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QUERY

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UniRef90_K9TK70	I	A	G	E	S	N	R	F	V	F	Q	G	V	H	M	L	F	D	G	R	P	D	R	P	W	K	T	E	T	R	K	N	E	L	V	F	I	GR	D		
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UniRef90_K5YL14	Y	E	G	E	R	R	F	A	F	Q	A	V	H	M	I	A	D	G	F	L	A	P	W	K	D	E	K	R	V	S	R	I	V	F	I	GR	D				
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UniRef90_A7IP13	F	A	N	D	P	R	F	V	F	Q	G	V	H	M	I	L	D	G	D	H	Q	R	P	W	K	D	E	K	R	V	S	R	I	V	F	I	GR	K			
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 S V S F Q S D R P F A I K K F Q N F L D N Q L T P F L V E Q G D T V F R T K G V F N
 I S S L S F V F D R P F N L D R F G H R L M M F L N I Q A K N I Y R V K G F I W
 V H S F V M T I D A R I D W T A F G L W L T M L L N R H G D R V L R V K G I I N
 V S M S F T S D R P F D V Y K F Q K F L T E O I P N E V F R A K G I I I W
 V T S L V L E L G Y P L A L D A V S K V M E E L L A G F A D R L L R Y K G M I W
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 V S S V G I A V E G E L D F Q A V N E F M M N L L Q E N A L N M Y R S K G V L C
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 V G S F I L Q E S R P I D L N K F S L W L N D M A Q T R G E D L Y R T K G I F N
 I S S V S M R Q Q Y P L D Y Q K V M Q F L D R L I T Q H G N N L Y R V K G L M Q
 V S S F V Y T S D L P F H P E R L L D E W L D S W T E S V I R A K G V F R
 V T S F V Y T R E R R P F H P E R L D A W L D T W T G N V I R A K G V F Q
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 I S S T V Y R Q Q R P F H P E R L Q A W F D D W S G D I V R A K G F F S
 I Q S I V I Y L D Q W V E L A E L S K M M E T L L C R H A D N I L L R Y K G I I L A
 S V S I E L D D P L D R A A F E G W L T A L L A E R G D D L Y R F K G I I L A
 V S S F V R S D R P F H P E R L A A W L E D W D G S S I V R A K G G V C
 S V S F Q S D R P F D V Q K F Q T F L T E H L P Q N I F R A K G I I L W
 I A S C A I V V P G G I D A T R F N R W I N Q L V Q T Q G T Q P D N I L R M K G V L N
 I G T V S C S E D R A I D E R K L N Q W L G G V L W E N G M T I F R M K G L L T
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 I G T V S C S E D R A I D E R K L N Q W L G G V L W E N G M T I F R M K G V L W
 S F S F Q C D R P F D V Q K F E T F L V E E M P E Q V F R A K G I I L W
 S L A F E S E R P F S I R K F Q Y F L D N Q L P D T V F R G K G F I W
 I T S T H F I L D K A F D P A K L Q K Q L Q A L V N Q Q E I Y R I K G F V A
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 I N S T H I I F N R S F D P E K L Q D T L Q K L A K K Q E I Y R I K G F V A
 V T S L G I D L P S P V D L G L Y N N W L D G L M R T K G A D L F R M K G V L D
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 I Q S L A I R E S R P Y Q D Q D K I G K V M E M L L D T L G C D L L R Y K G I I L N
 I G S F C L T Y G E P L A W E H V A T W L D A L V V A H G P D L L R V K G I I L D
 I Q S V V N N L T H P V E F N E I S N L M E E L L I N F A D S L L R Y K G I I L A
 I R S F S I I E E K P I D P M A L D M F I D L L R S A H G E K L L R M K A I V S S
 V R T L C I S E D D K V D L D K V H S W L E E I L W E K G M D V Y R C K G V L S
 I S A F C L V L D E P L D E S L L D T W L D L Q R S L S G K D M L R I K G I I L N
 V S S V S F R E P D A V D Y E K F L A F L T E L T Q S Y G T N L Y R V K G I I L
 I R A F C L V L E G P D P D R L V A A L Q R L V R S D E I Y R V K G F V H
 I S T L C I C E Q D P I S L S K V E S W L E D L L W E R K M D I Y R C K G I I L
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90

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UniRef90_A8G996	L P E E T I R E R F A G L
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UniRef90_UPI00034D0332	L D K E T L R K Q I E N C C
UniRef90_UPI00034AFBED	L P R T M L Q N G L D R C C
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UniRef90_K9T9A9	L D T D K I R H S L N D C C
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UniRef90_Q016G0	L D R P A L E A G F R A C C
UniRef90_B1X234	L D K D K L Y Q Q I E H C C
UniRef90_F8JG71	L N R A E F A A G F A R C C
UniRef90_A4G8G2	I D K H Q M Q E E F A Q C C
UniRef90_M0MXE1	M D E E G I V A A L D D C C
UniRef90_M0N6Z2	L D E Q S L T A T L L D D C C
UniRef90_K9PY49	L D K L T L M Q Q L N N C C
UniRef90_J3JHP2	L D E L S L A S E L D D C C
UniRef90_D2U3Y6	L P E E E I R Q Q F A
UniRef90_D9VCB9	L D R A E L T D T V S R C
UniRef90_M0CSF1	M N E G E I I R K D L E A C C
UniRef90_UPI000318A4A5	L D T S K I L S L I N E C C
UniRef90_K8RBE8	I D A A R M R D G L L S S C C
UniRef90_L1IMB7	L D R L A L Q K G L S S C C V Q
UniRef90_K9SEF7	L D Q A E I E Q N L L E A C C
UniRef90_K9V4I4	L N G D Q I S S Q L Y K C C
UniRef90_B1WX97	L D T D R M R S H L E A C C
UniRef90_UPI00034CCE46	L K S A E I I E S Q L V A L
UniRef90_B4W131	L D A A Q Q I Q S Q L R T C C
UniRef90_B6IRD9	L S R E V V E T L F R A C C
UniRef90_D4TLY7	L Q S S R I E S E L A A L
UniRef90_F0YES0	L D H A A L K A G F L A C C
UniRef90_B0CC11	I D K A Q L N Q L L T D C
UniRef90_H0JZ8	L P E E R I R A A F E R
UniRef90_J9A1R2	L S R E F V A A V L D T V R
UniRef90_W1J982	L P E Q K I R E K F A Q L
UniRef90_W0IID2	L P E A F V K D L F D A F
UniRef90_UPI0002B481BC	L N E D V L S K T F R E C
UniRef90_L0GWU1	I P R E T L A Q S L D A F
UniRef90_B9TBC1	L E R E R I I A G F R S C
UniRef90_Q7NPD2	L E A E T I G R A L A E
UniRef90_Q7XAM3	L D I N I L Q D S F S R C K
UniRef90_UPI00030200DA	L E K E R I L Q Q G L E Q C C

	1	10	20	30	40
UniRef90_K9TLR1	S V S F E S D R P F A V K K F E T F L T E E V S T A V F R A K G I L W				
UniRef90_UPI0002F5923E	T S V S F E C Y R R R P F D P F S L R R F Q N F L D N Q L S E N V F R A K G I L W				
UniRef90_UPI000450EA80	I S S I L L K S E N D M D Q A F E Q W F N R I V D E K G E Q M Y R K G I L S				
UniRef90_M0C8A5	V T S F V Y R R R R P F H P D R F A A F L E D L P P A I V R A K G T A W				
UniRef90_A0YW78	I S S V F S Q S H S P F D E K F E K F L T E E M P I E V F R A K G I L W				
UniRef90_I3E3D7	I T S F V Y R R R R P F H P E R L M K W L E N W E M P I E V F R A K G I F F W				
UniRef90_UPI0003B3A334	I H A T C S I E V K E P L E T L I Q G W L N E L I S Y Y G P Q L Y R Y K G I L S				
UniRef90_UPI0003787A26	I S S F V Y R A R R P F H P E K F N A F L A R T W P G D L V R A K G L F W				
UniRef90_UPI000381246D	I S S F V Y R R R R P F H P E R F M N W L E N W P V E V V R A K G F F W				
UniRef90_A0A023DD68	S L S F E S D R P F S V H K F E Q F L T Q Q M P Q N I F R A K G I L W				
UniRef90_K9XI64	S S S F T F G A P F N Q K G L D A Y A Q Q L A E R G D P S E V F R A K G V L W				
UniRef90_UPI0003485236	A V P F E S D R P F S L R K F Q K F L D Y Q Q L P M H Q L P E N T F R A K G I L W				
UniRef90_B0CDI4	S V P F R S D R P F D F T R F E H F L M H Q L P E N T F R A K G I L W				
UniRef90_B4WR26	I Q S V S F Q L Q Q P L D A A F R D W L Q D M P E T L F R A K G V L W				
UniRef90_Q2J86	I L T V T F E I A G D L S E D A L N A F I Q Q D L L W E K P M S V I R L K G I V S				
UniRef90_I3KD27	V G S V G I T A R G A L D K Y R F N M F M R D L L G E K A R D I F R S K G V L C				
UniRef90_E1Z8B1	I N S V Q F C L D S P V D A R I L T Q R L K E L V A R E E I Y R V K G F V N				
UniRef90_B0JT11	I A S V G V K T C D E V N M E L L Q R W I Q R L I T D E G A N L Y R Y K G V I A				
UniRef90_L1JNS5	I R S F C I T F D E P I H W D A F V T W A E I F T Q M R G E S E L L R V K G I L N				
UniRef90_K2LCQ1	I R A F V L Q A D T P L S W A R F G L W L S M L L N R H G G E I L R L K G L I D				
UniRef90_UPI00036595EA	I N S V Q L I L D Q E F E P K K L M D C L Q E L Y K E A E V Y R V K G F V N				
UniRef90_K9YQ16	V S S F C Y E S E R P F H P E R F A W M D E W P S G V Y R A K G F F L				
UniRef90_M0DGEG5	V S C C T L R A E R V L D P Y A W Q R F M T S H F L A R P A R P A V L R V K G F L S				
UniRef90_UPI0003B7B481	V S T C V S L E S R A P L R L D A L Q S W L R A L A E D R S D D P V Y R L K G V L A				
UniRef90_R1EBC7	I R T V C I A T S G F L D G E S F Q N W I E D D L L W E R G A D I L R A K G L V Y				
UniRef90_F0YCYQ7	I V T I T F E V P G N S K E D S L N I F I Q N L L W K N E M E V I R L K G L L N				
UniRef90_A4S6H2	V R S F S M V I E E R I D W T G F G M W L T M L L Y A H G D R E V F R V K G I L D				
UniRef90_UPI00038BEC7D	I N S V N I I L D Q T F E P K T L V K Q L E K L V E E A E I Y R I V K G F V D				
UniRef90_W4LDJ3	V T S F M L A F D E P L D W M T V S G W L A Y L R Q A R G E D L L R V K G I L N				
UniRef90_K2P0T9	V N A F S L V S D E A L P A G A L E M F L E L L R A A H H G P K L L R F K G L V Q				
UniRef90_K9TJA7	V S S F V Y R S R K P F H P E R L M M N W L E D W P T D D V L V R A K G F I W				
UniRef90_H0T9H7	I S F S V Y R S R K P F H P E R L M M N W L E D W P T D D V L V R A K G F I W				
UniRef90_UPI0003FC7681	I R A F T L S T S R P I P A S A L E M F L D L L R S A H H G P K L L R M K G I V Q				
UniRef90_W4PY31	V Q S F V L V R H E P L D E G F A Q W L D L V V A S Q G E K L L R F K G L V Q				
UniRef90_A4TVAV1	I S S F V Y K R D V P F H P E R L L A L I E D W P Q E D V V R A K G F I F W				
UniRef90_A3JVR6	V E A V D I H A S G A L D E Y R F N M F M R D L M A E K K T D I L C C K G V L N				
UniRef90_UPI000363F093	I H A F C L T Y D T P L P D P R G L M R F L D S R P E G L Y R I K G F V H				
UniRef90_W4QYW5	I S S F V Y R S R K P F H P E R L M M N W L E D W P V D V V R A K G F I W				
UniRef90_F2IZC5	I R A F T L S T S R P I P A S A L E M F L D L L R S A H H G P K L L R M K G I V Q				
UniRef90_UPI000380EA8E	V S S F V L V R H E P L D E G F A Q W L D L V V A S Q G E K L L R F K G L V Q				
UniRef90_UPI00041F4C8	I S S F V Y R R R P F H P E R L L A L I E D W P Q E D V V R A K G F I F W				
UniRef90_UPI0003608E9B	Q S V E F T G E P V S P R R L D F L D T R P A G L Y R I K G F V H				
UniRef90_L8ET37	S V E F V S D A P M N P R R L M A F L D S R P A G L Y R I K G F V H				
UniRef90_UPI00047E718C	V R T L S L R F E Q P F D W K T F F A A A M D M I M S L R G S D L L R V K G I V N				
UniRef90_K0S4V9	I V S S V S C K I K G N V Q M M L S R W I G R L I Q E D G A N D M L R I K G I L A				
UniRef90_G2E0M7	I I G A F C L V D Q P L D S G L I D A W L D D Q Q L S C G R D M L R I K G I L Y				
UniRef90_M1MEF1	I S S F V F L S N K P F C S K K L E I V L S Y L T E K Y G P N M L R Y K G I L Y				
UniRef90_Q5UZC0	V T S F T Y R R R R P F H P D R L L A E V L Q D L P S G V V R S K G T V W				
UniRef90_UPI0004752432	I R A F C L T S D R P I P A S P F D L F L D L L R S V H G P N L L R V K G L V A				
UniRef90_C1MKM0	V S S V G I V A E G E L D F A E V N T F M M K V L Q E N A L S I Y R S K G V M C				
UniRef90_U6BCN3	V E A V D I H A S G A L D E Y R F N M F M R D L M A E K K T D I L C C K G V L N				
UniRef90_P93764	I H A F C L T Y D T P L P D P R G L M R F L D S R P E G L Y R I K G F V H				
UniRef90_D5RRZ7	I S S F V Y R R R P F H P E R L M M N W L E D W P V D V V R A K G F I W				
UniRef90_J2PLD0	I S S F V Y R A R R P F H P E R L M M N W L E D W P V D V V R A K G F I W				
UniRef90_E1ZAY8	I R A F T L S T S R P I P A S A L E M F L D L L R S A H H G P K L L R M K G I V Q				
UniRef90_A3YHG0	V S F V I V I G E V D S D R L E Q A L N G L I A S H N Y R A K G F A A				
UniRef90_K9SGN9	I N S V N L S I T Q E F D P K E L V I A K E R L V Q Q K D I Y R V K G F V A				
UniRef90_F5Z6W7	I S S F S Y H A R R R P F H P E R L M M N W L E D W P V D V V R A K G F I W				
UniRef90_UPI000379AD5A	I R A F T L S T S R P I P A S A L E M F L D L L R S T H G E K L L R M K G I V Q				
UniRef90_D4GEJ0	I S S F V Y Q A R K P F H P E R L M M N W L E D W P V D V V R A K G F I W				
UniRef90_Q21J89	I S S F V Y Q V A R K P F H P E R L M M N W L E D W P V D V V R A K G F I W				
UniRef90_UPI00040BB436	I S S F V Y R R R P F H P E R L M M D M D W L E N W P E D V V R A K G F F W				
UniRef90_S6j377	C L E F Q P D D W V G F G V W W S M L L R C H G E R I L R V K G I L N				
UniRef90_B3S117	V S T A L I E F E G N I D L E P L E T W L G Q D L L W E K N M E I L R C H G Q L S				
UniRef90_C6XC62	I S S F V Y R A R K P F H P E R L W A W L G Q E W P G V V R S K G H F W				
UniRef90_C9TW98	I R S F S L R H D A P I P V S T F E M F L D D L L R S T H G E K L L R M K G I V Q				
UniRef90_W8PQC8	C L T F D Q P L D W V G F G V W W S M L L R C H G E R I L R V K G I L N				
UniRef90_A6FFK0	S F V L K F G E V D G P R L Q Q I L T Q L T E H N Y G K F V A				
UniRef90_F7EBR8	I V T V T F E V R G S T T E E N L N I F I Q N L L W E H T M E V I R L K G I L S				
UniRef90_M7R5Y7	V L E Y E T P L D W L A F G V W L S M L L R C H G E R I L R V K G I L S				
UniRef90_UPI00047C0E54	I Q S Y S F V I D E P V E W A A F A R W L D Y V A A L K G E D L L R V K G I L V H				
UniRef90_F0FWXU4	I A S F V L V R D V P L P L E A F A D W L D M V V A S R G A D L L R V K G I L V H				
UniRef90_F0QDJ9	S I V V E L G E V S D P E A L S A S I D E R L L A K E Q S I L R V K G I L V H				
UniRef90_AOA058ZI88	I N S V Q F I S D Q A F E P K P L I A K L Q Q L V Q Q Q E I Y R I K G F V S				
UniRef90_B4VRB3	I V T T F E V P G N A K E S L N V F I Q Q N L L W E H C M E V I R L K G I L V H				
UniRef90_UPI00046B22EC	V S S I S F S Q P L D W T A F G F G W L S M L L H A N G E N V M R V K G M L D				
UniRef90_UPI0004711D3F	I G S A S I V L D S P I K D T T F D L W L D T L L I A M R G K D I L L R V K G I L V F				
UniRef90_UPI000369AF18	I S S F S F G R P L D P R R L I R F L D S L S F R S G R P L D P R E G L Y R I K G F V D				
UniRef90_D9XLS5	I S S F V Y R R R P F H P E R L W A F R Q W L S A W D R P E G L Y R I K G F V D				
UniRef90_L5MQQ0	I S S F V Y R R R P F H P E R L W A F R Q W L D Y F A A L K G A D L L R V K G I L V H				
UniRef90_AOA024K892	I S V S F T A D V P L S P R L F M A F L D S R V A T D R P E G L Y R I K G F V D				
UniRef90_E8W525	I N S I C V E L E Q T F D P N T L I E R L Q V L V Q Q Q E I Y R I K G F V A				
UniRef90_A8ZL53	I L S T I V E E R P L P F E P T A L N R N R F G M V L T Q L V Q H Y E I Y R I K G F V A				
UniRef90_K8GUX4	I N S I C H V V L D Q A F E P T A L P F E P T A L N R N R F G M V L T G V L S R P A E V L R L K G F V S				
UniRef90_E8U5C3	T A L T I V E E R P L P F E P T A L P F E P T A L N R N R F G M V L T G V L S R P A E V L R L K G F V S				
UniRef90_U6B9I1	T A L T I V E E R P L P F E P T A L P F E P T A L N R N R F G M V L T G V L S R P A E V L R L K G F V S				
UniRef90_W7DU07	T A L T I V E E R P L P F E P T A L P F E P T A L N R N R F G M V L T G V L S R P A E V L R L K G F V S				
UniRef90_B1YHM6	T A L T I V E E R P L P F E P T A L P F E P T A L N R N R F G M V L T G V L S R P A E V L R L K G F V S				
UniRef90_K9SYZ1	T A L T I V E E R P L P F E P T A L P F E P T A L N R N R F G M V L T G V L S R P A E V L R L K G F V S				
UniRef90_E8R551	T A L T I V E E R P L P F E P T A L P F E P T A L N R N R F G M V L T G V L S R P A E V L R L K G F V S				
UniRef90_Q2JS96	T A L T I V E E R P L P F E P T A L P F E P T A L N R N R F G M V L T G V L S R P A E V L R L K G F V S				

	50	60	70	80
UniRef90_K9TLR1	F Q E S E A R H V F Q L S G P R Y D L N Q E D W	E P P K N Q L V L	G R N	
UniRef90_UPI0002F5923E	F Q E S E R K H I F H L S G K R F S L D D E D W K	K D K S N R I V L	G K N	
UniRef90_UPI000405EA80	I E G F P K R V V F Q G V H M L F G G V V G S P W K G E S R I S E F V	I V L	G K D	
UniRef90_M0C8A5	I A D N D M R V A I A Q A G M Y R S R N R P D L E W H D E D R T E L V	V F	G T D	
UniRef90_A0YW78	F D N S E M R H I F Q L S G P R Y D I Q V E E W	N S P Q N Q I V F	G R H	
UniRef90_I3E3D7	L A S R N N S I T I Q G A G E W I A A Y P E Q E W D D G D R M T E L V	V F	G I D	
UniRef90_UPI0003B3A334	I K D V P N Q I I I Q G V Q M S C E V S Q G R E W K D A D R S S T L V	V F	G K N	
UniRef90_UPI0003787A26	L I G E P K P V V I H G V Q H I F H P P V L D D W P S D D R R T R L V	V F	T R D	
UniRef90_UPI000381246D	L A T R P R R V G L A G A G Q W W A I P T E H W P T G D R R Q E L V	V F	G V N	
UniRef90_A0A023DD68	L A S R N D M C M I Q G A G E W D A V Y P E T E W D E G D R M T E L V	V F	G I D	
UniRef90_K9X164	F S D S D L R H I F Q L S G S R Y D M N A E Q W V S S P K N Q L V	V F	G R D	
UniRef90_UPI0003485236	I A G E G R R Y V L Q A V H R V E L R A D A W D G A A R S S K L V	V F	G R N	
UniRef90_B0CDI4	F D E S P H R H L F Q L S G K R S Q L Q D E A W Q D P P R N Q L V	V C	G H K	
UniRef90_B4WR26	F E N Q P Q R Y I F Q L A G K R C S L S P D T Q T P P M Q N Q L V	V F	G H K	
UniRef90_Q2JJ86	V V D E P Q R V I F H Q V G Q R Q T L F E R D W D P E E P R S K I V	V F	G K G	
UniRef90_I3KD27	F A D K G H Q V M L Q G V H E L Y E L N E T Q Q W E E P R I N R L V	V F	G R N	
UniRef90_E1Z8B1	I K G Q E A K F V F Q G V H E T I C F G P A G W Q A G E E P I N Q I V	V F	G R D	
UniRef90_B0JT11	V A N K P M R M V L Q G V G D R F D S F F D R P W Q T E M R Q T R L V	V F	G R S	
UniRef90_L1JNS5	V K G E E K F V F Q G V G M L F S G G F H G R W R A E V R E S R F I	V F	G R N	
UniRef90_K2LCQ1	L V G E D A P V A I H A V Q H V F H P P A S L P W P S D D H R S K I V	V F	T K D	
UniRef90_UPI00036595EA	I I E G N D S P V V I Q G V Q H L I H K P M H L D S F Y D R A W G E E P R Q T R L V	V F	G R N	
UniRef90_K9YQI6	V P K K P P M R L V V Q G V G K H L D S F Y D R A W G E E P R Q T R L V	V F	G R N	
UniRef90_M0DG5	L S T R P E T V M L N R A G P S V T A G P I Q G Q W D D D D P A T R L V	V F	G T D	
UniRef90_UPI0003B7B481	L L H G P Q R V L F Q A V R D L F T A D A W D A A D G L S E L V	V F	G R G	
UniRef90_R1EBC7	L R G E P P R R F I V H G V H A Q I H G F A G S E W R D G E P R S S S V	V F	G H R	
UniRef90_F0YCYQ7	F A G Q A Q K F V F Q G V H E Q I D F G P A E W Q K D E P R W S K I V	V F	G R N	
UniRef90_A4S6H2	T A G S D K R R V L Q A V R E V Y E I T D G P E E N S D E V M N K L V	V F	G R N	
UniRef90_W4LDJ3	T I K D K P Q Q V I Q G V G V H E L Y D L E P V S W E D D A E R T N R L V	V F	T H D	
UniRef90_K2P0T9	V G E A G P V V L N G V Q H I H P E H L P E W P D T D R R S H L I F	V F	L Q G	
UniRef90_K9TJA7	I E G E E R P V A I H G V Q R L V H P P H M S A W P D R R R Q S R I V	V F	V D G	
UniRef90_H0T9H7	V L N K P M R L V L Q G V G K R F D H F Y D R P W Q A E P R Q T R L V	V F	G R N	
UniRef90_UPI0003FC7681	L L H G E A T P V V I H G V H H V F H P P V A L P W P D A D R R S R I V	V F	T R G	
UniRef90_W4PY31	L L A E D P E R L V V V H A V Q E L F P V P V R L P W P D A D R R T R L V	V F	T H D	
UniRef90_A4TVVA1	V V A S R N N M V T I Q G A G E W V A A Y P E D E W D P G D R M T E L V	V F	G I D	
UniRef90_A3JVR6	V S G K P K A R H V V V Q A V G T R I E R W F D R P W G D E D R I S R L V	V F	G K G	
UniRef90_UPI000363F093	L L E G D M P F V F H G V Q H T F D P P V Q L K W P S D D R R S R I V	V F	A R D	
UniRef90_W4QYW5	F H D R R R N R Y A V H A V G R F L R Y P E P W P P G E D R R T Q L V	V F	G S G	
UniRef90_F2IZC5	L L A S R N Q T V T I Q G A G E W V A A Y S E E E W D P G D R M T E L V	V F	T C D	
UniRef90_UPI000380EA8E	I I A E D P D R V V L H G V Q H V F H P P A T L P W P D A D R R T R L V	V F	G I D	
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 I V S Q Y I L K P S F D L L K L R H Y F S V M L M I Q G A Y F Y R I K G I L N
 V D S F V Y R S A D A L D P E S F A N W L H D W D G A V R A K G V A N S
 S A F Y Y A S E R P F S L S R F Q R F L D G G R P A G L F R A K G F L S
 I R A F T L A T D D A V D S V T L A G F L D L L Q Q A A H G P N L L R V K G I V R
 I T S F T V T M P K P L N W K D L K P R I L W L C Q T Y G E H L L R L K G I I H
 I S S F V Y R R H P F H P E R F Y K W L E D W P V E V I R S K G F F W
 I R N F V Y R A Q R P F E P E K L H R F L E R E S W G G V I R A K G H F W
 I R A F T L A T D A A I P A A T L D L F L E L L R A T H G G N V L R M K G I V K
 S T F F A V E G A V S D P D S L T A R L K A V A E A H D V L R I K G F V E
 I G S F V Y R A R R P F H P E R L H A F I L A S L L Q E P D C V F L G G Q G F I W
 I T S F H H L V L D R T F E P K L K L Q Q L Q N L V Q Q E I F R V K G F V S
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90

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

	50	60	70	80
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UniRef90_B9JXC3	V P G K P M R L V V Q A V G N R I D Q Y Y D R P W A G E Q R A T R L V V I	G H D		
UniRef90_B5H827	I A S R P R T G L W S Q A G S G V A R F E P S G V H D A G D H G Q E L V F	G T G		
UniRef90_UP1000467E286	I A S R P S A A I W S Q A G P N L T I E P A Q Y W S D I E P G Q E I V F	G V R		
UniRef90_A4X990	L A S R P D V M L W S Q A G A S G R C D P A G E W P P E D D R Q Q E L V L F	G V N		
UniRef90_U2VDM4	A Q D P D M C Y V F E T A G R Q A N P E V L K D W D P G D R M T K L C F	G R H		
UniRef90_H3RKH2	L A S R P E Y A A S W S A G S W W A S I P R D K W P T G D A R Q E L V F	G I D		
UniRef90_K2LQE0	I A T R P N W V G H E A L G T W W C A V P R D R W P D G D R R Q E I V F	G D Q		
UniRef90_H3SIN5	L A A S D I A V S L S Q A G H S I Q I G P A G Y W Q W G D R M N E L V L F	G I A		
UniRef90_E6UCU7	F A D D D H I Q L F E Q A G R Q A Y P D L K D D W D D G D R I N Q L V F	G K D		
UniRef90_UP1000369321B	L A T R H D A C R H G P A G F W W A A Q P R E E W P D D D R R Q E L V M F	G V D		
UniRef90_F8J5G2	L A S R P Q W V G H E A I G Y W W A A V P K K N W P A D D R R Q E I V F	G R D		
UniRef90_K0CGV0	L A S R P Q W I A H H G A G L F W K A V P R S H W P E D D M R Q E L V F	G Q D		
UniRef90_H6MWV3	I S Q A G H R I R H G Y I G R W W K F L P E P S W P A D D Y R Q E L V F	G Q G		
UniRef90_E8RM20	L A S R M D Y V G W S Q A G A A T N E W G G Y W P Y G D R H T K L V F	G K D		
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UniRef90_B5JQA1	I E G N D K Q V G F S I A G S T T R C D F I G S W P N G D R R Q E L V F	G F H		
UniRef90_Q3IRG4	L A G R E E R A E Q F E A H P E L E S M W D D E W G D R G T Q L V V V I	G T E		
UniRef90_UP100036BC9E8	V K G K P M R L L V Q A V G A R V R T Q Y D R P W G G E Q R Q T R L V V I	A E H		
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UniRef90_K2JEI5	I A T Q P D W V A H E G A R D Y M A A H W A E P W G D R R Q E I V F	G S G		
UniRef90_E9C0L1	L A N D M K N Y I W N Q A G R L G S F I R G A H W K F G D R R Q E M V F	G Q		
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UniRef90_UP1000345CA3C	I A G A K G P T V L H A V Q G L H R P V D L A W P V A E Q R N R I V L F	G R D		
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UniRef90_U4WI91	V A T R N D A L T I S Q A G P S I D P E W A E E W D P G D R I N E L V F	G F N		
UniRef90_B8G2W3	L A E V P R R A V L Q L V G S R V Q V T V G E P W G N Q P P Q T Q M V F	G L Q		
UniRef90_UP10004644E0F	L A G D D R P L V V H G V R D T V Y P A T R L E A W E E T P A T R L V V I	T S D		
UniRef90_I4KM14	L A S K P E E A W S Q A G G L M R H G F A G R W W A T T G D C R Q E L V F	G Q D		
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UniRef90_Q0G0G8	V P G K K M R L V I Q A V G K R L E T Y F D R P W K D E T R E T R L V V I	G H D		
UniRef90_K9B055	L A Q Y N H A C L M S Q A G T F V S I S P V S Y W V A G D R E T Q F V I	G S G		
UniRef90_U7PDV1	F R D A P E T Y L F Q F A N G L P D Y E P I Q D E V Q N T I V L F	G E Q		
UniRef90_W8H1Q8	N A T R A G H L I R H G I G H W W K F L P E T Y W P E D D Y R Q E L V F	G Q G		
UniRef90_UP100037B2B32	L A S R P T F A Q G W S A G M W W A S V P K E R W P E D D A R Q E L V F	G I D		
UniRef90_Q217I9	I S S G K P M R L L V Q G V G S R V R A Q F D R P W R A D E P R T H L V V I	G R G		
UniRef90_N6XZZ4	V A G D P L P R V L Q V C Y P A I S L P W P Q D D R R S R L V F	A R H		
UniRef90_B5Y598	H G L D S R R F I V Q A V H D L W E T H P A R W D S E E V R D C K V V I	G R N		
UniRef90_F7YH97	V G G K P M R L L L Q A V G P R V N H Y Y D R A W A E D D R R S R L V V I	G K G		
UniRef90_V9VXA7	S P D G I V L I D G V G H L H H P R H L D S A M P S D Q N S H L V F	G R N		
UniRef90_UP10003A88483	I A S R P D I V V W S Q A G P N L T I E P A Q Y W P A A G P G Q E L V F	G V R		
UniRef90_K6CFW1	L A S K D A G S W S Q A G G L M R H G F A G R W W R T G D C R Q E L V F	G Q N		
UniRef90_J2VUT7	V P G K P M R L V V Q A V G S R I E H Y F D R S W N D E E R Q T R L V V I	G H D		
UniRef90_UP1000225FFB7	V K G K P M R L A V Q G V G N R M R H A F D K P L T G D D R T G R L V V I	G Q G		
UniRef90_UP10004682CAF	V K G K P M R L L V Q A V G A R V R H Q F D R P W G A E P R N G A L V V I	A E H		
UniRef90_UP100047C0384	I T D P H R L I I Q S T G G T Y Q V E K G S E W E N E E R F S K I V I	G T N		
UniRef90_R5V6U0	F A N R D M S F L F E Q A G R Q K Q I S E A G L W P E E D R M Q K I V F	G Q H		
UniRef90_F8FMG8	L A T R S E A Q S L S Q A G P S I Q F G P A G F W E Y G D R M T R I V L F	G I D		
UniRef90_J1JVG4	V K G K P M R L V V Q A V G Q R V E T Y F D R P W P N E T R N G Q I V V I	G H D		
UniRef90_W7UBE8	F A D D D H I Q L F E Q A G R N A S V T E L N E W P D G D R I N Q L V F	G K G		
UniRef90_UP1000381737E	F V G H D E P F L L H T V G R A V R L T P A P D A A R T D L V L F	G A E		
UniRef90_U6SRR5	C A S R N N A L L L M S Q A G P A V Q F E P V S Y W V A G D R H T K L V F	G T N		
UniRef90_F7SAZ2	L E G S E T P V L V Q A A Q H L V H P P E H L P L G T A P T Q S S L V L F	V D G		
UniRef90_U7NFF3	L P G K P M R R V I Q A V G E R L D G Y F D R L W A D E P R A T Q L V I	G K G		
UniRef90_UP10004287B34	L A S R P K D A L N W G A G T W W A G V P D P A W Q E G D R I N E L V I	G Q D		
UniRef90_Q1ZTL5	L A T K P D L V G Y G L A G T F W K A V P K D R W P S D D M R Q E L V F	G Q G		
UniRef90_Q5YRM2	F A G D H R K F T L H V V G R H I R L E P Q S W R R D E A R A S S L V L F	G A G		
UniRef90_UP1000374D229	L A S R D F A G E W A Q A G G I C R N R P A G L W P F G D R R Q E L V F	G M D		
UniRef90_I4JHI3	L A S Q Y Q E A G S W S A G R W W R F V P K T Q W P E D D E D R Q E L V F	G Q N		
UniRef90_UP10002556E03	L A S K F Q R H G F A G R W R W F V P Q D Q W P D D D E R R Q E L V F	G Q D		
UniRef90_UP100046F6EE6	L A S R S N Q A L I W G A G G S L K T D P A G V W W A G D R K I E L V F	G Q N		
UniRef90_C9RJN1	F S D R S E S Y L F E Q A G K Q A S A Q N F G R W K Y G D R I I R L V F	G Q H		
UniRef90_M4S8J0	V A G K A A R L V V Q A V G P R I Q H F F D R A W P G E A R A S Q L V V I	G Q G		
UniRef90_Q28N62	V A G K P M R L L V Q A V G A R V R H Q Y D Q P W G D R P R Q G R L V V I	A E D		
UniRef90_F3NNNT4	F H D R R N R Y A V H A V G Q F L R F T P E P W P D G G R L T Q L V L F	G T G		
UniRef90_A0A011USP9	L A T R P H Y V E L S Q A G A W W A S V P K R R W P D G D R R Q E I V F	G C D		
UniRef90_S6V0C6	V N D N Q A P I V I H G V Q H L A P H V L A A W P G E D R T S R L V F	L R G		
UniRef90_D5ALP8	L A T R P D W V E F S L A G A S R A V T P L G R W P W G D R R Q E I V F	G V D		
UniRef90_W6LVV8	I A D L A G P L V I H G V Q H I F H P P L D A W P S A D R R T R L V L F	G M D		
UniRef90_W0PDM0	L A T H P T A V A R H G A G Y W W A A M P P E R W P Q D D A R Q E L V F	G M D		
UniRef90_U4Q888	A T D D P E R P V V A H A H R L Y P L T R L E R W P D Q D R S T R I V L F	G E G		
UniRef90_UP100035D68FB	L V E E P D R L V V Q G V R H V F A P R F L D A W P D D D R R T R L V F	G T E		
UniRef90_M0BXY6	I A T R D E A F T L D V I A G Q S V R V P G P G T W P E D E R R E R L V L F	G T N		
UniRef90_U1EBL9	L A Q Y N Q A C L L S Q A G S S C N I S P V T Y W P D G D R H T Q F V I	G Q H		
UniRef90_R6U111	F S D N D M S C L L F E Q A G Q K Q I M R E A G Q W P E E D R M Q K L V F	G K G		
UniRef90_B8EQG3	V R G K P M R L L V Q G V G A R F K H S F D R P W A G E A R E G R L V V I	G K G		
UniRef90_E6WJT7	L A S R P E Y A A M W S A G H W W A S I P R E R W P Q D D E R R Q E L V F	G I E		
UniRef90_UP10003478301	L A T R A R T G L W S Q A G P V A R F E P S G T W N P A D P R Q E L V F	G T G		
UniRef90_U6ZT40	L E D Y P Q R F I L H L V G S R L D I Q P A G A W P E D A P G S H L V V I	G R Q		
UniRef90_Q4LA72	L A Q Y N Q A C L L S Q A G S S C N I S P V T Y W P D G D R N T Q F V I	G T E		
UniRef90_G5JLE8	L A Q Y N Q D A C L L S Q A G S S C N I H P V T Y W P A G D R H T Q F V I	G T D		
UniRef90_E5AKG2	L A T R N D T V C R H G A G T W W A A Q P R D T W P Q D D D R R Q E L V F	G A H		
UniRef90_V5C4B2	L A S R P E Y V A H Q G G G M W W V V S V P Q E E W P T D D A R Q E L V F	G M E		
UniRef90_UP10002F17931	L T G R E R P Y R L H G V G P R H R F E P T A H A A D A T S R L V V I	Q R G		
UniRef90_A7Z178	C A T R N L A L L M S Q A G P A V S I E P L E D W D D G D R H T N L V F	G T D		
UniRef90_H2GSP1	I S D R D M V Q V W H Q A G P D L R I A P A G Y W A G I T P S N E I V V I	G V N		

90

UniRef90_F0P121	M D Q K A I E D S L K A C Q
UniRef90_L8K395	M D I G K I T A K L N A C
UniRef90_B9JXC3	L D Q
UniRef90_B5H827	L R R D A L H A A L A D C
UniRef90_UPI000467E286	L D R T M M A S L L E S C
UniRef90_A4X990	L D S E G L R A A L T A C
UniRef90_U2VDM4	M D R A A L E R G L D E C
UniRef90_H3RKH2	M D E T T V R A A L D
UniRef90_K2LQE0	M N E A T L R A R L A A C
UniRef90_H3SIN5	P D R S R I E R G L D E C
UniRef90_E6UCJ7	Y K K A D I L S K L N A C
UniRef90_UPI000369321B	L D A A Y W R T K L D A C
UniRef90_F8J5G2	M D Q D R I K A D L D A C
UniRef90_K0CGV0	L S P E Q A R R A L D A C
UniRef90_H6MWV3	I N P D V L R R D L D A C
UniRef90_E8RM20	M D Q A A L T A M L D A
UniRef90_UPI00047DB4D5	L E K D K I I K E L D E C
UniRef90_B5JQA1	L D R D R L Q A E L D A C
UniRef90_Q3IRG4	M D A T S L E D R L A D C
UniRef90_UPI00036BC9E8	I D Q A R I E A A L N G
UniRef90_D4F875	L P I T Q L R V D F D A A Q
UniRef90_M3KFE1	M N R A A I T A E L D D C
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UniRef90_K2JEI5	L D W P A L K A R L D A C
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UniRef90_Q0G0G8	L D R D E I T N E L N A
UniRef90_K9B055	L D K E A I M K E L D T C
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UniRef90_UPI0004682CAF	V D P A A I H A A L G A
UniRef90_UPI00047C0384	L D A D Q I K E N I Q A L
UniRef90_R5V6U0	L D K E Q L I K D L D A C
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UniRef90_J1JVG4	I N E N A V R N T M E A M Q
UniRef90_W7UBE8	Y K K A D I L S K L E R C
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UniRef90_U6SRR5	L D K D E I T Q E L D R C
UniRef90_F7SAZ2	L D P I L L R E S F D
UniRef90_U7NFF3	L D S E A L H A A L A G
UniRef90_UPI0004287B34	L D Q S L I L D E L R S C
UniRef90_Q1ZTL5	L D E A K F R S A L N E C
UniRef90_Q5YRM2	L P A D T A L A R L R D
UniRef90_UPI000374D229	M D E D W I R Q R L A S C
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UniRef90_UPI0002556E03	M D L Q R L S A E L D A C
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UniRef90_C9RJN1	M D K K K I I Q V M K D C
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UniRef90_U4Q888	M P Q K P I R E L F D T L
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UniRef90_R6U111	M D K E Q I I C K A L L D T C
UniRef90_B8EQG3	L N A A A I I R Q A L E R
UniRef90_E6WJT7	M D E D Q V R N A L D
UniRef90_UPI0003478301	L R H A E L T A A L R A C
UniRef90_U6ZT40	L D A D A L R A C L E R C
UniRef90_Q4LA72	L D Q E K I V K E L D Q C
UniRef90_G5JLE8	L E Q Q Q L I H E L D Q C
UniRef90_E5AKG2	L D R D A W Q A R L D A C
UniRef90_V5C4B2	M N E N V L R R L D A
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UniRef90UPI000381EA57	I N S F V Y V R R K I P F H P E R L L H W V T H Y P N T I V R S K G L I W
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UniRef90_H0A8N3	S F V V P L P E V P G P E A L V E M L A K V A A A H D I L R M K G F A N
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UniRef90_L1K0G4	I T S F V F R H R R P F H P Q R L F L L A Q S F E S R V G K S V I L R S K G F V W
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G L I S

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

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

I S S L V L R D P R P F H P G R L W D L L N G L D A G D Y G Q V L R S K G F F T
V G T F V Y R A R R P F S P K R L W E T I R N A S K T F A P L L R S K G F F W
V V S V V F R S R R P F H P R R L H D A F E D I N D D V V R S R G H L W
I R N F I Y R A R R P F H S E R L N K V I G K G S K V F G G V L R S K G F T W
I R A D T L V S A Q A I E S Q N L A M F L D L L R S A H G P N L L R M K G I V R
I T W S Y E S V R P F Q L L T L G K I L G K L P V T V W R A K G I L S
I T S F V W R A R R P L D P A K F Q E F I Q T P L P G V V R A K G H F W
I N S V Q Y H F S G P I D R Q L F Y Q F I L R L P D N V L R L K G Y V K
T V T L E A D R P L S A R G W H D L I G R I A G R P G Q V L R V K G H V S S
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I T T V T V D F P D P S S F E K L E K F L Q Q V L W E K P I E V H R L K G I L
V G H F V L D M V A P V S R G Q F F A G M H D I Q A R Y D Q G L L R I K G l V C
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S F V V R V P E Q O S V E Q F L T L L Q D T A R R D V L R M K G F A A
I S T T G A N L D K P I S R A R F E K W L Q E V V T E H H N D L A R Y K G V I V
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I T S F V Y T R K V P F H P E R L L Q R L S S W P K S V V R S K G l L W
T T L S L E L P Q P L T R A E F E H W Q A A L R D Y A E V G L L R F K G I F H
I T E F A Y H E D S A F N G A K L E D F L K S L P Q S V Y R V K G Y V R
I R T V C L A V E G R I D V R K F E T W L E G L L W E T K L A V L R A K G V L F
T F V Y E F K N S V D L E K F E D W L R H T P D T I Y R M K G Y L R
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UniRef90_D7A4K4	V T G K P M R L L V Q A V G P R V A H F D R A W G A E P R R G R L V A	G K G	
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UniRef90_UPI00031A66EC	L H D D P N R L V L H G V Q T F F H P P V R E A W P K E T T Q T H F V I	A D G	
UniRef90_UPI0003484D29	L A S R P G Y V A R Q G A G M W W A S V P K A R W P S G D A R Q E L V F	G I E	
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UniRef90_W5WYX9	V A D Q E M V Q L W H Q A G P D L R I Q P V A Y W K G T D R T T E V V L	G V N	
UniRef90_A4EY69	I A T R P Q R P T H D A A R S Y M Q A H W Q D P W G D R R Q E I V F	G A G	
UniRef90_K5XNH8	L G K P L R L L V Q A V G A R V R C Q F D Q A W G D A P R A S R L V V	A E D	
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UniRef90_A6DVJ9	V A T R P E W V A L A G A G T W W A S V P E E R W P T G D R R Q E L V F	G A G	
UniRef90_L1J9N4	L A T S S A Y C I W S Q A Q A F L T L K A E R P W P H G D R R T E I V F	G T D	
UniRef90_E3HWS9	F E G E M L P C E V H G V G E L Y P V N Q L D Q W P D G E Q V S R L V C	L R G	
UniRef90_L9X4C1	S A G R E D A M G I D K A G T S V S R A G P S G Q W E W G D R M T R L V F	G R E	
UniRef90_UPI00029A5BE0	L A H Q D A G S W S Q A G G M M R H G F A G R W W R F V P R R Q E L V F	G Q N	
UniRef90_U3QKD6	L A S R M E T A G D W G A G A W W A A L D P A E W P S D D R R Q E L V L T	G V E	
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UniRef90_V8A6S1	V A G K S L R L G V Q A V G A R I R H A Y E Q G E A P E G R L V V	G H G	
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UniRef90_UPI0003784C96	L P E T P D V W E V Q T V G T A I R V R P A P G R L T T R G A R L V F	G T D	
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UniRef90_UPI0003769D2A	L A S R P R T G L W S Q A G A V A R F E P S G A H E S D S P Q Q E L V F	G T G	
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UniRef90_S3Z7B1	L A S R P Y T G L W S Q A G S V A R F E P T A A H H A D D S A Q E L V F	G T G	
UniRef90_L1LXP3	L A S K Y Q E A W S Q A G G M M R H G F A G R W W R C G D C R Q E L V F	G Q H	
UniRef90_UPI000479B03C	L S T H S M A F M L S Q A A S S I T L E S I T Y W V A G D R T E L V	G V D	
UniRef90_R9SRY0	I A D H D I V Q V W H Q A G P N L S I R P A A Y W A N S E P G T E L V	G I H	
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UniRef90_K2Q8F3	V P G K P M R L V I Q A V G T R I I D T Y F D R P W S S E K R E T R I V V	G L H	
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UniRef90_I9W9J1	L A S R M A A C R H G A A G V W W S S A E E A D W P E D D R R M Q E L V	G R D	
UniRef90_Q1J0Z6	L G D G V A T L W N H T G R Q L T L E Q A G T W H P E D A C S E V V	G R D	
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UniRef90_UPI0003FE4458	V A G K P M R L L V Q A V G A R V R H Q F D R L W A D E A R Q G R L V V	A E H	
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UniRef90_S6MPR4	L V Q S S G D Q F R W G Y V G R W W R F V D Q A H W P Q D D Y R Q E I V F	G Q S	
UniRef90_F9Y743	I A S R P D W A V E F S L Q E R W P T H P D S R W D D G D R R Q E I V F	G A D	
UniRef90_F8DYX7	I S D H D K V Q V W H Q A G P D L R I Q P A A Y W K G S T P G N E E V V L	G V N	
UniRef90_C4LJH4	I A D R P E L I M W S Q A G P N L T I S P A A L W A S E A P S S E I V L	G V N	
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UniRef90_UPI00037F558D	I V T R P D V F F F S Q A G Q D K Q I D Q A G Y W D E G E R K Q E I V H	G F Q	
UniRef90_K9H2S9	I P G K P A R M L V Q G V G P R L D R W F D R P W K G E E R K S H L V V	G H G	
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UniRef90_J3Q816	L A T R P T M F G E W G G G G K W R C E M P R E E W S D D D R R Q E I V M	G T E	
UniRef90_A4XCG6	L A S Q P D T V I A W S L G H W L V A L P D S G W E D G D R H Q H L V F	G L D	
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90

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UniRef90_M51YT5	L D F Q E L W A R L L Q A L
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UniRef90_UPI000380B397	L K K G A F E K I F N R
UniRef90_UPI0003B5A2F3	L D P V A L Q A L L D G A R Q
UniRef90_UPI00031A66EC	V E K E A I E K L F N A F
UniRef90_UPI0003484D29	M D E A Q L R R Q L H A
UniRef90_Q0G4V0	L N E P R V R D L F A A F
UniRef90_UPI0001FFE967	V T A A G V A A R L L D
UniRef90_UPI00047C70CA	M S R E R I T A M L E R C
UniRef90_G0HCP2	F D A P A L L E R L
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UniRef90_UPI00046A7782	V D P K P V H Q F D A
UniRef90_J3MMN5	M N L A E S D S R F H A
UniRef90_R6CMJ7	I Q K D A I I A E L L D K C
UniRef90_K1R3D2	L E R A S L E S R L A
UniRef90_W5WYX9	I D G Y A I M R K L
UniRef90_A4EY69	I D W P S L K Q K M D R C
UniRef90_K5XNH8	L L R A A K L R A A L L G A
UniRef90_M2XRK5	L D N E M L H N A L E G C R
UniRef90_UPI00047C9CF9	L D H H S T L Q K Q L D T L
UniRef90_18TAE8	F D R Q R I G G L A L D A C
UniRef90_L1JEZ4	F D H A R M Q A A F E A C E
UniRef90_A6DVJ9	M D Q
UniRef90_L1J9N4	L N R D K L K E A L D D C
UniRef90_E3HWS9	P E V A E V R A A L G A
UniRef90_L9X4C1	F D E Q P L I D R L D D C
UniRef90_UPI00029A5BE0	I D F A R L D A E L S A C
UniRef90_U3QKD6	L D P A A L W A R L D A C
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L E G N E Q P Y W L H Q V H G N R S Q F T L A A D Q P T E H A A Q L V F I A R R	F G P N G R F L V Q L V G S S L R F H R S R G R G T E L V L I G T G	I A G A P E C I V K G I G P R V W L E N T G A W P T D A R G T V L A A T G E G G	L E G N E Q P Y W L H Q V H G N R S Q F T L A A D Q P T E H A A Q L V F I A R R
F T Q Q P Q C Y V L Q S V H G N L W L E P Y V E D A P A N I V F I G Q N	F T Q Q P Q C Y V L Q S V H G N L W L E P Y V E D A P A N I V F I G Q N	F T Q Q P Q C Y V L Q S V H G N L W L E P Y V E D A P A N I V F I G Q N	F T Q Q P Q C Y V L Q S V H G N L W L E P Y V E D A P A N I V F I G Q N
L E G D K Y P H A F Q F A Y G M A Q W L P E K M Q N Q I V V I G E G	L E G D K Y P H A F Q F A Y G M A Q W L P E K M Q N Q I V V I G E G	L E G D K Y P H A F Q F A Y G M A Q W L P E K M Q N Q I V V I G E G	L E G D K Y P H A F Q F A Y G M A Q W L P E K M Q N Q I V V I G E G
L A D R P D T L L W D A A G G A L C V E P A G P W P D G R V Q H L V F T S P G	L A D R P D T L L W D A A G G A L C V E P A G P W P D G R V Q H L V F T S P G	L A D R P D T L L W D A A G G A L C V E P A G P W P D G R V Q H L V F T S P G	L A D R P D T L L W D A A G G A L C V E P A G P W P D G R V Q H L V F T S P G
H A G S G R P L L L Q M V G R R A S L G P A P D R A A T D P R T R L V F I G R G	H A G S G R P L L L Q M V G R R A S L G P A P D R A A T D P R T R L V F I G R G	F S D T A S R F W F Q Y A Y R E S D Y M K I T P Q G E V P N V A V F I G E H	H A G S G R P L L L Q M V G R R A S L G P A P D R A A T D P R T R L V F I G R G
F R D C D V I Y E F Q Y A H G L P S Y G E V D K E V P L T I V I I G E H	F R D C D V I Y E F Q Y A H G L P S Y G E V D K E V P L T I V I I G E H	F R D C D V I Y E F Q Y A H G L P S Y G E V D K E V P L T I V I I G E H	F R D C D V I Y E F Q Y A H G L P S Y G E V D K E V P L T I V I I G E H
L S S R P A A V V W R S A G P H M E L H E A D R W L E G E R R N A L T F T G A D	L S S R P A A V V W R S A G P H M E L H E A D R W L E G E R R N A L T F T G A D	I N D E Y L I N V N G V R H V Y P P I H K K T K T Y M E S N L V F I S K E	L S S R P A A V V W R S A G P H M E L H E A D R W L E G E R R N A L T F T G A D
V A G L G A P V V V Q C V E Q V A Y P P V R L P W P K E D M R G R L V F I V R N	V A G L G A P V V V Q C V E Q V A Y P P V R L P W P K E D M R G R L V F I V R N	L A E R P D A L C V E S V G P W L A S L P D A A W D H G D R C Q H L V F T S P G	V A G L G A P V V V Q C V E Q V A Y P P V R L P W P K E D M R G R L V F I V R N
L I K D K S H Q V I V Q G V Y E L Y D L E E T T K W K D D E R I N R L V L I G R N	L I K D K S H Q V I V Q G V Y E L Y D L E E T T K W K D D E R I N R L V L I G R N	L I K D K S H Q V I V Q G V Y E L Y D L E E T T K W K D D E R I N R L V L I G R N	L I K D K S H Q V I V Q G V Y E L Y D L E E T T K W K D D E R I N R L V L I G R N
L A S Q P D A V V A F E A A G W L A A L P V I E R W A E G D R R T V L A L I G F G	L A S Q P D A V V A F E A A G W L A A L P V I E R W A E G D R R T V L A L I G F G	F S D T S S R F L F Q Y A Y R E S D Y L K V T P Q K D V P D V A V F I G E H	L A S Q P D A V V A F E A A G W L A A L P V I E R W A E G D R R T V L A L I G F G
F R D C D V I Y E F Q Y A H G L P S Y G E V D K E V P L T I V I I G E H	F R D C D V I Y E F Q Y A H G L P S Y G E V D K E V P L T I V I I G E H	L R D K P Q Q M T V Q G V H K L Y D L E E T P V W K D D E R T S P L V L I G R N	F R D C D V I Y E F Q Y A H G L P S Y G E V D K E V P L T I V I I G E H
F S D T V S P F L F Q Y A Y R E M D L M K I T P K E E L P S V A V F I G E H	F S D T V S P F L F Q Y A Y R E M D L M K I T P K E E L P S V A V F I G E H	V D A L D G P L L V Q W V G E T P A L S P I L T L W P D A D T D S R L V L I T R H	F S D T V S P F L F Q Y A Y R E M D L M K I T P K E E L P S V A V F I G E H
F D Y S K Q P F L F Q F S Y G M P L Y M K E E M N N L V F I G E N	F D Y S K Q P F L F Q F S Y G M P L Y M K E E M N N L V F I G E N	L K E S P G L F L F N Y A Y G D P M F E R H R T D Q A Y A P V L V F I G E D D	F D Y S K Q P F L F Q F S Y G M P L Y M K E E M N N L V F I G E N
L A T R P N L H G L Q G G G P W F C T D D A D W P E G D R R Q E L V F I G E D D	L A T R P N L H G L Q G G G P W F C T D D A D W P E G D R R Q E L V F I G E D D	L A T R P N L H G L Q G G G P W F C T D D A D W P E G D R R Q E L V F I G E D D	L A T R P N L H G L Q G G G P W F C T D D A D W P E G D R R Q E L V F I G E D D
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F T G N P D T L L F Q Y A Y G M P F H T K S G L K M N N T L V F I G D D	F T G N P D T L L F Q Y A Y G M P F H T K S G L K M N N T L V F I G D D	F T G N P D T L L F Q Y A Y G M P F H T K S G L K M N N T L V F I G D D	F T G N P D T L L F Q Y A Y G M P F H T K S G L K M N N T L V F I G D D
A K D K P Q Q V I V Q G I X E L Y D L G E T S V W K D D E R T N R L A L T G R N	A K D K P Q Q V I V Q G I X E L Y D L G E T S V W K D D E R T N R L A L T G R N	V Q M R D R R Y T V N V V G R S V H I A T A P P S A P A S N L V A I G T H	A K D K P Q Q V I V Q G I X E L Y D L G E T S V W K D D E R T N R L A L T G R N
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F V G E E D T Y L F Q Y S Y G I P Y S F P Q K K S F P N N L V F I G E K	F V G E E D T Y L F Q Y S Y G I P Y S F P Q K K S F P N N L V F I G E K	L G N R P D R M L V W D A G P W L V S L P S A A W E M G D R V Q H L V F T G S E	F V G E E D T Y L F Q Y S Y G I P Y S F P Q K K S F P N N L V F I G E K
L G N R P D R M L V W D A G P W L V S L P S A A W E M G D R V Q H L V F T G S E	L G N R P D R M L V W D A G P W L V S L P S A A W E M G D R V Q H L V F T G S E	F K E E P P M C Y L F E Q A G K Q M E L K N A G Q W K Y G D R M Q K L V F I G Q K	L G N R P D R M L V W D A G P W L V S L P S A A W E M G D R V Q H L V F T G S E
F K E E P P M C Y L F E Q A G K Q M E L K N A G Q W K Y G D R M Q K L V F I G Q K	F K E E P P M C Y L F E Q A G K Q M E L K N A G Q W K Y G D R M Q K L V F I G Q K	F R D E P E T Y E F Q Y A Y G L P D F F V I E E D K P L N V V L I G E Q Q	F K E E P P M C Y L F E Q A G K Q M E L K N A G Q W K Y G D R M Q K L V F I G Q K
F R D E P E T Y E F Q Y A Y G L P D F F V I E E D K P L N V V L I G E Q Q	F R D E P E T Y E F Q Y A Y G L P D F F V I E E D K P L N V V L I G E Q Q	L A T H M Q H M V F W S A G S V H S F T A N E E W P E G D R R Q E I V F I G V H	F R D E P E T Y E F Q Y A Y G L P D F F V I E E D K P L N V V L I G E Q Q
L A T H M Q H M V F W S A G S V H S F T A N E E W P E G D R R Q E I V F I G V H	L A T H M Q H M V F W S A G S V H S F T A N E E W P E G D R R Q E I V F I G V H	V R E A G R R V A L S I S G R R R F H L S D E G T W S S A P G T Q V V F I G R G	L A T H M Q H M V F W S A G S V H S F T A N E E W P E G D R R Q E I V F I G V H
V R E A G R R V A L S I S G R R R F H L S D E G T W S S A P G T Q V V F I G R G	V R E A G R R V A L S I S G R R R F H L S D E G T W S S A P G T Q V V F I G R G	L A T R P D A L C V E N A G P W L A A L P D A A W E H G D R A Q H L V F T S P G	V R E A G R R V A L S I S G R R R F H L S D E G T W S S A P G T Q V V F I G R G
L A T R P D A L C V E N A G P W L A A L P D A A W E H G D R A Q H L V F T S P G	L A T R P D A L C V E N A G P W L A A L P D A A W E H G D R A Q H L V F T S P G	I K D K S H Q V I V Q G V H E L Y D L E E T P V W K D D E R T N R L V L I G R N	L A T R P D A L C V E N A G P W L A A L P D A A W E H G D R A Q H L V F T S P G
I K D K S H Q V I V Q G V H E L Y D L E E T P V W K D D E R T N R L V L I G R N	I K D K S H Q V I V Q G V H E L Y D L E E T P V W K D D E R T N R L V L I G R N	L A T R P L Q F E W S Q A G G M L T V S C G G P W P W G D R R Q E L V F I G E G	I K D K S H Q V I V Q G V H E L Y D L E E T P V W K D D E R T N R L V L I G R N
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L E N E D I C Y I V Q A V N E L Y D F Q T T S W R D N P K I N R F V F I G R N	L E N E D I C Y I V Q A V N E L Y D F Q T T S W R D N P K I N R F V F I G R N	A Q G G R R F V F L Q G V H S T F A F E P D V S S A A V P K T N R F V F I G R N	L E N E D I C Y I V Q A V N E L Y D F Q T T S W R D N P K I N R F V F I G R N
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F S D T D P Q T Y I F Q Y A Y G E P C L I P S F S F S P F N N L V L I G T D	F S D T D P Q T Y I F Q Y A Y G E P C L I P S F S F S P F N N L V L I G T D	F S D T S G R F M F Q Y A Y R E S D F M K V E P Q G Q I R D V A V F I G E H	F S D T D P Q T Y I F Q Y A Y G E P C L I P S F S F S P F N N L V L I G T D
F S D T S G R F M F Q Y A Y R E S D F M K V E P Q G Q I R D V A V F I G E H	F S D T S G R F M F Q Y A Y R E S D F M K V E P Q G Q I R D V A V F I G E H	V A G I D G A V L V Q A V G T I F S P P L R M P P G T G P T G A V V V I V Q D	F S D T D P Q T Y I F Q Y A Y R E S D F M K V E P Q G Q I R D V A V F I G E H
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T T D K G S W M Y F D L V P E Q T E I R D G S P D Y T G K V V V V I G A D	T T D K G S W M Y F D L V P E Q T E I R D G S P D Y T G K V V V V I G A D	L A T R P G S P L V V Q G A G T L F P P V R L P A T A A D D G R G R L V F I T D G	T T D K G S W M Y F D L V P E Q T E I R D G S P D Y T G K V V V V I G A D
L A T R P G S P L V V Q G A G T L F P P V R L P A T A A D D G R G R L V F I T D G	L A T R P G S P L V V Q G A G T L F P P V R L P A T A A D D G R G R L V F I T D G	F A G Q T R M L N F V G G K T E W L D W P E N P T C L A F F L G W D	L A T R P G S P L V V Q G A G T L F P P V R L P A T A A D D G R G R L V F I T D G
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UniRef90_F0GB62	UniRef90_K9XGY0	S	T	T	I	A	V	P	D	V	L	D	K	A	R	L	R	V	W	K	A	L	E	N	L	P	R	T	I	L	R	A	K	G	V	V	R	K	G	F	V	R
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UniRef90_UPI00046E769E	UniRef90_UPI00047A3901	P	I	N	S	F	V	F	R	N	E	R	P	F	H	P	E	R	L	S	R	I	F	K	D	F	S	G	K	T	E	V	V	R	C	K	G	E	L	W		

UniRef90_C5LVS1
UniRef90_UPI0004695C04
UniRef90_I1RUE6
UniRef90_D9WGU2
UniRef90_A4YN19
UniRef90_W6EUT3
UniRef90_K4QKU9
UniRef90_W4BSK8
UniRef90_Q23KC0
UniRef90_C9SSH1
UniRef90_F0M220
UniRef90_UPI00047EDEED
UniRef90_L0G063
UniRef90_A5CMQ0
UniRef90_K5VXV2
UniRef90_UPI00034803EF
UniRef90_UPI000468066A
UniRef90_Q13DG4
UniRef90_UPI00036394CC
UniRef90_UPI0001DEBF9B
UniRef90_UPI0003484DE1
UniRef90_A4T464
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UniRef90_UPI000346A7C4
UniRef90_UPI00047006ED
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UniRef90_Q2J3W5
UniRef90_F8A652
UniRef90_D0NUE8
UniRef90_F7XC73
UniRef90_UPI0004711E3B
UniRef90_UPI000444A568
UniRef90_UPI000376BB9E
UniRef90_K0AZF9
UniRef90_UPI0004077038
UniRef90_D5RGX7
UniRef90_W9XK88
UniRef90_G410X0
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UniRef90_G7CCB5
UniRef90_D8UE34
UniRef90_R7JKF5
UniRef90_UPI00034A1910
UniRef90_UPI000237AECF
UniRef90_UPI00037505A7
UniRef90_C1G777
UniRef90_I4YDS1
UniRef90_X4ZMN6
UniRef90_D1B4X7
UniRef90_C7ZDT5
UniRef90_S6VFZ4
UniRef90_D9PQ70
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UniRef90_V5G5C3
UniRef90_W0T4Z1
UniRef90_U7PUW6
UniRef90_G6XHF1
UniRef90_UPI00036ED9E2
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UniRef90_A1VAR5
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UniRef90_M9RTA0
UniRef90_F2UEQ0
UniRef90_UPI000470BA1C
UniRef90_B8LD61
UniRef90_UPI0001FFD778
UniRef90_UPI00047C6418
UniRef90_R1CB39
UniRef90_F2LDI5
UniRef90_Q4P33
UniRef90_UPI0003727E79
UniRef90_F0GB62
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UniRef90_UPI00046E769E
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UniRef90_UPI0004621CE2
UniRef90_A1TH94
UniRef90_D5XDY4
UniRef90_V2ZBZ9
UniRef90_UPI000298AE79
UniRef90_UPI0002E2E0AB
UniRef90_W4EK11
UniRef90_G1CXK8
UniRef90_D4YJA6

50 60 70 80

90

UniRef90_C5LVS1	I Q E D E I D K S L N A L
UniRef90_UPI0004695C04	L S K A E L L D G I M D G C
UniRef90_I1RUE6	L D H K A L E K M L D E C
UniRef90_D9WGU2	L D E D R L R A A L D A
UniRef90_A4YN19	L D A D Q I D A L L R G
UniRef90_W6EUT3	L D K
UniRef90_K4QKU9	M E R E E V
UniRef90_W4BSK8	F S S S E L R T K L L A M E
UniRef90_Q23KC0	A T K Q E L
UniRef90_C9SSH1	L D V E A L R D V L D Q C
UniRef90_F0M220	V D A A E V A A L L N A C
UniRef90_UPI00047EDEED	L S K A E I I D R L K C E R
UniRef90_L0G063	L T R K G I E K L F A
UniRef90_A5CMQ0	L D G E L L D R I L G A C
UniRef90_K5VXV2	L D D V V R H S L E A
UniRef90_UPI00034803EF	L D A E R L T A L L D S C
UniRef90_UPI000468066A	L D R S A I N A A I Q A C
UniRef90_Q13DG4	F D T E A A R R A L A D
UniRef90_UPI00036394CC	L S K D E I V R R L E A C
UniRef90_UPI0001DEBF9B	L D E Y I L Q X L L
UniRef90_UPI0003484DE1	L D T D R L V E V L D S C
UniRef90_A4T464	L D T A Q V R D R M R S
UniRef90_UPI000472ABFB	L D Q
UniRef90_UPI000346A7C4	T S R S N V A A V L S N L
UniRef90_UPI00047006ED	M D E T G V R G A L D Q C
UniRef90_C4JX39	V D V E K I T A L L D E C
UniRef90_Q2J3W5	L P P P A V L D A
UniRef90_F8A652	D V R R R L V E A F E D
UniRef90_D0NUE8	L N E V Q A L Q S L E K C
UniRef90_F7XC73	
UniRef90_UPI0004711E3B	V D
UniRef90_UPI000444A568	L D A T V R A S L E A
UniRef90_UPI000376BB9E	M D R A A V E A L V A E L
UniRef90_K0AZF9	L N K E A L S K K L N
UniRef90_UPI0004077038	L D A E G A T V A L E S L
UniRef90_D5RGX7	L D A A A L R D
UniRef90_W9XK88	L D
UniRef90_G410X0	A D P D A I R E A L R G
UniRef90_I4BR96	L D A D A V R D R L R
UniRef90_W0J2J0	L D Q Q
UniRef90_UPI000288E74B	L D R D
UniRef90_G7CCB5	L D I D A V R T R L
UniRef90_D8UE34	M L R D Q L V A E L E A
UniRef90_R7JKF5	M N E D A I R Q Y F K K C
UniRef90_UPI00034A1910	L D T R R L T E V L D S C
UniRef90_UPI000237AECF	A N P Q D I V H A L R
UniRef90_UPI00037505A7	I D V E V V R S A V E A
UniRef90_C1G777	L D S G P W R E S L Q A C
UniRef90_I4YDS1	M N Q E A I E A E F D K C
UniRef90_X4ZMN6	L S S E E L A E A M T Q L Q
UniRef90_D1B4X7	M D K L Y L Q A
UniRef90_C7ZDT5	L N H K G L E K L L D E C
UniRef90_S6VFZ4	L D A E L L R R S F E
UniRef90_D9PQ70	Y D E K A I R Q I L E
UniRef90_H8GY04	V S R K K V I E A L Q
UniRef90_V5G5C3	I N S A K I T S L L N E C
UniRef90_W0T4Z1	L D S K K L T E A L D K C
UniRef90_U7PUW6	L D V A G L E A A L D A C
UniRef90_G6XHF1	F D S Q M L K N D L D A
UniRef90_UPI00036ED9E2	
UniRef90_K2RAG6	L D E K K I T T Q M L N S C
UniRef90_W4DX02	L D E K A I S R S W S A L
UniRef90_E6R6B3	L D Q E L I T K T L N N
UniRef90_B0XSK0	L D A Q P W R R N F E A F
UniRef90_U1ZY89	V N A Q E I R Q L L D G C Q
UniRef90_A4F7S2	A D P R E I T R A L R S
UniRef90_A1VAR5	P D E T A L L E H W A A L
UniRef90_B4SHR1	
UniRef90_UPI00046B056D	V S A E E M R D A M S V L E
UniRef90_M9RTA0	F D P D A A H A D L D R L
UniRef90_F2UEQ0	L N Q A Q L E Q A L D A C
UniRef90_UPI000470BA1C	L D E K Q L T D R W S A L
UniRef90_B8LD61	L N Q K L L M E L N N
UniRef90_UPI0001FFDD78	A D P D D V D A A L R
UniRef90_UPI00047C6418	I D V E Q L T T K L N E C
UniRef90_R1CB39	
UniRef90_F2LDI5	A A E A A V R A T M D Q
UniRef90_Q46P33	P D R S A F L E A L E
UniRef90_UPI0003727E79	I D A A M L R D G L A Q C
UniRef90_F0GB62	V K K Q E I I D Q L K R C E Q
UniRef90_K9KGY0	F S S G D L R K K L L K L E
UniRef90_UPI00046E769E	M P I D L L Q E
UniRef90_UPI00047A3901	L S E D V R R S L
UniRef90_UPI0004621CE2	L D V E A V R E R M R S
UniRef90_A1TH94	L S K K L L N T E F M N C Q K
UniRef90_D5XDY4	I K K Q K I R E I F
UniRef90_V2ZBZ9	L D K D T L K X L F
UniRef90_UPI000298AE79	L D T E D V R A Q L E E
UniRef90_UPI0002E2E0AB	V N E
UniRef90_W4EK11	L G K V D I R G S F E R F M Q
UniRef90_G1XCK8	L D E
UniRef90_D4YJA6	

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm

Sequence alignment showing conservation across UniRef90 entries. Positions 50, 60, and 70 are labeled at the top. Identical residues are highlighted in blue boxes, and conservative substitutions are highlighted in orange boxes.

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
ipssm

UniRef90_A9BT61	A	G	Q	Q	A		R	G	Q	L	D	A
UniRef90_S8D602	I	D										
UniRef90_UPI00044077EA	I	N	S	K	K		S	E	A		D	L
UniRef90_B5RT58		L	D	S	D	A	A	Q	S	A	L	C
UniRef90_K7RR69	L	D	S	D	A	A	Q	S	A	L	A	G
UniRef90_UPI00051012C	F	D	E	A	D	V	R	A	K		K	A
UniRef90_H0SJN1	I	V	R	A	E	L	E	Q				
UniRef90_UPI000377DA99		L	D	Q	T	A	V	R	A		E	
UniRef90_B8GCU4	A	A	I	A	M	A	D	E	T	L	N	A
UniRef90_W7ZC54		N	Q	K	K	I	E	A	E		D	C
UniRef90_Q83W94	L	N	Q	K	K	I	E	A	E		D	A
UniRef90_X8JIF6		S	R	V	V	I						
UniRef90_M2TF52	L	D		V	D	G	M	T	K	A		D
UniRef90_F4GZR8		E	K	D	T	M	M	D	L	L	N	C
UniRef90_F8JU89	L	N	R	E	E		V	R	L	L	D	P
UniRef90_A0A023F7P4		L	E	K	D	T	M	M	D	L	L	C
UniRef90_A1UMF0	A	D	P	D	R		R	T	A		R	C
UniRef90_G7GP70		I	N	P	E	I	T	K	V	L	N	E
UniRef90_B6K1L3	I	N	P	E	E	I	T	K	V	L	N	E
UniRef90_UPI0001745DF7	R	D	R	D		F	A	R	G	L	D	Q
UniRef90_UPI000369C9D1		L	D		P	A		E	A	T		E
UniRef90_M2ZTS2	L	D		E	Q	I	H	T	L	F	R	C
UniRef90_R7PFU5	E	L	D	E	Q	I		T	L	F	R	
UniRef90_L7LDX6	A	A	P	D	E	I	R	A	F	D	A	
UniRef90_E6ZKQ6	M	R	E	E	K	L	R	A	A		D	G
UniRef90_UPI00036606C0		L	D	V	D	G	L	C	A	A		D
UniRef90_UPI000477F22C		E	F	O	S	A	I	A	A		D	D

