

1 10 20 30 40  
QUERY E Y E Y L V P D D Y L A A G V H I G T S Q N L D Y Q M T E K Q Y V F K V R Q D D G L Y  
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QUERY	V	L	D	I	R	K	L	D	E	R	K	L	M	A	A	R	I	I	V	T	I	E	N	P	S	K	I	L	L	V	A	S	R	R	P	Y	G	Q	K	R	A	V	L	L	Q				
UniRef90_P38980	I	I	N	D	L	R	R	R	T	W	E	K	L	L	M	A	A	R	I	I	V	T	I	E	N	P	S	K	I	L	L	V	A	S	R	R	P	Y	G	Q	K	R	A	V	L	L	Q		
UniRef90_B3RPX6	I	I	I	N	D	L	R	R	R	T	W	E	K	L	L	L	A	A	R	I	I	S	I	E	N	P	P	A	D	V	V	C	C	C	V	I	S	S	R	R	P	Y	G	Q	R	A	V	L	L
UniRef90_T2MHR1	I	I	I	N	N	L	R	R	K	T	W	E	K	L	L	L	A	A	R	I	I	A	V	E	N	P	A	D	I	I	V	L	S	S	R	R	P	Y	G	Q	R	A	V	L	L				
UniRef90_V4B5V5	I	I	I	N	N	L	R	R	K	T	W	E	K	L	L	L	A	A	R	I	I	A	V	E	N	P	A	D	I	I	V	L	S	S	R	R	P	Y	G	Q	R	A	V	L	L				
UniRef90_A2I3Z2	I	F	I	N	N	L	R	R	K	T	W	E	K	L	L	L	A	A	R	I	I	A	V	E	N	H	A	E	I	F	V	I	S	S	R	R	P	Y	F	Y	G	Q	R	A	V	L			
UniRef90_U4LL63	L	I	N	N	L	G	K	T	W	E	K	L	V	L	A	A	R	I	I	T	I	D	N	E	P	A	D	V	C	C	A	V	S	S	R	R	P	Y	G	Q	R	A	V	L					
UniRef90_H2Y7M5	I	I	I	N	N	L	K	K	T	W	E	K	I	M	L	A	A	R	I	I	V	I	E	N	P	A	D	I	C	V	I	S	S	R	R	Q	Y	G	Q	R	A	V	L	L					
UniRef90_U9UFJ7	I	I	I	N	N	L	K	K	T	W	E	K	L	I	F	A	A	R	I	I	C	I	E	N	P	A	D	V	V	V	I	S	S	R	R	T	Y	G	Q	R	A	V	L	L					
UniRef90_E9CGW4	L	I	I	N	N	L	H	K	T	W	E	K	L	I	V	L	A	A	R	I	I	V	V	E	N	P	A	D	V	A	V	I	S	S	R	R	T	Y	G	Q	R	A	V	L	L				
UniRef90_UPI0003C16B35	I	I	I	N	N	L	K	R	T	W	E	K	L	L	L	V	A	R	V	I	V	I	E	N	P	A	D	V	S	V	I	S	S	R	R	N	T	T	G	Q	R	A	V	L	Q				
UniRef90_UPI0003F0BFC6	I	I	I	N	N	L	K	R	T	W	E	K	L	L	L	A	A	C	H	V	A	I	E	N	P	A	D	V	V	V	I	S	S	R	R	T	Y	G	Q	R	A	V	L	L					
UniRef90_L1IZB6	I	I	I	N	N	L	A	K	T	W	E	K	L	M	L	A	A	R	I	V	V	I	E	N	P	A	D	V	C	V	I	S	S	R	R	P	Y	G	Q	R	A	V	L	L					
UniRef90_U5EY45	I	I	I	N	N	L	G	R	T	W	E	K	L	L	A	A	R	A	L	A	A	I	E	N	H	S	E	V	V	I	S	S	R	Y	P	Y	G	Q	R	A	V	L	L						
UniRef90_W5QU78	I	I	I	N	N	L	K	R	T	W	E	K	L	L	L	A	A	R	L	S	P	L	K	T	R	A	D	V	S	L	M	S	V	S	S	R	N	T	P	L	G	I	L	T	S				
UniRef90_UPI0002C57E2C	I	I	I	N	N	L	K	R	T	W	E	K	L	L	L	A	A	R	A	I	V	I	E	N	P	A	D	V	S	V	I	S	S	R	R	T	Y	G	Q	R	A	V	L	L					
UniRef90_S9VTN4	I	L	N	N	V	G	K	T	W	E	K	L	V	L	A	A	R	I	I	T	V	I	E	N	P	A	D	V	C	V	V	S	S	R	R	A	Y	G	H	R	A	V	L	L					
UniRef90_E9GQY9	I	I	I	N	N	L	R	R	T	Y	E	K	L	L	L	A	A	R	A	I	V	I	E	N	S	A	D	D	V	F	V	V	S	S	R	R	P	Y	Q	G	Q	R	A	V	L	L			
UniRef90_V4MAZ6	I	I	I	N	N	L	G	R	T	W	E	K	L	E	L	A	A	R	V	I	V	I	E	N	P	K	D	I	I	V	Q	S	S	R	R	P	Y	Q	G	Q	R	A	V	L	L				
UniRef90_R1E369	I	I	I	N	N	L	G	R	T	Y	D	K	L	Q	L	A	A	R	I	I	V	I	E	N	P	A	D	V	C	V	I	S	S	R	R	P	Y	G	Q	R	S	I	L	L	L				
UniRef90_C6EMZ8	I	I	I	N	N	L	H	R	K	T	Y	E	K	L	L	L	A	A	R	A	I	A	A	E	N	P	A	D	V	Y	T	I	S	S	R	R	P	Y	M	A	Q	Q	R	A	V	L	L		
UniRef90_I0YTQ77	V	I	N	N	L	G	K	T	W	D	K	L	Q	L	A	A	R	V	I	V	I	E	N	P	A	D	V	V	V	Q	S	S	R	R	P	Y	M	A	Q	Q	R	A	V	L	L				
UniRef90_A0A024G3A7	I	I	I	N	N	L	A	K	T	W	E	K	L	Q	L	A	A	R	I	I	T	I	E	N	P	A	D	V	I	A	I	S	S	R	R	P	Y	G	Q	R	A	V	L	L					
UniRef90_I1C5S8	L	I	N	N	L	G	K	T	W	E	K	L	I	F	A	A	R	V	I	A	I	E	N	P	A	D	V	V	V	I	S	S	R	R	P	Y	G	H	R	A	V	L	L						
UniRef90_K8FIC5	V	I	N	N	L	G	K	T	W	D	K	L	M	M	A	A	R	I	V	T	E	N	P	A	D	V	I	C	Q	S	S	R	R	P	Y	G	Q	R	A	V	L	L							
UniRef90_F4P953	I	I	I	N	N	L	G	K	T	W	E	K	L	V	L	A	A	R	I	I	S	I	E	N	P	A	D	V	C	V	I	S	S	R	R	P	Y	G	Q	R	A	V	L	L					
UniRef90_B7G2B6	I	I	I	N	N	L	G	K	T	W	E	K	L	V	L	A	A	R	V	I	V	I	E	N	P	E	A	D	I	A	I	S	S	R	R	P	Y	G	Q	M	R	A	V	L	L				
UniRef90_A8BE86	V	F	N	L	K	K	V	W	A	K	L	V	F	A	A	R	L	V	T	I	D	D	P	A	E	I	A	V	V	A	N	R	P	Y	D	A	G	R	A	V	L	L							
UniRef90_U6LPJ5	L	I	N	N	L	K	K	T	Y	E	K	L	Q	L	A	A	R	A	I	V	T	I	E	N	P	M	I	L	V	V	S	A	R	T	Y	G	A	R	A	S	L	L	L						
UniRef90_I2JZ54	V	I	N	N	P	N	K	T	W	E	K	L	V	L	A	A	R	I	I	A	A	I	P	N	S	D	V	V	A	V	S	S	R	R	L	G	Q	Q	R	A	V	L	L						
UniRef90_I1GH54	I	I	I	N	N	L	R	R	K	T	W	E	K	L	L	L	A	A	R	V	I	A	I	E	N	P	S	A	D	I	C	V	I	S	S	R	R	I	L	G	Q	R	A	V	L	L			
UniRef90_J4DA68	L	I	N	N	L	A	H	T	L	E	K	L	K	V	A	A	R	A	I	V	T	V	N	P	E	E	V	V	V	S	A	R	R	P	Y	G	S	R	A	V	L	L	L						
UniRef90_C5LL12	L	I	N	N	L	G	K	T	W	E	K	L	M	A	A	R	M	V	T	I	E	N	P	K	D	I	M	V	V	S	S	R	R	P	Y	G	S	R	A	V	L	L	L						
UniRef90_UPI00045606BB	L	L	N	N	L	G	K	T	W	E	K	L	V	L	A	A	R	L	A	I	E	N	P	A	D	I	C	C	V	I	S	S	R	R	P	Y	A	Q	R	A	V	L	L	L					
UniRef90_U1N1V6	L	I	Y	L	K	K	T	W	E	K	L	L	L	A	A	R	A	V	A	A	I	N	P	A	D	V	C	C	V	V	S	S	R	R	P	Y	A	Q	R	A	V	L	L	L					
UniRef90_F7F9J2	F	I	N	N	L	E	R	T	W	K	L	L	L	A	A	R	A	I	V	T	E	N	P	A	D	V	R	V	I	S	S	R	R	T	Y	G	Q	Q	R	A	V	L	L						
UniRef90_E1RIU3	I	L	D	I	R	R	I	D	E	R	L	R	T	A	A	K	F	L	A	R	F	P	P	E	K	I	V	A	V	S	V	R	Q	Y	G	Q	K	P	V	T	L	L	L						
UniRef90_G0EF20	I	F	D	I	R	R	I	D	E	R	L	R	T	A	A	K	F	L	A	R	F	P	P	E	K	I	V	A	V	S	V	R	Q	Y	G	Q	K	P	V	T	L	L	L						
UniRef90_M2PKA1	I	L	N	N	L	A	K	T	W	E	K	L	V	L	A	A	R	A	I	V	A	I	D	N	R	D	V	C	A	L	S	A	R	R	P	Y	T	R	R	A	V	L	L	L					
UniRef90_E1ZEX4	V	F	N	N	L	A	K	T	W	E	K	L	Q	L	A	A	R	I	V	I	E	N	P	Q	D	I	V	A	I	S	A	R	R	P	Y	A	Q	R	A	V	L	L	L						
UniRef90_S9WMK5	V	F	D	L	H	M	T	W	E	K	L	V	L	A	A	R	V	I	A	V	E	N	P	Q	D	V	C	V	C	S	V	P	L	Y	G	Q	R	A	V	L	L	L							
UniRef90_F2CZ10	I	I	D	I	N	L	G	K	T	Y	A	K	L	V	L	A	A	R	I	T	I	E	N	P	N	D	D	V	C	C	C	V	I	S	A	R	R	P	Y	G	H	R	A	V	L	L			
UniRef90_F4RAC5	I	I	D	N	L	G	N	S	T	W	E	K	L	M	A	A	R	L	I	V	I	E	N	P	H	D	V	C	C	V	I	S	A	R	R	P	Y	G	H	R	A	V	L	L					
UniRef90_D5E7A5	V	L	D	I	Q	A	T	D	S	R	I	R	Q	V	S	H	F	L	S	K	Y	D	P	A	K	L	V	V	S	A	R	R	Q	Y	G	Q	F	P	A	K	L	L	L						
UniRef90_F7HM11	I	I	N	N	L	K	R	T	W	E	K	L	L	E	A	R	A	I	V	A	I	E	N	P	T	E	V	C	V	I	S	S	R	R	L	T	G	Q	K	P	V	L	L						
UniRef90_O59295	V	L	D	V	R	K	T	D	E	R	L	K	V	A	G	K	F	L	A	R	F	E	P	Q	S	I	L	A	V	S	V	R	L	N	T	G	Q	K	P	V	K	L	L						
UniRef90_Q5DA90	I	L	N	N	L	D	K	T	W	E	K	L	L	S	A	R	A	I	A	A	I	D	T	A	D	V	F	A	I	G	S	R	P	F	S	Q	R	A	V	L	L	L							
UniRef90_E1QNF6	V	L	D	V	R	K	I	D	E	R	L	R	I	A	A	K	M	I	A	M	Y	D	T	P	E	K	V	A	Y	S	A	K	P	Y	F	S	F	T	P	V	E	L	L						
UniRef90_F4B760	V	L	D	V	R	K	I	D	E	R	L	R	I	A	A	K	F	L	S	R	F	T	P	S	G	I	L	A	V	A	S	R	P	Y	A	F	T	P	V	Q	L	L	L						
UniRef90_E8R7H8	I	L	D	V	R	K	I	D	E	R	L	R	I	A	G	K	F	L	S	R	Y	Q	P	E	K	I	A	V	V	S	V	R	Q	Y	G	K	Q</												

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90 100 110 120

M F S K V V G S D Y I V G R F P G T F T N Q I L Q S E Y R E P E V V F V N D P A  
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K V A A A T G A T P I A G R F T P G T F T N Q I L Q Q A A F R E E P R L L L A I T N P P R R  
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170 180 190

R A I G L M W W M L A S R E V L R L R G G A I F S R D V T W E I M C D L L  
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K S I G L T W Y L L A R R E V L R L R G T I S S R N T P W E V M P D D L L  
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UniRef90\_W2BXZ4 R A V K L I T G K M A D A I I E G N O G E S  
UniRef90\_W7CEV8 R A V K L L T G R M A D A I I E T K Q G G E E V V E E A V A T E  
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UniRef90\_UPI00016BFCC6 R A V K L I T A K L A D A I I E S N O G E I F D A G D E  
UniRef90\_B7K4S8 R S I K L I L G K L A D A I Y E G R H G D S E Q D Y E D F D E S I  
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UniRef90\_UPI00040F498C R A V R L L T S K M A D A V I E A T Q G A A E E P V E  
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UniRef90\_R7DL37 R S V R L T L A V M A D A V V E S K G G Q T L V A Y T K D E G D  
UniRef90\_C0ZF66 R A V K L L T A K M A D A L L E G Q G T E Q Q A T  
UniRef90\_UPI0003B5D395 R A V K L L V G K M A D A V I E A K Q G A E N E A A E E V E A Q  
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UniRef90\_U2JVV9 R A V K L L T E T I A N A V I E A R Q E E S T A T E E N V A E E  
UniRef90\_Q2FTN4 K A L S M I Y F L L T K E F L R H K G Y N T S L T P E D F E T E M  
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UniRef90\_T0PDQ0 R A V K L I T E R L A D A I I E A R Q G E Q I A E  
UniRef90\_N1ZNS7 R A V K L I A S K I A D A V I E S K Q G E  
UniRef90\_D4YS40 R A I R L L V G A M A D A V E E G Q G Q D D D K N S V E V  
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UniRef90\_R5EJ52 R A V K L I V A K M A D A V I E A N Q G M D A E T E E V A E K  
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UniRef90\_H6LJW4 R A V A L L T S V I S D A I I E G R Q G E Q V D E E I E V A P  
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UniRef90\_UPI00037B5472 R A L A T V Y W L L A R Q I L R E K G L I F K Y T I E D F E A E L  
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UniRef90\_R7RRP5 R A V K L I T S K I A D A V L E G R Q G E Q  
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UniRef90\_K0AZ82 R A V K L L T E T I A N A V L E G K Q G Q Q I E E  
UniRef90\_Q7NJK2 R S I R L I V G K L A D A I Y E G R H G Q L E D F S E E  
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UniRef90\_UPI0001D55930 H S V G L I W W M L A R E L L H M C G T I S C E H L W E E I P D L  
UniRef90\_M5DFW0 Q A I R L Y A R G V A D A I L E G R N Q I V Q E

	1	10	20	30	40																																																	
UniRef90_U2G0W7	I	S	M	R	Q	L	L	E	A	G	V	H	F	G	H	Q	T	R	R	Y	W	N	P	K	M	Y	I	F	G	H	R	N	K	I	H																			
UniRef90_Q2YBA7	V	I	T	M	R	Q	M	L	E	A	G	V	H	F	G	H	Q	T	R	R	F	W	S	P	K	M	Y	I	F	G	H	R	N	K	I	H																		
UniRef90_K9PY70	V	V	S	L	A	E	L	L	E	A	S	G	V	H	F	G	H	Q	T	R	R	Y	W	N	P	K	M	Y	F	Y	T	S	R	R	N	K	I	H																
UniRef90_V8G7Z5				L	R	Q	M	L	E	A	S	G	V	H	F	G	H	Q	T	R	R	Y	W	N	P	K	M	Y	F	Y	T	S	R	R	N	K	I	H																
UniRef90_UPI000312EE8B	V	I	T	L	P	E	L	L	E	A	S	G	V	H	F	G	H	Q	T	R	R	Y	W	N	M	D	Q	Y	F	F	T	S	R	R	N	K	I	H																
UniRef90_B0SZ21	F	S	M	R	Q	L	L	E	A	G	A	H	F	F	G	H	Q	T	R	R	W	N	H	P	K	M	Y	I	F	F	G	S	R	R	N	K	I	H																
UniRef90_A3UCT2	F	S	M	R	Q	L	L	E	A	G	A	H	F	F	G	H	Q	T	R	R	W	N	H	P	K	M	Y	I	F	F	G	S	R	R	N	K	I	H																
UniRef90_UPI0000E491E3		V	Q	K	F	L	L	A	S	G	A	H	F	F	G	H	Q	T	R	S	N	M	D	Y	K	M	A	P	Y	Y	K	R	K	P	D	D	G	S	F															
UniRef90_D9Q270	E	Q	G	L	L	V	S	S	D	L	Y	K	L	E	A	G	V	V	Y	G	T	Q	L	C	K	Y	M	R	Q	V	Y	K	V	L	P	D	D	G	F	Y														
UniRef90_R5FPP5				I	T	K	L	L	D	A	G	A	H	F	F	G	H	Q	T	R	R	W	N	H	P	K	M	Y	I	F	F	G	A	R	R	N	K	I	H															
UniRef90_B8KYA0				I	V	S	M	R	D	L	L	L	Q	A	G	A	H	F	F	G	H	Q	T	R	R	F	W	N	M	D	Q	Y	F	F	G	A	R	R	N	K	I	H												
UniRef90_E7GD06				V	I	S	M	K	K	L	L	E	V	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	Y	I	F	T	S	R	R	N	K	I	H														
UniRef90_F8GDI5				V	I	T	M	R	Q	M	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	F	W	N	P	K	M	Y	I	F	Y	G	H	R	N	K	I	H													
UniRef90_R7GK34				V	I	S	M	K	K	L	L	E	V	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	Y	I	F	T	S	R	R	N	K	I	H														
UniRef90_E6X0I4				M	V	I	T	M	K	D	L	L	E	C	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	F	I	F	T	S	E	R	R	N	K	I	H												
UniRef90_G9WLX2				M	V	I	G	M	K	Q	L	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	F	I	F	T	E	R	R	N	K	I	H													
UniRef90_S3XEL6				M	L	T	M	R	D	L	L	E	C	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	F	I	F	T	E	R	R	N	K	I	H														
UniRef90_W1Q2G9							M	K	Q	L	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	Y	I	F	T	E	R	R	N	K	I	H														
UniRef90_F9ZM08							V	S	M	R	A	L	L	E	A	G	A	H	F	F	G	H	Q	S	R	Y	W	H	P	K	M	Y	I	F	G	E	R	R	N	K	I	H												
UniRef90_R5CYW1							V	V	S	M	K	Q	L	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	Y	I	Y	M	E	R	R	N	K	I	H											
UniRef90_D6TL32							I	I	S	M	K	Q	L	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	W	N	M	Q	Q	F	F	A	M	D	R	K	G	I	H												
UniRef90_W0JJF1									I	T	M	K	E	L	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	Y	I	F	A	A	R	R	N	K	I	H										
UniRef90_S4X0S2									V	T	M	K	E	L	L	E	A	G	V	H	F	F	G	H	K	T	N	R	W	H	P	K	M	Y	I	F	T	E	R	R	N	K	I	H										
UniRef90_T1DWP4									M	V	T	M	K	D	L	L	E	C	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	F	I	F	G	V	R	R	N	K	I	H									
UniRef90_G4D5R1												M	K	N	L	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	F	I	F	T	Q	R	R	N	K	I	H									
UniRef90_B2UB06												V	T	M	R	E	M	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	F	W	N	P	K	M	F	I	F	G	E	R	R	N	K	I	H						
UniRef90_R4Z4Z8												V	V	T	M	K	E	L	L	E	D	A	G	V	H	F	F	G	H	Q	T	R	R	R	W	N	M	Q	R	F	I	F	G	E	R	R	N	K	I	H				
UniRef90_C6WVX5												V	T	M	R	Q	M	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	Y	W	N	P	K	M	F	I	F	G	E	R	R	N	K	I	H						
UniRef90_R1E4X6												W	L	V	S	L	E	E	Y	I	K	A	G	V	H	F	F	G	H	Q	T	K	K	K	K	F	I	A	R	V	R	S	D	G	L	A	I	H						
UniRef90_S2WG74												V	V	T	M	S	Q	L	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	Y	I	L	T	E	R	R	N	K	I	H						
UniRef90_E3CXX7												V	V	T	M	S	Q	L	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	F	I	L	T	E	R	R	N	K	I	H						
UniRef90_A1WHU2												V	V	S	M	R	E	M	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	F	W	N	P	K	M	Y	I	F	G	H	R	N	K	I	H						
UniRef90_UPI0003757F94												V	V	S	L	A	N	L	L	E	A	S	G	V	H	F	F	G	H	Q	T	R	R	W	N	M	D	P	Y	I	Y	T	S	R	N	G	V	H						
UniRef90_M3WUP5												V	V	T	L	A	Q	L	L	E	S	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	Y	I	F	T	A	R	N	K	I	H							
UniRef90_K9FMR8												E	L	L	V	S	E	E	V	Y	R	T	S	Q	V	H	F	F	G	H	Q	T	K	K	K	N	A	K	M	S	Q	F	I	A	G	V	T	K	N	G	L	N	I	H
UniRef90_UPI00036F60E8												V	I	T	S	M	K	E	L	L	E	A	G	V	H	F	F	G	H	Q	T	K	R	W	N	P	K	M	Y	I	F	G	A	R	R	N	K	I	H					
UniRef90_B8FGE6												V	I	T	M	K	Q	L	L	E	A	G	V	H	F	F	G	H	Q	T	A	K	R	W	N	P	K	M	Y	I	F	T	E	R	R	N	K	I	H					
UniRef90_H1PYU9												V	I	T	M	K	Q	L	L	E	A	G	V	H	F	F	G	H	Q	T	A	K	R	W	N	P	K	M	Y	I	F	T	E	R	R	N	K	I	H					
UniRef90_UPI0003EDD6FE												V	I	T	M	K	Q	L	L	E	A	A	G	T	H	F	F	G	H	Q	T	N	L	D	F	Q	M	E	Q	Y	I	Y	K	R	K	S	D	G	I	H				
UniRef90_H3NXC5												V	S	M	R	E	L	L	E	A	G	A	H	F	F	G	H	Q	T	R	R	F	W	N	M	D	Q	Y	I	F	G	A	R	R	N	K	I	H						
UniRef90_C0QB17												V	T	M	R	E	L	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	Y	I	F	G	A	R	R	N	K	I	H							
UniRef90_R6HC81												I	I	S	M	K	Q	L	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	Y	I	F	T	E	R	R	N	K	I	H						
UniRef90_Q2LTQ7												I	I	S	M	K	Q	L	L	E	A	G	V	H	F	F	G	H	Q	T	N	K	W	N	P	K	M	Y	I	F	G	A	R	R	N	K	I	H						
UniRef90_A6F6H1												V	S	M	R	D	M	L	Q	A	G	V	H	F	F	G	H	Q	T	R	Y	W	N	M	K	Q	Y	I	F	G	A	R	R	N	K	I	H							
UniRef90_Q4G3A3												V	V	T	L	G	E	L	L	E	D	A	G	V	H	F	F	G	H	Q	T	A	S	R	F	W	N	M	F	P	Y	I	Y	A	E	R	N	K	I	H				
UniRef90_K2D7M1												V	I	T	M	R	Q	M	L	E	A	G	V	H	F	F	G	H	Q	T	A	S	R	F	W	N	P	K	M	Y	I	F	A	E	R	N	K	I	H					
UniRef90_Q2JU28												V	V	S	L	P	Q	L	L	E	A	G	V	H	F	F	G	H	K	A	S	R	W	N	M	R	P	Y	I	F	A	E	R	N	K	I	H							
UniRef90_K2DZU0												V	A	S	M	I	E	L	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	W	N	P	K	M	Y	I	Y	F	G	E	R	R	N	K	I	H					
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UniRef90_R5Q1J7												F	T	M	R	Q	L	L	E	A	G	V	H	F	F	G	H	N	T	R	R	W	N	P	K	M	F	I	F	G	T	S	R	G	G	N	I	H						
UniRef90_D2MNS2												V	V	S	M	K	K	M	L	E	A	G	V	H	F	F	G	H	Q	T	R	R	K	W	N	P	K	M	F	I	Y	T	A	K	N	H	V	Y						
UniRef90_UPI0003B6976A												V	V	S	M	R	Q																																					

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UniRef90\_K2D7M1  
UniRef90\_Q2JU28  
UniRef90\_K2DZU0  
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UniRef90\_G7Q7S2  
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50 60 70 80  
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I I N D L E V K T L V M Y Q E A M N Y I V R Q A N K G G T I L F V V G T K R R Q Q A R R D G T V R  
I I N D L E V K T A Q L V Y E Y A M N Y D A S Q S E R G K D I L F V V G T K R R S A R A R E I I I A A  
I I N D L V Q T A Q L M E E A Y K F V R T E Q G Q K F L F F V G T K R R Q Q A S A S G D I L V A A  
I I D D L S Q S T V P L L H Q Q A L V K V R E V A G G R V L F V V G T K R R Q Q A S A S P I V A S  
I I N D L R K T W E K L L L A A R I I V V E N P A D V C V I S S R R P Y G Q Q R A V L  
L L D V L K K I D E R I L R I A G R F L A S F P S G S K I A V V A T R K I Y Q Q Q E P V T A  
I I N D L E H T V P A F N D A L N H V K K G N K G N T Q I L F V V G T K R R A A A G K I I E Q R S  
I I N D L E K K T S D K I D E A Y A A M M D I K K G K V L F V V G T K R R Q Q A Q R E A V Q R  
I I N D L K K S L V M Y E E A M K Y V R Q A N K G G V I L F V V G T K R R Q Q A R D I A V Q R  
I I D D L Q K T L R Y G L D A A Y T A V I S R C P G G T V L F V V G T K K Q Q A Q S E A V V Q K  
I I D D L Q K T V K L V F K D S Y N A V L S R Q I N G G T V L F V V G T K K Q Q A Q Q D A V V K K  
I I D D L Q K T I R Y F R H T Y N I V R D A E G G T V L F V V G T K K Q Q A G Q Q A T L K E  
I I N D L E H T L P M L R T A L A F L R E Q R K H G R V I L F V V G T K R R Q Q A R E A V K  
I I D D L Q K T V K M L E E A Y N F V R D I N G G T I L F V V G T K K Q Q A A E A V A K  
I I D D L Q Q T V T R L N E A Y K F V E E Q A N G G T I L F V V G T K K Q Q A Q Q E I A R  
I I D D L Q Q T L Y F F E K A Y E F V E E Q A N K T I L F V V G T K K Q Q A Q Q E T I A  
I I D D L Q K T L R Y F R E A Y N I V R D A E G G T I M F V V G T K K Q Q A S Q D A I L K E  
I I N D L E K T L P M Y Q D A L K Y V R Q A N R G G T I L F V V G T K R R Q Q A R Q D I L A Q  
L I N D L R Q T L P M F R D A S Y L V R D A N K G G I M F V V G T K R R Q Q A R D I S V V Q K  
I I V D V I K L D E R L R L S T K L L S R Y E P Y Q I L A V V G R R K E T A R K A P L V Q K  
I I D D L R K T V A D I D R T Y D F V K E T H G G S I L F V V G T K R R Q Q A Q E A V A K R  
I I D D L Q K T V K G L E K A Y D F V R E I S K X G I L F V V G T K R R Q Q A Q E P I V K R  
I I N D L E K S L P L F Q Q A Q K F V R Q A N G G T I L M V G T K R R Q Q A R E I L A  
I I D L V Q T A Q Y M E E A Y D Y V M A R T E N G K R F L F I S S R R N T G Q Q A V L  
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I I D L S K I D E R M I K L A A K F L S D S R Y E P Q G S I V F V V A S T R E K Y A K K E P A S  
I I V D L S K I D E R M I K L A A C E F F L S D S R Y E P Q G S I V F V V A S T R E K Y A K K E A V Y  
V I D L H K S L K K I E E A Y A V I R E I N G G K V L F V V G T K K Q Q A Q R E A V K  
I I N D L K R T W E K L L L A A R A I V T E N P A D V I S V I S S R R N T G Q Q R A V L  
I I N D L E H T V P A F N D A L G F I Q R E N K N Q I M F V I S S R R N R A A G K I L Q  
I I D D L Q K T V K M F R D A Y D F L T D V S G G K S V L F V V G T K K Q Q A R D S I Y R  
I I D D L Q K T V K K V F E Q A Y N F M R D I S G G K S V L F V V G T K K Q Q A R D S I  
I I D D L Q K T V G L F E Q N A Y N F V I D T E S G G E I M F I G T K K Q Q S Q D S I H  
I I N D L E Q T V P L F N D A L A F I K N D K K G K V L F V V G T K K A A A G E S T I K  
V I D L V K T A R L L T H A Y E F F V S K Q Q E K K S F L F V V G T K R Q Q A A S L I A R  
I I D D L V Q T A R Y M Y Q Q A V N F S S V K R K G K I L F V V G T K R Q Q A A S G I V A  
I I D D L Q Q T S Q M L D D A Y A L V R D Y K G K N I V F V V G T K K Q Q A S E Q K I V E  
I I D D L Q K T V P M L H H S L E V I R D T N G G R V L F V V G T K R Q Q A S Q K I R  
I I D D L Q K T V P M L Y K A M Q A V R D V Q G G R V L F V V G T K N Q A Q T P I R  
I I D D L E A K T Q E K L D E A Y E A L K K I A E G G R I L F V V G T K K Q Q A S E T I L  
I I D D L Q K T V P L L H Q A L V F M R E V G G R I L F V V G T K R Q Q A S E I V A  
I I N D L E K T V K Q I D D A Y N Y V R D I D G G E V L F V V G T K K Q Q A Q E A I V E R  
I I N D L E K T L P F L E A Q N Y V R R A N K G T I L F V V G T K R R A A R D I V R K  
I I N L E T L P A F N E A L E V L R Q E G A K Q I L F V V G T K R R A A R D I I V K  
I I D D L Q Q T L Q Y V D R A F E F V K E T H G G T I L F V V G T K R R Q A Q E A I A  
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I I D D L T Q T H P M L E Q A L Q V V R E T H G G R I L F V V G T K R R Q A Q Q P I V A  
I I D D L Q G S L A Y I D R A F E A V K S T H G G T I L F V V G T K K Q Q A Q E T I A  
D L Q K T L V K L E E A Y E F A K E Q A K E G K F L F V V G T K K Q A Q Q T I E  
I I D D L Q K T L G R V D S A Y S F V R D A G G G N I L F V V G T K K Q Q A Q D P I K  
I I N D L E K T L G M Y Q E A M K H I V R Q A N R G T I L M V V G T K R R Q A R D I I A  
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I I D D L Q Q T S S Y V D R A Y D F V Q T H G G T V L F V V G T K K Q A Q E A I S  
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I I D D L Q K T V Q L F K V A F D F V T E R M V G G K M L F V V G T K K Q A Q D A I F  
I I N D L E K T L P L F N D A M N Y L G Q M N K G N I L F V V G T K K A A R K V I A  
I I D D L Q K T L T Y I D Q A Y E F V K E T H G G T V L F V V G T K K Q A Q E A I Q  
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I I V D L Q Q S L S Y I D R A Y E F V K E T H G G T I L F V V G T K K Q A Q E P V A  
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I I D D L K Q T I M E A D S A Y A L K C A H G G K V L F V V G T K K Q A Q D A V K  
I I D D L Q Q T V R L Y Q K A H D F V I V A G G K V V F V V G T K R Q A Q E S V K



	90	100	110	120
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UniRef90_K9PY70	Q E A K R C C G A F F Y V N N Q R W L	G G G M L T N F K T V I K Q S S I V P	D I L V V V D D Q R	
UniRef90_V8G7Z5	E E Q A T R A N V P Y V N N Q R W L	G G G M M T N F K T V I K Q S S I V P	K R L K D M V D V G	
UniRef90_UPI000312EE8B	Q E S S R C C G S H Y V V N Q R W L	G G G M L T N F W E T V I K S S R V P	D V A L I T V D I K	
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UniRef90_A3UCT2	Q A A S R C C A Q Y Y M N H R W L	G G G T L T N W Q T I K S G S I P	D I L M F V I D T N	
UniRef90_UPI0000E491E3	K F G A H T G A T P V A G R Y T P G T F T N Q I Q A A F R E E P R I L I V T D P R			
UniRef90_D9Q270	A M C E K I G C K P V V I G R I V P G I F T N P K L D I Y V E P E V V V V T D T R			
UniRef90_R5FPP5	N A A N R C C G M P Y V V S H R W L	G G G M L T N F K T I R S S I V I K R Y R F V I D V D		
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UniRef90_E7GD06	L E A A Q R R S G S F Y V V N S R W L	G G G T L T N F K T I R M R R L I K R N A L F V I D P K		
UniRef90_F8GDI5	E E A T R C C G S F Y V V N S R W L	G G G M L T N F K T I K K R I K R L Q D M I D V G		
UniRef90_R7GK34	T E A E R S G S Y F V V S R W L	G G G T L T N F K T I Q K R I K R L I F V V D P K		
UniRef90_E6X014	E H A E R A G E M P Y V A T R W L	G G G M L T N F P T I K K S R I P D M M F V I D A V		
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UniRef90_S3XEL6	E Y A E K C C G M P Y V V N H R W L	G G G M L T N F G T I R K S I P I P D M M F I I D V A		
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UniRef90_S4X0S2	A E A Q R C C Q M P Y V V N Y R W L	G G G T L T N W R T I R E R I P D M L F V V D T M		
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UniRef90_R1E4X6	M L N K Y T G I N V Y P K R Y P P G L L T N P A L D I F K D V D V V I I T D P I			
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UniRef90_E3CXX7	N E A L K R S G G F Y V V N Q R W L	G G G L L T N F A T I R R R R V P D A L F I I D P R		
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UniRef90_B8FE6	E E A N R A E A Y Y V H N R W L	G G G M L T N F Q T I M T K L P S V I F I I D P K		
UniRef90_H1PYU9	E Q A E R S G M Y Y V V N R W L	G G G M L T N F A T I K T R I P Q A L F I V D C K		
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UniRef90_C0QB17	E E A N R A E T Y Y V V S N R W L	G G G M L T N F Q T I K K T I S R R F I F V I D P K		
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UniRef90_Q2LTQ7	D E A T R C C G M P Y V V N Q R W L	G G G M L T N F V T I K K R I P A A L F I V D P K		
UniRef90_A6F6H1	E A A L S C C D Q F Y V V D H R W L	G G G M L T N W K T V R Q S I P D V L F V I D A D		
UniRef90_Q4G3A3	E E A Q R C C G M H Y V V N N R W L	G G G L L T N W S T N M T Q I P D I L V I L V D P K		
UniRef90_K2D7M1	S E A E R C C R M P Y V V D F R W L	G G G M L T N Y K T I R K S I P P D A V F V I D V G		
UniRef90_Q2JU28	H E A T R C C G S Y Y V V N Q R W L	G G G M L T N W A T I K T R I P D A V I V D Q R K		
UniRef90_K2DZU0	E E A A K R A S A Y Y V V N R W L	G G G T L T N F E T I S S R I P D M L F I V D D Q K		
UniRef90_K2DVL7	E E A A S L C C G Q F Y V V N H R W L	G G G M L T N W K T I S Q S I P D L L F V I D T N		
UniRef90_R5Q1J7	E E A A E R C C G Q Y Y V V N H R W L	G G G T L T N W K T V S Q S I P D L L F V I D T I		
UniRef90_D2MNS2	E E A L R S G S F Y V V N Q R W L	G G G T L T N F R T I M K K L P D A A F V V D P L		
UniRef90_UPI0003B6976A	D A A K R C C G Q Y Y V V N E R W L	G G G M L T N W K T V S H S I P D A L F V I D T N		
UniRef90_B0S184	T E A K R C C G Q H F V V S Q R W L	G G G M L T N Y K T I K T R I N R V L F V V D P K		
UniRef90_UPI0003B659F6	E E A A R A G M P Y V V D Q R W L	G G G M L T N F K T V K Q S I P D A I F I I D T G		
UniRef90_UPI0003781939	T Q A E R C C G M P H V T H R W L	G G G M L T N Y K T I M R G L P D I L F V V D V D		
UniRef90_C8XBU2	E Q A T R V N M P Y V V N Q R W L	G G G M L T N F Q T V H K R L Q R L K W I V D T K		
UniRef90_G7Q7S2	K E A E R A G G M P Y V V N Y R W L	G G G M L T N F Q T I M D R R V P Q A A F I I D P K		
UniRef90_X1BX14	N E A E R C C G M Y Y V V N R W L	G G G T L T N F D T I M R K R V K R A L F V V D P K		
UniRef90_M1PG21	E E A T R C C G M P Y V V D H R W L	G G G M L T N F Q T I K N S I E R L K T I I D P K		
UniRef90_B1C6C2	T E A L K R S G S H F Y V V N Q R W L	G G G T L T N F A T I K S R I K R A L F V I D P K		
UniRef90_Q3A395	E E T A R A D Q F Y I D N R W L	G G G M L T N F A T I K S I P G A I F V I D P K		
UniRef90_D7BN23	E Q A E R V G M P Y V V N E R W L	G G G M L T N F T T V A S R I Q R A I W I V D T N		
UniRef90_Q28PY9	D A A E R C C A Q Y Y M N H R W L	G G G T L T N W K T V S N S I P D L I F V I D V N		
UniRef90_M2XVE1	E Q A T R V N M P Y V V N H R W L	G G G M L T N F S T V S N S R I P S M V V V D T K		
UniRef90_B5YEG9	E E A K R C C G A F Y V V N Q R W L	G G G M L T N F T T I K S R I P D V L Y I V D P K		
UniRef90_M5A2M4	S Y A A E K C C G M P Y V V N E R W L	G G G M L T N F E T I S K R S I P D A A F V I D T G		
UniRef90_UPI000473D6BE	A E A Q R A G V P Y V V D Q R W L	G G G M L T N F K T I K T S I P D A I F I V D V G		
UniRef90_G2JAV3	L E A A R A G M P Y I N I R W L	G G M L T N F K T N M N G L P D A L F I I D V G		
UniRef90_G1TPH8	K F A A A T G A A P I A G H F I P G T F T N Q I Q A A F R E P R L L V V T D P R			
UniRef90_UPI000373877B	E Q A A D R V G M P Y V V N Q R W L	G G G M L T N F Q T D M A R V P S A V V I V D T K		
UniRef90_G2H111	K T A E D C K Q Y F V V N H R W L	G G G M L T N W K T V R Q S I P D A L F V V D A N		
UniRef90_F2NEA3	E E A N R C C G M F F V V N H R W L	G G G M L T N F Q T I K K S I P D A V F V V D P H		
UniRef90_H8GH11	E E A I R C C G M P Y V V N H R W L	G G G M L T N F K T I M R G I P D V I F V I D V G		
UniRef90_S2Z094	N E A E R V D M P Y V V N H R W L	G G G M L T N F Q T V S K R L H R M M W I V D T N		
UniRef90_S6AH62	E E A E R A G C H F V V N H R W L	G G G M L T N F K T V K Q S I P D M L F V I D V G		
UniRef90_U3GUS8	T E A E R C E M P Y V V N H R W L	G G G M L T N F Q T V S K R L H R M K W I D T N		
UniRef90_UPI00025562B3	A A A E S C G Q Y Y V V N H R W L	G G G M L T N W K T V R Q S I P D V V F V I D A E		
UniRef90_J0QS03	D S A N R S A Q Y Y V V N A R W L	G G G M L T N W K T I M G S I P D L I F V I D T N		
UniRef90_D1KB67	E E A I R C C G M P Y V V N H R W L	G G G M M T N Y K T I K A S I P D V V F I I D I G		
UniRef90_R5VAM5	E E A T R S G S F Y V V T Q R W L	G G G T L T N F K T I Q K R I K R L K F V I D P R		
UniRef90_U1YEE5	E Q A A R V G M P Y V V N E R W L	G G G M L T N F T T V H K R L Q R L K W I V D T N		
UniRef90_E0QHX0	D E A L R A G M Y Y V V N H R W L	G G G M L T N Y K T I K T R I N R A M F V I D P K		
UniRef90_A1SLR0	E Q A T R V G M P Y V V N Q R W L	G G G M L T N F S T V H Q R I N R L K W I V D T N		
UniRef90_UPI00036CF3D0	E E A A R C C G M P Y I S R W L	G G G M L T N F R T N M N A L P D A L F V I D I G		
UniRef90_UPI0003785945	E E A E R V G M P F V V N H R W L	G G G M L T N F Q T V S K R L H R A M V I D T N		
UniRef90_Q60BB0	E E A R R C C G M P Y V V N H R W L	G G G M L T N F K T I M D R L P D V M F I I D T G		
UniRef90_C7DIN3	K F A E A I N A K F I R G R V T P G I F T N P L R E N F M E P K L I F I S D S R			
UniRef90_C8WAJ6	T E A T R A N M P Y I N Q R W L	G G G M L T N F V T I M R S R I K R L E F V V D S K		
UniRef90_B3PBP6	E Q A E R A G Q P F V V S H R W L	G G G M L T N Y K T I R A S I P D A M F V I D V E		
UniRef90_R6D733	E E A K R S D S Y V V S K R W L	G G G T L T N F R T I R R R L P Q A M L I V D P K		
UniRef90_R7D299	A S A E R A N M P Y I N Q R W L	G G G M L T N F V T I R S R M N R M F V I D T K		
UniRef90_E1JX14	K E A E R A G Q F F V T N R W M	G G M L T N F Q T I K K S I P Q A A F I I D P K		

	130	140	150	160
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UniRef90_K9PY70	Y R E H K N A	I Q E E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_V8G7Z5	Y R E H K N A	I Q E E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_UPI000312EE8B	R E Y N A V I	S E E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_B0SZ21	K E A S T A I	L Q E E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_A3UCT2	K E S T A I	L Q E E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_UPI0000E491E3	S D H Q P V I	T V E E A S Y V	L N S D S P L R H V D I A I	P C Y N N K G Q R
UniRef90_D9Q270	T R D R Q A V	I V E E A S K I	L N G N V P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_R5FPP5	H E R I A V I	T E E A S K I	L N G N V P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_B8KYA0	H E R I A V I	T E E A S K I	L N G N V P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_E7GD06	V E H N A V I	T E E A K L	L L G G I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_F8GDI5	Y Q K G A V I	T E E A K L	L L G G I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_R7GK34	V E H N A V I	T E E A K L	L L G G I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_E6X0I4	K E K H I A V	T E E A R R M	G G M P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_G9WLX2	K E K I A V I	C Q E E A R S	H S T L F A P L A D T N N A D P	P D E L I D Y P I
UniRef90_S3XEL6	K E K I A V I	Q E E A N R L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_W1Q2G9	K E R I A V I	Q E E A K K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_F9ZM08	H E N I A V I	A E E A K K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_R5CYW1	K E H N A V I	A E E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
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UniRef90_W0JJF1	K E E L A V I	K E A N K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_S4X0S2	R E A T A V I	R E A N A L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_T1DWP4	K E K I A V I	A E E A R R L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_G4D5R1	K E K I A V I	V K E A H I	L L G G I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_B2UB06	Y H K I A V I	T E E A K L	L L G G I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_R4Z4Z8	K E D L A V I	T E E A K L	L L G G I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_C6VWX5	H E S G A V I	T E E A K L	L L G G I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_R1E4X6	L D R N A L	L D A Y R T	G K I T I A F V D T N N S	S L S Y I D I A I
UniRef90_S2WG74	K E H I A V I	S E A N K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_E3CXX7	R E T I A V I	S Q E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_A1WHU2	F H K I A V I	A E E A K K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_UPI0003757F94	R E Y N A L	T E E A S K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_M3WUP5	A N I D H T E	A S N V N L	P A I V S L L C S T D S	P D V V D I A I
UniRef90_K9FMR8	R E Y N A V I	Q E E A K K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_UPI00036F60E8	V D N Q A M	M E A V K L	N G I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_B8FGE6	N E A I A V I	R E A K R L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_H1PYU9	K E T L A V I	V E A A N L	L L G I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_UPI0003EDD6FE				G A
UniRef90_H3NXC5	H E R I A V I	T E E A N K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_C0QB17	N E S I A V I	K E E G K R L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_R6HC81	K E N I A V I	V N E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_Q2LTQ7	R E T I A V I	V N E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_A6F6H1	H E H I A V I	K E E A N N L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_Q4G3A3	R E T T A V I	L E E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_K2D7M1	H E N I A V I	S E E A T K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_Q2JU28	R E A N A V I	Q E E A K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_K2DZU0	K E L T A V I	Q E E A N K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_K2DVL7	K E E I A V I	K E E A N K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_R5Q1J7	K E E L A V I	H E A R R L	L L G G I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_D2MNS2	E E H N A V I	A E E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_UPI0003B6976A	K E H I A V I	L Q E E A R K L	L L G E I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_B0S184	K E Y I A V I	H E A K I L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_UPI0003B659F6	Y Q K G A V I	S E E A K K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_UPI0003781939	H E R I A V I	K E E A N K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_C8XBU2	K E H I A V I	G E E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_G7Q7S2	R E E I A V I	Q E E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_X1BX14	K E K I A V I	A E E A K L	L L G S I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_M1PG21	N E T I A V I	N E A K K L	L L R I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_B1C6C2	K E R I A V I	A E E A K K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_Q3A395	K E T I A V I	K E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_D7BN23	K E H L A V I	A E E A K K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_Q28PY9	K E D L L A V I	A E E A K K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_M2XVE1	K E D L L A V I	D E E A K K L	L L G G I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_B5YEG9	R E E I A V I	K E E A N K L	L L G G I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_M5A2M4	K E H I A V I	T E E A R K L	L L G G I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_UPI000473D6BE	Y H K G T I	A T E A A K L	L L G G I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_G2JAV3	Y H R [ ] A L	T A E A G K L	L D N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_G1TPH8	Q S R T	E A S K L	V N N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_UPI000373877B	K E H I A V I	V G E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_G2H111	H E H I A V I	K E E A N N L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_F2NEA3	K E N I A V I	Q E E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_H8GHI1	Y E K N A V I	M E A A K K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_S2Z094	K E H I A V I	S E E A H K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_S6AH62	H E K G A I V	T E E A N K L	L L G S I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_U3GUS8	K E H I A V I	T S E A H K L	L L G S I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_UPI00025562B3	V E H I A V I	K E E A N N L	L L G G I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_J0QS03	K E A L A V I	Q E E A R K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_D1KB67	H E K N A V I	R E E A K K L	L L H I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_R5VAM5	V E H N A V I	A E E A R K L	L L N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_U1YEE5	K E H I A V I	D E E A R K L	L L H I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_E0QHX0	K E R I A V I	L E A H K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_A1SLR0	K E H I A V I	L E E A R K L	L L R I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_UPI00036CF3D0	H E H I A V I	K E E A K K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
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UniRef90_C7DIN3	N E K Q A V I	K E E A S K I	L L S D T N S D P K F I	D L L V V V N N R G R
UniRef90_C8WAJ6	R E E N A V I	R E A N R L	L L H I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_B3PBP6	H E R I A V I	Q E E A N K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_R6D733	K E I N A V I	N E A H K L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_R7D299	R E E N A V I	K E E A Q R L	L L G N I P P V I V A G I V V D T N	S H S P E A N G I D V V I
UniRef90_E1JX14	R E E I A V I	Q E E A R K L	L L G I P P V I V A G I V V D T N	S H S P E A N G I D V V I

UniRef90\_U2G0W7 R A I | R I | Y T E M V A D A V L T G R G S K G D F T G Q E 170 180 190  
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UniRef90\_K9PY70 R S I | K L | I V G K L A D A I Y S G R H G  
UniRef90\_V8G7Z5 K A I | E L | Y A A G I A D A I L E G R Q Q R  
UniRef90\_UPI000312EE8B R S I | K L | I L G K L A D A I Y E G  
UniRef90\_B0SZ21 R A L | Q L | Y C D L I A D A V L D G L A A G Q A N S G V D L G A S I  
UniRef90\_A3UCT2 R A L | S L | Y C D L I A D A V L D G  
UniRef90\_UPI0000E491E3 H S V |  
UniRef90\_D9Q270 R S V | R L | L V Y W L L T R E I M R N R G Q E P S F T Y E D F M A  
UniRef90\_R5FPP5 R S V | R L | L V A D F I A D A V I A G T G A P V T V E D M T A E  
UniRef90\_B8KYA0 R A I | K L | I V K A V A D A V I E A G K G E S G E A A P  
UniRef90\_E7GD06 R A V | K L | I V A A M A D A V L C E A K G E P L T V A Y V K D E D D  
UniRef90\_F8GDI5 R A I | R L | Y A R G V A D A V L E G R N Q S I Q E I V E S A E A E  
UniRef90\_R7GK34 R A V | K L | I V A A M A D A I C E A K G E P T T V A K D E E E K E V  
UniRef90\_E6X0I4 R S I | N L | F C R E I A D A I I E G K  
UniRef90\_G9WLX2 R A I | K L | I V A K M A D A V I E A K Q G D M T E E E E D F S K E  
UniRef90\_S3XEL6 R S I | Q L | F C S E M A E A I N E A K G E E K V P A T Q E E K D E V  
UniRef90\_W1Q2G9 R A I | S L | I A G A M A D A V I E S N Q G V V E A V A E E  
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UniRef90_A1SYW3	H E H I A I K E E A N K L L G I P P V V I S I V D T N N S C C D P D D N I V D Y V V P G N D D A I			
UniRef90_UPI0002FA1D34	K E K L A I T E A G K L L S I I P P I I G V V D T N N S H S P V G V S Y V I P G N D D D S S			
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UniRef90_A8TUL0	K E A L A I Q E E A N K L L G I P P V V A I V L D T N N S S D P D G V Q Y G I P G N D D A M			
UniRef90_D1C4K1	R E S I A I A E A R R L L G I P P P I I A M V D T N N S C C D P D L I D Y V I P A N D D A M			
UniRef90_G9ZGJ6	H E H L A V Q E E A R K L L G I P P V V G I V L D T N N L L E G V D Y I I P G N D D S V			
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UniRef90_A8M6B1	K E H I A V D E E A R K L L G I P P V I A V L D T N N C C D P D D E V D Y P I P G N D D A I			
UniRef90_C7LXX2	K E K I A V T E A N R L L G I P P V V A I V L D T N N A D P D D L V T Y P M P G N D D A I			
UniRef90_C0EEQ8	K E K I A V T E A E A K K L L G I P P V V A I V L D T N N A D P D D L V T Y V I P G N D D A I			
UniRef90_UPI0003B38139	K E H L A V G E A H K L L G I P P V I A I L D T N N C C D P D D E V D Y K I P G N D D A I			
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UniRef90_B6B180	K E H I A V L E A R C L L G I P P V V A I P L D T N N S D P L K L I T Y P I P G N D D A I			
UniRef90_K6W665	K E H L A V T E A R K L L N I P P V I A I L D T N N C C D P D D L V D Y K I P G N D D A I			
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UniRef90_W4U2E9	K E H L A I D E A R K L L K I P P V V A I V L D T N N C C D P D D E V D Y A I P G N D D A I			
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UniRef90_R5SYH4	K E E N A I K E A R I L N I P P V V F G V V D T N N C C D P D D M V D Y V I P G N D D A V			
UniRef90_R5LCC8	Q E A I A V S E A R K L L G I P P V V A V V D T N N C C C D P E I D Y P I P G N D D A I			
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UniRef90_A5EV13	H E R I A I Q E E A M K L L G I P P V V G V V D T N N S D P D D L V D Y I P G N D D A V			
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UniRef90_A0A023G1Y6	E E H L A V K E C N K M L I P P T V A I V D T N N C C D P R L I T Y P I P G N D D T P			
UniRef90_C3WGO3	K E T I A I K E A S D L L G I P P V F A M I D T N N V D P D L I T Y P I P A N D D A I			
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UniRef90_HOXLS2	A D H Q P L T E A S Y V N N I P P T I A L C I Y T D S L R S V D I A I P D			
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UniRef90_B1VA80	K E K N A V A E A R K L L N I P P K V F S M V D T N C C D P D D L V D Y I P A N D D A I			
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UniRef90\_E0DFR2 R S I A V L T R V I S A A V I E G K  
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UniRef90\_T0T1Z1 N A A E S C C G A F H V T Y R W L G G G M L T N H K T I I M S K S I P G A L F V I D P N

UniRef90\_Q2W4C3 E S A K R C C G M P Y V V N H R W L G G G M L T N W K T I V S S S I P D D L I F V I D T N

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R A A I R A R C H Y V N K K W L G G M L T N W S T T E T R L P D I V I I D D Q Q  
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Q E A E R C S A N Y V N Q R W L G G L L T N W E T K M R G L P S A I I V V D Q I  
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I I T N L M K T A R Y L S E A C D L L Y D K R G K H F L I V G T K D K K A A D S V A  
I I S L E Q T A S H L R R A A R L V E E Y N G G L T L F V G T R K Q G Q M E I V T T  
L I S L E V T A A H L R R A A R L V E E Y R G G L I L F V G T R E G G Q K R A L V T E  
L I D L L N K T L S S L R R A S R V V E G E R G G V I L F V G T R E G G Q K R A L V E  
I I T N L K K T A R F L S E T C D L V F E S K G K K F L I V G T K K E V A N S V A  
I I T N L A Q T T R F L S E A C F F D A A S S G K Q F L I V G T K K R V A D S V A  
I I D L K Q T L V M A D E A L K A I E A I T G R E I M L V G T K K Q A K V T I A  
L I N S T L T M D R A G N A M R Q I A R A G K K I L F V A T K K Q A R D V V T  
I I D L L Q Q T I W R L E D V K F V T A N I G M K K I L F V G T K K R S A K S A V K  
I I D L D Q T V Q L L G D A L N F T A H F R Q G I I M F V T R S P Q N I T T V E  
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I I A L E Q T A A H L K R A A R V I E E Y R G G L I L F V G T R K N Q A Q R D I V V  
I I T N L T R T A R F L S E I C D L V Y A A S G Q F L I V G T R K H A A D L V A  
I I T D L Q K S V A H L R R S A K V V H E R R G G I I L F V G T R E G Q A D R A I V A  
V L N I R E T D R K I R L A A A F L A R F P A D K I L T V S Q R K Q Y G Q K P V R Y  
I I D L Y K T I K K I N E A C K F I K N I S G K K I L F V A T K K Q A K D I T V Y  
I I D L N Q T I K H F R L A C D V L C H T V Y G K V L F I S C K P Q A F E E L T Q  
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I I T S L E S T I S H L R R A A K V V E T N N G G L V L F V G S R R K Q A R S V V  
V I D I L K T I L F L D R A Y K F L Q E Q N G G T V M F V G T R R V V K E L I K  
I I D L Q Q T V K L V E V A Y S F T R E I D S G N V L F V G T K K Q A Q D S I K  
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I I D L E K T V S Q L A V A Q K L L E N L G S K Q V L F V G T K R S G K N A V K  
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L I R T A R F L S E A C D L V F D A A S R R K Q F L I V G T T K K A A D S V V  
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I I D L E K T L K L R S A S E K I N K I R R G K I L F V G T K R S A S S I K  
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K Q F L I V G T K N K A A D S V A  
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I I D L L Q T I V C L K K A C N F L I R R K G K R A L F V I C F R N T F S I L T Q  
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I I S P D V T A S H L R R A C K I V T E R G G L V L F V G T R E G H A R A V V  
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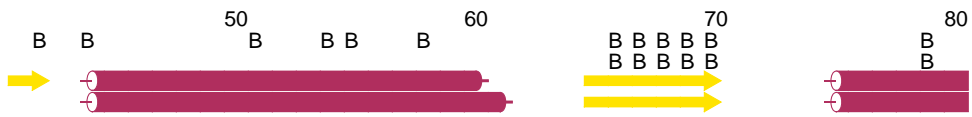
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sol5  
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110

120

B B B B B  
B



sol5  
sol0  
jhmm  
jpssm





