

1 10 20 30 40  
QUERY M Q I Y E G K L T A E G L R F G I V A S R F N H A L V D R L V E  
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QUERY	H	G	G	R	E	E	D	I	T	50	L	V	R	V	P	G	S	W	E	I	60	V	L	A	A	G	E	L	A	R	K	E	D	70	D	A	V	I	A	G	80			
UniRef90_U5MPH0	H	G	V	K	E	E	D	I	D	I	L	A	W	V	P	G	S	W	E	I	60	V	L	A	A	G	E	L	A	R	K	E	D	A	V	I	A	G	V					
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UniRef90_UPI00047E2E91	H	H	G	V	K	E	E	E	I	E	V	A	W	V	P	G	S	W	E	I	60	P	L	L	A	N	K	M	A	S	D	K	Y	D	A	V	I	C	G					
UniRef90_F7YVM9	H	H	G	T	K	E	E	D	I	E	V	Y	V	V	P	G	S	W	E	I	60	P	L	L	T	A	K	L	A	K	K	K	K	Y	D	A	V	I	C	G				
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UniRef90_C1DXN5	H	H	G	G	N	K	E	D	D	I	D	V	R	V	P	G	S	W	E	I	60	P	L	L	L	A	A	K	L	A	K	S	G	K	Y	D	A	V	I	C	G			
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UniRef90_UPI0002893A13	H	H	H	G	V	A	D	E	S	D	V	E	I	A	W	V	P	G	S	W	E	60	P	F	F	A	K	K	M	A	E	S	N	K	Y	D	A	V	I	A	L	G		
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UniRef90_D5DBM9	H	H	H	G	V	A	D	E	D	V	D	V	A	W	V	P	G	S	W	E	I	60	P	L	L	I	A	K	L	A	E	S	K	K	Y	D	A	V	I	T	L	G		
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UniRef90_G7V9T5	H	H	H	E	V	R	H	Q	D	I	D	V	W	V	P	G	S	W	E	I	60	P	L	L	A	A	K	E	C	A	L	M	G	I	Y	D	A	V	I	A	L			
UniRef90_G5HPi6	L	N	V	R	E	E	E	E	N	I	D	V	A	W	V	P	G	S	W	E	I	60	P	L	L	A	A	A	K	M	A	S	R	K	Y	D	A	V	I	C	G			
UniRef90_UPI00037DAFEF	H	H	H	G	S	K	E	E	D	I	E	A	W	V	P	G	S	W	E	I	60	P	V	I	A	A	K	K	M	A	Q	S	R	K	F	D	A	V	I	C	G			
UniRef90_S0FNV6	H	H	H	G	K	E	E	D	I	E	A	A	W	V	P	G	S	W	E	I	60	P	L	L	A	A	Q	K	M	A	A	S	Q	K	F	D	A	V	I	C	G			
UniRef90_N1ZIK8	H	H	H	N	V	C	D	D	D	I	T	L	A	W	V	P	G	S	W	E	I	60	P	L	L	T	A	S	K	L	A	K	S	G	K	Y	D	A	V	I	C	G		
UniRef90_F8AC98	H	H	H	G	V	S	D	D	N	I	D	V	W	V	P	G	S	W	E	I	60	P	L	L	V	A	K	K	M	A	Q	S	R	E	R	Y	D	A	V	I	C	G		
UniRef90_W7C8Y8	H	H	H	D	V	P	T	D	N	I	D	V	A	W	V	P	G	S	W	E	I	60	P	F	I	A	K	K	M	A	E	S	G	K	Y	D	A	V	I	T	L	G		
UniRef90_R5E318	H	H	H	D	I	P	E	D	N	I	D	L	A	W	V	P	G	S	W	E	I	60	P	V	L	A	A	K	K	M	A	E	T	G	K	Y	D	A	V	I	C	G		
UniRef90_UPI00036C4E95	H	H	H	G	V	S	E	D	D	V	E	V	A	W	V	P	G	S	W	E	I	60	P	L	L	T	A	K	K	M	A	E	T	N	K	Y	D	A	V	I	T	L	G	
UniRef90_N2B3A6	H	H	H	G	V	R	A	D	D	I	H	T	A	W	V	P	G	S	W	E	I	60	P	L	L	I	A	S	K	M	A	K	C	G	R	Y	D	A	V	I	A	L		
UniRef90_D6XVF3	H	H	H	G	L	D	D	E	N	I	D	V	A	W	V	P	G	S	W	E	I	60	P	M	L	A	A	K	K	M	A	E	S	G	D	Y	D	A	V	I	C	G		
UniRef90_R6HE77	H	H	H	G	A	E	S	D	N	L	D	L	V	W	V	P	G	S	W	E	I	60	P	L	L	A	A	Q	K	L	A	K	S	G	K	Y	D	A	V	I	C	G		
UniRef90_W7UJ41	H	H	H	D	V	S	D	G	A	L	T	D	L	A	W	V	P	G	S	W	E	I	60	P	L	L	I	A	S	K	M	A	K	S	G	K	Y	D	A	V	I	C	G	
UniRef90_M1WTZ8	H	H	H	G	S	S	E	D	N	L	T	T	V	R	L	P	G	S	W	E	I	60	P	L	L	A	A	Q	K	L	A	R	S	R	D	Y	D	A	V	I	C	G		
UniRef90_T0L818	H	H	H	N	T	E	E	K	N	I	T	V	W	V	P	G	S	W	E	I	60	P	L	L	M	A	Q	K	L	A	K	S	R	K	F	S	D	A	V	I	C	G		
UniRef90_E3HBH5	H	H	H	E	V	S	E	E	D	I	D	L	A	W	V	P	G	S	W	E	I	60	P	L	L	V	A	Q	K	M	A	R	S	G	K	Y	D	A	V	I	T	L	G	
UniRef90_R7ALH1	H	H	H	D	V	K	E	D	N	I	D	L	A	W	V	P	G	S	W	E	I	60	P	L	L	V	A	A	K	K	M	A	E	S	G	K	Y	D	A	V	I	C	G	
UniRef90_H7EN13	H	H	H	N	V	A	E	E	D	I	E	I	A	W	V	P	G	S	W	E	I	60	P	L	L	T	A	K	K	M	A	S	S	E	K	Y	D	A	V	I	A	L	G	
UniRef90_E4RMQ4	H	H	H	N	V	A	E	E	D	I	E	I	A	W	V	P	G	S	W	E	I	60	P	L	L	T	A	K	K	M	A	S	S	E	K	Y	D	A	V	I	A	L	G	
UniRef90_R5HH82	H	H	H	G	V	N																																						









	50	60	70	80
UniRef90_A6FBD0	F G V S E D N I T I V R V	P G S F E E L T H G A R K H L I K N T K D V D A I V I A L G G C		
UniRef90_UPI000255DCE5	H G A K E E N I L T V A R V	P G S F E E L T L A A K K L A A S G K Y H D A G I I I A L G G C		
UniRef90_C4XHY9	H G G D R A N L T T V A R V	P G G A Y E E L P L A A V K V M A D S G K Y D A I I I A L G G C		
UniRef90_H1G306	H H G V P A E K N I C V E R V	P G S F E E L T Y G A R K M A E N K E V D A I I I I A L G G C		
UniRef90_G8ULZ9	H H G A S E K N I C V E R V	P G S F E E L T Y G A R K M A E N K E V D A I I I I A L G G C		
UniRef90_Q0ABQ4	H H G V P D D E N I D L I R V	P G S F E E L P L A V Q Q Q T A E A S G N Y S D A V I I A L G G A		
UniRef90_F3KDA6	M G V A E E N I D L I R V	P G S F E E L P L A V Q Q Q T A E A S G N Y S D A V I I A L G G A		
UniRef90_UPI00035C30BB	H H G I N V D Q V D Y A W V	P G S F E E L P L V A R R Q F A L S G R Y D A V I I I C L G G A		
UniRef90_B9KYF9	H H D V E P Q A L S E V V W V	P G S F E E L P L V A K R K L A E S G R Y H D A V I I I C L G G A		
UniRef90_D6YWD0	H H G A D V A L S T A V W V	P G S F E E L P V A A K K K L A E S G R Q Y D A I I I I C L G G T		
UniRef90_S3DJP5	Y G I S E E K I T T A V Y C	P G A F E E L P L V A Q K K I A Q V D Q Y D D A I I V S L G G T		
UniRef90_F2JZL3	H H G I N K E D I T T V Y Y A	P G S F E E L P L V I K K V A E A K K V D D A I I I I C L G G A		
UniRef90_UPI00036C20B7	L G A A E K D I T S I Y K V	P G S F E E L P G I A K K K L A E A K K V D D A I I I I C L G G V		
UniRef90_D7GSZ2	H G V E E E N I T A A W V	P G A F E E L P V A A S A M A K S G K Y D A I I I I C L G G A		
UniRef90_Q3I128	T G V S D D D D I T V Y V V	P G A Y E E L P L A A K R K L A A K K Y D A I I I I C L G G V		
UniRef90_Q1PUX0	H H G V K E E D I T G V F W V	P G G A Y E E L P I T A K K V I Q R G K Y D A I I I I C L G G A		
UniRef90_UPI0003B447D4	H H G V S D E N I T I I R V	P G A W E E L P L I A K K L A G S G K Y D A I I I I A L G G A		
UniRef90_Q21F19	H H G I S D E N I E V I Y A	P G A W E E L P L A A K K L A A D S K R Y D A I I I I A L G G A		
UniRef90_M4Y6S4	H H G V E E K N I D T V W V	P G G A L E E L S I A A K K M A Q S G R Y D A I I I I C L G G A		
UniRef90_B0VJ64	H H E V N D E D I S V I W V	P G A F E E L S L V A K E A A L K K D D A I I I I C L G G A		
UniRef90_Q607U9	H H G A S R E D I C I A K T	P G A Y E E L P L A V K K I A D S G K R Y D A I I I I A L G G A		
UniRef90_B9E7J1	H H G V V K E D I D L F L V	P G A Y E E L P F V A S K L A Q K K Y D A I I I I T L G G C		
UniRef90_Q2JHJ4	H H G V D V K Q V D Y Y W V	P G S F E E L P L L A H Q L A Q S R R Y D A I I I I C L G G A		
UniRef90_F2LY74	H H N G D E S K F E I F M V	P G A F E E L P M L L S K L A Q T K K Y D D A I I L L G G A		
UniRef90_X1U781	H H G V K E E D I F E I A W T	P G S F E E L P L V A S K L A Q T K K Y D A I I I I C L G G A		
UniRef90_B9L729	N G G K E E N I E L I L V	P G A F E E L P F G L K R A I K T G K Y D D A I I V V L G G A		
UniRef90_B9KFN9	H H G G K E E N L S L I L V	P G S F E E L P F A L K Q A C E S K R Y D A I I I I C L G G V		
UniRef90_Q8DMP4	H H G V D P S E N Q V T D Y A W V	P G S F E E L P L V A A Q L A A T R R Y D A I I I I A L G G A		
UniRef90_Q0YTNO	H H G G S E E N I T I Y R C	P G A F E E L P M V A K K V A V T G N Y D A I I I I A L G G A		
UniRef90_I5BWW0	H H G A K K E N L Y R Y D V	P G S F E E L T L G A Q R R L A Q E E E D A I I I I C L G G C		
UniRef90_A6VPE9	V G V K D E N I T L D V K V	P G G A Y E E L P L A V R R L A D T G K F D A I I V A L G G T		
UniRef90_UPI0003B3CB1D	H H G A D T E E T P V V W C	P G A L E E L P V A A R R L A Q S G A Y D A I I I I A L G G A		
UniRef90_M7PSC0	H H G G S E S D I T E I A R A	P G A V E E L P L A V Q R M G A R T G K Y D A I I I I A L G G A		
UniRef90_B7RWA1	H H G V S K S Q I T I V R A	P G A F E E L P L V C K K V A A K G V D A I I I I A L G G A		
UniRef90_S6HVR5	H H G I S D S D V R V R V	P G A F E E L P L A V Q Q V A A Q K R D D A I I I I A L G G A		
UniRef90_B8KWB2	H H G I S D S Q M T I I R V	P G A F E E L P M A C Q Q A A A H I D C		
UniRef90_C4LAE1	H Q G I A D S E N I T I R K V	P G A V E E L P L A A K R L A K S K Q F D D A I I V A L G G C		
UniRef90_A5WHT4	H H G V S G N N I T S L I R V	P G A F E E L P L T A Q R R A E S D R F D A I I V V A L G G A		
UniRef90_D6SQQ9	H H G M E K E N L T L Y R V	P G A F E E M P V L V K R L A G L K R Y D D A I I I C L G G A		
UniRef90_UPI0003B51674	S G A D D K D I D L I K V	P G A F E E L P L A A Q K L A G L K R Y D A I I I I C L G G A		
UniRef90_R7LF95	N G V V I E S N I T V K R V	P G S F E E L V Y A A A Q L A K F G H V N G I I I L L G C		
UniRef90_F7NUG2	V G I A D Q D I T V V R I	P G A F E E M P L A V Q K V A A S G K Y D A I I I A L G G V		
UniRef90_UPI000255C11F	H H G V D A K N I D V V W V	P G A F E E L P F I T K K V V A T G K Y D A I I I I C L G G A		
UniRef90_V4KXD9	S G A D S A D I V V A R V	P G A F E E L P L V A R K L A L S G D Y H A I I I I C L G G V		
UniRef90_UPI000372DB20	H H G I S D E D H I E I V K V	P G A Y E E L P L L A A Q V M A V S G E Y D A I I I A L G G A		
UniRef90_A8ZTU7	N G A A D K D I E L V K V	P G A F E E L P L L A A K K M A E K G E Y D A I I V A L G G A		
UniRef90_L8LRH8	H H G I D V N Q V D Y V W V	P G S F E E V S L V A R Q L A F S H R Y D A I I I I C L G G A		
UniRef90_UPI00028832A2	L H G V S E E N I M V A W V	P G A F E E L P R A A K Q L A T A Q K G V D A I I I I A L G G A		
UniRef90_S7T910	H H G A E R E R I T L V R V	P G A F E E L P L A A K R L A E K G V N A I I I I A L G G A		
UniRef90_E4L7W2	H H G V D M E N V D L V W V	P G A F E E L P V T A K K M A E S N K Y D A I I I I C L G G A		
UniRef90_Q1ISD4	A G V E K Q D M T Q V R V	P G A F E E L P G A A R A L A E S G K F D A I I I T L G G C		
UniRef90_R8ANM4	H H G V A D D N I T L V R A	P G A Y E E L P L I A R R L A K T G N Y D A I I I I A L G G T		
UniRef90_UPI00035FAAA5	H H G A T D E N I H I E T V	P G S F E E L T F G A N Q F I N N T E V D S V I I I I L G G C		
UniRef90_R7PPI3	H H G V D L D T V I D L A W V	P G A F E E V P L T A Q K K M A Q S G R Y D A I I I I C L G G A		
UniRef90_F8C264	H H K V S E E N I Y I T W V	P G A F E E L P L I A K K L A E T K K F D A I I I I L G G T		
UniRef90_R5TU67	H H G A K D E N I L T A T V	P G S F E E L T Y G C S Q F I K S G K V D A I I I A L G G C		
UniRef90_D8PD25	A G V T D E A I E V V R V	P G A F E E L P L V A R Q L A R S G R F D A I I I I C L G G A		
UniRef90_UPI00047C5B9A	S G A R R A D I E V V R V	P G A W E E L P L A N Q A M G A K A L D A I I V A L G G C		
UniRef90_E4U4V2	L H G G S K D D L T V V W V	P G A L E E L P L V A K K Y A A K E E V D A I I V A L G G C		
UniRef90_R5EGP7	H H G V P K E E N I T L V R V	P G A L E E L P V V C E K I A Q S K K Y D A I I I I A L G G C		
UniRef90_C5CJ15	H H E V K D E N I D V I W V	P G A M E E L P H I T R S I A L K K H D A I I I I A L G G A		
UniRef90_A3WJD0	Y G V A D D D I T V V R V	P G A Y E E L P V T A K R L A E S D K F D A I I I A V G G A		
UniRef90_D3UG04	H H G G D E S R L D L V L V	P G A Y E E L P F V L D R L L S G S H Y D A I I I C L G G A		
UniRef90_D0L1W5	S G V P T D A I T L V K V	P G A Y E E L P L V A Q R A A S G R F D A I I I I C L G G A		
UniRef90_A8DVC9	H H G I D E N K I E V V W V	P G A L E E L P L L A K K L A K T K K Y H G I I I I T L G G T		
UniRef90_E8RDT4	S G V N T N D I V V A R V	P G A F E E L P L V A Q K M A K S G K Y D A I I I I C L G G A		
UniRef90_W0FEU6	Y S V R E E D I D V V W V	P G S F E E L G V V A Q Q L G K S R K Y Q S I L L G G A		
UniRef90_Q1YU42	H H D I V G D A V D V F R V	P G A F E E L P L A S Q R A A R S G R Y D A I I V A L G G C		
UniRef90_K9YMQ4	H H G I D V E Q V D Y A W V	P G S F E E L P L T S R K L A E T K K Y D A I I I C L G G A		
UniRef90_K9ERL2	H H G L D P D L I D T Y W V	P G S F E E L P Y L S Q Q L K H K D Y D A I I I L G G A		
UniRef90_I0GPK9	H H E A K D E D I D V A W V	P G A F E E L P V V A K K M A E S G K Y D A I I I A L G G A		
UniRef90_D4H7U9	H H E V E S E D I E V F K V	P G A F E E L P L L C K K L A E T G K Y D A I I I I C L G G A		
UniRef90_E4TNS2	N G I S K E N I E V K H Y	P G S F E E L S L A A Q W M A E R K E D A I I I I C L G G C		
UniRef90_L0GQS0	H H G A Q E P D L T I V R V	P G A F E E M P V V I E R T A A K G G Y D A I I I A L G G A		
UniRef90_Q30TJ8	H H G G D E A D L T H V L V	P G A F E E L P M I I D K L L A S G K Y D A I I I C L G G A		
UniRef90_Q65HW7	H H G V K A D D I D V A W V	P G A F E E L P L I A K K M A E T K K Y D A I I I T L G G T		
UniRef90_C8PI01	H H G V K E E N L S L M L V	P G A F E E L P L A L E K A L S S K L Y D A I I I I C L G G A		
UniRef90_N9DGS5	H H G V S E E N L T V V H A	P G A W E E L P V V A K K L A E T E R Y D A I I I A L G G A		
UniRef90_D1Y7H1	H H G V K M E F D V Y W V	P G A W E E L P L T V K E L A L S G R Y D A I I V A L G G A		
UniRef90_UPI000255638E	L G V K D E N I T L V R V	P G A L E E L P L A V K K A A N S G K F D A I I I A L G G C		
UniRef90_M1WW69	H H G V D G S Q V D Y W V	P G G F E E V P L L A A R R A L S R R Y H A I I I C L G G A		
UniRef90_L0DUK4	N G V A D A Q M T I V R V	P G A Y E E L P L A A Q A M A R S G E F D A I I V A L G G C		
UniRef90_P51963	Q G V S Y D N I T I I R C	P G A Y E E L P L V A Q L T A K S D R Y D A I I I A L G G S		
UniRef90_Q88X16	H H G V N E T D I D V A W V	P G A F E E L P L T V Q Q M I T T K R Y D A I I I A L G G A		
UniRef90_UPI00046B02F2	H H G A K E E N I I I Q T V	P G S F E E L I F G A Q Q M I K S G K V D A I I A F G G C		
UniRef90_Q1J1M8	H H G G K S E N L D H F I V	P G S H E E L P L V A R R L A E T G K Y D A I I V C L G G A		
UniRef90_H8L4A8	H H G V D D A A I D L V K V	P G A W E E L A L A A R K L A D S G N Y A A I I A L G G A		
UniRef90_X5E3F6	H H G A T E E N I S V K Y V	P G T F E E L P L L G G Q Y F A E L D N Y D A I I I L L G G C		
UniRef90_UPI000368B9A7	H H G V K E S Q I T V Y R V	P G A Y E E M P V M V K Q V A D K Q K P D A I I I A L G G A		
UniRef90_W47598	E G V K P E N I K L F P V	P G A F E E L N Y A S M Q L C K E R K Y D A I I I S I G G C		
UniRef90_I0W7L7	C G A L P Q N I I R W D V	P G S F E E L P Y I G A K K M L K T H E I D A I I I T I G G C		
UniRef90_UPI000369BD7C	C G V N Q D N I L R W N V	P G S F E E L I F G C K K M I Q K N N P D A I I A I G G S		



UniRef90\_A6FBD0 V I R G G T P H F D F Y V A G E C N K Q G L I 100 Q V A M D Y D V P V A F G V L L T T T D N  
UniRef90\_UPI000255DCE5 V I K G G D T P H F D F Y V A G E C N K Q G L I 100 Q V A M D Y D V P V A F G V L L T T T D N  
UniRef90\_C4XHY9 V I R G G S T P H F D F Y V A G E C N K Q G L I 100 Q V A M D Y D V P V A F G V L L T T T D N  
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UniRef90\_F3KDA6 V I R G G G T P H F D F Y V A G E C N K Q G L I 100 Q V A M D Y D V P V A F G V L L T T T D N  
UniRef90\_UPI00035C30BB V I K G G Q T P H F D H Y V A S E E V S K G G I A A A A G F Q T G V V P V V I F G V L L T T T D T  
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UniRef90\_D6YWD0 I I K G G S T A H F D F Y V A A A Q T A S K G G V A A N V A L Q T N V V P V V I F G V L L T T T D T  
UniRef90\_S3DJP5 V I R G G G T P H F D F Y V A G E C N K Q G L I 100 Q V A M D Y D V P V A F G V L L T T T D T  
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V V V Q G D T P H F D F V V C C C S D G A T R Q G G I T Q L Q I Q S Y P I F L F G G L L T T T T L N  
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130

140

150

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UniRef90\_X0RXM3 K P Y E G I L I G K G L K F A V V S R F N E L I T T K L L D G A R D A L L R  
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UniRef90\_D6S2A5 Q G D F I N V H G K V A I V A S Q F N E T V T K N L L D G A T A T L K K  
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UniRef90\_UPI0003658F28 M D K I K I D L D G T G K K I G I V L S R F N S N I G R D G L L T A C H A E L L K  
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UniRef90\_V8A9S9 K L A L V S R F N T D V T H G L R D D G A L E W L A E  
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UniRef90\_N1JBE2 D L N G S E L R I G I V H A R W N T A I I D P L L H G V L S S L D D E  
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UniRef90\_S8ANR6 M T S I K G T F D G S D L R I A I V H A R W N T Q I I D S L V A G A K K S L F A  
UniRef90\_H3GR93 G K L D D G T G L R V A I A S R W H E K V H S L V K E C S D E R L L A  
UniRef90\_E9UV54 V D A S D L R V A V A A R W H D E V M N G L L N G A E R A L K D  
UniRef90\_UPI0003698700 I A P D L N G E D L H I G I V C A R F T E S I T N M E I L E A C L A E L G D

	50	60	70	80																																									
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UniRef90_D5T4S3	H	G	V	N	A	S	E	S	I	D	I	V	W	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A
UniRef90_K0NSX2	F	G	L	N	T	D	N	S	I	D	V	W	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_F0RH56	C	G	A	N	T	K	E	S	I	D	V	W	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
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UniRef90_B1MYJ5	H	G	V	D	E	H	H	I	S	S	V	F	W	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A
UniRef90_Q1D349	H	G	V	A	D	A	D	I	S	D	V	W	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_Q01994	K	G	V	K	A	E	N	I	T	V	I	R	C	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A
UniRef90_H1ZBR6	C	G	L	Q	E	E	G	L	I	R	W	D	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
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UniRef90_R7HPT9	E	G	Y	T	D	D	N	I	L	V	E	H	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
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UniRef90_F8GT59	N	G	V	Q	D	S	N	I	L	L	V	T	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
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UniRef90_C2M7U6	C	G	F	S	P	E	N	I	L	E	W	S	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_F2QUM4	F	N	V	K	E	E	N	I	L	V	Q	S	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
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UniRef90_I2JVP0	L	G	V	H	S	E	N	I	T	V	E	S	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
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UniRef90_UPI000409EACA	L	G	V	P	A	T	E	A	I	R	H	L	T	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A
UniRef90_C3JAB3	S	G	V	P	A	T	E	N	I	K	V	A	Y	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A
UniRef90_F4GT60	M	G	V	D	E	R	D	V	M	V	S	V	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_C3XBX0	L	G	V	A	D	E	D	I	L	V	A	T	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_R7C1J1	L	G	V	M	E	E	D	I	L	V	A	T	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_T1DU61	Q	G	V	K	E	I	S	V	T	Q	V	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A		
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UniRef90_A4CQ09	C	G	L	A	D	D	R	I	L	R	W	N	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
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UniRef90_L7VTR4	T	G	V	D	A	A	D	V	E	L	V	W	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_Q479L4	L	G	V	A	D	A	D	M	T	I	A	T	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_G4CGV4	L	G	V	A	E	A	D	I	T	V	A	T	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_UPI000440F86B	A	G	V	K	D	S	N	I	V	I	Q	S	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_A5URX6	H	G	V	A	R	N	D	I	D	V	A	W	T	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_A0A011PNP1	L	G	V	D	Q	A	R	I	T	L	A	T	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_D5X4W4	L	G	V	N	E	D	D	I	T	G	L	T	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_J9W8I2	L	G	I	P	D	A	A	I	T	I	V	H	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_A1AWF3	Y	G	I	N	A	N	N	I	N	V	E	Y	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_H9UBM3	H	N	V	R	E	E	D	I	S	I	R	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A		
UniRef90_A0A024JJY4	F	G	V	K	E	S	N	I	V	V	S	V	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T	K	K	Y	H	G	I	V	A	L	L	G	A	G	A	
UniRef90_G0VD61	L	G	V	K	E	S	N	I	V	V	E	T	V	P	G	A	L	E	I	P	L	A	A	C	Q	R	L	A	L	T															



UniRef90\_K2G9J8 V I K G D T D H Y K Y V S G Q S R C 100 M D V M L K T G V 110 G M G I I T T N N  
UniRef90\_D5T4S3 V I K G D T D H Y D L V I N G A S N G V L A M D V V G L L N S G N V P I V F G G I L T T D N  
UniRef90\_K0NSX2 V I R G E T T D H Y F Q M I V I N A T V T N A A A M T L L N V L E G T P V T F G G I L T T D N  
UniRef90\_F0RH56 V I R Q G E T T K H F D F V C I N A T A Q G V S K D L N V L E G T P V T F G G I L T T D N  
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UniRef90\_Q1D349 V I R G G T T P H F D Y V V A G E C C A N K G L A Q V A L E Y Q T P V A F G G V L T T V D S  
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UniRef90\_F2QUM4 L I K G S T T M H F E Y I C C Q D S V T H A L M R V S L E E T H K P V I F G G V L T C L T  
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UniRef90\_X0SGN5 L I R G S T P H F D F L S A E V I K G L A M D L S L E D G L P V I S F G G I L T V D T  
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UniRef90\_U2IRT1 V V R G D T P H F D Y I C C Q G V T F G L S A Q L N A T S P A P V I F G G V L T T E T  
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UniRef90\_V8A9S9 V I K G D T A H F E Y I S L G A T I G I M Q A Q L A T E T P I S F G V L T T Y T  
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UniRef90\_S8ANR6 L I K G A T M H F E Y L A D A V S H G L M R V Q L D S G V P V I F G G L L T V L T  
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UniRef90\_A5VJX0 I E Q A M Q R A G L K A G N E G A T A Q S L L E M I S L N R Q I N  
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L G V K P D A V R H L T V P G A L E I L  
T G A T V S N D I Y R V V G A L E I L  
R G F N E S D I H S Y E V P G A V E I L  
L G G D P E K L V V A R V P G S F E L P  
S G A E A L T V R V A G S Y E L P  
A G V R D E N I V I Q T V P G S Y E L P  
G V S S D H I F R Y N V P G S F E L P  
A G V V E D H L T T L T V P G S Y E L P  
A G V T V S P T V V R V P G A Y E L P  
S G V K E A N I V V Q S V P G S W E L P  
V K L A E A P T V L R V S G A V E L P  
S G V A A A D I V V E T V P G A W E L P  
Y G G S E E M L T T I R V P G A F E I L  
M G V E E K N I L E S V P G S Y E L P  
C K V D E D K I F I K E V P G A Y E L P  
A G V K K E N I V V E T V P G S F E L P  
G V D K T E R I F R M D V P G S F E L P  
V G L G T N S I E V I R V P G T V E L P  
A E V R D A L V L R V P G S F E L P  
A D A R A G H V V Q R V P G S Y E L P  
A G V S E N N I T I H T V P G S Y E L P  
A G V K D E N I V V Q D V P G S Y E L P  
H G V I N V S E I D Y V L V P G S F E T P  
H G V I S E R V D V F K V P G S F E L P  
C G V K E S N I V V Q S V P G A W E L P  
C G G A S I S E F R V V G A L E I L P  
Q G V G P E S V I S D T F E V P G A F E I L  
K G V A E D D L H V V E V A G A F E L P  
A G V K E E N I I V S S V P G S W E L P  
L G A E P A R V L L S V P G A L E L P  
C G I D Q P V V V R V A G A L E L P  
C G G A K V I E T R V P G A L E L P  
C G V K D S N I V V Q S V P G A W E L P  
L G V A D S D L T L T T V A G A L E V P  
A G A A P T E L R V A G A L E V P  
S G I T E P R L L R V P G T F E L P  
A G I E P T L R V P G T F E L P  
L G I D G A T E L R V P G T F E L P  
V S V K Y N Q I T V P G A F E I L P  
A G A T W R L V R V P G S F E L P  
A G A Y E L T E V P G A L E I L P  
N G L P A G Q V E H F D V P G A F E I L P  
A N V T H V K E I R V P G S F E L P  
A G I A E P T V L R V P G S F E L P  
A G V R E E N I T V E T V P G S Y E L P  
C G V A E S N I V V Q S V P G S W E L P  
L G A E Y D V V T V P G A L E I L P  
L G I T E P T L I R A P G A F E I L P  
R G A E F D V V T V P G A L E I L P  
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A G A K I T V M E V P G A F E I L P  
A G A S Y D V V T V P G A L E I L P  
A G L P D V P V I R V P G T V E L P  
C G V K E S N I V V Q S V P G S W E L P  
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S G V E S V T L V R V P G S F E L P  
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A G V E D V T E I R V P G A F E L P  
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Y N V L P E N I T T D T V P G A Y E L P  
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H G Y T E A D I D F F E V P G A F E I L P  
S G V A A G N I V F E S V P G A W E L P  
Q G I S R D V I D V F E V P G A F E I L P  
A G V N D P T V V R V P G S F E L P  
S G V P E P T V V R V P G A L E L P  
G N V E H P T V V R V A G A M E L P  
A G A T Y D V V T V P G A L E I L P  
A G V K P E N I V I E S V P G S W E L P  
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A G A T Y D I V T V M G A L E I L P  
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60  
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P V V V Q A A A R T S K A F D N A V I A L G G C  
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P V A L S H M I E T Y N A M I A L G G C  
P F A V K K V L A G A R R E Y D A I V A L G G C  
P V A A A R L A R A R P E G Y D A I V A L G G C  
P I A V Q R L Y Q Q H P F D A I I A V L G G C  
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P V A V R R A L S S S E K Y F D A I V A L G G C  
P I A S I I S K Q K K Y N A I I A L G G C  
P C T L K K L L S S M E Y H A I V A L G G C  
P V A A L T H A A K G G Y D V V A L G G C  
P I A V Q R L N S S G P F D A I I A L G G C  
C W A V E Q T F Q T H A D V V G A I A L G G C  
P L V A E K V A L T Q K Y D G G I A L G G C  
P Q A L A A M A E G S F D A I I A L G G C  
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P L I A K R R A M Q K K V H H S I I T L G G C  
P V A A R K L A E A G D A G G V V A L G G C  
P V V A Q A L A R R C P F D A I V A L G G C  
P Y A V Q R M W S K E P F D A I I A I G S  
I Y G C R K M Q E S T F L D A I I A I G S  
P Y A A Q R L A T S R P F D A I I A I G S  
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P V V A Q A L A R S P H D A I I A I G G C  
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P W G S K R L I D R Q P T V D V I I S I G G C  
P Y A A K L A L A M S G T V D V I I C C C  
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P V V V Q E L A Q S G R Y A G V V C C C  
P L H A K K E L A Q S G R Y A G V V C C C  
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70  
80

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L I R K G D T M H F E E Y I V C Q S V S H A A I L L R R V S Q L M D S T G V P I V A N G V L L T V D S  
V I R G G D T Y H F E E L V S A N E S G A G I V L S R R V S Q L M D S T G V P I V A N G V L L T V D S  
L I R K G G T M H F E E Y I V C Q A D A V S H G L L M R V S Q L M D S T G V P I V A N G V L L T V D S  
V I R G G D T Y H F D Y V V A G E S T A R G G L L M R V S Q L M D S T G V P I V A N G V L L T V D S  
L I R K G H T L H Y S H I S H A V N S R G L L T S E L V S V E Y T G V P I V A N G V L L T V D S  
V I R G G D T P H F E E Y I V C Q A D A T E G L L M R V S Q L M D S T G V P I V A N G V L L T V D S  
L I R K G E T T H H F E E Y I V A D A V S Q G L L M R V S Q L M D S T G V P I V A N G V L L T V D S  
V I R G G E T T H H F E E Y I V I N R A G S A S M M Q Q S I A S G R P I G F G G V L L T V D S  
V I R G G D T H H F E E L V C C N D S V T A G G L L T R I V A L L E Y N I P V G N G V L L T V D S  
V I R G G E T D H Y D H V V E Q T A R G G I T K D V N V L Q E T G V P I V A N G V L L T V D S  
L I R K G D T A H F D Y V C S D S V T A G L L T M K V Q L L E T G S T P V I G N G V L L T V D S  
V I R K G S T M H F E Y I C D S V S H G L L K D L N N K T R V I F C V L L T D D T  
L I R K G G T M H F E E Y I A D A V S H G L L M R V S Q L M D S T G V P I V A N G V L L T V D S  
V I R G G G T P H F D Y V C Q R F V T D G L L M R V S Q L M D S T G V P I V A N G V L L T V D S  
L I R K G G T M H F E E Y I A E S V S Q G L L M R V S Q L M D S T G V P I V A N G V L L T V D S  
V I R G G E T P H F E E Y I C C N D S V T A G G L L T R V S Q L M D S T G V P I V A N G V L L T V D S  
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V I R K G E T M H F E E Y I A D A V S H G L L M R V S Q L M D S T G V P I V A N G V L L T V L S  
V I R G G E T Y H F E E L V S N E S G A G V T R V S Q L M D S T G V P I V A N G V L L T T E N  
V I R G G G T P H F D Y V C C Q A A T E G L L T R V S Q L M D S T G V P I V A N G V L L T V E D  
V I R G G G T P H F D Y V C C Q A A T E G L L T R V S Q L M D S T G V P I V A N G V L L T V E D  
V I R G G G T P H F D Y V C C Q A A T E G L L T R V S Q L M D S T G V P I V A N G V L L T V E D  
V I R G G E T N H F D Y V C C K E S A R G L M H L S L R D N G L A I V T Y G I L L T V E N  
I I R G G G T P H F D F V S N A A T D G L T R V S Q L M D S T G V P I V A N G V L L T V E D  
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V V D G G G I Y R H E F V A Q S V S A L L M Q V S Q L M D S T G V P I V F S V G V L L T P H H  
L I R K G E T M H F E E Y I A D S V S Q G L L M R V S Q L M D S T G V P I V I F G G V L L T V L N  
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V I R K G G T P H F H F V A D A V S Q Q L L A R I A V D S G K P V I G F G G V L L T C D N  
V V R G G G T P H F E E Y V C D S V T A G L L T R V S L D E E S T P V I G N G V L L T T E N  
V I R G A T P H F D Y V C D A V T A G L L R V S L D E E S T P V I G N G V L L T T E N  
V I R G E T Y H F D I V S E S C C R A L L T D L M R I S G L E E S T P I A I V G N G V L L T V E N  
L I R K G S T M H F E E Y I S E S C C S G L M R I S G L E E S T P I V I L G V L L T A L T  
V V D G G G I Y R H D F V A T A V I N G L M Q V S Q L M D S T G V P I V F S A V L L T P H H  
V I R G E T Y H F D I V A N E S S R A L L M D L S V S E S T P I V G N G V L L T V E N  
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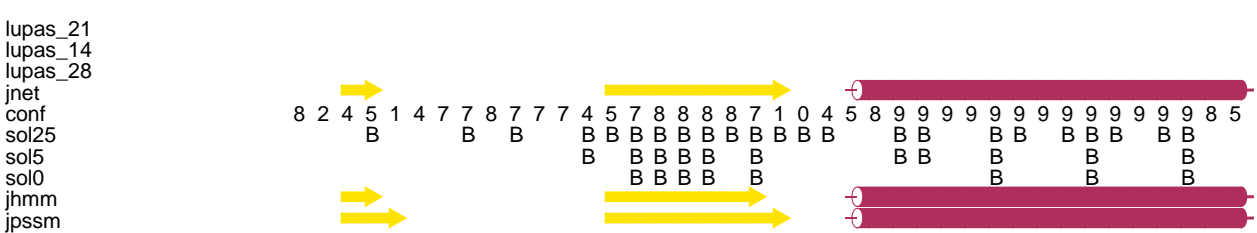
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UniRef90_C7P4K3      M S Q D E A T A R T D K G G D A V D S A V S L A T E L R Q
UniRef90_UPI00037F6939 D E Q A W V R A R V S E G N
UniRef90_W1JYH2      F H E T E V H Y D F F R R H F A
UniRef90_UPI0003608499 D A Q A Y A R A R V G E K N K G G S A
UniRef90_S8BPC5      E E Q A K K R A G E D G H N H G E D W G D A A V E M A V K R K Q
UniRef90_U3TEE4      R L E A L E R A E E Y A R R A V E S A V K L A R R S K E L
UniRef90_U1PDA1      M S G A E A R E R E T K G A E A V N A A V D M V E I L
UniRef90_G2MFY1      Q S G A E A R E R V E K G S S A V D A A D L V E V L
UniRef90_U1P1R0      M S G A E A R E R V G K G A E A I D A A I D L A Q
UniRef90_D8J626      M S C A E A R E R I E K G R D A V E A A I D L V E E L
UniRef90_UPI0003076D1B D E Q A A A R A E G K G R D C A Q V A V E M A N L V A A L
UniRef90_I9WU67      E A Q A L E R A R V A E M N K G G G A A E A L G V L A L K R A
UniRef90_I7HFF9
UniRef90_V4JCE9
UniRef90_B1FUZ5      F H H G E E H V K F F T E H K G A E V A R A C G E T V N K L S L L Q
UniRef90_X5KQV4      F H E H Y E H R M F F S T H K G Q E L A Q A L L Q
UniRef90_UPI00016A345A P H Q I P P R L R L Y A A N A L K A V C A M L
UniRef90_I4MV46      F H G Q E H H E Y F F K H H K G Q E A A N T
UniRef90_A0A024FTQ2 E T D A L E V F G L E E G F F A E E V A T R V V K M A L L N K L L
UniRef90_K2BGP3      K D Q F I N R T A E Y A T R A V I Q A V V E N L K L L N N
UniRef90_E0TIL7      V N Q F L N R I K Y N I L N
UniRef90_M4B5S3      E P R V A S V K I K G G W G A E F A D A V V S L A E L V E
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UniRef90_V4ZL88
UniRef90_T1C7V7      R L Q A M A R I E K A R D A V D S V V K M V K A L K S L K
UniRef90_B3TA67      E R Q A F A R I R P V S E R A V D A I F K T A K E L K K I K
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UniRef90_K3W534
UniRef90_G5A1M2      R V A S V K V R G G W G A E F A E G V V P L I N L

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