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QUERY	UniRef90_E6N475	UniRef90_C7N714	UniRef90_I4A8Z2	UniRef90_V2RGU7	UniRef90_B2A6V9	UniRef90_A6TMW3	UniRef90_H5Y305	UniRef90_J0V1J7	UniRef90_R4K1E2	UniRef90_B6BKM4	UniRef90_A6Q2I2	UniRef90_E0UPD8	UniRef90_B8FYM6	UniRef90_B8FZB2	UniRef90_Q2RIP7	UniRef90UPI00028A1860	UniRef90_A8MGV0	UniRef90_E4UOT3	UniRef90_B8FW54	UniRef90_A6Q7L2	UniRef90_A3MWJ8	UniRef90_I4A8J6	UniRef90_12K4M7	UniRef90_X1GZC8	UniRef90_M1MXC1	UniRef90UPI0002E1B758	UniRef90_Q30QG0	UniRef90_S6C2J1	UniRef90_W6ELM5	UniRef90_C6PWT2	UniRef90_S6C3P6	UniRef90UPI00047E66AD	UniRef90_J7IXL9	UniRef90_A6TLZ1	UniRef90UPI000367315F	UniRef90_I3IHC1	UniRef90_G9XLW0	UniRef90_H5Y5N0	UniRef90_T0LDL6	UniRef90_A5GCL5	UniRef90_B8FPF6	UniRef90_D8GM30	UniRef90_Q67RJ8	UniRef90_C8WLD2	UniRef90_I8S7J0	UniRef90UPI0003085199	UniRef90_G4HCC9	UniRef90_C8WJA7	UniRef90_C7N3T4	UniRef90_W0FPE5	UniRef90_L9WSZ1	UniRef90UPI00028A088F	UniRef90_C8WLE8	UniRef90_D4H2E2	UniRef90_H5SMJ4	UniRef90_Q24Y58	UniRef90UPI0003693BE7	UniRef90_I4A6Q0	UniRef90_U5MW45	UniRef90_Q2RIN6	UniRef90_B4YYQ8	UniRef90_H5Y2Y4	UniRef90_C7N726	UniRef90_H9NNB0	UniRef90_K1Y4S3	UniRef90_Q67LX8	UniRef90_M0MQ83	UniRef90UPI000308C0C1	UniRef90_F8D6S0	UniRef90_G7VHF7	UniRef90_D6SSM3	UniRef90_C8WM44	UniRef90_A4WHX0	UniRef90_J7ISG0	UniRef90_B8G0U0	UniRef90_S6CEW4	UniRef90_H5Y5R2	UniRef90_E6W758	UniRef90_Q24NK2	UniRef90_Q1PZD6	UniRef90_H5UMY4	UniRef90_F7V0A1	UniRef90_S9ZRX0	UniRef90UPI0003133DB0	UniRef90UPI000302CC70	UniRef90_D6XU79	UniRef90_D1JH37	UniRef90_Q8ZXJ2	UniRef90_I4A8I3	UniRef90_L7EH67	UniRef90_M1YZ50
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R E D Q M M E T G G D N P I Q A I F N A	L F V D P C Q L L A P P W E S V Y R T E E R A T A D L T T L K V R E F Y G R	D Y T A L F I G P G H L P W E S V Y R T E E R L T F G E P T L E V R E W Y Q R	L F V G P G H L E A P P W E S V Y R S K E H L L F G E E T L L A V R E F Y R S S	L F F G P T R I L A P P W E S V Y E N E D R L L F G Q S E L Q V R R F Y R S S	L F V G P K T L L A P P Y G S V Y M E E R G Q I M G V S T Q D A M R I Y H Q	P D F T N L S L L H L V P Y E T T F Y T R P D Q M I E T G G A N P V T D I Y S A	L H W D Y T R M F I P A P L W E S A Y L S K E R L L F Q E Q T L K V R Q A Y I K	V D F T N L F L M H L V P Y E S F Y V R E D Q M V D S G K G N P V I E L Y D A	F T L D N C D I K K L K A S K L R K D Y D A V T R S L L P R A L A E F Y N N	V D F T N L F L M H L V P Y E S F Y T R D D Q M I E S G G D N P I V Q L Y N D	L F L S I S K V P P H P P S E S I Y R E G T M M Q Y S R D E V L R T Y W S	S D F D Y K K A I L E E H Q R L F V G P N E L L A P L W E L E V R S Y Y N S	L H W D Y T R M L I G P F P W E S I Y V Q K E P M L F Q N C T L S V R K M Y E K	P D F V N L S I L H L I P P Y E T T F Y T R E D Q K I E T G G A N P V T D M Y S A	A W F R S L V G P A R P W E S Y Y L D E N N R L F T D S T R E V R A A F R A	L A V D Y A A V F L G A Y P Y E S V Y T S P E R L I M Q D A R D K V L A L Y R E	L H W D Y T R M F I P A P P W E S A Y L N D E R L L F Q K E T T M E V R D M Y V K	V D S S L N D V D G L Q W D Y T R L R L F I G P D Q L A A P P W E S A V R G A Y I K	L F V G P K T L L A P P Y G S L Y L E N K G Q V M G P S T H D A M R M Y H E F	A F D P S V S E Q A C S L R E G A Y A G G D Q S A L F E E L M R F Y G F	P Y E S V Y T S E K R K L L M S D A R D E V L A I Y R S S	V D S S L N D V D G L Q W D Y T R L R L F I G P D Q L A A P P W E S A V R G A Y I K	L F V G P H L E A P P W E S V Y R S K E R L V F G E Q T V A V R E I Y R S S	A Y L A T E D G K V P A P P W E S V Y I T R D K S L F G E P V F Q M R K K L S E	C E Y E G V E Y R R L L E R N K Q R P L S E S T K S G C V R D V A E C Y E T	P Y E S V Y T S E K R K L L M S D A R D E V L A I Y R S S	V D S S L N D V D G L Q W D Y T R L R L F I G P D Q L A A P P W E S A V R G A Y I K	L F V G P H L E A P P W E S V Y R S K E R L V F G E Q T V A V R E I Y R S S	A Y L A T E D G K V P A P P W E S V Y I T R D K S L F G E P V F Q M R K K L S E	C E Y E G V E Y R R L L E R N K Q R P L S E S T K S G C V R D V A E C Y E T	P Y E S V Y T S E K R K L L M S D A R D E V L A I Y R S S	V D S S L N D V D G L Q W D Y T R L R L F I G P D Q L A A P P W E S A V R G A Y I K	L F V G P H L E A P P W E S V Y R S K E R L V F G E Q T V A V R E I Y R S S	A Y L A T E D G K V P A P P W E S V Y I T R D K S L F G E P V F Q M R K K L S E	C E Y E G V E Y R R L L E R N K Q R P L S E S T K S G C V R D V A E C Y E T	P Y E S V Y T S E K R K L L M S D A R D E V L A I Y R S S	V D S S L N D V D G L Q W D Y T R L R L F I G P D Q L A A P P W E S A V R G A Y I K	L F F D H D D S L L E E L P W E S V Y V T K E R A L F Q E S T L I V R R A Y L N	S E Y T F L F I G P N R L P W E S V Y R S E E R M I F Q E S T L R V R R A Y L N	L F E G T R G F N L P L W E S V Y V K G S E N I L L D E N T L K V Q Q Y Y K K	L R W D Y T R M F I P A P P W E S A Y L N D E R L L F Q E E T L A V R R I Y L R	A S E S Y S S L E E L L I E H S K L F P D K L L A P P Y T R A V M D I Y E K	L H W D Y T R M F I H K L P W E S A Y A N E G R L L F Q K E T L E V R E A Y I K	L S V D Y G R T F L G S Y P F E S V Y T S E R R L L M A D A R D E V L A I Y R A	R L F D T G P P I P Y L G G L N H G T R M Q V M E E V L R F F E H	A F L K Y S E E D L L V A Y A K L F V G P N E L L A P P Y T M E V I K L Y E E	V D P D A L R H E A A A P P W Q S V Y L D R E G A L M G E E T L R V R A L Y A R	L H W D Y T K M F I G P F P W E S V Y V V S K D K L L F Q E T T L E V R K I Y E K	L G L E K L G C D V S K I L A S E V R R D L D P V T R S L L P K A I A Q F Y E N	P Y E S V Y T S P E H L L M Q D A R D E V L A A Y R A	L D V G A I N C D V S E I G A S L L R E D L D P V T R S L L P K A I A Q F Y E N	L F L G P T K L P A P P W E S V Y V S K E R L I F Q E S T L E V R K I Y E K	L F V G P G Q V L V P I W E S V Y V F D P E H L M F G E R T L A V R E F Y R K	I F Y G F P K A L V V P S E S F Y R S G D H S L L S E V T L A V R D F Y R R	L H W D Y T R M F I P A P P W E S A Y L N K E R L L F Q E E T I N V R R A Y I K	L F V G P A E L I A P P Y G S V Y L D E E R Q L M G D S T L E V I K I Y R E	L F V G P Y H L P T P P Y E S V Y R T A N G L L M M Q E P S A E V R K K F I A	V Q E F Y S T A D I E K L Q R I Y N R V G H T P L Y E G Q Y G A A I Q G F Y R A	L F V G P T K L P A P P W E S V Y V S G E P L L F Q E S T L A V R Q A Y R S	A F D P S V C R T A C S L R E G S Y A D V D Q S A L F E E L M R F Y G F	T F Y I F N E E K I P A P P W E S A Y T T R D R S L F G E P V F Q I R K K L A D	L F F G P E H I P A P P W E S V Y V T K E R I L L F G E P T L Q M R K K L R E	L F V G P F E L P A P P W A S A Y R D D G R M L F Q D E T L Q V R R A Y A K	L F I G P H R L P V Q P Y E S W W V D G K L M G E S L L K V K Q V Y R K	V D C D V T K I N A S E I R K D L D R V T R S L L S K A L A Q F Y E N	S E Y T Y L M I G P H K L P W E S V Y V T K E R I L F Q E S T L K V R R T Y I N	M P A P P W E S V Y V I T K E R I L F Q E S T L Q V R K I Y M K	A K E A V N R F G L P R M A L K Q V Q Q E Y V R V F C P P Y E M Q L G G F Y E T										

90 100 110 120

QUERY				
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UniRef90_Q30QG0	F G F E M H V E A E D H I G L Q L D F I Y H L N K L T I E S T K E E Q L H E V T			
UniRef90_S6C2J1	F N F A A R A V S A D H I G V E L E F M H H V E A E V K A L E A N D K E S I K			
UniRef90_W6ELM5	H G L E F N R E P D D H I A V E L E F M N L M H C E K A T E A L K N G N A K E A R			
UniRef90_C6PWT2	V G L D V K S E A A D Y L P L Q L S F M S Q L C E Y N L E G L N A D E L E K L S T			
UniRef90_S6C3P6	F G F E M H V E A E D H I G L Q L D F I Y H L N K L T I E S T K E E Q L H E V T			
UniRef90_UP100047E66AD	C G L E K S E V G E D H I V A V E L E F M G V L A H R A A K A L R A G D E E R A F			
UniRef90_J7IXL9	C G V D R S S S E P D D H I I A F E L E F F M A Y L C G E A A E F A R Q R N D V Q M Q			
UniRef90_A6TLZ1	H L F Q F Q Q E A D D H I G L E L D F M Y Q L C L E L Y E K A K S G E S F Q			
UniRef90_UP1000367315F	A G L E K A R E P P D D H I R V E L E F F M Y Y L I A N V I E S C E D G N W D G A E E			
UniRef90_I3IHC1	F G L D E R E A M P D H I L S V E L E F F M H F L T H Q Q E C S A G Q P E A R E			
UniRef90_G9XLW0	F G L E V E K E R G D H I V V S V E L E F F M H F L L Y K Q Y A Q Q E N D G E E K A Q			
UniRef90_H5Y5N0	K G L N A A Q D P E D H I A F E L E F F M A F L C Q E T N T A F A A A D S R A V L			
UniRef90_T0LDR6	Y G F L P K H E A D D H I L G L E L D F M Y Q L L A N T L T V E K A V V G D D G F K			
UniRef90_A5GCL5	F G L E I S K E R V D F I G T Q L E F F M G Y L C F K A T H A L E N K N D S N Y D			
UniRef90_B8FPF6	C G L H L A D D F P D H I F A V E L E F F M S Y L L A F K Q R E A E V L G D Q D E V I			
UniRef90_D8GM30	N G Y E R S E E P D D Q I G V E L E F F M N Y L I N Y T L S A I E E G R E A D Y I L			
UniRef90_Q67RJ8	V G V A F N K E A D D H I I S G L E L D F M T V L H D R M L N N C Y G E D G L L			
UniRef90_C8WLA7	A G F A K N K E P E D H I A V E L E F F M A M L L C G R A V E A L R A G D E A G A E			
UniRef90_C7N3T4	A G L E N S E D W E D H I A V E L E F F Y M A V E T R R A L A A L K E D D L L T A S R			
UniRef90_W0FPE5	Y G Y E A K E V P D D H I I A I E L D F L A S L A Q E A L D A C A A G S E E D A R			
UniRef90_L9WSZ1	F G L E G N R E R A D H I C I E L E F F L S H L A L Q T A Y L E N E G D E T G V A			
UniRef90_UP100028A088F	Y G I V V P T R V A D D H I I A L E L D F D M Y I L S M K I Q E A F E N E E N M E R V I			
UniRef90_C8WLE8	A G L D K Q D E G E D H I I A L E L D F E Q I M A T R T V E A L R K G D E D E A V			
UniRef90_D4H2E2	F G I E L N K E P P D D H I I A Y E C A Y L N Y L C A G A A S A E D S E D I K			
UniRef90_H5SMJ4	F G I E L N K E S R P D D H I M A L E L D F F M S V L A Y K E A L A L Q N D L R E H A E			
UniRef90_Q24Y58	Y Q F L P A N Y P D D H I I A L E L D F D M A H L A K T L E R F D Q Q K I D E V V K			
UniRef90_UP10003693BE7	Y N F L P S N Y P D D H I I A M E L D F M V H L S K I L A L E R F E E E R H E D T Q			
UniRef90_I4A6Q0	W G I G V I R D P C D H I I G L E F S F M A W L N K S M I K S L I R D D I D E F K			
UniRef90_U5MW45	Y G F I P R N E A D D H I I G M E L E F M F R L S E M V A G K V A V R D T A G A E			
UniRef90_Q2RIN6	L E L E L S D D P D H I I A L E L D F F L Q L Q V L S E E H K E D S G E			
UniRef90_B4YY88	Y L F Q F Q Q E A D D H I I G L E L D F D M Y H L C L I L F E K I K S G D L S Y A			
UniRef90_H5Y2Y4	N G L D K S D V G E D H I I S V E L E F F M R I L C L R A A R A L L S E G D M D R A F			
UniRef90_C7N726	F G G L A P N N E L P D H I I V S E L E F F M H F L C H R E A D A L L E T G G D A D P			
UniRef90_H9NNB0	Y G F L P S N Y P D D H I I T V E L E F F Y M Y L I F K I E I A L L E K S S Q W D A A L			
UniRef90_K1Y4S3	F G L E A E A V T D D H I I A V Q L L A F V S E L S R R A A E R L R T G D V A G A R			
UniRef90_Q67LX8	F N L E K R R E R S D H I I C L E E L D F F L S H L A L Q T A Y L Q R E G D E K G I E			
UniRef90_M0MQ83	Y A F Q T A D E A D D H I I G L E L D F D M Y Q L C I Q S G E S I T P N S L S E I R			
UniRef90_UP1000308C0C1	F D L D L N R E R V D H I I C V E L E F F V S H L A L Q T A Y L A E T G D E K G V E			
UniRef90_F8D6S0	Y G Y E A A E A P D S I L V T M V A F M A Q L A R N P A P			
UniRef90_G7VHF7	Y G Y E A A E A P D S I L V T M V A F M A Q L A R A G V N M S E D P P D H I I A V E L E F F M Y Y L I Y H E N Q A L E N K D Q A S A I			
UniRef90_D6SSM3	A G V N M S E D P P D H I I A V E L E F F M Y Y L I Y H E N Q A L E N K D Q A S A I			
UniRef90_C8WM44	A K V V L V D E P P D H I I A F E L E F F L S H L A L Q T A Y L Q R E G D E K G I E			
UniRef90_A4WHX0	Y G Y E V A G E P D S I L A M T A F M A Q L A K T P T E			
UniRef90_J7ISG0	Y N F L P A Q E A D D H I I A L E L D F D M Y N I S N L A E I A F Q A E D I V K F R			
UniRef90_B8G0U0	Y H L E K N R Q P E D H I I A V E L E F F M T Y L I G Q Y L A S E D D D V Q Q T			
UniRef90_S6CEW4	F N V L P A R Y P D D H I I A L E M A F M S C L A R D A M E A F D K R D W R E L V			
UniRef90_H5Y5R2	Y A F D F G H E A D D H I I G L E L D F D M Y Q L S E L A E A K V S K Q D I G G L V			
UniRef90_E6W758	N G L S I D K D A P D H I I V A E L E F F M Y Y L I L F Q E A Q Y L Q I N D L Q K A Q			
UniRef90_Q24NK2	A G L Q L N R D P D D H I I G L E L D F M Y F L C V K G L E A L E N N Q I P E L Q			
UniRef90_Q1PZD6	F G G L D L S E E E K D H I I I S V E L E F F L Q F L L Y K Q A Y A I E N H G N E E A E			
UniRef90_H5UMY4	Y D L A A G R E P D D H I I V G L E L E F F V A T L A S W A W E A L E R G D T D A A A R			
UniRef90_F7V0A1	A G F Q A A H E A D D H I I V A I E L D F M A Q L S A K T C S A Q A N G D A D C M R			
UniRef90_S9ZRX0	F G L E E R A E M P D H I I S V E F Q F M H F L A H L E S R S A G D A E A L G			
UniRef90_UP10003133DB0	F G L Q F N T D P D D H I I A I I E L E F F M N H L I N Y T L S A K E E G R E E D Y A			
UniRef90_UP1000302CC70	F N L N E S K E P E D H I I S I S I E L E F F M I Y L I D E A L K S I K E G D E N K F S			
UniRef90_D6XU79	Y G Y Q V I S V A E D H I I G L E L E F F M S H L I K E S S E Q M R G N L T G T K			
UniRef90_D1JH37	A G I K V N E E P E D H I I A F E L L R F M H Y L C E E E L S A D T E E R I A			
UniRef90_Q8ZXJ2	Y G F E A E E R P D N L V T M V A F M A Q L A R I E S E			
UniRef90_4A8I3	Y Q F L P A N Y P D D H I I G F E L D F M A H L A K T L E N F D K Q A M D E V K			
UniRef90_L7EH67	H G I I P T R V A D D H I I A L E L E F F I F C L S K K M Q K E F E N E N M E I V V			
UniRef90_M1YZ50	F G F E F G K E R V D H I I A V E L A F M G Y L C F R E A Y G I T N D D E K K I A			

130 140 150 160

QUERY	UniRef90_E6N475	UniRef90_C7N714	UniRef90_I4A8Z2	UniRef90_V2RGU7	UniRef90_B2A6V9	UniRef90_A6TMW3	UniRef90_H5Y305	UniRef90_J0V1J7	UniRef90_R4K1E2	UniRef90_B6BKM4	UniRef90_A6Q212	UniRef90_E0UPD8	UniRef90_B8FYM6	UniRef90_B8FZB2	UniRef90_Q2RIP7	UniRef90_UP100028A1860	UniRef90_A8MGV0	UniRef90_E4UOT3	UniRef90_B8FW54	UniRef90_A6Q7L2	UniRef90_A3MWJ8	UniRef90_I4A8J6	UniRef90_12K4M7	UniRef90_X1GZC8	UniRef90_M1MXC1	UniRef90_UP10002E1B758	UniRef90_Q30QG0	UniRef90_S6C2J1	UniRef90_W6ELM5	UniRef90_C6PWT2	UniRef90_S6C3P6	UniRef90_UP100047E66AD	UniRef90_J7IXL9	UniRef90_A6TLZ1	UniRef90_UP1000367315F	UniRef90_I3IHC1	UniRef90_G9XLW0	UniRef90_H5Y5N0	UniRef90_T0LDR6	UniRef90_A5GCL5	UniRef90_B8FPF6	UniRef90_D8GM30	UniRef90_Q67RJ8	UniRef90_C8WLD2	UniRef90_I8S7J0	UniRef90_UP10003085199	UniRef90_G4HCC9	UniRef90_C8WJA7	UniRef90_C7N3T4	UniRef90_W0FPE5	UniRef90_L9WSZ1	UniRef90_UP100028A088F	UniRef90_C8WLE8	UniRef90_D4H2E2	UniRef90_H5SMJ4	UniRef90_Q24Y58	UniRef90_UP10003693BE7	UniRef90_I4A6Q0	UniRef90_U5MW45	UniRef90_Q2RIN6	UniRef90_B4YYQ8	UniRef90_H5Y2Y4	UniRef90_C7N726	UniRef90_H9NNB0	UniRef90_K1Y4S3	UniRef90_Q67LX8	UniRef90_M0MQ83	UniRef90_UP1000308C0C1	UniRef90_F8D6S0	UniRef90_G7VHF7	UniRef90_D6SSM3	UniRef90_C8WM44	UniRef90_A4WHX0	UniRef90_J7ISG0	UniRef90_B8G0U0	UniRef90_S6CEW4	UniRef90_H5Y5R2	UniRef90_E6W758	UniRef90_Q24NK2	UniRef90_Q1PZD6	UniRef90_H5UMY4	UniRef90_F7V0A1	UniRef90_S9ZRX0	UniRef90_UP10003133DB0	UniRef90_UP1000302CC70	UniRef90_D6XU79	UniRef90_D1JH37	UniRef90_Q8ZXJ2	UniRef90_I4A8I3	UniRef90_L7EH67	UniRef90_M1YZ50																												
K R A A Q H R F I K A H L Q P L V K N L P S A P L L N F V R D F V R E D A K Y	N R R I Q H R F L N V H L I P L K S Y R D R E L L G C I A E Y L E K D M L V	R R R H V Q L E F F L A L H L S A W D L F A S D A W A R F V Q S F I K E D D A Y	Y I E K E Q Q A F L G L H L S K W T P H F T H S V L E G A H T D Y Y Q G L A R L	S L L H L Q K M F L E E H L L K W V E M F S K A P C Y F M M G F L K Y D F E E I	Q I L T L A K D F Y L K H P A T W I D Q F T Y L V K S E T K H S F Y Y C V A E I	K V L N D Q D T F L T E H L L Q W L D R F T D D V I Y H A D T D F Y K G M A R V	L L M D D Q I E F L S E H L V K W A F F T Q D V I S N A R T D Y F G G L A R L	S I V E A Q K E F F K K H L V N W V S L Y L N V K Y E A R T T P F Y Y D L A E S	K N I K G Q I D F L N N H L L K W Y D E V A E N A K T K F W R D I S R I V V R W	E I R E V Q L E F F L D K H H L L K W A P L Y L I N M K F E A R T T P L Y Y D A E E	K K I E E Q K R F F L H H L L Q F A P M Y L I N V A E Q A R T T P F Y K D A A K L	Q L S Q L Q Y G F M K D H H L L E W A P M Y L L N V K S E A G T A F Y F D V A D L	Y L L F K E Q Q R F L E E H L L K W S L D F T L S V I Q N A H T E Y F Q G M A L L	G L L A R E Q P A F L D E H L L R W A K E F T Q D V Q A S A Q T L Y Y Q G L A Q L	R F F L A G Q G R F L E E H L E Q W V P A L T A D I Q R A A R T T D F F R G L A L F	K N I K G Q I D F L T K H L L S W T T K W N K D V A K N S K T K F W R D I S E L	K K I E E Q K R F F L H H L L A G W I K P F A N N I I S N A K T E F Y K N L A K A	E L L I N V Q H N F L N S H L L K W A P M Y L I N M K Y E S R T T P L Y Y D T A E M	Q I F T D Q K D F L E N H L L Q W V P E L A K I L R E N A Q S S F Y P G I A K I	E E F F Q I Q K G F L R D H H L L E W G S M F L I N A K R E S R T T P L Y H D G A E L	E S L K A Q L R F F L N S H L L I P T V K G V E A C P S L K A L L E I L E A D A E	S I R K K M Q T D F L K T H L G S W L T D L S Q A V D R G T N S E F Y R G V A G L	E L L Q V Q R A F L K E H L E W A P L F L I N A K R E S R T T P L Y H D G A E L	R Y I Q G Q K D F L E R D V K W V P K L V K D I L K T G K T P F Y K A L A V L	E N L S M Q K E F L N K H L L S W V P L W V E V V N K N A G G Q F W K G F A E L	Y L L Q A Q E E F F L H E H L M K F A S A F C E K M I A N A E T T P F Y R G L A K I	V L R E T Q S E F F L N K H L R W A P M Y L I N V K Y E A R T T P L Y Y D A S D L	S L Q K D Q A D F F L D N H V L T F V D E W A A A M A E K S D S S D F Y A G M A L	V S L Q L Q K E F F L E Q H L L N W M S E F C A D I Q K C A H V D F Y K A I G K I	K V I K D E E F F L S N H L L K W C N G F S E D I I N N S N T N F Y K G I A K V	S L I N T Q R N F M D D H L A S W V P V F L S D T R F A D T T F Y Q G V A N V	Q S L N R R Q Q E F F L Q K Q H L L K W Q R F C N D V L K Y A G T D F Y R G A A R I	E V L E D Q Q S F F L Q Q H L L K W P P R F G R D I I N N S T T D F Y K G M A S I	K Y V Q L Q L E F F L T K H I G S W V R P F T Q N V N Q N A K T K F Y Q N L G L I	S L L R A R Q R D F F L S R H L R L V S G V R S A L L E T A A F V D E D L Q E	I C V D A Q K K F L K E H I G K W P L F A I L F G R R A E E G F Y H A L A V L	A C L K E E K K R F F L E H H L S N W V D R F C V D I E K S A E T T D F Y K G M A K I	E L L Q D Q A D F F L E Q H L L L W V P A F A K N V R L S A N T G F Y Q G M A R M	I C F E A Q K K F L K D K W A F K F V Q K L L A H T E N L F Y K T L A Q V	R V V S L Q R E F F L D R F L M P W L A P F T S A I I T D G E A P F Y Q A I A R C	R I L S A Q E Q F M D L H L L K W P Q F C Q D I L K S S Q N E F W R S I A V F	S C V K E Q M D F L S K H L L N W V P R F C S D I E K Y A D T K F Y K G L G K I	T I L Q D Q Q A F F L D D H L M Q W V P P F A D V R Q H A E T A Y Y R G W A D L	K L L L S Q R N F L E D H L L A W Y P M M A A D L K F P Q T D F Y K G L G K L	L Y I S G Q T R F F L N E H L L E W V P A L C N D I E K A A E S F F R G L A F L	K G V Y T Q Y W L M K E H L N R W I T P F T M D I L S S H T S D F Y K G I A L L	K L M A A Q E Q F L E E H L L A W V P S L C E D M K A S T D S P L Y R G L F R L	R Q L R A Q R E F F L S D H L L N W I D R F T A D V R K A A E D G F Y F D L A T F	R E T M R Q Y N F L R D H L L S W V P F M V N D M L K F A Q T D F Y R A L A Y L	Q L F E A A G S T F A S T H L S H W V G D F A A D L R L D H D G S R F Y C A I A N A	V V T D A Q G D F F L E D H L L G R W I G S F R E T V A E E V D V E F Y R A L G A	E L L N E Q K D F F L Q Y H L Q I W P D F A K Q M Q K S N S K L Y Y P E M A D I	A L L T T Q K N F F L E D H L L A A W A P M M T S D M K R F A Q T D F Y R G L A Y L	A E I I D F I K E H P M T W V D E F T D L M L A N S L T D F Y K G I A Y M	I C R D A Q K K F F L E A H L G R W V G V F T D T L K R E S Q L E V Y H T L G T E	K L L D D Q K A F F L Q D H L L V W I G D F A E D M Q K S K T H Y F Y P Q M A A L	K L L A D Q K S F F L E E H L L T W V G Q F A E Q I Q N S K T H Y F Y P Q I A E M	K Y V D G Q L E F F L N N H I I L T F L S S F C E I L R K K S T H Q F Y K E I S Y L	A I L K D Q E V F M A D H L L K W V P P F A G D V M H S S S T D F Y Q G M A S L	N V L K W Q Y F F L E N C A P W Y E P F V D R V I N N F D S E Y Y D S L A D I	E V L K D Q K N F F L E Q H L L T W V N R F C G D V E N S R T D F Y R G M A L I	R L F K T Q Q G F F L E Q H I C I W T P V F T A D I R R F S N T S F Y Q G I A E L	Y R R A R Q R D F F L A R Q L G R W P Q L H P R L V E Q S A L A F F L E V T R L	D L I K T Q E L F F D K F L E R W V K Q F C D K I K R G T D N A F Y T T S L A D C	D L L A G Q R E C L A E H P W V K Q F C D K I K R G T D N A F Y T T S L A D C	I L E N A Q E D F F L E D H L G R W V P R F R E A V D E N A D V P F Y R E L A G	I V T N A Q A D F F L E D H L G R W L P R F R E T V H E D A D D P F Y R A L A D L	E S L K A Q L R F F L N T H L L P T L K Y A A E C P A L Q H L Y E L L L E D A K M	D F R T Q R L D F F L K R H G L W G P V F A D T L F K N T S S D F Y R H L A R L	N L L E A R R A F F L E E H L L N W V P D F A D D V Q R V A R T G F Y R A L A D I	E S L K A Q L R F F L N T H L L P T L R A L Q K H C P D L R P I Y E I L V E D A E V	A I L K D Q K A F F L T E H L L V W V P Q F A S D L E A A R P H S F Y R G I V S L	K L L R D Q K E F F L Q K H L A T W K D E F L Q F L E K S T G C L L Y R G G Q L	T L L Q A Q A K F F D H L L A W I P S F A A E V L L K W V P E F S K Q A A R H A Q T Q F Y E G M V K I	E V L R D Q K A F F L E D H L L K W V P E F S K Q A A R H A Q T Q F Y E G M V K I	N I S S L T Q Q M F L D N F L P W L K P F C E N I L N G T D N E F Y C A L A K A	L R I S S Q Q Q E F F L E T H L L Q W V L T F C V D V D V S G H T R Q P F F A R V A G F	I C L D A Q K K F F L E K H A G K W I P P F F L L F G R K S I D G F Y F A I S E V	V F A E G A R G F C E T H L G Q W G V G F G A E L L A A R E A R T D F Y R G V A S L	E L L E R Q A A F F L D E H L L K W I D V F A K R L E Y D K V G E F Y P T F A Q L	S L A A R A Q R D F F L Q R H L R R A V H G V R G A L K S A D P R C I E L V E T	K G V Y T Q Y W L M K E H L N R W I T P F T K D I L S S N T S D L Y K G I A L L	R I S Q Q Q E F F L E T H L L Q W V L T F C V D V D V S G H T R Q P F F A R V A G F	I C L D A Q K K F F L E K H A G K W I P P F F L L F G R K S I D G F Y F A I S E V	V F A E G A R G F C E T H L G Q W G V G F G A E L L A A R E A R T D F Y R G V A S L	E L L E R Q A A F F L D E H L L K W I D V F A K R L E Y D K V G E F Y P T F A Q L	S L A A R A Q R D F F L Q R H L R R A V H G V R G A L K S A D P R C I E L V E T	K G V Y T Q Y W L M K E H L N R W I T P F T K D I L S S N T S D L Y K G I A L L	R I S Q Q Q E F F L E T H L L Q W V L T F C V D V D V S G H T R Q P F F A R V A G F	I C L D A Q K K F F L E K H A G K W I P P F F L L F G R K S I D G F Y F A I S E V	V F A E G A R G F C E T H L G Q W G V G F G A E L L A A R E A R T D F Y R G V A S L	E L L E R Q A A F F L D E H L L K W I D V F A K R L E Y D K V G E F Y P T F A Q L	S L A A R A Q R D F F L Q R H L R R A V H G V R G A L K S A D P R C I E L V E T	K G V Y T Q Y W L M K E H L N R W I T P F T K D I L S S N T S D L Y K G I A L L	R I S Q Q Q E F F L E T H L L Q W V L T F C V D V D V S G H T R Q P F F A R V A G F	I C L D A Q K K F F L E K H A G K W I P P F F L L F G R K S I D G F Y F A I S E V	V F A E G A R G F C E T H L G Q W G V G F G A E L L A A R E A R T D F Y R G V A S L	E L L E R Q A A F F L D 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V F A K R L E Y D K V G E F Y P T F A Q L	S L A A R A Q R D F F L Q R H L R R A V H G V R G A L K S A D P R C I E L V E T	K G V Y T Q Y W L M K E H L N R W I T P F T K D I L S S N T S D L Y K G I A L L	R I S Q Q Q E F F L E T H L L Q W V L T F C V D V D V S G H T R Q P F F A R V A G F	I C L D A Q K K F F L E K H A G K W I P P F F L L F G R K S I D G F Y F A I S E V	V F A E G A R G F C E T H L G Q W G V G F G A E L L A A R E A R T D F Y R G V A S L	E L L E R Q A A F F L D E H L L K W I D V F A K R L E Y D K V G E F Y P T F A Q L	S L A A R A Q R D F F L Q R H L R R A V H G V R G A L K S A D P R C I E L V E T	K G V Y T Q Y W L M K E H L N R W I T P F T K D I L S S N T S D L Y K G I A L L	R I S Q Q Q E F F L E T H L L Q W V L T F C V D V D V S G H T R Q P F F A R V A G F

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UniRef90_V2RN40	L E K E L D E F K L D N L R A E S Y Y T S L E H L V I N Q Q S R E Q V L K S Y K T
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UniRef90_C8WPN4	P Y E S V Y T S E R R L L M M Q E A R A E V L Q T L R E
UniRef90_F3NWZ4	P Y E S V H R S E E G L V F D E H T L Q V R T C Y A R
UniRef90_D7GG94	P Y E S V H R G V D G L V F G E A T L E V R A A Y Q A
UniRef90_W2BPM1	E S V H R S P D G L V F D L E T L A V R E C Y R K
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90 100 110 120

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UniRef90_J6ISW2	S G Y D M P E E Y P D H I A V E L E F F L A M L A A Q E A E A W E Q G D E S A A F		
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130 140 150 160

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UniRef90_Q24PX0					
UniRef90_B8UFU9					
UniRef90_U2TBM9					
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UniRef90_E4TYY6					
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UniRef90_U3CCG3					
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UniRef90_I7BRA9					
UniRef90_D6Z635					
UniRef90_D2RHG1					
UniRef90_UPI00037BDB82					
UniRef90_F4FY23					
UniRef90_Q24NJ5					

50 60 70 80

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UniRef90_L0AMK6	L F V G P F E V P A P P Y E S T Y V D D P D R V M T E S T V Q V M N E Y R R		
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UniRef90_I4A4Q3		L T A Q I K Q Q Y E L	
UniRef90_C7N864		P Y E S V F T S P E G L L M Q D A R D Q V V K V Y R S	
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UniRef90_A8G144	L E F D F N R M C I G P A P Y E G V Y R S G N H V M N T D E T V R V A E F Y Q E		
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UniRef90_I0T748	L N V S P N G V V K H V H P Y E S V Y L S P N K L V M Q D Q R D E V L E F Y Q Q		
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UniRef90_B3QSU8	P Y E S F F L S E D A R L G G S V S G A V Q D F Y G R		
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UniRef90_UPI0003772B27	L F T G H E A I V P A C E S I Y R S R L E G E N A V A C I A R V S K N Y M D		
UniRef90_F7RJ23	M C I G P Y K L L V A P Y E S V Y L S G N H Q I F T E E T V R V A E F Y Q Q		
UniRef90_B8G152	A S I Y I S D E P K P L M D E S T I L E V R K Q Y L D		
UniRef90_KOYK87	E S V Y L S D N H V I M Q E Q R D Q I V E V Y R M		
UniRef90_F7UX35	V A K T Y A Q		
UniRef90_W7KKF1	V D F P R I A K K F S E I K K K D Y A I E Y T T L L K P L M P L D I T S F Y E R		
UniRef90_J5Y0T6	G D G D A D A F D A G A S P Y E S A W R T E D R T L C G P F M H E V R A M Y R S S		
UniRef90_W0EKH1	G Y S P P P Y E A L Y E N H V K V F Y S S		
UniRef90_L0F3S4	L F I G P G K A P V S P Y A S I Y L S K E P K P K L M D E S T I E V R K H Y L E		
UniRef90_UPI00036D69A7	T P C S L H A T Y A G S T Q L A G P G P L L A I S G F Y Q A		
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UniRef90_Q24PX0	F D L L A P P Y G S I Y I D G Q R R L M G D S T I K V L E A Y G D S		
UniRef90_B8UFU9	R C Y K S		
UniRef90_U2TBM9	L F V G P Q K L L A P P Y E S S S Y L S P H R M T M T R Q T M S V R Q A Y R A		
UniRef90_A7NL85	L Q V E Y E A I F G R A Y P Y E S S L Y V D H D L M L N T A A A Q R F A Q L C Y Q		
UniRef90_X4QQK2	E S V H R G K D G L V F D E E T L Q V R A E Y Y R Q		
UniRef90_E4TYY6	L N I D Y S S M I L N T Q P V E S F V L D A K N E T L V G L Q N P V M A F Y F T		
UniRef90_M0MN3F	S D A D A N A A A E S L R W A S L F G V E E G V T V S P Y E L T V R R F Y E A		
UniRef90_X6PM25	L H W D F T R L F I P A P P W E S V Y V S R D K L L F Q E S T L N V K T F Y Q Q		
UniRef90_L0JSP6	V R G F Y E A		
UniRef90_K7SD23	L N T D Y T S M I L N T Q P V E S F V L D A K N E T L V G L Q N P V M G F Y F T		
UniRef90_U3CCG3	D L F L T S D K H A A L P Y A S I Y L E E N K L L N G A P A Q K M T Q I M L E		
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UniRef90_Q6LS21	L P Y A S I Y Y V G E S G L L N D K P A Q D M N V L M E E		
UniRef90_L0F3V0	L F V G P F D L L A P P Y G S I Y L D G Q R R V M G D S S V E V L Q A Y Q E E		
UniRef90_S6C4X8	W E S S V Y F N K D R M V F Q H Q T F E V R A M Y A R		
UniRef90_R9KU15	C V P N A S S V F L D K S G S T Y G W P R N A A S R I Y R E E		
UniRef90_I7BRA9	P Y E S S L Y R D G D D A V L G P S A R A V V K W Y Q S		
UniRef90_D6Z635	A D S T N L K V E Y A R L P Y G S V Y L D E G R K L M G E T T M N A L E H Y Q A		
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UniRef90_UPI00037BDB82	L F V G P R R P K A V P Y E S A Y F E Y K T M F S K R T M Q V R E F Y E S S		
UniRef90_F4FY23	F E T G V N V R E V R K V I E N S K R S D Y S K R L F S L M G E K V A R F Y R S		
UniRef90_Q24NJ5	F F V G K T N D E E L K L E H A K L F V G P F D L L A P P Y G S K V L E A Y R E		

90 100 110 120

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UniRef90_L0F538	E G L S L S N E P D D Y I A T E L E F F A A Y L L S N A I E Q Y R K D Q P Q K A K		
UniRef90_L0AMK6	G N V D V D E E P A D H V T A E L E F F A Y L L G L N G A D A L F R G E Y G A V V		
UniRef90_H3SKA8	F S L K M M N G E P D D H I A T E L E F F M A V L I G K M L G N V M T E K R Y H		
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UniRef90_UPI00037A7C49	A G I A F K K E T D D H I G I E L E F F M S L L A E R M A E N E G N I L E Q H		
UniRef90_F9S6L6	F G V E L E H E P D D H I G L I F C F I A H L C E M A L Q Q D I A D D Q P S P		
UniRef90_S2WSK4	F G L R A N R E P D D H I G L E I A F L S D L A G R A A E Q L A A G E D A Q		
UniRef90_F0HKY2	H G L Q I E R E P D D H I G L M L G F V G H L I G L E A E A L A V G D G A A A G		
UniRef90_E6W3L7	H E L T P H E D L P D H I S L E L E F F L Y S L A V R E E Q A R E A G E I A T A L		
UniRef90_Q21TV2	A G L E L E L G P P D F D H I G A E L L F R F M A L L G Y R E M Q A Y Q E R D A G L A A		
UniRef90_A8G144	I G L V I D E E P A D F I G N E L E F F L Y C V H A L A S E Q K A A N N I E A F E		
UniRef90_S6C1T1	N E L L K R G N E A E D H I A L E L E F F M Q R M A L R A A E A L S D N A E D E A I		
UniRef90_H5XXZ8	Y Q F L P A K Y P D D H I A L E L D F M A H L A Q L A L Q R F E E E K F E E V K		
UniRef90_M0LE23	Y D F D L E S V L P D H I V A T E L E F F A A Y L L E H E D V A I C E		
UniRef90_G7W619	D G F E L K R M P E D H I H M G L E L M F L S T V S D A L A K T I N N N Q S S I P		
UniRef90_G7W6L6	Y H F L P A N Y P D D H I A F E L L D F M G R L A K S T M E S F D N A N M L E V K		
UniRef90_T4BZ15	A V D E G L R T P E D H I L S F E F F E F M A Q A Q G E Q A R A L H A G D T A A A A		
UniRef90_A9WIA2	C G F T P P Q T A P D H I G L E F L F L A R L I A T E E A A A L A D G D S R L Q Q		
UniRef90_I0I748	M G F V V I D E E P A D H I A H E L D V L A F F L C Q A E A E A W E D G R G D M V A		
UniRef90_D4H4S4	M G V A D N K E P E D H I A E L L A F L Q E L N K R I C K E L A N N N M D D A L		
UniRef90_B8CLW8	I G L E K F N E P A D F I G N E L E F F L Y C V H A L A S E Q K A A N N I E A F E		
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UniRef90_C7N0Q9	H G F I P Q R V P D D H I A L E L D F I L A A L T A E A L Q A C Q A G D I D A A S		
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UniRef90_W7KV17	Y G I I P E R Q I P D H I S T E E L E F F V S F I F F M M N N S E A N		
UniRef90_G8QM52	F G L I M G N E L E D T I T S A E L E F F M H F L T A K Q A Q A E L E G L P P N		
UniRef90_S6BX18	G G L D L N T T P E D H I G F E L L Q F A A V L A D R A N E A L L D G D D A V S L A		
UniRef90_Q47CW9	F G L T M G N E L E D T I T T A E L E F F M H F L T A K Q A Q A E M E S L S P N		
UniRef90_A8V2Y9	H G Y S I R A L S P D H I G V E L E F F M M N L V Q Q E E L N A L A R E D E K E V Q		
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UniRef90_B8G3R8	C G F T P P E Y T A P D H I G L E L M L L A R L I A T E H T A L A Q H D H A L V R		
UniRef90_K1YEZ3	A G L H K N R D L D D H I A V E E L E F M H R L A G K T A A D G R E N		
UniRef90_C9R9K0	W G L D L T H E L P D H I G V E L E F F M H F L L T R W L E G L D R D D R T L V		
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UniRef90_F7RJ23	I G L I I D D E P A D F I G N E L L E F F L Y C H A M A S E Q H A L D K H E Y V L		
UniRef90_B8G152	A N I V M N S V P D D F I G A E L E Y I N Y L T I K S L E A I K N S E S S E E L G		
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130 140 150 160

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 |L| T |L| Y |L| Q K E
 E R D F |L|
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1 10 20 30 40

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

50 60 70 80

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UniRef90_Q0HDZ2		L E C D F N R M C I G P T R Y E S V Y R D G G R Q L I N T D N T T A V A S F Y Q K	
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UniRef90_W6MAS5		P H E S V W L D E D H L M R Q E P M F Q V R A Y Y T R	
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UniRef90_E8LYN3		L E C D F N R M C V G P T R Y E S V Y C S V G S Q L N T K E T V A V A D F Y Q N	
UniRef90_B0TKH6		P Y E S V H R G T D G L V F D D E T M Q V R A F Y E A R	
UniRef90_UPI00040A5F46		E Y Y A R	
UniRef90_UPI0003771DEC		S A L P Y A S V Y I G Q T G L L N D T P A Q A M A E L L K K	
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UniRef90_Q24Z64		L E L S A D F C D L A A P Y E S V H T S E E G L M Y Q G A Y H E V F Q L Y K Q	
UniRef90_C7N3N0		P Y E S V H T S E E G L M Y Q G A Y H E V F Q L Y K Q	
UniRef90_V5F294		P Y E S V H T S E E G L M Y Q G A Y H E V F Q L Y K Q	
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UniRef90_E1SP77		P Y E S V Y R S G K S V L N S H H T V D V H A Y Y Q Q	
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UniRef90_W0TN73		P S P P Y E S S C Y R E E D G S L M G E T T I A V K K L F L E	
UniRef90_T0IB35		L R V E Y T R L F I Q C P P Y E S V Y R D G D H P V Y G P A T Q A V A R W Y A E	
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UniRef90_UPI000288B061		P Y E S V Y R D R D A D L G P V Y T Q A V A R W Y S E	
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UniRef90_Q24NI9		L D A Q E L M D Y A A L P Y G S V Y L D V A K T V N G E S T A A V T D I Y R K	
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UniRef90_B5YHH7		L F I I G P A G P P C P P Y E S S V Y R D G D G P V M G P A T I A V D H W Y R S	
UniRef90_I3R6P1		L F L G P G L P K A P P W E S I I Y R T Q E K R L F G E P T Y E V R E V M A R	
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UniRef90_UPI0002D6D293		L P Y A S M Y V G D S G L L N D K P A Q E M H D W M E K	
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UniRef90_I4A829		V E P D L T V E D D R E T L A A R Y V V G Y S E V Y E S T Y R S D V A R A Y E H	
UniRef90_B9LNJ2		L F V G P Q K K A A A P W G S V Y L D K D Q V I F G S S T M R L H D W M R H	
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UniRef90_M0NHF6		L F I G P E G P P C P P Y E S V Y R D E D P V N G P A T M A I R R W Y G E	
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UniRef90_T4BWW6		V P Y E S V F T G E E R I M M G D A R D D V V A R F L E	
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UniRef90_S6CDD7		V D F T S A F A G T S S V P Y E S V H T S E E G L M F Q D A Y H E V F Q L Y K A	
UniRef90_G0HU01		L F I G P D G P P C P P Y E S V Y R D G D G P V K G P A T M A V V R W Y R E	
UniRef90_J3BZC0		Y L N G S L H A H P S E S V W L D D E E L T C Q Q P M F E V R E Y Y Q R Y	
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UniRef90_Q5V2U6		E S V Y R D G E D P P V K G P A T M A V V R W Y R E	
UniRef90_M0AMG4		E F T R L F V G P R P L P H E T Y Y R E D T D F R G T G L T E V E A G Y G A	
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UniRef90_S0G0S9		T L I M G P S T L K L S A L Y R E	
UniRef90_UPI00047CF6A7		E P W R V L V G S A R E L Q A S D I R S E Y D A L F G G V G K P D V R D D L R A	
UniRef90_M1P7S8		L C C D H T A L F I R I S P Y E S V Y L E D T I M G Q S A R R V G E Q Y E Q	
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UniRef90_UPI00030081E7	H G I A V S E E P A D H I A I E L D F L G N L I I R S N E L E Q E K H	L D D A L		
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UniRef90_Q0HDZ2	L G L V I D N E P A D Y I G N E M E F L F C A E A L C H H H S N T N P T V A S			
UniRef90_K0Z3N6	L G Y E A P R D P D D H I G L E L D F F L S K A T L A V L D E L D A N Q P E R A Q			
UniRef90_UPI00034B104F	F D L E G H T E E P D H I V T M L E F C A L C H L C E A R A L G A G Q D A S A			
UniRef90_W6MAS5	H G L T V G D R P E D H I A L E L Q F L A H L F E P V R G D T			
UniRef90_UPI0003157DCB	A G L I V V K K E P A D H I V T M E M F M M N L Y G R K A I A L Q H D D K E G L E			
UniRef90_C8WGC1	R G V Q P R R V P D D H I V S L E C A F M A R E A R F S L A Q L I A G D V C A L A			
UniRef90_UPI000469C05C	L G L V T D N E P A D Y I G N E L E F L F C A E A L R H Q Q Q N E D P A A A D			
UniRef90_C7N420	K D L Q A N R V P E D S L A M M L E F G A K L A K D D Y R S F V N G D A A K L A			
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UniRef90_H5Y2I9	A G L R L S D E P P D H I I T E L E F V Y Y L I A K Y L E T K D N			
UniRef90_E8LYN3	H G V A V E K E P A D H I L A L E L D F L G N L I R S N E L E Q E R H L E D A			
UniRef90_B0TKH6	I G L V I D K E P A D Y I G N E L E F F L F C L E A L N H Q Q K E Q V N H N E S T			
UniRef90_UPI00040A5F46	L G Y Q A P R D P D D H I V G L E L D F F L S K A A L J A A L D E L D Q Q G E P G R A E			
UniRef90_UPI0003771DEC	A G L K I A H L E P D Y A G V Q F A F M A K L V S R E L S Y R N E N A V Q E V R			
UniRef90_FOLSH2	H G V T T H E E P A D H I L A L E L D F F L G H L I I R S N E L E K E A H M E			
UniRef90_Q24Z64	A G L T R A K E P P G D H M A T E L E F M A Y L Y L Q L A K A L L E D N P E G I F			
UniRef90_C7N3N0	A H V E G Y D Y P H D H I L S F M C E F Q V I L L A E R A L E A M E A G N P E E A L			
UniRef90_V5F294	H G I E V D K E P A D H I L A I E L D F D I G N L I I R S N E L E S H H L E			
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130 140 150 160

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UniRef90_V6DNZ7		MA K L Y A A	
UniRef90_D6ST21	L Y H S C Y H G E E Q L L M Q Q P A L E	M Q K R L S E	
UniRef90_C7P3K6	P Y E S P Y V T E D L V F E D E V T	I R K G Y R W	
UniRef90_C8WPP8	K G V P A L F R T P V L D V E R L	L M R D F L A A	
UniRef90_S2ZXA0	L F T G V S A S L A Q P Y E S P Y V T E	V R E L Y A A	
UniRef90_UPI00035CE6AA	P Y E S P Y V T E D L V F E D E V T	M I D L F K A	
UniRef90_UPI0002E06293	E P W R E L V A C A R S L S HD Q V V A E Y N R L	L F G G V G K P E	V Y L Y G S
UniRef90_D0YXW2	L T G S L M E M P L A H	H L L K Q	
UniRef90_N6ZUJ1	A Q L F L L D G K T S A L P Y A S A Y A G T D S	P L F G A A E A R M R D F L A A	
UniRef90_Q65Q18	E L P A P P WGSVYLDKES	V I F G D S L L A L R D F L T V	
UniRef90_W8KNP7	A W L S P A V M E I R H L G P A L R R E Y D R	L E S A W S S Q V E R L Y R Q	
UniRef90_G9YBP8	P A P P WGSVYLDKES	L A L R Q W M R E	
UniRef90_A0A031LM90		N D I I R F Y R S	
UniRef90_H3KDJ7		Y R L	
UniRef90_B0TNF9	L D Y G Q L F F G P G E P T A V S V Y L C E E Q L I	N D R T T V E L M D Y Y R A	

90 100 110 120

UniRef90_S6CDQ5	H G L A D D R M P D D H I G L M L S L L A T T L T E E R P E L V E E		
UniRef90_F7UXH2	S G F H L D E E P F D Q L G V E L L Y T A A L Y R R A A E L T E A G E G K S A Q		
UniRef90_L0F929	E G L E L T A E L S D H V A I E L E F M Y Y L L S R A Y A E E K D S D		
UniRef90_UPI0003B72A2E	S G L L P G P E P A D H Y A Y E L S F L G H L L E K G R F D L L C	G P D A A V	
UniRef90_A9IFD0	Y G F L N E K E T E D H I A Y L C E V M R L L I T		
UniRef90_G0HZ34	F G L E I S D E F D D H I V T V E L L Q V L A A Q R A V A L D G G D D K T A V		
UniRef90_R7B1D0	N G I A I E D E P E D H I G T M L V L L A W L A E E R P E L V D E		
UniRef90_D0WGL9	E G L E L S N Q Y E D H I M G V E L L Y L A A L C E K A A S R L A G A D Q E A A K		
UniRef90_E1SPK2	H G I A A H N E P E D H I G L V L A V L G Q L F E Q G N Q D A I K		
UniRef90_A9L1F0	H G I N I K N E P I D H I G L F M A V L S F L L E K I I E N P D I D D Y K		
UniRef90_T4AZU8	C G L E G T N E P L D H I V A T E C E C E L L E R L A L R A A G A P V P E G A P D G A		
UniRef90_C3NQG1	L G L E R D E E P E D H I S A L C E T M A Y L C E E S G D E N A A E		
UniRef90_G7W6E7	Y G L E D K K D R G D Y L G Y E L L D F I R H L A E K A A A A R E E G R R D E E E		
UniRef90_J7G8X0	I G L S V N S V P D D H I S Y E I E L E L A V M L L V H A R H S P Q		
UniRef90_B5S105	Y G L E R A E E T E D H I L L A A L C E V M R Y L I A G E D A A V A Q		
UniRef90_M0BVU1	F G L E P S D D F A D H I V A A E L E L A Q V L A G Q R A V A L E S D E P V A A E		
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UniRef90_D4H4S7	S G L K L N K I P E D H I L L A L L Y Y M H Y M A N R D M S V I D D K S K L I		
UniRef90_C8WLC1	H G I A R Q T D P E D H I V G L M L V L M A W I A R N Q P Q D L G E		
UniRef90_UPI0003B4CD73	E G L M V D K K E P A D H I H A I Q L D Y L G N L I I K E G E		
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UniRef90_UPI00046D249A	C G L E I I E R E F P D Y L T F E L E F G A F L L E V M Q T L G H M L N N L H D D M N Y L		
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UniRef90_A8FQ38	Q G I S F E N Q P V D H I G L F F A V L D Q L L T Q W A Q T E D S E A I E		
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UniRef90_F8VF07	Q A L A P R E E A S D H I A I Q L A L M A E Q I S R E A S		
UniRef90_F2PD43	Q G F A C D R E P E D H I G G L M L M V S I L L E Q D N K A A A N		
UniRef90_A8GJM1	H R L A P N N E A V D H I A I Q L A L M T A L L I E E G V E		
UniRef90_UPI000366BFE3	N Q L Q L H E E P A D H I L V V Y L L A V M A D W C T E V A N L T E P V E I Q		
UniRef90_G7VEC6	F G Y E A R V R C G D H I L G L E L L F A A S L M E E G R		
UniRef90_F7UUJ3	L D E T V R T E Q P D H I M D N E L A Y M A S L R A L H A A A L N Q H D E K S V A		
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UniRef90_Q12F01	Y G F E A M P E T E D H I V A Y L C E V M R Y L I A G D D V E V A		
UniRef90_K1YLA9	Y G I E S T E P A D H I A V E S E F F L A W L H G R T A G D A D		
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UniRef90_F9S807	L G F E R E D E P E D H I H I S A L C E V M A M L T E E E		
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UniRef90_I3XW74	F S F H L Q T E P A D H I G A I E L E F F L A L L V Q N Y E R D G A F E		
UniRef90_E1SMW4	Y G I L V T N E P V D H I G L M L S V L S S L E Q E V D K Q D G A A L E		
UniRef90_F9S3A9	Y G V A V E N E P A D H I A L E L L D L L G N I I I R S N E L E Q E R H F E		
UniRef90_A2SEY9	L G L E R A D E T E D H I A S V C E V M R F L I A G D D P E I C		
UniRef90_H3MSD5	L G V K V N R D P D D H I S Y E L L I V V L L M N V R R N A G F L		
UniRef90_D4H273	A G Y T T Y A E R Q D Y I G I Q L D F I G T L G L L R M D A L E K G D D E L Y V		
UniRef90_UPI00046AD560	S Q L Q L S G D F P D H I A V I L A Y Q A H L C L N	D	
UniRef90_W6EH69	F S F Q T T R E P A D H I A T Q L E F L S L L L K S A A Q S		
UniRef90_F9RMF8	K G L Q C D R E P E D H I G L L M F M L T S L L E Q D D V A G A N		
UniRef90_B7VMG5	U N L V V N K N E P A D H I A L E L D F L G N L I I R S N E T E L L E E L E		
UniRef90_Q3A920	A G L I V P E D F P D H I V L E L E F F M A M L V E		
UniRef90_A8FPS1	Q G I E F F E N Q P Q D H I A L E F F S V I D R L L G L L V E N P D D E S V R		
UniRef90_W9AUU0	F D I A Q R K E P A D H I A I E L D F M G N L I I M A N Q Q Q T E E Q R E		
UniRef90_V3TTB7	Q G I E P Q R D P E D H I G L M L A A W C A E N Q P D G V P		
UniRef90_UPI00037A1427	L G L E T R G E T E D H I V A Y V F E V M R Y L I V A D D A A V		
UniRef90_D2C1X2	L G Y E V P Q E P D D H I A Y E I D A C L L F S C L S P T P A Q H D A L Y		
UniRef90_D6EAC1	A G V D L R R E P V D S V F H E L E F F L A Y L H A C I G E A L R V G N G D A E R		
UniRef90_UPI000237866E	H Y L E S M S E T E D H I A Y L C E V M R Y L I A G D D V A V C		
UniRef90_B3R672	Y G L E R H E E T E D H I A T L C E V M R F L V A G D D D L S V S		
UniRef90_D3P8P3	E G F I L K E D I P D H I Y I L L E F A S S L I N K I I D L N K S G E D Y K		
UniRef90_L9YK99	F G L E P S D D F A D H I V A A E L E L A Q V L A G Q R A V A L L D S G E S V A A E		
UniRef90_S6C4H6	Q G I E L S R E P I D H I G R M L A L L S W L A S N R P E L V G		
UniRef90_D8J9A3	A G W T P P E D P Y P D H I A V E L L A F L R H L I E R Q R R G A E E		
UniRef90_A0A022GU44	Y G L V R Q D E T E D H I A T L C E V M R F L V A G E D A G V		
UniRef90_Y1GRM3	I G L F V N S V P D D H I V S Y E M E L V V M L S A H A R H S P Q Y H D		
UniRef90_D8MTJ1	R G M P L G E G P A D H I G A L L L A A S W L E D Q S A A		
UniRef90_F0LT2V2	L G L E R D K E P E D H I M M A A L C E T M A Y L C D A N D G		
UniRef90_D4E5F1	R G M P L S D A P A D H I F G S L L L A A S W L E D Q S Q E D E A		
UniRef90_Q1LJP0	Y G L T R H D E T E D H I V A A L C E V M R Y L I V A G D D D L A V		
UniRef90_W9VB45	A G L E P E G A A A D Y L G T L L D C A A Y L C E R E A T L L E G G S E S N D		
UniRef90_V6DNZ7	A G F S P G R D I P D H I V V A A C F E F M R A L C E R E A T L L E G G S E S N D		
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UniRef90_C7P3K6	A G F D V D D E P P D H I G L E L L Q F L G E L V A M D D D G D R D D E P		
UniRef90_C8WPP8	A G V V A R K E P C D S V F E E F F L S Y L Y A K L A D A L N C D D A E A V I A		
UniRef90_S2ZXA0	F G L A V P N Q P D D H I G Y E I A F V S T G C Y E I G S G N A E A K A		
UniRef90_UPI00035CE6AA	Q G L V V D N E P A D H I A I Q L D Y L G N L I I Q D V N		
UniRef90_UPI0002E06293	H Y L E G G M S D T E D H I V A Y V F E V M R Y L I A G D D V A V A		
UniRef90_D0YXW2	L G Y E R N E E P E D H I A A L L E V M A M L V E G G D E H L		
UniRef90_N6ZUJ1	S G L S L Q R E P A D H I A V P L A L M A E L A G A S S T E D I P		
UniRef90_Q65Q18	H Q I E F Q N E P E D H I G L M L M A A Y L A E N K P E L L E E		
UniRef90_W8KNP7	A G I S L Q Q G R E P D S L A M E L I Y A A W Y L E Q D L S N A P A G W		
UniRef90_G9YBP8	H H I E G Q K E P E D H I F G L M L M M A A W L A E S Q P Q A L S		
UniRef90_A0A031LM90	R K L A L Q A P Q E A D H I A S I M A F M S Y L V S E E N K R R S G L D P F		
UniRef90_H3KDJ7	Y G F T T G D D A P B D H I L G R E L L F Y G L M T E R L H A A G E G D R E A V E		
UniRef90_B0TNF9	H G V E L Q K Q P I D H I G L F F T V L D Q T F G R L Q S E V D N Q A L I		

130 140 150 160

UniRef90_S6CDQ5	Y L S E H L L P W A P H Y L G L L E V C A E H P F Y K G L A L L			
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UniRef90_L0F929	V Y L K K K A N A F F M E H L F P W L P K F G A K L S K E R H P F Y K G I G L L			
UniRef90_UPI0003B72A2E	D F L K N H L M K W F P A F K E A L D E A R P L A F Y S F L A S L			
UniRef90_A9IFD0	A N L A R Q S A F F A A H Q P W A G D L C D A I A A Q P A A R F Y A R A A D F			
UniRef90_G0HZ34	R L A R A G A T V L D E H L G D F V P A F A			
UniRef90_R7B1D0	F L R D H L L T W S S H F L E Q L E E A A E Q P F Y E G L A N L			
UniRef90_D0WGL9	E V A G K V V W F I Q A H P Q A W I G N L R K N V D A E R P D G Y Y S A L L E Y			
UniRef90_E1SPK2	A L L A H H L L P W S H R V T D A M A E Q A Q T G L Y R G F G Q L			
UniRef90_A9L1F0	L V F N E L L E V H L L P W G K R C L Q L A S E S S S S D Y Y K G			
UniRef90_T4AZU8	G L A A A Y G R F L S G H A Q A W M P A F A E R L A A E A R H P F Y R A A A A Y			
UniRef90_C3NQG1	E T T Q Q A F F N R H I A P W G K L V S Q L R Q A P H A Q F Y L A V A Q L			
UniRef90_G7W6E7	A Y K T S I C E F F L R K H L S W T G G F C S K A A D Y A D T D F Y R G F L I L			
UniRef90_J7G8X0	Y H E A L T R F V R A H L E L W L P G F I A K I K D C A K T A V I K C L A V L			
UniRef90_B5S105	M A E Q R A F F E R H L A P W V E S A C D A V L Q H P R A A F Y A E V A G L			
UniRef90_M0BVU1	R V A K A E A T V L A D H L V E F V P A L A H D L R Q A T D E D A Y V			
UniRef90_S6CKF4	E Y L R D H L L T W A L H Y L A E A A A D H P F Y Q G L A A L			
UniRef90_D4H4S7	N S F R S Q A D F M E N N V Y P L V Y A V T K A S E K K R N T G F Y M S L L I I			
UniRef90_C8WLC1	F L R L H L L T W S S H F L D Q L I E A A G Q P F Y E G L A R L			
UniRef90_UPI0003B4CD73	N N S Q A Q T N F I N N Q L L S W L P P F V E A T K R V N N S G F Y Q G V C Q L			
UniRef90_E8XUG1	F L T E H L L P W A G R F Y F E L L R Q K A E H P F Y L G V A V L			
UniRef90_D3RXF7	E S L R Y Q L E F L E N E I F V W V F K A L K K L E E R T E F Y R G V A K I			
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UniRef90_A8FXF5	S C I L L L Q Q H L L P W S D R C E L M H H H A E S D F Y R G I A L L			
UniRef90_A8GCF4	L L T K H L L P W A P R Y L E L Q L A N A Q H P F Y Q G L A Q L			
UniRef90_F9RTZ4	L A L Q Q A F F N K H I A A W Y D A F A Q Q E G A K S A D F Y R S V A A L			
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UniRef90_UPI000374395F	E L V A A Q D F V T A H L G R F A P Q V F A A T S A N A I S P T Y K A L P E L			
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UniRef90_D4E8E2	R L L Q A L L S Q Q H L P W A P R F L S L E Q H A V H P F Y L G L A Q L			
UniRef90_F8VF07	V A T Q Y Y F L Q H H L C W A P L F M A S C Q Q R E A E G F Y H E D A Q Y			
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UniRef90_A8GJM1	R E Q Q D L F L N R H L L S W L P L C T K R C Y Q R D F G F Y A A A M G L			
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UniRef90_G7VEC6	V I A Q E A T F F R R H L A V W G K D F F A A V			
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UniRef90_UPI0003B590AD	V I A Q E A T F F R R H L A V W G K D F F A A V			
UniRef90_F9S807	K D I Q G L S D F R A E H F D K W F E P F L D A I A E N T S Q D F W K E A S A A			
UniRef90_F3QJN3	P V L K A F L S T H V A P W Y L A H A R D I Q S N A N S A F Y Q G L G C L			
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UniRef90_E1SMW4	E S F A E Q E A F I R Q H V L I S W V A K F A T K C Q G L D N F G F Y S A V A A L			
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UniRef90_A2SEY9	P F L Q R F F S Q H L T L W V P V F E K L T T N A S T A L M R K A A L E			
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UniRef90_UPI00046AD560	A F A K H I S Q F I A I H A P W M T S W T V D V Q N N A E T A F Y A Q L A E F			
UniRef90_W6EH69	K S F A V Q Q Q F I E Q Q L T W V P F V F E K L T T N A S T A L M R K A A L E			
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E E

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 D T L E K

E

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A
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 UniRef90_UP10004658346
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 UniRef90_M4R878
 UniRef90_V3D1K7
 UniRef90_UP10004756800
 UniRef90_K8X372
 UniRef90_V5BKK5
 UniRef90_C9QKN9
 UniRef90_K8WDY8
 UniRef90_UP10003B3F92B
 UniRef90_UP10004702F7E
 UniRef90_M1K519
 UniRef90_Q5V2J0
 UniRef90_X8M0K0
 UniRef90_UP10003297B9D
 UniRef90_UP100036EB615
 UniRef90_C7NNI8

90 100 110 120

This figure displays a sequence alignment of UniRef90 proteins across 120 positions. The alignment is color-coded to indicate conservation and change. Black indicates conserved positions, while other colors represent semi-conservative or non-conservative changes. The positions highlighted at the top (90, 100, 110, 120) are also color-coded according to their conservation status.

130 140 150 160

UniRef90_B1VG99	A [L] N S F V G Q H L G C F A G E V A E G L R E H A R T V A Y R A L A E L		
UniRef90_F2P822	Q K T F F N R H L A E W C E K F C T D V K A A N S A V F Y T A V G E L		
UniRef90_M0CGB6	R A R L D F L D R H L A V L S E G V A D A L D G E P G T G Y Y G E L A A F		
UniRef90_Q0AB01	E S R E A A Q S F I T R H M R H W V P E F V D A L R Q A S L H P F Y S A S V D L		
UniRef90_E8RIW2	F E D E D L F L R T L F R P W F E R F Q E K S M T E A R H P F Y K		
UniRef90_Q07WV5	E A L I I L Q Q H M L P W S G R C H E L A I E Y A Q T D F Y K A I A L L		
UniRef90_H2FZ28	R L L D Q Q R E L A N T Q L I D W L P A F A E R C G E R D G Q G F Y A A A A H L		
UniRef90_F3Z370	S L L A A A R A F H D E H I A T W A K E Y G E Q L L N T A K T V T Y K T L G R L		
UniRef90_D2C1K1	E L L S E H L L P W S M R Y L D L E R H C C H P F Y Q G V A R L		
UniRef90_E6VR93	L A F A R E V M R P W V G R F A R A L E S G R P H P I Y A A S A		
UniRef90_L7ZM96	A Q I A L F D E F L L P W C G L K V E A H A T T G F Y R T L A L M		
UniRef90_A6D830	E Q A K A F F N K H L S P W Y Q D L C R Q I D C A K S A Q F Y R A V S T L		
UniRef90_J7GA14	E I L F E T Y L L P W V G T F L G K V E A H A T S P F W R T L A P L		
UniRef90_C9P4R1	D M P E Q Q G E F F H R H I S P W F N H L A R Q I E Q A E H A N F Y R A V V S Q V		
UniRef90_B8ILC3	R H F F D R H L K P W A R R L F E D L E A S A A T P F Y R A V V G T L		
UniRef90_G2E457	G Y R R A Q R D F I T R L L G P F V P R L S D A C A E Q G F D P V F A A L G E A		
UniRef90_A1HUC8	Q A V Y I Y I R E H L D W V G D L L C Q D A F S L E I P Q F Y R E V V V Y V		
UniRef90_E6XKW2	Y R L I L T E L L E T H F L P W G N R C L Q L A Y E N S E S D Y Y K G		
UniRef90_X4R102	V V A E I A Q F R A D H L D Q Y A D T L L D A I D A A A T T V T Y R A V A Q L		
UniRef90_J3JFG9	A F G Y E R V F L L D E H L T T W V G E F V D D V L D E T D D D L F R A A A A L V		
UniRef90_F2LUE5	P A F A E F F F D H L F S W V F N F F D D L N K D K K V P F Y R S L S Q I		
UniRef90_R9KUJ7	R L E A F A A E H L S Q W V P G F C A E V E G A S V E P Y Y R G L A V L		
UniRef90_H5WJ3	N L E Q Q R R F F R A H L Q T W V E S M C D V V Q A H P R A V L A R E L A A F		
UniRef90_W0LHZ0	E L L A Q H L P W A P R Y L A L Q H A G H P F Y Q G		
UniRef90_A0A023VBL5	E T L F V D Y L P W C G T F L G K V E A H A T T P F W R T I A P L		
UniRef90_B6EKW3	E A E V L Q Q R F F N R H I Q P W Y V S L C D Q I N N A Q N A D F Y K S V A C L		
UniRef90_X7IEB9	Y Q V T L T L T R Y A S E Y V A V W V P E Y I E K I N I N A Q T A T L K N V A G R		
UniRef90_A8FSU7	A V S S L L E V H L P W V S A F L D A V D E N S V T G Y Y R G F S K L		
UniRef90_B2VJI9	E Y Q A Q I A L F D S Y L L P W V G A F L G K V E A H A T A F Y R T L A A I		
UniRef90_S5ZXFO	Y I L C L Q E K L F R E H I E K W A D G Y S R C L E E N A K L E N Y R G T A R L		
UniRef90_S7V1Z0	E L V A L W G Y F L F D D H L A R W V P L F L S R I T Q A Q D V P A E I R R A A S L		
UniRef90_A8FYP2	A Q L E F I E S Y L L N N W I G N F A A K V T Q C D S G Q F Y S A L T R L		
UniRef90_UP100046AD66C	L A R E V F I N I L N A M V D E F M Q N V Y H E E S V F Y K Q L V I S		
UniRef90_A6GP24	V S F A E Q R A F F Q A H M A S W Y G R M A D D I E A A S N T D F Y K T V G R L		
UniRef90_UP10002E35D4D	T Q Q A A F F N R H V A P W F E T L F T D I K R A D A V F Y T A V A E L		
UniRef90_G7SSD6	V I F L S E H V F T W S T R Y L Q L L A N Q Q T S V F Y R G L A L L		
UniRef90_F0JDD1	F A D Q A A R F A G E V M L P W V G R F R D A L A Q D P D P V F S A G A D L		
UniRef90_F2Z5Z9	R L D F H D R H L G H A A A G V A D R L A D E P G T E I Y G G F G E L		
UniRef90_K9HQZ1	S T C R E Q R T F I D D N L L S W L P A F R D A C D A H D P D G F Y A G V A T L		
UniRef90_W4RI19	Q L E E I E A R F I K P V L K P L L E N A E A K I N H P F F K E F L S F Y A E M		
UniRef90_H1SA17	A N L A E Q Q Q F F S R H L Q S W V E T M C D A A A H P Q A R L Y V H V A G L		
UniRef90_C8WKY1	P A L E S V A D F I E K H P L S W V D A F R A R I A E A A		
UniRef90_A4WA71	Q L L A C H L P W S Q R F L A V F V I E N A R H P F Y V G I A E L		
UniRef90_UP100046A323F	Q Y S P I L Q R L L T D H V Q P W V Q R C L S L A E E H A Q T G Y Y L G L S L L		
UniRef90_C6BBK2	R I E E Q R A F F F Q R H L A P W V D T A C D A V L Q H P R A A L Y A D V A G L		
UniRef90_M0JJ10	D V A R A R L D F H D R H L H V A A G G L A E R A A D T P G S G L Y G E V A D F		
UniRef90_V5ASV6	E T L F A E Y L L P W C G T F F G K V E A H A T T P F W R T L A E L		
UniRef90_U2M224	V Q A Q I T L F N E F L L P W C G R F L G K V E A H A T S G F Y R T L S E I I		
UniRef90_M1P768	N D F S G E E F L K K L F R P W Y K K F H P R V T K G A H H P F Y R V V V Q L		
UniRef90_B8KDD5	Q Q A F F N F K H I A P W F G S L V N Q S E A K S A D F Y L N V A A L		
UniRef90_A8H7X2	E Q H S F I K A N L A N W L G N F V A K A L A R L T Y S W V K S D A E W		
UniRef90_F9H7S0	N R P H L V V E F L R E H F L T W A N H F T L Q L A N A E N T P F Y Q G L A L L		
UniRef90_B1KMC3	R T L A V L M M Q X H M L P W S H R C F E L A I E H A Q T D F Y R G I A H L		
UniRef90_L0MJ74	Q A Q I T L F E D D Y L L P W C G R F L G K V E A H A T S G F Y R		
UniRef90_UP100040A963D	R F V D L A Q R L L Q D H L S P F V T L V A E Q L P Q V Q A H P Y Y L A A S E		
UniRef90_UP10004771727	R L F F E R H L K P W V G R L F D D V I A A N P R S S F Y R A A G D L		
UniRef90_UP100040BE029	K V A H A L N D F L D S H T G P L V R A E S A S P T Y R A A G E L V A A L V K		
UniRef90_B1KRM6	Q L K F I E S Y L N T W L G N F A A K V T Q C D T G T F Y S A L A R L		
UniRef90_T4BZD5	L I S D R I E R F L E G H A L R W M P S F		
UniRef90_E3GCA8	E T L F A D Y L L P W C G T F L G K V E A H A T T P F W R T M A S L		
UniRef90_L0M7D8	E T L F E E Y L L P W V G T F L G K V E A H A T T P F W R T L A L L		
UniRef90_V4IJ77	R L Q H L Q S R L L N E Y L R P T A Q S V G K R V G E V S S A A F Y S A C F T F		
UniRef90_K8PUL8	T D F A A Q A R F F E R H L K P W A A R M F A D L E I S Q S V K F Y R A V V G R V		
UniRef90_UP10002D8FA52	E Q A A F F N R H I A A W C E R L C E D V K R A E P A V F Y A A V A E L		
UniRef90_G8PI51	K A F L Q T H L K T F S Q G F S E D C S S Y D N D G F Y L A C A N L		
UniRef90_S5ST97	R L R V F L D D Y H L T S F S D A V L T G V R E H A R T R I Y Q A L P G L		
UniRef90_A0A0241HE4	N L T R Q R E F F A K H V Q S W V P Q L C E T I A A H P K A R F Y A A I A G F		
UniRef90_K8VYM2	A L K E L L N D H L G S W L P Q F S Q Q L N R T S Y S P F Y N A L T E I L		
UniRef90_P44102	K F L R E H F L T W A Y H F L E Q L S K I E N S D F Y Q A L A L L		
UniRef90_D1NZB3	D E T A A Q T E L L D S Y I L P W Y G S F S L G K V E A H A T T P F Y R I I L A Q I		
UniRef90_UP100037E62A5	T M R Q W L V D R H M S G W V P K F I I R A V		
UniRef90_F8VCK1	E Y I E M L T R Y V N S Y I T E W V P E Y I E K I K I N A Q T A P L R K V A E K		
UniRef90_H5V2D2	H L L E E H V M T W L P M Y V D A L N A A Q P C G F Y R A L G E L		
UniRef90_G2F20	Q R P E L R Q R L W D E H L S R W L A D F A N D L S S Q Q S E L A Y R A L G L Q		
UniRef90_UP10004658346	E T L F D N Y L L P W C G A F L G K V E A H A A S A F W R T F A Q L		
UniRef90_F0JK52	E W L M G E H L P G W V P A F I G A V E A Q		
UniRef90_U3BF01	L Q Q A F F N K H L S P W T H K L T G Q M K E A Q S A D F Y R A V V A E L		
UniRef90_M4R878	K P F L R D H F L T W A Y R F F E L F N A E N V P F Y R G L G M		
UniRef90_V3D1K7	Q L L A W H L L P W S G R F L S V F V E H A A H P F Y Q A L P G L		
UniRef90_UP10004756800	N Q I A A F V E Q H L G R F A D K V M A G V D E N A R T A I Y R A L P G L		
UniRef90_K8X372	V E L L E Q H L L P W A G R Y L T L V Q Q Q T E H D F Y P Q L A R I		
UniRef90_V5BKK5	K R I A A L I A Q H L L P W A P R Y L E L L Q Q H A G H P F Y Q G V A Q L		
UniRef90_C9QKN9	Q Q V F F N K H L G T W F E S L T K Q V K N A K A N F Y R A V A E L		
UniRef90_K8WDY8	A W H L P W S A H F L E V L I D S A N S D F Y R A L A I L		
UniRef90_UP10003B3F92B	R S T D V Q Q Q F F S Q H M L K W L G R F F D D L S A A D S A S F Y Q A V A R F		
UniRef90_UP10004702F7E	N L G S Q Q R F F N A H L R G W D S G M L E Q V A G H P A A D F Y R A L A L F		
UniRef90_M1K519	Q L L A W H L F P W S S R F L D V F I E N A G H P F Y R A L G E L		
UniRef90_Q5V2J0	Y E R V F I E Q H L S E W V V E F A D E M R D E A D D G L F		
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UniRef90_UP10003297B9D	T L F A D Y L L P W C G A F L G K V E A H A T S A F W R T M A P L		
UniRef90_UP100036EB615	Y S I G E Q K D F F N K H L A P W A D L L M R D I E S S K I A V F Y		
UniRef90_C7NNI8	R D L L D R H L T V F T S S L R E E L V E L D T A G V Y T E L A T L		

UniRef90_B1VG99 S E G V L | A
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 UniRef90_M0CGB6 C R R L I A A D
 UniRef90_Q0AB01 L D A L M A
 UniRef90_E8RIW2 S Q D F
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 UniRef90_F3Z370 T H I T L
 UniRef90_D2C1K1 T R D A I
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 UniRef90_L7ZM96 C K A F L S L E
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 UniRef90_A1HUC8 G T T F L T K E
 UniRef90_H5WJ13 T G A F V R A
 UniRef90_W0LHZ0 T A A F
 UniRef90_A0A023VBL5 T R D A I
 UniRef90_B6EKW3 A E A F F T V E
 UniRef90_X7IEB9 L S S W L D E
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 UniRef90_B2VJI9 S R E A I
 UniRef90_S5ZXF0 L R E F V A S E
 UniRef90_S7V1Z0 L A A W L S A E
 UniRef90_A8FYP2 T Q S W I Q A E
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 UniRef90_G7SSD6 T Q A T L
 UniRef90_F0JDD1 I L A L L
 UniRef90_F2Z5Z9 L E A F V R A D
 UniRef90_K9HQZ1 L V I A Y L E R D
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 UniRef90_UP100046A323F A S E Y
 UniRef90_C6BBK2 A K A F F D V E
 UniRef90_M0JJ10 L D R F V A A D
 UniRef90_V5ASV6 S R D A I A A
 UniRef90_U2M224 A R H A A A
 UniRef90_M1P768 I D F F T K E E
 UniRef90_B8KDD5 L N A F L S L E
 UniRef90_A8H7X2 L E S E L
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 UniRef90_UP10004771727
 UniRef90_UP100040BE029
 UniRef90_B1KRM6 T Q S W V T S D
 UniRef90_T4BZD5 T R D A I A A
 UniRef90_E3GCA8 T R E A I
 UniRef90_L0M7D8 M T D Y L D I E
 UniRef90_V4IJ77 G R I F M E L E
 UniRef90_K8PUL8 A Q R F L T I E
 UniRef90_UP10002D8FA52 L R A L I E R D
 UniRef90_G8PI51 T D G F I A
 UniRef90_S5ST97 T Q A F I
 UniRef90_A0A024IHE4
 UniRef90_K8VYM2 T
 UniRef90_P44102 T R D A V I A
 UniRef90_D1NZB3 L S Y W L D E
 UniRef90_UP100037E62A5 I L K T L
 UniRef90_F8VCK1 L L I G
 UniRef90_H5V2D2 T R D A I
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 UniRef90_U3BF01 L G E A L L K D
 UniRef90_M4R878 A Q A T L A Q
 UniRef90_V3D1K7 T R G V L A A
 UniRef90_UP10004756800 UniRef90_K8X372 A E A Y L
 UniRef90_V5BKK5
 UniRef90_C9QKN9 A Q A F M T L E
 UniRef90_K8WDY8 A K E T L D G
 UniRef90_UP10003B3F92B G A A F
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 UniRef90_X8M0K0 T Q T Y L V
 UniRef90_UP10003297B9D T R D A L A A
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 UniRef90_C7NNI8 L E R V V A A D

UniRef90_U2MCU5
UniRef90_D5WZ18
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UniRef90_W9A670
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UniRef90_Z9J9J2
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UniRef90_B5ESJ6
UniRef90_R5FY28
UniRef90_V6MG12
UniRef90_I0QXF4

1 10 20 30 40

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A V K Q P E L E L A A D F S E

L E Q D E L L A R D M Q P V A A D Y N A

N E G R D P A E V E N E

Y M E R N S N L N R F C D I L E A A Y V R

D Y G Q

V L G S L F Y R Q P Q D P L L V P L F T L I R E G K L A

R S T I Y Q L L S S L F A Q L S S E A A F K A D V D I L V A E L A K

E P S E K L S N

A H L F G D M L D G S T L S E L Q E E Y V

S S V F M F L S A L F R Y P N E D R E I T P T F K D F L E E Y S D

E

L E Q S E L L T R L Q Q E Y Q P E L L N

F N R

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L L L D F N Q

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D L S A M Q A D Y I A

E A R P D A R L E L A A D F

R E V E R E Y F D

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

A R A D V Y G L L A T L L Y A P P S Q A L L D T I G S A P A E G T G V

L I A K G L K Q N I S D Y Q A

S D P Q A L A A D Y N A

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

P Q D A L D E Q Y Q R

D E L K E

Q A L A A E F N R

E D D K T

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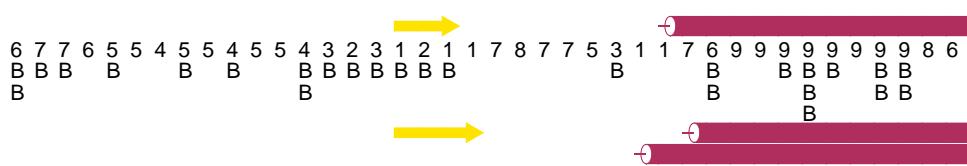
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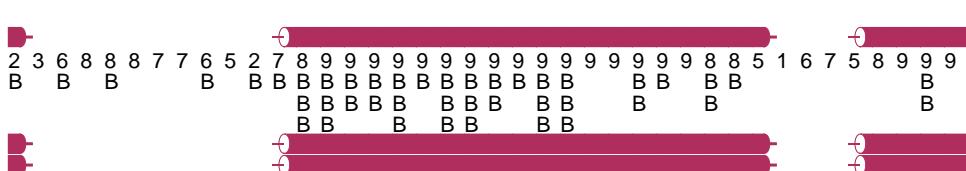
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lupas_21
 lupas_14
 lupas_28
 jnet
 conf
 sol25
 sol5
 sol0
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Sequence alignment showing conservation across 160 positions for UniRef90 entries UPI0003AA5691, UPI00047DBF61, D2TQS1, A8T174, A9D5Y7, T0Y6T8, and C6CZM9. The alignment highlights conserved motifs with red and blue boxes.

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
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lupas_21
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