	A
UniRef90_B4RFF3	H	L	D	G	A
UniRef90_E8T226	V	I	E	G	S
UniRef90_R6QR91	A	L	K	D	T
UniRef90_E8Q5Q7	T	I	E	G	A
UniRef90_K2AN39	L	L	I	D	S
UniRef90_L8MY02	A	V	E	G	A
UniRef90_R5ZKX5	I	V	K	G	A
UniRef90_R5XSZ9	E	L	A	D	S
UniRef90_E8LFJ3	S	L	K	G	A
UniRef90_UPI0003B3AFE9	A	L	E	G	F
UniRef90_K2DKB9	L	L	V	D	T
UniRef90_UPI0002FDEAE5	A	I	Q	G	A
UniRef90_R6YYL3	I	V	S	G	A
UniRef90_R5ECJ9	L	L	I	Q	G
UniRef90_R6ACB8	A	L	A	G	A
UniRef90_X8ITS6	Y	L	Q	D	A
UniRef90_Q0AYQ1	A	L	Q	G	A
UniRef90_UPI0003B32242	A	L	E	G	A
UniRef90_UPI00036C5A8C	M	L	K	D	T
UniRef90_B6WQP9	A	I	G	D	A
UniRef90_U2HSF9	M	L	G	N	T
UniRef90_UPI000367CBB5	H	L	A	G	A
UniRef90_B9XIG1	L	V	A	G	A
UniRef90_E8RD75	V	L	K	G	A
UniRef90_UPI0003B301B4	L	I	A	G	T
UniRef90_A1WYT7	V	L	D	G	A
UniRef90_R6DDC4	A	I	K	G	C
UniRef90_K2LK95	Q	L	E	G	S
UniRef90_W9VQY2	S	L	S	G	A
UniRef90_W0E6M9	A	L	E	G	A
UniRef90_D4DTD9	A	V	R	G	A
UniRef90_UPI00035FA36A	L	L	K	G	A
UniRef90_T0NF43	Y	V	T	G	T
UniRef90_UPI000478618C	A	L	A	G	A
UniRef90_K12XL6	A	I	G	D	A
UniRef90_K1LV95	A	L	E	G	A
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UniRef90_C4XK64	A	I	G	A	C
UniRef90_UPI0003B3C5D1	A	L	E	G	A
UniRef90_UPI00037383B4	F	L	Q	D	T
UniRef90_UPI0003727336	Q	L	E	G	A
UniRef90_A9BFD6	T	L	K	D	T
UniRef90_H3JS74	I	C	Q	G	A
UniRef90_Q6AJ58	A	V	E	G	C
UniRef90_I4BW56	I	L	Q	G	A



UniRef90\_A3ZA81 V T K P F S F E E G G R R R R M R Q A A D E G I 140 A R L A E H V D D T L I V I P P N D D R R L R Q D  
UniRef90\_C0VZB5 V T R F P F S F E E G G D T R R R A T E Q A A T A G A G I I Q A L L S D E Y S V E V D D T T V I V I P P N D D R R L R Q D  
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UniRef90\_UPI000405A258 V T R R P F F E F E G G A Q R R A N N A A A M G G I I A E L S A Q A V D D T L I V I P P N D D R R L R Q D  
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UniRef90\_K0YHB9 V T T R P F F K F E E G G A R R R R A A A A A G G I I D K L K E K V D D T L V T I P P N D D R R L R Q D  
UniRef90\_M2U2Q6 V T T K P F F S F E E G G A K R R R A R A A A A G G I I L A E L L Q K H V C D D T L I V I P P N Q N L F Q M  
UniRef90\_E6QM40 V T T R P F F A F E E G G K R R R L Q Q A A E E R G G M A E L L E S V D D T M I V I P P N E K K L L A K D D Q T  
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UniRef90\_T0YV15 I T K P F T F E E G T R R R M T I A Q Q G G I I A E L G R V V D S L I T V P P N Q K L L L S D  
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UniRef90\_L0DXB6 V T T K P F F P F E E G K K R R S M Q V A M S E I K A L T E Q V D D S L I T I P P N D D R R L R Q D  
UniRef90\_Q70ZZ7 V T T Y P F F T F E E G R R R R S M Q V A M S E I K A L T E Q V D D S L I T I P P N D D R R L R Q D  
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UniRef90\_B9XIG1 V T T L P F F E F E E G S R R R G R Q A A Q L G L R E D L K S E A D G V I C L V I P P N Q K V L E K S  
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L V D P K R L P S V M E A F R F A D D D V L A R Q G V V K Q G G I T S D E T I K L A P G S M I V N N  
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I S E P G G I S M I E A F A A A D D Q V L L A G V V K Q G G I T S D L I I T T P G L V I N N N  
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I A D K N T T L K D A F V K A D D V L Y D G V V R S I T D L I M I M P G L I N N N  
I I E K R T S M L E A F K K A D D V L R Q G V V Q G G I S N L I A V P G L I N N N  
I S D E K T S M I E A F K K A D E V L Y N A T R G G I S D L I I T V H G L I N N N  
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S K A K A R V L H I G G T D L T A T S R R G L L G A G G A N P P S D S R G Q Q A A E E S D R R I Q A E  
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Q S K A E I T M Q I L H I G G T D L T A T S R R G L L G A G G A N P P S D S R G Q Q A A E E S D R R I Q A E  
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V S K A D V K I V L H I G G T D L T A T S R R G L L G A G G A N P P S D S R G Q Q A A E E S D R R I Q A E  
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R T K G A D K K I V L H I G G T D L T A T S R R G L L G A G G A N P P S D S R G Q Q A A E E S D R R I Q A E  
U P I C G A K I Q I L H I G G T D L T A T S R R G L L G A G G A N P P S D S R G Q Q A A E E S D R R I Q A E  
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UniRef90_B8LF09			D F I S I N T D A Q Q A L R		
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UniRef90_M1UUD7			C N A I S R M L E D G F R G V R F A I A N T D H Q A L Q		
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UniRef90_C8ND49	I K V I G I G G G G		C N A L K Q M M D F D L H G V E L I V A N T D K Q V L Q		
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UniRef90_V4YK10			S N S I A R M A D E G I I G A R L F A M N T D A Q A L T		
UniRef90_D1Z016			M I A S S L P G V E F L V A N T D A Q A L K		
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UniRef90_G8QXD8			N A L N H M V E N D M G S V E F S V N T D A Q V L R		
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UniRef90_J0D551			N A V N R M I D E G I A G V E F V A V N T D M K D I S		
UniRef90_A0A023WIV2	A K I K V I G C G G G G		G N M I N H M I K M G L N D L I A A N T D A Q A I S		
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G S N V P N K K I L L I L L G G K N L T C R G G L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
M I K A N K K I L L I L L G G R S L T K K G G L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
N S P V P N K K I L L I L L G G V N L T L T E G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
E A K T K E N Y M Q Q L G G G K E L T L T K K G G L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
H S Q A E V K I Q Q L G G G D K L L T K K G G L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
L S E A E Y K I Q Q L G G G K S L T L T N G G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
R L N I G T I I Q Q L G G V T E N L T K K G G L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
K S K V Q N I L L I L L G G T N L T K K G G L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
S S L T K N R I Q Q L G G T K S L T K K G G L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
I T E A P T R I R Q L G G E K L T L T K K G G L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
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Q S N A Q T K L Q Q L G G L Q R T Q Q G L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
R S S A H K L I Q Q L G G G L Q R T T T G G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
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N S S A H M T I Q Q L G G A G V L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
G L D S G T L L S I G G D T T V I T K K G R L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
K S A A P N K I L S I G G D T T V I T K K G R L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
N S P V P T Q V I Q Q L G G A S L T L T E G R L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
N N L A E T H K L Q Q L G G T A Q T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
S N P V A T K K V Q Q L G G T A Q T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
A S K A E H I L Q Q L G G E K L T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
R F Q H H N V I Q Q L G G K Q S L T C G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
N S P V P P Q V I Q Q L G G V S L T E G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
R S K A H V N I L Q Q L G G G V S L T E G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
S S P I Q H K L Q Q L G G L N L T S G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
K S N V Q K T V Q Q L G G G L N L T S G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
L S K A P T L L Q Q L G G D K T I T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
Y I K S H E K L L Q Q L G G P T S V L T R N H G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
N S P V P V K I Q Q L G G G N K V I T R G M L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
K S P V E V K I Q Q L G G G N K V I T R G M L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
K S S V G T V I Q Q L G G G D I L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
M V K A D K K I L V L G G K S L T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
L V E A D H K L L L G G T T L T H G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
T T L T D N R I Q Q L G G S E L T L T F G G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
T S L S P N K I Q Q L G G S K L T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
L N K A P T K I Q Q L G G S K L T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
N S K A P L K I Q Q L G G E K L T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
T S P V P V K I Q Q L G G A T L T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
E M S V E S I V Q Q L G G V E L T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
N N P V P V K I Q Q L G G A S L T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
R S P V V K N K I Q Q L G G G R E L T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
M S K A E R L I Q Q L G G T R V L T E G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
M S K S D R L I Q Q L G G A A V L T E G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
K I H K A K K I K L G G E A E F T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
N A V L E T V V P L G G E S I C G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
R C L A P V K V Q Q L G G G V K I T R G M L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
E N P I Q N K L Q Q L G G V K I T R G M L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
N S P V P L K I Q Q L G G K K L T L T E G H L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
A N L A P V K I Q Q L G G T T I T R G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
R T K A D K R V L I R S I G G L T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
E L E E A V S L K L G L G N G L T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
A S Q C A N T R L I Q Q L G G L E A T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
N A N A D N R I Q Q L G G V E I T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
R T N A K L K V Q Q L G G V R T T N G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
Q S P A H K L I Q Q L G G P A G T T G T G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
H T R A D K K F L I G G K K L T R G F L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
M S L C P N R I Q Q L G G A S L T L T E G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
A N F A P K K I Q Q L G G K K L T E G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
R I K A P K K V L L G G E N L T K K G Q L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
S N K A S G K I Q Q L G G A N L T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
V S K S K N K I V L G G K E T S K K G T L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
R S K T Q T K V L L L G G K G T L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
R S K A P I K V L L L G G K G M L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
R S N A Q L R I P I Q G K E L T L T S G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
S S A V R N T I Q I G A S L T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
K S P I V N K I Y L G G V E L T L T E G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
S N K A D L K I Q Q L G G T E Y L T R G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
K N K A P H K V Q Q L G G T Y L T R G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
N S K A D R R I Q Q L G G A Q L T L T E G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
S S K A P V K V Q Q L G G G Q L L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
Q S S A Q L R V Q Q L G G G Q L L T R G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
A C D V P H T I C G G E K T T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
K S D A D V R I A L L T E D S S S R G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
I S L A K T K I Q L G G E S K T K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
M S I A D R K V L L L G G E S G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
L S L S E K K I Q L G G G L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
M I Q A D K R V L L L G G K S L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
N S S V G T C I Q I G A G G L L G A G A D P E R G R Q A A K D D I E K I K E  
I S P V K N R I Q L G G E K E L T E G R G A G S L P E R G R Q A A Q D S L D Y I K E  
I T E A P T R I Q L G G E S T T R G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
V A H A A T Q I C G G E S T T R G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
L S K A S C V I Q L G G A N V T L T K K G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
N N P A P V K I Q Q L G G R E T T E G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
R S E V P R K V Q Q L G G K T T T E G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
S S K A S M R I Q M G V S R V T E G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
K S H A E V K I A L L G G V S R V T E G L L G G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E  
K S E A K T R I Q L G G E T K V K G L L G A G S A R P P E E I G R R A A E E S N I E E E I V I A K E

		90	100	110	120																																								
UniRef90_F2IAQ3	L	N	G	T	K	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	Q	V	A	K	E	L	N	I	L	T	V	G	A	V					
UniRef90_W6TSW7	R	L	D	G	V	D	M	L	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	K	V	A	K	E	D	R	N	I	L	T	V	G	A	V			
UniRef90_C6V4K4	A	I	E	D	T	D	M	L	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	R	R	L	A	M	E	R	G	K	L	L	T	V	V	G	A	V	
UniRef90_Q8RMK5	H	L	E	G	A	N	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	R	A	A	A	R	E	R	G	L	L	T	V	V	G	A	V		
UniRef90_E3GXM3	E	L	E	N	A	D	M	V	F	V	T	C	G	L	G	G	G	T	G	T	G	S	A	P	V	I	S	K	I	A	K	E	C	G	A	L	L	T	V	V	G	A	V		
UniRef90_Q6F172	A	L	E	G	A	D	L	I	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	S	A	R	V	A	Q	K	E	N	D	A	L	L	T	V	V	G	A	V
UniRef90_D2RGK1	L	L	A	D	A	N	M	V	F	V	T	C	G	L	G	G	G	T	G	T	G	A	A	P	V	I	A	E	V	A	Q	K	E	K	N	D	A	L	L	T	V	V	G	A	V
UniRef90_UPI0002886AAC	M	L	D	N	T	K	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	Q	L	S	K	E	R	D	I	L	L	T	V	V	G	I	L		
UniRef90_R7F8R8	I	L	Q	G	D	T	D	L	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	Q	F	A	K	E	M	G	A	L	L	T	V	V	G	A	V		
UniRef90_C7LSS9	L	L	G	D	C	D	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	Q	V	A	K	E	M	G	A	L	L	T	V	V	G	A	V		
UniRef90_X1KZP4	T	L	E	K	A	D	I	V	F	I	T	A	G	M	G	G	G	T	G	S	G	A	S	S	I	V	A	K	I	A	K	Q	Q	G	I	L	L	T	V	V	G	A	V		
UniRef90_UPI000371DA61	V	I	E	G	A	D	M	L	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	E	V	A	K	E	M	G	I	L	L	T	V	V	G	A	V		
UniRef90_D7QYF9	L	L	E	G	A	D	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	E	V	A	K	E	L	N	I	L	L	T	V	V	G	A	V		
UniRef90_UPI0003668A26	Y	I	E	N	S	N	M	I	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	R	I	A	K	E	L	N	I	L	L	T	V	V	G	A	V		
UniRef90_X1NZW4	L	V	S	G	A	D	M	V	F	V	T	C	G	L	G	G	G	T	G	T	G	A	A	P	V	I	A	E	I	A	K	E	L	N	I	L	L	T	V	V	G	A	V		
UniRef90_UPI00037724D6	A	L	R	E	H	H	M	V	F	I	T	C	V	G	L	G	G	T	G	S	G	A	A	P	V	I	A	R	I	A	R	E	L	G	A	F	V	V	V	F					
UniRef90_F2VY13	I	L	D	G	A	N	L	C	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	V	A	D	L	A	R	Q	K	G	I	L	L	T	V	V	G	V		
UniRef90_UPI00037033C0	A	V	D	D	G	A	H	M	L	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	R	V	A	K	E	M	G	I	L	L	T	V	V	G	V		
UniRef90_L8JXA4	L	L	N	G	A	D	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	K	I	A	K	E	M	D	I	L	L	T	V	V	G	A	V		
UniRef90_F7NZL7	T	L	Q	G	A	D	M	I	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	V	A	E	V	A	R	E	M	G	I	L	L	T	V	V	G	A	V	
UniRef90_F2JVW3	L	L	T	G	A	D	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	Q	V	A	K	E	L	G	I	L	L	T	V	V	G	A	V		
UniRef90_R6X5J7	A	L	T	G	A	N	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	V	A	R	L	A	K	S	M	G	I	L	L	T	V	V	G	A	V	
UniRef90_UPI00046F33C7	I	L	H	G	T	K	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	E	A	A	R	K	L	N	I	L	L	T	V	V	G	I	L		
UniRef90_I4CCP3	L	L	E	G	A	D	M	V	F	I	T	A	G	L	G	G	G	T	G	T	G	A	A	P	V	I	A	R	I	R	Q	E	V	G	A	L	L	T	V	V	G	A	V		
UniRef90_UPI00037C5428	A	L	Q	N	T	K	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	V	A	K	I	A	K	E	M	G	I	L	L	T	V	V	G	A	V	
UniRef90_E0E3L5	A	I	E	G	A	D	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	V	A	K	I	A	K	E	A	G	A	L	L	T	V	V	G	A	V	
UniRef90_M2Y4A3	A	L	Q	G	G	D	L	V	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	V	A	D	V	A	R	E	M	G	C	L	L	T	V	V	G	A	V	
UniRef90_W8VZC2	M	L	D	S	T	K	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	V	A	Q	V	A	R	E	M	E	G	I	L	L	T	V	V	G	A	V
UniRef90_H3KEM6	A	J	R	G	A	H	L	L	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	E	I	A	K	E	L	G	I	L	L	T	V	V	G	A	V		
UniRef90_B3ETL9	L	L	N	G	T	K	M	L	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	V	A	S	I	A	K	K	L	G	I	L	L	T	V	V	G	A	V	
UniRef90_B0US72	M	L	E	G	A	D	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	V	A	Q	I	A	K	E	L	L	L	L	T	V	V	G	A	V		
UniRef90_R6SQ48	A	L	K	G	A	D	M	V	F	V	T	C	G	M	G	G	G	T	G	T	G	A	T	P	V	V	A	R	I	A	K	E	Q	G	S	L	L	T	V	V	G	V			
UniRef90_UPI0003793FD0	L	L	E	D	A	D	L	V	F	I	T	A	G	L	G	G	G	T	G	T	G	A	A	P	F	V	A	K	L	A	Q	E	M	G	L	I	L	L	T	V	V	G	V		
UniRef90_UPI00029A5E49	L	L	A	D	T	K	M	A	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	I	I	A	K	A	A	R	D	M	G	I	L	L	T	V	V	G	I	L		
UniRef90_B0SAS6	A	L	K	G	A	D	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	I	I	A	A	I	A	K	E	L	K	C	L	L	T	V	V	G	V			
UniRef90_B8LF09	E	L	E	G	A	D	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	G	A	P	V	I	A	E	A	A	K	E	M	G	I	L	L	T	V	V	G	A	V		
UniRef90_D1YYE6	V	L	K	G	A	D	L	V	F	I	T	A	G	M	G	G	G	T	G	T	G	T	A	P	V	V	A	Q	V	A	K	E	O	G	A	I	V	V	V	G	M				
UniRef90_M7TFU0	L	I	T	G	A	N	L	V	F	V	T	A	G	M	G	G	G	T	G	T	G	S	A	P	V	V	A	E	L	A	K	K	S	G	A	I	V	T	C	M					
UniRef90_T0QE04	K	I	G	H	A	N	M	M	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	A	Q	A	A	L	D	S	G	I	L	L	T	V	V	G	V			
UniRef90_E3HA10	L	L	K	D	T	D	M	L	F	I	V	S	G	M	G	G	G	T	G	S	G	A	V	L	R	I	A	E	L	A	H	K	L	D	L	L	T	V	V	G	A	V			
UniRef90_UPI0003B65FB6	H	L	E	G	A	D	M	V	F	L	T	A	G	M	G	G	G	T	G	T	G	A	L	P	V	I	A	Q	L	A	K	E	E	V	A	L	L	T	V	V	G	A	V		
UniRef90_UPI000380E1DF	C	L	R	G	A	D	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	V	A	Q	L	C	A	K	E	L	G	A	L	L	T	V	V	G	A	V
UniRef90_UPI0004703913	L	L	L	G	G	T	Q	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	V	A	Q	L	A	K	E	M	G	K	L	L	T	V	V	G	A	V
UniRef90_UPI0003669E21	V	I	A	G	A	D	M	V	F	L	T	A	G	M	G	G	G	T	G	T	G	A	L	A	V	F	A	E	V	A	K	E	L	G	V	L	L	T	V	V	G	A	V		
UniRef90_D0JB53	V	L	E	D	N	T	K	M	T	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	I	V	A	G	I	S	K	E	K	G	I	L	L	T	V	V	G	A	V	
UniRef90_B1C400	V	L	D	E	G	A	D	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	F	A	K	L	A	R	E	L	G	A	L	L	T	V	V	G	V		
UniRef90_UPI000316B96B	S	L	T	G	A	H	M	V	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	I	I	A	K	T	A	R	E	R	L	G	I	L	L	T	V	V	G	V		
UniRef90_B2S6P8	H	L	N	G	T	H	M	C	F	V	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	V	A	R	A	A	R	E	R	G	I	L	L	T	V	V	G	A	V	
UniRef90_E7C1D9	A	I	E	H	T	E	M	L	F	I	V	A	G	M	G	G	G	T	G	T	G	G	S	P	V	I	V	A	K	V	A	K	E	L	D	L	L	L	T	V	V	G	A	V	
UniRef90_M1UUD7	A	I	V	G	T	D	L	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	V	V	A	R	I	A	K	S	L	G	A	L	L	T	V	V	G	A	V		
UniRef90_C4KCR8	A	L	E	G	A	H	M	V	F	I	T	G	G	M	G	G	G	T	G	T	G	A	A	P	V	V	A	E	V	A	K	E	M	G	I	L	L	T	V	V	G	A	V		
UniRef90_C8ND49	A	L	N	G	A	D	M	V	F	I	T	A	G	M	G	G	G	T	G	T	G	A	A	P	V	I	V	A	N	V	A	R	D	M	G	I</									

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UniRef90\_F2JVW3 V T K P F P F E E G R R R A K V A D A G G I Q R E L R E N V D S L I T V P P N E R L L L P  
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UniRef90\_C4KCR8 V T K P F D F E E N R I R V A E S G G I E E L T R S E V D S L I V V P N D R L L S A  
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UniRef90\_Q6RX25 V T K P F F F E E G G R R M K L A E A G G I Q E L A S N V D T L I I I P N N D Q L L F R  
UniRef90\_R5EQS2 V T Q P F S F E E G K R H R I N A M A G G I S E L A S N V D S I I V D N D K L L R E  
UniRef90\_V4YK10 V T K P F D F E E G Q K R M S N A D S G G L T E L E A N V D S L I V V D N D K L L E  
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UniRef90\_G8QXD8 V T T P F A F E E G K K L M L A Q A G G I E K L R K Q V D T L I I I P N D Q Y L L K  
UniRef90\_M4R451 V T K P F K G E E G R K R L A Y A E Q G G I R E L R K S K H V D T L I I I Q N E K L L A K  
UniRef90\_J5XP04 V T S P F K F E E G E T R L A Q A Q K G G I R E N L R K Q L D S L I V I N N N K L L R D  
UniRef90\_I2F4T4 V T T P F F F E E G N T R L K T A H E G G L E A L K N S V D S L I R I S N N K L L Q  
UniRef90\_UPI0003750954 V T T P F S F E E G K R R S L H A S Q G G I E A L E P Y V N S L I I I P N N D K L K A  
UniRef90\_U2XXT4 V T K P F E F E E G P R R M R S A D T G I N A L S K E V D T L I I I P N Q N L F R  
UniRef90\_B3E3X6 V T K P F S F E E G K Q R M A K A D E G V I R A L K Q H V D S L I I I P N N D R L L S  
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UniRef90\_J0D551 V T K P F S F E E G G R R A A S A E D G G I E K L R K E V D A L I V I Q N E K L L Q D  
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UniRef90\_J1APP4 V S Y P F Q V E K A R L L R A E E G G L E Q Q L Q R Y S D S V I V L D N N R L L F R  
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UniRef90\_Q17Y37 V T K P F K Y E E G S Q K R K K A E E G G L K E L S E Q S S D S L I V I P N D K V L L  
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UniRef90\_A7I1J7 V T T P F A F E E G L K R M K Q A K A G G I A E L K K E C D S L I V I P N E K L L S



UniRef90\_F2IAQ3 V I G G N M S L A I A Q A F A L A D N V L 170 180 190  
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UniRef90\_C6V4K4 I A N E K T T F A D A F K E M A D D V L H Y F H V R R G V I S S L M V M P P G Y I N N  
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UniRef90\_B3ETL9 V L G N N I S I G N A F A Q A D N V L T T A A K S I A E L I T V P G Y V N N  
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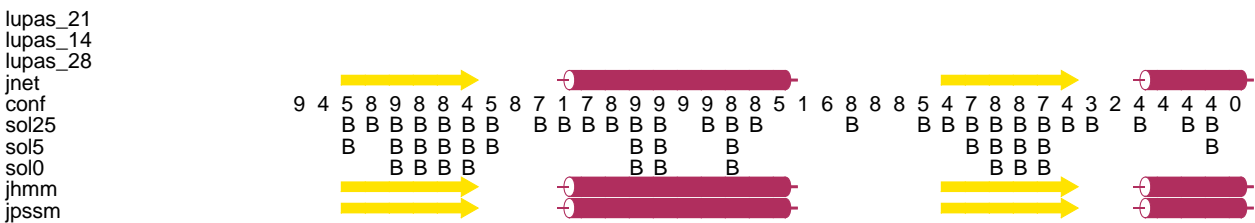
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  V E V I G I G S R K D A V I D F C L N S S A S R L R F W T I
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  M N R K E M E

M K L I V I G L G Q C G S R I A D E F A R M D K R C P G V F A V N T D Q A D L S
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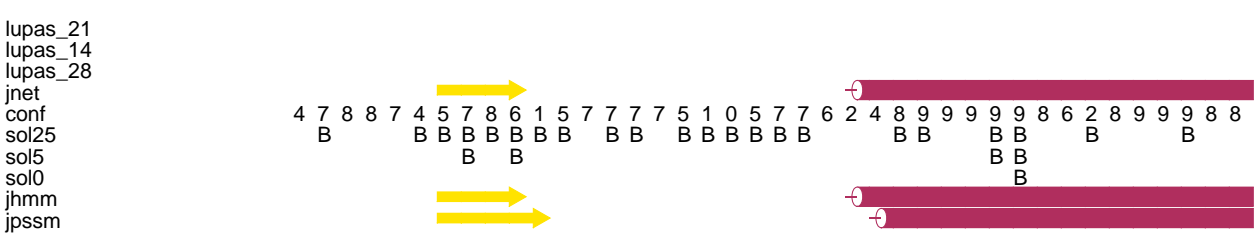
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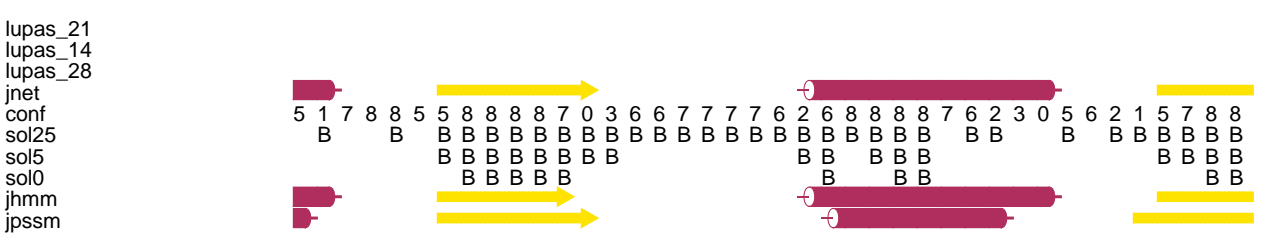
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	90	100	110	120																																					
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UniRef90_L0HG02	V	T	L	P	C	L	A	E	G	E	K	K	T	A	K	A	A	D	D	V	D	L	S	S	L	L	D	G	M	I	V	F	D	N	E	T	W	Y	K	
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UniRef90_C7NE39	I	A	A	P	S	E																																		
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UniRef90_U1NVX6	G	V	L	P																																				
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UniRef90_X1EKI5																																								
UniRef90_L9ZMA0	G	T	L	P	A	D	R	E																																

