

1 10 20 30 40

QUERY	D K [V] Y Q M K S K P R G Y C L I N N H N F A K A R E K V P K [ ] H S [ ] R D R N G
UniRef90_UPI000333BD8C	D K A Y Q M K S K P R G Y C L F N N Y D F S E A R K N I P K F D K [L] K D R K G
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UniRef90_UPI0003598F0B	N K [V] Y Q M K N K P R G Y C L F N N N D F S K A R K N V P K L [H] K M K D R E G G
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UniRef90_F7A3C5	D F Y K M M N S N P R G Y C L I N N Y N F Q Q A R A E V P K L K K M K N R D G
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UniRef90_S9XPX6	E V Y R M E S K P R G Y C L F N N Y D F S V A R K D V P K L H S I K N R N G G
UniRef90_K7FHF3	D M Y K M M N S Q P R G I C L L N N H D F S K A R S E V P K Q Q M K D R N G G
UniRef90_H3A2R2	D E V Y K M E S R P C P G Y C V I N N F D F K K S R E S T G G K M L K D R P
UniRef90_O89110	D K V Y Q M K M N K P R G Y C L I N N H D F S K A R E D I T Q L R K M K D R K G
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UniRef90_G3VCE6	D K A Y K M M N S R P R G Y C L I N N N D F Q R A R E E K P E Y K K L N D R K G
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UniRef90_E2RB07	N V Y R M D R K H R G H C V V N N H T F A K M P D R P G
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UniRef90_C3Y4H7	Y K M S S F P R G Y A L I L N N T E F N K L P N R R G
UniRef90_C3Y4H7	Y K M S S F P R G Y A L I L N N T E F N K L P N R R G
UniRef90_L7M4S9	D E E Y K M T H P K R G K C V F N N R H F A S H T K L S E R R G
UniRef90_UPI00042BD0B6	Y R M D N N P H G Y C V L N N S D F K N P D E T R T G
UniRef90_W5KEM1	Y R M D Y P N L G K C I I N N R N F D R S T G M S D R A G
UniRef90_H0X3B7	V Y S M N R K Y R G H C V V N N H K F T D R P G T D N D A L K D R P G
UniRef90_UPI0003152CB	Y N M N F E K M G K C V I I N N K N F N K S T C M D T R T G
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UniRef90_UPI00046B5116	D V Y S M M N G K H R G H C V V N N H S F T S M N K R E G G
UniRef90_UPI0003F080E5	V Y R M D R K F R G H C V V N N Y T F S S L L P R E G G
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UniRef90_W8BN88	Y N M R H K N R G L A L F N H E N F D S L L P R E R G
UniRef90_E0VZM6	D E Y N M Y H S R R G R A I I I N N D I F D N N L V P T L K S R A G
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UniRef90_H0UXS5	E E Y R M D H K R G V A L F N Q E H F F W H L R E V P T L K S R S G
UniRef90_D3TL84	E Y M R H K N R G L A L F N H E H F G L S Q R R R G
UniRef90_H9G5F8	C Y K M D G N R G S C L F N N V H F E G L I K L N N R G G
UniRef90_K1QKH0	Y K M D Y P N R G K A I I I N N K T F N P K T K F S G L T D R P G
UniRef90_F6R0A4	D L V Y S L K S E P C G H C V I I I N N V D F S L G S G L S T R T G
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UniRef90_F8RBY6	T Y K M M N A N P R G L C V I I I N N S Q F W A E D E G A P A L L N P R T G
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UniRef90_G3W5D0	D S Y K M D Y P E M G I C V I I I N N K N F H P N T G M S F R S G
UniRef90_I6YDR2	Y Q M N Y A K V G K C I I I N N K N F H E S T G M C K R N G G
UniRef90_U3J6D5	D Y S Y R M D Y P E M G E C V I I I N N K N F H K D T G L S S R S G
UniRef90_I1GD28	D R Y P M N S V P R G Y C V I I I N N E K F A T L R E R A G
UniRef90_UPI000386FA4E	E S Y K M K M N P H G Y C V I I I N N Y I F K N P S E A R E G G
UniRef90_UPI0001CBB5BE	F Y N M T H T R R G K V V I I I N N K N F E K K T S L L G L P E R
UniRef90_UPI000316D3F	E E T Y K M K H K R R G L A L F N H E Q F D S G M N I R T G

QUERY	50	60	70	80
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UniRef90_UPI00033380E8	T D A D A E A L K V F T K L H F E V E E Y K D L T A E E I R H T V K T Y Q M M			
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UniRef90_S9XPX6	T D L D A E A L K N T F S S L H F E I V R Y R D N T A K K I H E V M K S Y Q K M			
UniRef90_K7FHF3	T N A D A G T L T K V F T K L H F E I K E H R D L T A A D I R H I T H M Y R N K			
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UniRef90_UPI00039457E6	T E V D Q K C Q S V F Q W L G F E V I E N H H D C D A N K M L S V F R T L S K R			
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UniRef90_W5MXS7	T D I D A A S L T S T F E T L D F E V I R R D D L A A S E I L A F M E E Y G R K			
UniRef90_C3VPW4	T Q L D C D H L Q L V F F E S L Q F K V E I L N L H D E L A R G L L S A A G S			
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UniRef90_D6BU26	T E K D A E K L D Y I V W R K L D F E V V R S Y N D V D S T R M T Q I M V E T A F E			
UniRef90_H2ZXE9	T D T D T A L E N V F T W L G F E V K I H R D K S A A E I I R D I M K E F Q G K			
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UniRef90_H9G5F8	S Q K D A E E L E S V F R W L G L D V I K Y N D T T S I E M E N H L K Q W Q F E			
UniRef90_K1QKH0	T D K D A T A L D N R L S E L G F D V D L K N L T A D K I K A T L Q K A A E L			
UniRef90_F6R0A4	S D V D C E K M K R R F F R L L H F E V A V E V E R N L T A E E M V K A L N K L A K K			
UniRef90_E3TGJ3	T D V D A A K I L Q V F Q K L G F K T M I Q N D Q S V S Q M K Q L L K S V S Q E			
UniRef90_UPI0003F15933	T D K D S E A L T K C F R S L L G F D V T V Y N D D C C C A R M E E L L E Q A S K E			
UniRef90_W5KK72	T D T D E K R L L K V F K W L G F T T E V V R D C S R E R M L K A L Q D L K S R			
UniRef90_G8BLB6	T E Q D E K A L H N V F S R W L G F K V E V C S D L T E K T M L G A V E E L G G R			
UniRef90_UPI00046BDD19	T D R D A E S L F K T F R N L G F D V V V Y N N R S C A E M H N L L K E A S E E			
UniRef90_F6QK70	S N I D C E K M H N R F Q A L H F A V E V E R N L L S A K G M G A A L Q Q L A E R			
UniRef90_UPI00032ADD6F	T N A D R D R L T H R F K E L G F E V K C F N N L K A E E L L L K I H E A S T C			
UniRef90_F8RBY6	S D I D A D K L T E T F S R L H F K I E R Y N D L P S N R M S E L L W T I G S E			
UniRef90_G31954	S S V D C E K L Q F R F R R W L H F M V E V Q N D L T A K K M V A A L M E M A G R			
UniRef90_G5BRS8	S N I D C E V K M Q H F R S R L H F Q V E V R G D L T A K E M V W T L V E L A R R			
UniRef90_G3W5D0	T D V D A A H L R D T F K S L K Y E V R N K N D L T C K E I E L L Y V S K E E			
UniRef90_I6YDR2	T D Q D A R D L Q C C F R T L G F E V S V K N D R T C E E M E Q L L Q K I A E E			
UniRef90_U3J6D5	T D V D A A S V R E V F M K L G Y K T K L S N D L S C R D I K V L K N V S E E			
UniRef90_I1GD28	UniRef90_F6QK70	S K W D A D S L E E L F F R E L G F H V E R Y N D L D S S Q R I R K L M K S V Q E Q		
UniRef90_UPI000386FA4E	T V K D G E A V K R V F K W L G F E T V E H M D L L S V R K M L A V V M K L V S R D			
UniRef90_UPI0001CBB5BE	T D V D A A S L V N S F Q R L G F E T D Q H D D L S V R K M L A V V M K L V S R D			
UniRef90_UPI000316D3F	T C V D R D N L C R R L S E L N F K V K C Y N N L K A E E V L R K M Y N A S T T			

QUERY	90	100	110	120
UniRef90_UPI000333BD8C	D H S N M D C F I C C I L S H G D K G I I Y G T D G Q E A P I Y E L T S Q F T T G			
UniRef90_L5MDQ2	D H S K R D C F I C C I V L S H G G R G V I Y G T D G Q E A P I Y E L T S Y F T T G			
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UniRef90_UPI00033380E8	D H S S K D C F I C C I V C L S H G D K G I I Y G I D G Q E A P I Y E L T S Y F T T G			
UniRef90_UPI0003F11E83	D H S N K D C F I C C I V C L S H G D K G I I Y G T D G Q E A P I Y E L T S Y F T T G			
UniRef90_UPI0003598F0B	D H K N K D C F I C C I V L S H G D K G I V Y G T D G Q E A P I Y E L T S Y F T T G			
UniRef90_U3J5E3	D H N D K D C F I C C I V L S H G K K G I V Y G V D G Q E V R I Y E L T S F T T G			
UniRef90_UPI0003F0CEC4	D H N E R D C F I C C I V L S H G D R G I V Y G T D G Q K A S S R S L T S Y F T T G			
UniRef90_F7A3C5	D H S A Q D C F I V C C I L S H G D R G V V Y G S D G K E V S I S E L T S Y F T T G			
UniRef90_UPI000447D46	D H S N M D C F I C C I L S H G D K G I V Y G S D G Q E A S S E L T S Y F T T G			
UniRef90_S9XPX6	D H T D K D C F I C C I L S H G D K G I V F G T D G Q E I P I S D I T S C F T T G			
UniRef90_K7HFH3	D H R A H D C F I C C I L S H G D K G I V Y G T D G Q E I P I S D I T S C F T T G			
UniRef90_H3A2R2	D H R E R D C F I V F C I L T H G E E K G T V Y G T D G Q S V P I S D I T S C F T T G			
UniRef90_O89110	D H K N K D C F I C C I L S H G D K G I V Y G T D G K E A S I Y D L T S Y F T T G			
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UniRef90_W4XBY0	N H S Q F D C F I F A I L T H G E E G S V C G T D G C L V K I E D I V G P F C S			
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UniRef90_C3YEQ1	D H Q N H D C F A A C I L S H G S Q G Q V Y G A D S V P V S I R D L A E E V K S S			
UniRef90_UPI000265491C	N H S Q F D C F I F T I L T H G E E G K V Y G T D G C L V R I Q D I I G R F S S			
UniRef90_M7AX52	D H R E R D C F V V C C I L S H G E S G L V Y G T D E Q E V P I R K I M S Y F T A S			
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UniRef90_C3VPW4	D H S M Y D C F V V C C I L S H G A L G T V Y G C D G K T V R V Y D L M S Y F K G			
UniRef90_V9KL10	M Q R D R D C F V V C C I L S H G E K G I V F G T C G N K L R I R T L T L F S A G			
UniRef90_D6BU26	D H S K Y D C L V V S I L T H G V L G H V Y G A D G R I V R I S Q L T S C F S G			
UniRef90_H2ZXE9	D H K N N D C F A C C I L S H G E S G T I L G T D G C C I P P R E I T S H F T A			
UniRef90_E2RB07	D H V D G D C F V F C I V L T H G K F G A V Y S S D G T L V P R E I M S H F T A			
UniRef90_H3BZ00	S Q Q R W D C L V V C C I L S H G L E G C V H G V D G D Q V S I K K L I E P F L G			
UniRef90_G3NKD2	N H G Q A D C L V V C C I L S H G D E G C V Y G V D G H T V A I K E L K E P F N G			
UniRef90_F7IFK8	E H V N G D C F V F C I L T H G K F G A V Y S S D E A L I P I R E I M S H F T A G			
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UniRef90_H0VV85	G H V D G D C F V V C C I L T H G K F G A V Y A S D W V F I R L Q E I T A H F T A G			
UniRef90_U3JNE7	D H R N M D C F V C F I L F S H G E K Y K I V K G V D D E C I A L Q K V V S Y F N G			
UniRef90_T1DNK6	D H S T L D C C L V V I L S H G C E S Y H F G T D G Q R I A L Q K V V S Y F N G			
UniRef90_M4A125	D H S D S S C F A C I L L S H G E E E G M I Y G T D A A M P I K T I T S L F R G			
UniRef90_B4KRY9	D H T D N D C I V I A V M S H G E H G H L Y A K D V Q Y R L D S I W T Y F T A			
UniRef90_UPI000203596D	D H K D R D C F V V C C I L S H G E S G A V Y G K D G K L V S I R T I M T Y F T A			
UniRef90_UPI0003339E22	D H K D R D C F V V C C I L S H G K S G A V Y S S D G A L I P I R E I I S H F T A			
UniRef90_UPI00034F7748	P H A D G D C F V F C I L T H G K L G A V Y S S D K A L I P I R E I T S H F T A			
UniRef90_M7BSM2	D H S N Q S S F V C C V L L S H G E D G L I Y G T D G P L E K I L T G L F R G G			
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UniRef90_B9VQC0	N H Q T F D C F I L A I L S H G V E G A I Y G V D E R I V K I E H I T T Y F E G			
UniRef90_UPI00026520B7	N H S S Y D C F I L A I L S H G N K G D I Y G T D G D H W T L E Y I M D Q F G A G			
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UniRef90_W5MVX3	S H Q G K D C F V C C V L L S H G E Q Q C V V G T D G E K V E K I V K D I V S C F D G			
UniRef90_R0K3T5	D H S A L D C C L V V I L S H G C Q T S H Y G T D G I S I P E K I V K H F D G			
UniRef90_L9KIX3	P G H V D D C F V F C I L T H G K F G A V Y S S D G V L I P I R K I M A H F T A			
UniRef90_C3Y4H7	E H G K M D S C I V V L L M S N G T K D T I F G T D G E L V H L D D I L T M F D N			
UniRef90_C3Y4H7	E H G K M D S C I V V L L M S N G T K D T I F G T D G E L V H L D D I L T M F D N			
UniRef90_L7M4S9	N Y K D D D C F V C C I L T H G D R D V L Y A T D G K F P V D S I V M D P F R G			
UniRef90_UPI00042BD0B6	D H S N M D C F I C C I L L S H G E E K G K V Y G I D W N S A A V V K D L V S C F T G			
UniRef90_W5KEM1	D H S K S A M F V C V M L T H G D E G T I F G T D G C M E L K E L T R R L F R G			
UniRef90_H0X3B7	D H D D R D C F V F C V L L T H G D L G A V Y S S D G V L I P I R K I T S H F T A			
UniRef90_UPI00031512CB	D H R N S A C F A C I F L S H G E E N I Y G T D D K I P I K E L T S C F R G			
UniRef90_UPI0003EAC5C7	D H S S Y D C C V V V I L S H G S E A S H C R F D G P I V A V Q N I T N Y L N G			
UniRef90_UPI000203B952	D H S S M D C C L V V I L S H G C Q T S H F G T D G R R L A V E K M V S L F D G			
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UniRef90_UPI00046B5116	D H A G A D C F V F C V I L T H G N L G T V Y S T D E A P I P I R E I M S Y F T A			
UniRef90_UPI0003F080E5	D H A D V D C F V F C I L T H G D Y G V V Y S T D E A P T S I K E I T S Y F T A			
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UniRef90_F6R1R1	D H S N A D C F L C V F L L S H G E D R H Y Y S Y D S L I Q T M T D M F R G			
UniRef90_H0UXS5	S H A D A D C F V C V F L L T H G E E D D H Y Y A F D A K I Q T M T D M F R G			
UniRef90_D3TL84	D H T D D D C I L V A V I L S H G E L G Y I Y A K D T Q Y K L D N I W T Y F T A			
UniRef90_H9G5F8	D H T D D D C I L V A V I L S H G E E E N V I Y G T D G T L I Q T M T D M F R G			
UniRef90_K1QKH0	N W K D M D C L V V C C I L S H G E S G K I Y G T D G N L I P I R T I M S Y F T A			
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UniRef90_UPI0003F15933	D H S K S A M F V C V I L S H G D E G V I Y G T D D S I E L K E L T V H V R G			
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UniRef90_G8BLB6	D H G E A D C V V C C V L L S H G E E E G V G V Y G V D G G K V K L K E L M E P L D G			
UniRef90_UPI00046BDD19	D H L Q D A D L V V C V L L S H G E E K G C V L G T D G G E V P I R S L T Q P F T S			
UniRef90_F6QK70	D H K N A A C F A C V L L S H G E E N S I Y G T D G K M D I V K D L T G H F R G			
UniRef90_UPI00032ADD6F	D H S A L D C C V V V I L S H G C Q A S H I G T D G A S I S V E R I V N I F S G			
UniRef90_F8RBY6	S H A D A D C F V C V F L L S H G N T D K V Y G S D C K L V E V N Q L K A P F R P			
UniRef90_G3I954	R V K E H D C F V C C V L L S H G N T D K V Y G S D C K L V E V N Q L K A P F R P			
UniRef90_G3I954	D H R A L D C F V V G P G P H D L C W L P R L D H A Y I L D A D P C G Y C N V			
UniRef90_G5BRS8	D H H A L D C C V V V I L S H G C Q A S H Y G T D G C P V S V E K I V N I F S G			
UniRef90_G3W5D0	D H S Q R S S F V C V I L S H G E E G I I F G T D G D S V E L K R L T Y F F K G			
UniRef90_I6YDR2	D H S D Y A C F A C I L S H G E E G L I Y G T D G P V P I K T M T L F R G			
UniRef90_U3J6D5	D H S K R S S F V C V I L S H G E E E G L I Y G T D G P L E K A V T S L F R G			
UniRef90_I1GD28	D H S R L S C L V V V I L S H G V N G Q V Y G T D G V L I K V D D L T D Y F N G			
UniRef90_UPI000386FA4E	D H S N M D C F V C F I F S H G E K D K I K G V D H Q F V I N R D L V S C F S G			
UniRef90_UPI0001CBB5BE	D F S N D C D O V A F V I L S H G D D G I V Y G T D G K V L E E I T K F F Q A			
UniRef90_UPI0003316D3F	S H I D A D C F L C V F L L T H G E E G S H I Y A Y D A M V E I S M L T D F F F K G			

130                  140                  150

QUERY	L K C P S L A G K P K V F F I Q A C Q Q D N Y Q K G I P V E T D
UniRef90_UPI000333BD8C	S K C P S L A G K P K V F F I Q A C Q G E N Y Q K A I P V E T D
UniRef90_L5MDQ2	L K C P S L A G K P K I F F I Q A C Q G D N Y Q K G I A V E T D
UniRef90_UPI0003C2B626	L K C P S L A G K P K I F F I Q A C Q G D A F Q R G I T I E T D
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UniRef90_UPI0003F11E83	S K C Q S L A G K P K I F F I Q A C Q G D N Y Q K G I A V E T D
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UniRef90_U3J5E3	Q N C H S L A G K P K V F F I V Q A C Q G D A R Q K G V T I E T D
UniRef90_UPI0003F0CEC4	S E C C P S L A G K P K L F F I Q A C Q G D N Y Q K G I A I E T D
UniRef90_F7A3C5	S R C P T L A G K P K L F F I Q A C Q G D A Y H L A V A L E T D
UniRef90_UPI0004447D46	L N C P S L V D K P K I F F I Q A C Q G D N Y Q R G I S I D T D
UniRef90_S9XPX6	S K C P S L L G K P K I F F I Q A C Q G D K Y Q K G I A I E T D
UniRef90_K7FHF3	T N C P S L A G K P K V F F I Q A C Q G D T F Q R G I H I E T D
UniRef90_H3A2R2	K N C P S L V G K P K V F F I Q A C R G R R E Q E G V P V D T D
UniRef90_O89110	S K C P S L S G K P K I F F I Q A C Q G S N F Q K G V P D E A
UniRef90_UPI0003317F82	E N C P S L R N G K P K I F F I Q A C Q G E K Y Q K G V A I E S D
UniRef90_W4XBY0	D R C P T L N G K P K L F F I L Q A C R G K K L D D G V E
UniRef90_UPI0003F0E1FB	A N C P S L R R K P K L F F I Q A C R G E S F D R G Y
UniRef90_UPI00039457E6	L N C P S L V G K P K L F F I Q A C Q G N R E Q Q A V C I E S D
UniRef90_G3VCE6	S N C V S L A G K P K V F F I Q A C Q G R T M Q G G L T L Y T D
UniRef90_C3YEQ1	T K C P S L G G K P K L F F I Q A C Q G R S E Q R S V
UniRef90_UPI000265491C	D L C P T L N G K P K L F F I V Q A C R G E R H D E G V Q
UniRef90_M7AX52	S Q C L Q L A E K P K L F F I Q A C Q G K E I Q Q A V Y I E S D
UniRef90_W5MXS7	S N C V S L I R K P K I F F I Q A C Q G Q N K Q P G V S I V S D
UniRef90_C3VPW4	A S C P S L R G K P K I F F I V Q A C Q G T E K Q Q G F P I E T D
UniRef90_V9KL10	S N C P L L R Q K P K I F F I Q A C Q G S R K Q D G V L V Q T D
UniRef90_D6BU26	R R C P S L A G K P K I F F I Q A C Q G R E E K Q E G H V I E T D
UniRef90_H2ZXE9	Q K C Q V L A G K P K I F F I Q A C Q G K K Y Q N P V F L E S D
UniRef90_E2RB07	Q K C P G L A H K P K I F F I Q A C Q G K G I Q T P V S I E A D
UniRef90_H3BZ00	T N C P A M A G K P K I F F I Q A C Q G K K Q Q G V V H L E S D
UniRef90_G3NKD2	L N C A S L A G K P K I F F I Q A C Q G T G E Q K A V N V V P D
UniRef90_F7IFK8	L Q C P G L A K K P K I F F I Q A C Q G D E I Q P S V S I E A D
UniRef90_V3ZD60	D N C P D L A D K P K I F F I Q A C R G S M V D N G V E I Y S D
UniRef90_UPI0003F14B96	L Q C P G L A L K P K I F F I Q A C Q G E E I Q L S V S I E A D
UniRef90_UPI00045DC719	Q Q C P G L A L K P K I F F I Q A C Q G E E T H P S I S I E A D
UniRef90_H0VV85	Q R C R G L A H K P K I F F I Q A C Q G K E E H P S V L V E A D
UniRef90_U3JNE7	T N C P S L A G K P K V F I I Q A C Q G S G H H P S V I V E A D
UniRef90_T1DNK6	S H C P S L R R K P K I F F I Q A C C G G E E K D P G F K M E S D
UniRef90_M4A125	D R C K S S L V G K P K I F F I Q A C R G S E F D E G V Q T D S
UniRef90_B4KRY9	N N C P T L A G K P K I F F I Q A C Q G D K L D P G T E T E T D
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S	N	I	D	C	E	K	L	Q	R	R	F	G	L	L	H	F	M	V	E	V	K	C	D	L	T	A	K	Q	M	I	D	R	A	L	M	Q	L	A	K	Q																																						
S	C	K	D	A	E	Q	L	E	R	V	F	T	W	L	G	L	D	V	R	T	Y	T	D	L	T	S	G	D	I	K	N	L	M	T	W	Q	H	V	Q																																							
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90                    100                    110                    120

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UniRef90_S4RJU5	N H K N H D V F V C V C I L T H G E I N C V F G S D G S C S L I T E V T S Y F N G
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UniRef90_U3JVA9	D H S N A D C F V C V F L S H G V V D D H I Y A F D D K I K L Q T I T D M F R G
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UniRef90_Q7Q1E0	D H S D S D C F L V A I L L T H G E D G G I V Y A Y D Q P Y E L L S L W S F F T A
UniRef90_B4NNA3	D H T D N D C I A I A I L S H G E H G Y I Y A K D V Q Y K L D A I W H Y F T A
UniRef90_Q56VC4	D H S E R D C F V C C I L T H G E S G T V L G S D D E E V S I I R E I M S Y F T P
UniRef90_I3KLR4	D H S D A D C F L L A F L S H G E D N H V Y C H D G K I S I Q E I T S M F K G
UniRef90_B0EVJ0	N H S E C D A L V V V V F M S H G E K D V L W G R D G T F N P D Y L F E N F K A
UniRef90_H3ACL5	D H S K Y A C F V C V L L S H G E E G L I Y G R D G C T D I K D L T I L F R G
UniRef90_I1VB13	D H S E H D C V L V A I M S H G D D G I L Y A K D Q Y K P E K K I W S H F T S
UniRef90_UPI0003C86AF8	D H S A L D C C V V V I L S H G C Q A S H Y G T D G C P V S V E R I V N I F N G
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UniRef90_UPI00046D89CE	D H S Q H D C L V V V V V L S H G D L G E L Y A H D R K Y N A E S I W S S F T S
UniRef90_W5UG67	N H A D A D C F V V C V F L S H G E N G H V Y A Q D D K I E V Q D M T S L F R G
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UniRef90_G3FGP3	D H R Q M D C C F V V L L M S H G D E G V I Y G T D D K T V K L D D I F A M F D D
UniRef90_J3JV3	D H S N N D C L V V T I L S H G G R F G T I Y A T D R P Y N S N D V I H K F S G
UniRef90_E2AAJ3	D H S E H D C L I A V L L S H G E L G Q L Y A H D T S Y K A D S L W H H F T A
UniRef90_K9LCP7	D H G D S A S F I C V V L L S H G D D G V F F G T D G P L E L R S L T S L F R G
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UniRef90_C3ZBY2	D H S N Y D C F V C C I L M S H G T G G M V Y S S D D V G L I D I S Q L M K P V N A
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UniRef90_E9HAH5	D H S E C D C V M V V L L S H G E N G K I Y T Y D S V Y H S D E L W F P F T S
UniRef90_A7S9L1	D Y S Q Y D C L A I F L M S H G K E D F I Y T S D G G E L K I N E I R K R F S N
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UniRef90_Q9IB65	D H K D S A C F A C I F L S H G E E G L Y I Y G T D G A M P I K V L T T L F R G
UniRef90_B4LU31	D H S D C D C I I I A I L S H G K L G Y I Y A K D K D Y P I E S I L N P F T A
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UniRef90_F1R2P5	D H V D A D C F V C V F L S H G E N G H V Y A N D G Q I E I P E I T D L F K G
UniRef90_H2YCE2	D H S D H C F A C A I L T H G G R D D V L Y A A D D E M K L N H F T E P F Q A
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130                  140                  150

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UniRef90_C3ZY29	L H C K T L V G K P K L F F I Q A C R G D K L D R G I E Q T D
UniRef90_E7EXV8	F R C S S L Y Q K P K L F F I Q A C R G T Q N Q R A V F P Q T
UniRef90_UPI0003C2AEE3	S Q C P Q L A E K P K L F F I Q A C Q G K Q I Q R A V Y L E A D
UniRef90_S4RJU5	S A C K S L L G K P K L F F I Q A C Q G H E K Q
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UniRef90_Q8ITP2	D R C T S L K G K P K L F F I Q A C R G A K H E P V E
UniRef90_V9L658	D K C S S L V G K P K I F V I Q A C R G D K H D E P V K
UniRef90_U3JVA9	D K C Q S L V G K P K I F I I Q A C R G D R H D D A V
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UniRef90_J9JS12	D K C H T L A G K P K I F F V Q A C R G E R L D P G I T L
UniRef90_Q8ITP3	D R C P G L V G K P K L F F F Q A C R G N E F D H G V
UniRef90_H2TIG4	S Q A P T L A G K P K L F F I Q A C Q G E K L Q K G Y
UniRef90_Q6E5N8	N S C P S L I N K P K I V F I Q A C R G K E Y H L P V E V Q P D
UniRef90_M3XIX0	D M C K S L I G K P K I F F F I Q A C R G S E F D E G I Q T D S
UniRef90_R7TE95	Q N A H S L R G K P K I F F F I N A C Q G K E K Q L A V D L E T D
UniRef90_UPI0003F0F1C5	D R C P S L V G K P K L F F F I Q S C R G H K S D D G V P F E S D
UniRef90_A1L2P4	D R C K T L V G K P K I F F F I Q A C R G T E L D S G I E T D S S
UniRef90_UPI0003316B5A	A V C P S L G G K P K L F F F Q A C G G E Q K D Y G F H V D S S
UniRef90_W5UI93	D R C I S L V G K P K I F F F I Q A C R G T E L D P G I D T D S
UniRef90_Q7Q1E0	D N C P S L A G R P K I F V V Q A C R G N Q L D H G V K V Q K D
UniRef90_B4NNA3	H I C P T L A G K P K I F F I Q A C Q G D R L D A G V M L E
UniRef90_Q56VC4	T S C L S L A L K P K I F F I Q A C Q G R Y T H P S S K V E A D
UniRef90_I3KLR4	D K C Q N L V G K P K I F I I Q A C R G K E F D V S V T V
UniRef90_B0EVJ0	D Q C P T L A G K P K L F F I Q A C R G E K L D A G T T L K Q D
UniRef90_H3ACL5	D R C K T L V G K P K I F F F I Q A C R G S E F D S G V E T D S
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UniRef90_UPI0003C86AF8	T G C P S L R G K P K L F F I Q A C G G E Q K D H G F E V A S
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 V Y K M D Y P C R G K A V I V N Q T R F D P  
 Q S Y K M T S R P R G G L A L V I S N V D F  
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UniRef90_B5DZQ0	T N V D A E E L S K T F K K L G F D V T V H D C K W Q K I R E N V E K A A A L			
UniRef90UPI0004447877	T N K D A E S L A D V F S W L G F K V L M C K D Q T R D Q M E Q T L K L F P Q Q			
UniRef90UPI00021A7A9C	T V N D R K A I I E H T F T N L G F E V I P C E N D Y I S V M D E A V K L S E D			
UniRef90_G3PH8	S D K D A E S L G E V F T W L G F R A L M C K D Q T K D Q M E R A L N K F T Q E			
UniRef90_C3XQ16	G N K D L E N I W K I C D K L K L K A E N K D D L T G Q E I A D T L Q E V S E R Y			
UniRef90_G7YAJ2	T D R D A D R V E R L F K M L G Y N V Q R Y L N V N R N K L L H R L R D A A T Y			
UniRef90UPI0004404B2A	T S A D R D S L K R R F S D L G F E V K C F D D L K A E E E L L L R I H E V G N D			
UniRef90_Q7Q803	T D A D C D N I I R Q V L I Y L Q F E V R V Y D D L T R K E I K Q V L D D L A E E			
UniRef90_V4CQ43	T E E D V I S L Q N L F K Q L Y F T T V D I H N N Q T A E E I L K S I V K W Y K E L			
UniRef90_G7YKL3	T D K D A D R V E R L F K R L G Y H V Q R Y F N V N Q A M M Q R L L F H E A S T L			
UniRef90_B3M2M7	T E R D R D D M K A T L Q G G F F D V R S Y D D L T F S D I I N D L L K E V A L E			
UniRef90_X1Y5M3	N R V D C D Q L S E M L I E K F G F D V H I Y H D Y K L A E I K K L L F A V A Q L			
UniRef90UPI000359C8CC	S T Y D E S S L Y H S F Q R L G F N V L L H R D L P G W K M V E V L K A A S S Y			
UniRef90_W4XYM1	T Q K D V I E A L L N T F N N L K F K T Y V K K D P T A R D Y V A S L Q Q I A N M			
UniRef90_F1KZ57	T D V D E A N F S L L F R Q L G Y S P V Y R N L C S K E M V L S M Q D F A R R			
UniRef90_W4Y1S2	S D V D L A N V K H V F T E I G Y T A D E A Q N T A E G I R Q K L K S L T Q K			
UniRef90UPI0004547DEE	S S V D C E K L Q F R F R W L H F M V E V Q N D L T A K K M V A A L M E M A G R E			
UniRef90_W8AR54	T E K D R D T I A E T L S L Y G F D V R V F N D L T F E K V D A Q L K A I L A K E			
UniRef90_B4JQ66	T K V D S A K L E R A L K K L D F R V T I Y K D L T H L Q I K A K I N D A A A Q			
UniRef90_P45436	T K A D K D N L T N I F R C M G Y T V I C K D N I S G R G M L T I R D F A K			
UniRef90_B0WLP4	T N E D R D N L K D L L S S L K F D V H I Y D D L N K K E V L K T L K I W S E E			
UniRef90UPI0002C3655E	T S T D R D N L K P R F S D L G F E A K C F D D L K A E E E L L L K I H E A S I A			
UniRef90_M4AAF8	T D K D A E R L A K V F S W L G F K V L M S K D Q T R D Q M E Q T L K I W S E E			
UniRef90_I1GCR6	T E K D R D T I A E T L S L Y G F D V R V F N D L T F E K V D A Q L K A I L A K E			
UniRef90_H2YVI9	S D N D A A K L Q D L F E N L N F R V A V L R D P T L Q E L H H K I L I Q T Y Q L			
UniRef90_C1CA40	A E A D K K N L L A V F F N Q L N F T T I L V E N S S A K E M E E K I R E F R M S			
UniRef90_I1G4B0	T N K D V I E S L S E V F T S Y G F E V R I E N N A T A G R I I A E V M K E V A E E			
UniRef90_Q3HL92	C L S D L Y N F K S C F E A L Q Y K V R T Y E N C F A G D I K K I V D G V S S E			
UniRef90UPI000252BF03	T D V D R D A L D K V K Q L L G F N T L V Y N D Q S V Y E I Q K I F K S L A A R			
UniRef90UPI00034F7311	T E Y D G D V I K E T F S A L G F E V R I Y K D K R F N D I V D I I M N L Q N E			
UniRef90_G8XQY3	T D F D A E T L E G T F T E L H F E T V P C R N F T A Q T I C D M L Q H Y Q G V			
UniRef90_K1QGT7	T D V D R D A L L Q K L F R M L K F D V R V Y N N R T R A E I I N R I A K E M A T Y			
UniRef90_A8MVM1	T D V D A A N L R E T F R N L K Y E V R N K N D L T R E E I L V E L M R D V S K E			
UniRef90UPI00035A2974	S D V D A E R L E E R F Q D L G F E V R R Y D D V T C A K M T S L L Y D A A A S			
UniRef90_H1A137	T W V D R N N N L K C I L T D G F E V R L L F D D L K K E D V Q Q R I Y E A S T E			
UniRef90_I6UVT8	S R S D A E S L K R L F I S F G F T V D V K Y D L D Q R Q I E K V I Q E Y T K K			
UniRef90_B6CGU5	F E E L H F E L K P H H D C T V E K I Y E I L K I Y Q L M			
UniRef90_T1K3H1	A E E D G V F L A S I F E Q L G F A M N Y F K N M S A S D I E A V F Q K Y K M E			
UniRef90UPI00021A568A	S N I D A A S I K D F V E N L N F K V T M I M D P T L Q Q E L I H Q V L I K F Y E I			
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UniRef90_C3ZXH2	R A I D L S N V K A L L E G L S F E T H V L E D K K A Q R K			
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UniRef90UPI0003599098	S Q Q D F R R Q L E F T S D F E I R T F R D V T R N E L L L Q L I H N V S R E			
UniRef90_V3ZXCM4	S R Q D S D S L A D C L R G L N F T A E K H E D K T T G E I I S K I F E K V A A E			

90                    100                    110                    120

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UniRef90_H9KPT9	D H S Q H D C L V V V A I L S H G D L G L L Y A H D T S Y K P D S I W A H F T A		
UniRef90_Q0Z8U7	D Q K N A E C L L V V I L M S H G E N D G I Y G T D G K W L N L K E V Y T Q F N D		
UniRef90_H2YT45	D H T G S D C C F F A F L S H G D D G V V Y G T D T D G I V V Q I K V I V D Q F R G		
UniRef90_V5SJE8	D H R R F D C L V F C I L S H G S T G A V Y G T D S N S V Q I K D I T A C F T A		
UniRef90_G0XQF1	D H S K N D C L L I V V L T H G M N G K L F A K D T D Y R P E K K L W G P F T E		
UniRef90_UPI00022B4CFC	D K K N N A S F V C V L L S H G D E G V I Y G T D G P E R F D T L A K Y F R G G		
UniRef90_F1RDX7	V D G D C F V V C L L S H G V E E G V C G T D G S L V S V D E I R N P F T G		
UniRef90_F7FKS5	R H R F T D S C V V V A L L S H G V E V E G G I Y G V D G K L L Q L Q E D V F R L F D N		
UniRef90_B0VYY6	D H S G C D A L A V V F M S H G E N M E L V C A K D D R L P T K E L W N F T A		
UniRef90_Q7Q802	D H S D C D C L L V M L M T H G D D D V L Y A Y D G P Y S V D K L W E S F M G		
UniRef90_T1J912	D H S N N D C V L V V A I L F T H G D L N C L Y A N D K K I R P E D L W E P F T A		
UniRef90_Q4R737	D H S A L D C C V V V I L S H G C Q A S H Y G T D G C P V S V E R I V N I F N G		
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UniRef90_J9JT10	D Y T K H D C F L M A V V L S H G E E G L I Y A K D R G Y K P E N I L W G R F T G		
UniRef90_B4JRK0	K H D D N D C I L V V A I L S H G G M G Y I H A R D E I Y K L D E V W T C F T A		
UniRef90_I3K507	E H R T V D S C V V C L L S H G V E G A V Y G T D G K L L Q L D W V F E A F D N A		
UniRef90_A9YDV7	D Y T D Q D A F I C C I L S H G K K G V V L G T D W K P V A I K K L L S Y F T A		
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UniRef90_I6TTL3	D H S D K D C F V C V V M S H G L S G C V Y G V D G L S L S T S K I S K S F R P		
UniRef90_B4KLD9	D H S N N D C I L I A L L T H G K N N K V Y A H D H S Y E L E R I L W E S F T A		
UniRef90_Q5XKY1	D H S N A A S F I C V V L L S H G D E G V F F G T D G S V E L I K F L T S S L F R G		
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UniRef90_E9ITT8	D H T D N D C I C V I V L T H G L Q N D M I S A K D V I Y K S D R I L W K P F T A		
UniRef90_C3XPS9	E H K S A D A C I V V L L M S H G A E D Q I C G T D G E M V K Y S N I F E A F N N		
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UniRef90_Q6PVY1	L T D S T D S C I V A V L L S H G V E G S V Y G V D G K L L Q L Q E V F R L F D N G		
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UniRef90UPI0004447877	D H T D N D C L A I A I L S H G E H G C I Y A N D I H Y K L D I L H Y F T D		
UniRef90UPI00021A7A9C	P V R H G D A F V V C I L S H G S L H R V I S G V D S Q P L A I K E I R R Y F V A		
UniRef90_G3PH8	N Y E D Y D C I C I F I L S H G T S G D Y V Y A T D Q Y Q Y R L S D I W E R F T A		
UniRef90_C3XQ16	A P R H G D A L I C C I L S H G R K G V V L L G I D D Q P L S I V K Q I I G T F L P		
UniRef90_G7YAJ2	D H S C Y D C F V V L F L L S H G D E K G V L G T D E D D M I S V D S I T S S L Q L		
UniRef90UPI0004404B2A	D H S Q F D S F V C V I L L S H G E N G V I Y A T D G P V P T D V I I A N F R G		
UniRef90_Q7Q803	H R K S D C F L C V F L L S H G E G N H I Y A Y D A K I E I Q T L T G L F K G		
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UniRef90_G7YKL3	D H S N Y D C F V C I L S H G E N G M I Y A T D G P V S V E A V V S C F R G		
UniRef90_B3M2L7	D H S Q N D C F V V V V M S H G T E G K V Y A K D M A Y P V E R L W N P F L G		
UniRef90_X1Y5M3	D H S Q N D C F V V V V M S H G E K G D Y L F A Y D C V Y E F S T I W S Q F T A		
UniRef90UPI000359C8CC	D H R N A D C F A C A I L S H G D Q T W T F G V D G R A V A I T K F I V E L F S D		
UniRef90_W4XYM1	D H T K F D C F V V C V I L S H G C R G S V Y G T D G K K V S I D A L T G L F R G		
UniRef90_F1KZ57	E H S L V D S C V V C I L T H G E H G E L I F G V D D Q G V P V F E L I S L L N A		
UniRef90_W4Y1S2	I L I S S H T S V V V V F M S H G K E A G I L Q G T D E E V V T V K E I K D M F S G		
UniRef90UPI0004547DEE	D H R A L D C F V V V I L S H G C Q A S H L G T D G C S V S I E K I V N I F S G G		
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UniRef90_H2YVI9	E H R K N D S C A V V V L L S H G N K T D I Y G S D G L T L R E T I I K M F D N G		
UniRef90_C1CA40	D H S Q R G C F V C V V L L S H G K D D G G F Y C Y D D F M E E F L F N L F K G		
UniRef90_I1G4B0	D H S N Y D S F V C I S L T H G E D D N Y I F S D G E R I N V Y N I G H I Q A		
UniRef90_Q3HL92	D Y S K E N A L I V V S I L T H G E E G V I Y G T D G T L T I K E I T S E F		
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UniRef90_I6UVT8	D H S S K D C F V C V V V M S H G L A G C V Y G V D G L S V S T S K I S K S F R P		
UniRef90_B6CGU5	D H S N M D C F I C C I L S H G D K G I Y G T D G Q E A P I Y E L T S Q F T G		
UniRef90_T1K3H1	E L K E H D A L V C V I M S H G K S D L I V G S D G L Y V R L I E T L L S Y F N N		
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UniRef90_V3ZNX3	D H T N Y N C F V V M M V L S H G S H G N V Y G V D G K E V G G I E Q I V I S F D S		
UniRef90_K1R808	K I K D S D C F I F I I L T H G D E K G V C G I D G S I V P V T T L T E M F E P		
UniRef90UPI0003599098	D H S D A D C L V V V A I S S H G N S R M E A T Q S G Y Q I E D I M E K F R D		
UniRef90_V3ZXM4	D H S D A D C L V V S L M S H G G K E G I S G T D F N V L E I S D I I D P F K G		

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

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R K G  
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K S L P K R T G  
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L S Y R H  
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50            60            70            80

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UniRef90_V4A292	S K V D R E N I E R S L T H L G F Q V D T Y V N L S T E D V K S V L D A E S A R
UniRef90_H2KNN8	S S K D V E R L V S L F Q T F S Y S V A V L H D P T A V Q L E K A V R E F S Q K
UniRef90_H2THL4	T N K D A Q S L A E V F T W L G F R V L M C D Q T K E K M D R A L N C F A S V
UniRef90_W5KSH9	N D A D K T N L T E R F Q E L G F E V Q S Y D D L D E K N M M D S I Q K A A K H
UniRef90_UPI000329FB61	A E K D D R V M F N L L I Q S L L G Y Q V V R Y N N L T G K Q I D D A L T Q F Q H K
UniRef90_UPI000443BCF3	A D V D I R G M T A L L E G L G Y S V D V K K S L T A S D M I G E L K A F A A R
UniRef90_F6RQD8	S E V D L V G M Q D L L G I G N L G Y S V V V E E N T A L E M E T A L R H F A A R
UniRef90_UPI0003BDABD4	T H K D A Q S L A E V F S W L G F R V L M C E D L N K D Q M D Q A L T F V P Q Q
UniRef90_UPI00027F7D7A	A D V D I I G M E M L L K N L G Y S V D V R K N L I A S E M T T E L E A F A H R
UniRef90_Q09Y99	T D V D R D A L E K T F N R L M F N T L V Y N N Q S V Y E T Q K I F K G L A T K
UniRef90_UPI0003596724	S E S D R T K L F H M F K F L G F Q V S L E E N C T A K M K E L L Q L F A R F
UniRef90_B0WM91	T H S D V E R L Y M T L P R L G F D I S V F Q D F S V G E I R E A M R L Q V D K
UniRef90_Q9TV13	A E V D I A S M K V L L E G L G Y S V E V K E N L T A L D M T T E L K A F A A R
UniRef90_R7TVF3	S Q F D T V N I C E L F E N L H F D T T L K E N V T A K G M K K L L V D E A R
UniRef90_S4 RTE9	T D V D R D M L E K K F K D I G F K V E V K N N M K R K E M V S Y I T E V A E K
UniRef90_E9G4M2	S S K D R D D L T R T L R Q L D F E V K S F D N L T A D Q V R K E I A K
UniRef90_UPI000333BA33	A D V D I K G M I M L L Q G L G Y S V H L K E N L T A P D M I A E L K A F A T R
UniRef90_UPI0003338FDE	A T L D I E G M Q T L L E G G L G Y K V T V E T Q L T A M E M Q S V L Q A F A A P
UniRef90_UPI000180CCF1	S E K D R V R L E L V L Q Q I G F Q C Y V L I N G T A E Q I V S T L Q T F A E E R
UniRef90_L5KY15	S E L D V T G M K E L L L E G G L G Y S V D V K E K L T A T E M E S V L R E F A A R
UniRef90_UPI0002C435CC	A E V D I E G M K R K L L E E G L G Y S V D V K K Q L T A T E M Q S V L Q E F A A R
UniRef90_Q9N2I1	A D V D I R D M K I L L E D L G Y S V D V R E N L T A S D M I E L K A F A A R P
UniRef90_UPI0004421367	E C L K R V F Q W L G F S V H I F V N V T K G R L E E V L Q Y F Q T H
UniRef90_K1Q911	T D L D A D K L T Y I F H K L G F L V R R Y D N L D D V A M Y K R L V D V S L E
UniRef90_UPI00046B5D08	A D I D I A G M K W L L E G L G Y T V D V K E N L T A K G M E T A L W K F A A R
UniRef90_Q5TMS0	S E K D V Q D V V A T L E G G L K F N V R T F Q D N T K K E I K K A L Y K V A R E
UniRef90_I1EA12	S A E D A K R L K E L F E G L R Y Q V I V H E D L P A E E I R K V S A I A A G L
UniRef90_UPI00038C4360	A D V D L R E M R I L L L Q G L G Y T V K E K E N L T A L A M T N A V K E F A D R
UniRef90_B4XKD8	T N V D R D N L I Y I F T K L G F E V Q T Y E N L T H D Q L I N I F T Q V R Y A
UniRef90_B3S1J2	S D R D A K G M Q T L L V N L G Y K V A I G D D L S A A Q M K D V L Q R W A A K
UniRef90_UPI000273B011	A N D I I G M Q N L L E G G L G Y R V D V E K N L T A L E M E S K L K Q F A S R
UniRef90_UPI0002C655E6	A H R D I V L M K E W L G Q C F Q E H T S C I D P D K M E L L G K I T S F R D G
UniRef90_UPI0002C42B84	S K A D L A A L E R M F Q K L G F E S T M K R D P T A Q Q F Q E E L D K F R E A
UniRef90_UPI0003AEF424	L F H F S A A L S K T F S D L H F E V R P Y K D V T A K G C D V L E Y Y R N L
UniRef90_R7TWP8	W E A D S E N L K K L F N F L R F E Q H E F N L N A K K M K E A I A S F A R D
UniRef90_K7FRR2	A K R E A D K L F K A L I S R L N Y A V K L H Y D P T A E E I L E E I Y Q Q E S Q E
UniRef90_UPI00045D77A4	A D V D L R G M K M L L E E L G Y Y K V D V R E N L T A T D M T S V L M E F A A R
UniRef90_UPI0002B471C8	T D A D A E S L C N L F L E E I G F I V D R F D N P T S T D V L R L K N A A N Q
UniRef90_H0WSB8	S E I D L L G M Q D L L E N G L G Y S V I V K E N L T A E E M E K E L Q Q F A A R
UniRef90_UPI00027426AA	A D V D V R D M E K L L A D L G Y S V H V R K N L T A S D M I T E V K A F A A R
UniRef90_Q9MZV6	A D L D V A G M R R L L T D L G Y S V H I K E E L T A K D M E S E L R A F A A R
UniRef90_F1SV36	A D L D I K G M R G L L E G G Y S V D V E E K L T A K E M E S V L W G F A A R
UniRef90_UPI00022CAD0E	A I Y D E S N L K Q L F K Q M G F E V S S Y C N L T A Q K M L E R I K E F S Q R
UniRef90_W4Z488	S E L D L I N L Q H V F R R I G Y E P V I M T N L S A N E I R S F L D E S V S R
UniRef90_UPI0003C8E5C0	A N H D I T G M K G L L E D L G Y S V D V K E K L T A V G M E S E L W D F A A R
UniRef90_R7UFF5	S G Y D V S N M E G L F R E L H F E V V K K H K D K D A Q G I K C L E D E R S E
UniRef90_UPI0004573627	T D T D A G N L Q K C F H S L G F N V S V Y N D Q T C R Q M E N I L K R A A Q E
UniRef90_F7G5S9	A E N D V T G M Q N L L E G G L G Y R V H V K E N L T A L E M E S A L K Q F S Y P
UniRef90_R7T9Y1	W Q S D S D N L R D L F Q F L E F E Q L E L C N L N A Q G M K K A I A R F A Q D
UniRef90_G1Q6T7	A E L D I T G M T E L L V G L G Y S V I V E E N L T A K E M E S V L V T F A A R
UniRef90_R7TW55	S D Y D V I N M E E L F R R I Y F R V E I H V N K S T Q V G F T L L S I G M H I S
UniRef90_UPI0004421333	C V F T T W L G F K V E K Y D D D K T S I E I T L L Q D W Q S E
UniRef90_UPI00046C29E8	A E K D L E A L G K M F K A L G F E N E V V K D P S A E D F K R K L V T F R E A
UniRef90_UPI0003C88EDF	S S V D C E R L L Q R R R F R L L H F V V V E V E C D L T A K
UniRef90_UPI0002235620	A D A D I R G M K T L L E E G L G Y R V N V K E N L T A S D M T A E L K A F A D R
UniRef90_UPI0003C2997C	A Q R E A D K L S Q V L L S S L S Y T V H L Y K N Q T A K K I E E I Y Q Q E S Q E
UniRef90_P29452	A Q V D L R E M K I L L E E D L G Y T V K V K E N L T A L E M V K E V K E F A C P
UniRef90_UPI00035144DF	A E Q D V T G M K Q L L E E L D Y Y T V V T V K E N L T A R D M E Y A L S E F A G K
UniRef90_Q09HM6	S K I D A D A I E D I F T G F S F K V H R C N D L K H R E M Q I C I Q E F S E M
UniRef90_N6T370	A K V D E D N L T E L T Q M G W L I Q T E S N L T A A M Q D V L K Q F A Q P
UniRef90_UPI0003318FC0	A D I D V T G K M E K L L Q D L G Y S V E V K E N L T T S S D M A K E L K A F A A R
UniRef90_UPI0001D6271B	A E V D I I G M T M L L Q N L G Y K V D V K R N L T A A W E M T T E L E A F H H P
UniRef90_V4A701	S S C D V K N M E T E F R N L G F D V K I Y N N L T A S Y I D K R L R K V S M K
UniRef90_UPI00042C7FFA	A H Q D V L L M E D W G Q C F Q E N T L C I D P D K M E L L G K I T S F R D G
UniRef90_F6K5S4	A D K D V D K L C E V F D N L G Y K V T T Y T D L E H L E I L Q K V K E L C K K
UniRef90_UPI0003B3935F	A E K D E E N M E K L L R S L G Y E V V K H N D L T A Q R M N E V L H T F A E H
UniRef90_UPI00038EAD40	S E V D L E A L K S M F Q H L G F Q S T M K R D P T A Q Q F H E E M E K F Q Q V
UniRef90_UPI0002B43473	T D R D A D N L C F L K I F V E L G F V V D R Y D N P T R N D I L S I L K A A A N E
UniRef90_UPI0003F0DBB4	A E A D L S G M K M L L E E G L G Y H V I V K Q D L T A S D M T A E L T T F A A R
UniRef90_UPI00029D9AC7	A D F D I T G M K E L L E E G L D Y S V D V E E N L T A R N M R S L L W A F A X P
UniRef90_UPI0003347B74	A E E H D I R G M Q A L L K S L L D Y T V D V K E Q L T A T A M E D A L R E F A A R
UniRef90_Q2HZ04	T F E D V K S L K D F L E G G L S Y N V T T Y T D L I Y E D I L N R V A E F C Q R
UniRef90_H3AXG0	A R K D I D R L F K I L S K L N Y Y K V T L L Y D P T A K E L L D A Y R E V C R K
UniRef90_UPI0002B46D10	T D K D V E E L K K T F S W L N F E I V L H E D V D A K S M L N I R S

	90	100	110	120
UniRef90_UPI000442084E	E H G D Y F V S I L S S H G E E G N I I D C K G Q A V Q L T R I F K I L S R			
UniRef90_K1JMJ8	D H K D N G A L V V C T L S H G N L N V V S G A C G Q D L P I N S M T S L F R A			
UniRef90_H2ZDS2	S H A K Y D C F A C A I L S H G G K N D V V Y S Y D A K M N V Q D F T E P F T A			
UniRef90_A5JSK5	A L Q H G D A F V V C C I L S H G Q K G M V L G I D Q M P V P I K H I T R I F K A			
UniRef90_UPI000359995E	D Y S C H D C V V V I L L S H G H K G V V F G T D G K I V E I E K I T K L F			
UniRef90_A5HC41	D H T N S A C F A C I L L S H G E E N L I Y G K D G V I P P I K D L T A H F R G			
UniRef90_UPI000441FA7A	E H K A S D G M F V V L M S H G F Q V H S K G R Q C D S F S I N T I F S T F N N			
UniRef90_D1MAR5	N Y S G Y S A L A V C I L S H G Q E G V V Y G I D G T T D I K E I T G F F R G			
UniRef90_UPI0003C45D6F	E H K T S D S T F V V F M S H G I R E G I C G K K H D V L D I D T I F Q S L N T			
UniRef90_S7MDX5		N P D V L P Y D T I F R I F N N		
UniRef90_U5ERJ6		N P D V L P Y D T I F R I F N N		
UniRef90_C4Q500	N H S D A D C F M V V F S T H G N E T I L K V K D G E L P V N H V F A P F Y G			
UniRef90_B7QAN7	D H S S Y D S F I F V M I L S H G D N N I I Y A N D G E V L T S Y I M A F F R G			
UniRef90_Q9Y1U6	D L A S F D A F V L V I L S H G Y K G G F Y A S D C K R V S L E T V E S F L C			
UniRef90_T1J3Q5	K H S F T S S A I V C I L T H G E H D V L Y G V D D Q V V I D V H Y L L S S F N T			
UniRef90_F6XYE9	E L E N V N S C C V V A I S S H G V K D G F C G T H D Q V Y A I E T L K T K F N N			
UniRef90_C3ZSE5	N H S Q Y D C F A C A I L T H G E E D E M V Y A K D D S M K L K T L I S R V S A			
UniRef90_V4A292	D H K D R S C C I V F L M S H G Q E G V I C I M G R D G Q R V K L K D I F R L F D N			
UniRef90_H2KNN8	D Y S L E N S F M M C V F M S H G S E G V I H C E D G P L D I S T I L L Q Y F D A			
UniRef90_H2THL4	E H K D V H A G G L F I L A H G M E H H L I A S D G S L V S I D D M V S N F T N			
UniRef90_W5KSH9	D P K H G D A F I C C I L S H G E K S A V L G I D G E P L C I K Q I I R T F K A G			
UniRef90_UPI000329FB61	D H K D A D C F V C V F L S H G D E D H I F A N D K K V D I L N R I T D L F R G			
UniRef90_UPI000443BCF3	K L T Q T D S V F V T I M S H G D M G I I S G T D S K A F K T E E I F Q H L N A			
UniRef90_F6RQD8	E H K D S D S A F V F M S H G I R E G I C C G K N Y D V L H V D T I F R S L N T			
UniRef90_UPI0003BDABD4	UniRef90_UPI00027F7D7A	D F R S S D S T F L V F M S H G D L D G I C G T K H N E L I H D D T I F Q I L F N N		
UniRef90_Q09Y99	V L E H G D A F I C S I L S H G K K G V V I G T D R K P L P I K K I T R K F R G			
UniRef90_UPI0003596724	E H K T S D S T F L V F M S H G I R E G I C G K K Y S E L Q V N E I F R R N L N T			
UniRef90_B0WM91	D R K T A S T M A V V I L T H G G S N D L L F I A D T Y T K F D I L Q A F K P			
UniRef90_Q9TV13	D L E E A D C L V V I L L T H G E E G D Y L M A Q D D R Y H L Y E F I E N F T P			
UniRef90_R7TVF3	E H R S S D S T F L V F M S H G I R E G I C G K K F F S E L E V N T I F Q I F N T			
UniRef90_S4 RTE9	M Q F N S E A F V L F I M S H G A Q G R V Y G N D G K Y L I D I E D I V P V F D G G			
UniRef90_E9G4M2	D H R Q C A C F V C I L L S H G D E G V I Y G T D N Y L P I R D L T T P F R G S			
UniRef90_UPI000333BA33	D H T D H D C C L L V V V M S H G Q D G K I C A F D T M Y D V E D V W M P F S S			
UniRef90_UPI0003338FDE	E H E T S D S T F V V F M S H G I Q N Q G I C G T K Y S E L E V N T I F Q M L N T			
UniRef90_UPI000180CCF1	E H R S S D S T F L V F M S H G C G Y C F Y G S D G V S V A I D T V V N F F S N			
UniRef90_L5KY15	E H K S S D S T F L V F M S H G I I C G T L H S D E K P L P Y D T I F R L F N N			
UniRef90_UPI0002C435CC	E H R S S D S T F L V F M S H G F L E G I C G T T H S E L L S L D T I F Q I F N N			
UniRef90_Q9N2I1	E H K S S D S T F L V F M S H G I Q A G I V C G K K Y S E L E V N T V F Q I L N T			
UniRef90_UPI0004421367	P H A D G D C F V F C V L T H G K F G A V Y S S D G N L I P I R Q I M S H F T A			
UniRef90_K1Q911	D H S N Y D C F V C C I L S H G V L Q N I Y G T N G R L V R I S E L T G I F R S			
UniRef90_UPI00046B5D08	E H Q S S D S T F L V L M S H G I L D G I C G T M H S E L P Y D T I F E I F N N			
UniRef90_Q5TMS0	D H N E N D C L V I V A M A H G K K D H I T L K K E K L R I D K L W A S F V G			
UniRef90_I1EA12	V T K K H D S F I C C I L S H G N P A G V E G V D G K T V T V A E L A K S I N S			
UniRef90_UPI00038C4360	E H K T S D S T F L V F M S H G I Q E G I C G K S H D I L K L D T I F G M M N T			
UniRef90_B4XKD8	D H Q N H D C F V V A C I L S H G S Q G Q V Y G A D S V P V S I R D L			
UniRef90_B3S1J2	D H S T C D S F V C V C I L S H G E Q G K I F G T D T D V D I E E L L G L F R G			
UniRef90_UPI000273B011	E H Q T S D S T F L V L M S H G E E P R G I C G K D P Q I L P Y D T I F Q I F N T			
UniRef90_UPI0002C655E6	L N E E K D C C L V T L M S H G E K G F I K M K M D D E R V S L E D I F E M F N N			
UniRef90_UPI0002C42B84	M E S R T D P I S C V L M A H G S E G G L L K G E D E Q M V E L D D D L F E V L N N G			
UniRef90_UPI0003AEF424	D H N D K D C F V V C C I L S H G D K G I Y G S D G R E A P I Y D L T S Y F T G			
UniRef90_R7TWP8	Q I S N A S S L A V V I M T H G D K T S F T G V D G H E I R R D D V L L K F S R			
UniRef90_K7FRR2	E H G D Y F V S I L S S H G E E G A I Y D S E Q G P V V R L T R I F Q L L S P			
UniRef90_UPI00045D77A4	E H E N S D S A F L V F M S H G I R D G I C G T K Y S E L L D V N T I F Q L L N T			
UniRef90_UPI0002B471C8	D Y S K M S C C V V A V L T H G K E G I I Y C T D T Y L K I R D I T R L F R T			
UniRef90_H0WSB8	E H Q S S D S T F L V F M S H G I L Q G I C G V K H D V L H D D T I F Q I F N N			
UniRef90_UPI00027426AA	E H R T S D S T F L V F M S H G I R E G I C G K K Y S E L G V N E I F R M L N S			
UniRef90_Q9MZV6	E H K S S D S T F L V F M S H G I L S G I C G T D P D V L A Y D T I F Q I F N N			
UniRef90_F1FSV36	E H K S S D S T F L V F M S H G C G T M H S D K K P D V L H Y D T I F K I F N N			
UniRef90_UPI00022CAD0E	E L R K V D S C F V I I S S H G E H M Q D K V Q N Q K T V L C T D L S Y F T A			
UniRef90_W4Z488	I N L C H P S V V L V L M S H G E K R G I Y G T D S E V V E I Q E I K S K F S G			
UniRef90_UPI0003C8E5C0	E H K S S D S T F L V F M S H G I L E G I C G T R H D V L L Y D T I F R I F N N			
UniRef90_R7UFF5	N L P E S D I F V A V I M S H G S K N C V Y G T D G K S V Q I E E I I D I F N G			
UniRef90_UPI0004573627	N H S D H A C F A C I L S H G D E G L I Y G T D G L P M P I K T L T S L F R G			
UniRef90_F7G5S9	E H R T S D S T F L V L M S H G V P G G I C G K D Y Q I L D V N K I F Q I F N T			
UniRef90_R7T9Y1	E K S N A S S L A V V I M T H G N E T S F F G V D G H K V P Y T D I L L N F H R			
UniRef90_G1Q6T7	P E R T S D S T F L V F M S H G I L L D R L C G T N P D V L P Y D T I F R I F N N			
UniRef90_R7TW55	N I S T S D F V A V I M S H G S R D S V Y G T D G K S V L I D D I T A I F N G			
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UniRef90_UPI0003C88EDF	A S H I Q F P G A V Y G T D G C P V S V E R I V N I F N G			
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UniRef90_UPI0003C2997C	E H G D Y F V S I L S S H G E E G V I Y G S E G K P V K L T R I F Q T L S P			
UniRef90_P29452	E H K T S D S T F L V F M S H G I Q E G I C G T T Y D I L L K V D T I F Q M M N T			
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130                    140                    150

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Y D V N K T E H G V V L I I I S N I V H F E G K D I G D R K S G G  
Q I Y P V T E Y S R S I A L L I I I S N I V H F N N P R L N L T L Q K R R G G  
K T Y K M D G P H R G Y C L I I I N N F S F T G V I G Y E P R I G  
Y D V N K T E H G V V L I I I S N I V H F E G G M G T R N G G  
K I Y P I M E K R T R L A L I I I C N K I F D S L Y C N K Y T N T  
E S Y R F T S N P R G G C L I I I D C V G K L G G T N T L S F S I R H G  
D K I Y P I M E K R T R L A L I I I C N K I F D N L T D R S G G  
Y Y N L S R Q Q R G R C I I I F N V Q K F S T S V D C I G  
E D R Y K M Q S K P L G I C L I I I L S Y R D G G  
D D I Y D M E S K Y R G H A L V I I N N H Q F E T N A S L P K R T G  
E I Y P M N Q L T R R L A L I I I C N T E F D D F Y R M K S K P R G F A L V I V N E T F E N P E Q Y R P G  
D F Y R M K S K P R G F A L V I V N E T F E N P E G H S K R A G  
N F N H T K R G I A V V V V N E K F E Y L L D R D D  
E I Y P V M E K R T R L A L I I I C N K K F D V D G H Q R R L  
E E S Y R M Q S K P L G I C L I I I T Y E L E K F E K N A L M I F N Q E N Y L S R R D G G  
N I Y P I K E K R S R Q A L I I I C N T E F D Y R T G M N V R N G G  
E I Y P I K E K R S R Q A L I I I C N T E F D Y L L D R D D  
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WE K D L E A V E T V L Q R L K C D V R T F C D K T K H E I R D A L R N V S K E  
 T E V D A A S F R D T F V G L K Y E V R N R K N D L T H E E I A E L M N K V S K D  
 A E K D E D V E R L L R D L G Y D V V K H R N L S G Q E M D E A V K A F S K R  
 T D V D C R N L E N V F K Q L G F V V V H K G R D L K Q K I D Q V R R H  
 A D Q D I A G M K G L L E A L D Y K V D V E M Q L T A T E M V S V L E K F A A R  
 A S Q D V E L M K Q W L G Q C L F E Y T L C I D P G K K D L I D M L T S F R D G  
 S T H D I K G M K G V L E A L D Y R V D V K E N L T A K A T E K V L R T F S W P  
 C E K D I S G M R D L L E N L G Y S V V I K E N L T A Q E M K V E L K H F A A R  
 A H V D I R D M K T T L L E G L G Y S V D V K E N L T A L C V K E L K V F A A R P  
 A E Q D I V L M E E W L G Q C Q F E Q T S C I D P D K R E L L G Q I T S F R N E  
 S E V D L E A L E G M F Q Y L G F K S I M K R D P T A Q Q F Q E E M K K F Q Q V  
 A E L D I Q R M K I L L E G L G F V S V I L K N L T S L E M E S A L M D F A A R  
 T S A D R D N L K R R F S D L G F E V K C F D D L K A E E L L R I H E D A V T H  
 T E K D R D D I C D A L E N L S F N V K V N N D L N K E E V Q K T L K W S Q E K  
 S K E D M D A L E R M F R Y L K F E S T M K S D P T A Q Q F Q E E L D N F Q Q I  
 T D V D A A N V A K T F I K L G Y K I R L L N D Q T V D N M M K Q M D A V A K E  
 T Q D E V A R L R R I L E D L D Y T V L V Y P D L T A C Q L K M K S D M I A E K  
 S E E D M D A L S R M F H H L K F E S T M K S D P T A E Q F L E E L E K F Q D D  
 S E E D V K Y L V W L F K E L D Y T P I V H K Q D S A E E I N L V K K F A K M  
 A D V D I R D M K I L L Q D L G Y I V D V K E N L N A L D M T E V K A F A A R R  
 A E V D V K G M T T L E E G L G Y M V D V H C N L T S Q E M A A V M N D F A N R  
 A K Y D I I G M K K L L E E G L D Y T V T V K E N L T A K D M A S V L S E F A D K  
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 T E K D R E A L I N V F K D F G F E V E P H D N I K A Q Q L C D E I I N L G E R  
 S E T D V Q A L E K M F K A L N F K N T V R R N I P A K G F W E E L E K F R D D  
 C E V D L L R M Q N L L K N L G Y L V V V K K N L T A Q D M E T E L R C F A A R  
 A K K E A N R L F K A L S K C N Y A V K L Y Y D L T A K E I E E L Y E E E C H A  
 A E A D K Y N L V S L F Q L G F Q L G F T V F Y Y E D L T S D E F N N L I K E L K Q S  
 A E K D E Y E M H C M L A D L G Y D V K C R N L T V K E I E E A L Q K F S K H  
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 T E V D K T A I L N L T N L G Y E P I V V E N I P H E L I M N Q V E Q A V D R  
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 S Y E D A K R L K E V F E G L R Y Q V V V Q E D L K A E E I K T R I R G I A A G  
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 T D K D A E G L T K C F R S L G F D V I V Y N N R S C S D M R N L L K Q V S Q E  
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 W K L D S D N L R D L F E F L K F E Q N E L F N L N A Q R M K E A I A D F A R D  
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 A E L D R E L L S Y C F R S I G F V R V F T N L N G F Q V T E M E K I A L E  
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90                    100                    110                    120

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UniRef90_W0TYK3	E E H L S D S V F V V M M S H G E H Y K K G D P N L D I F P I N N I F T H L N T		
UniRef90_W4YZ56	N H S Q F D C F I F A I L T H G K E G S I Y G T K H S E L S Y H T I F Q T L N T		
UniRef90_UPI000443EF96	L N E I K D C C L V T L M S H G I L E G I F G T K H S E L S Y H T I F Q T L N T		
UniRef90_K9J2E9	E H A S S D S T F L V F M S H G I L E G I F G T K H S E L S Y H T I F Q T L N T		
UniRef90_U3KMM0	E H R N S D S T F L V F M S H G C G V E H C G T K H R E L H D D T I F Q I F N N		
UniRef90_A9YEF1	E H R F S D S T F L V F M S H G I L D G I C G K K Y S E L D V N T I F Q T L N T		
UniRef90_S9XY06	E H R T S D S T F L V L M S H G I R S G I C G K K Y S E L D V N T I F Q T L N T		
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UniRef90_UP1000273B016	E D S W E S C A F V V L M A H G E E G F L E G E D A M V R L D D L F Q V L N N		
UniRef90_UP10002C35DF5	C Q T G I D C L F V C F L S H G E G N H Y A Y D A K I E I R X T D W L V K G		
UniRef90_B0WLP5	H H I D N D C L V V V I M T Y G G N G F V Y A K D G K Y E V D T L W K N F V G		
UniRef90_UP100022F4FA6	T D N W E S C A F V V L M A H G E E G F L E G E D K K M V R L E D L F E V L N N		
UniRef90_UP100044472F3	D H S Q N A S V C V L L S H G E Q E V I Y G T D G F K K L E T L I E C I K G		
UniRef90_UP10001CBB871	D H T S Y D S F I C C L V S R G T N T H V Y G S N G I P V R L H D F I G N F T G		
UniRef90_UP100038BF21A	R E E P V S C A F V V L M A H G E E G F L E G A D E R M V R L E D L F D V L N N		
UniRef90_S4RT88	D E H M H D S T F V V V M S H G C N R G V F G K K N D L L S I E T I Y T A L N N		
UniRef90_UP10003331296	E H L T S D S T F V V F M S H G I R E G I C G I K Y S E L D V N T I F Q M L N T		
UniRef90_UP1000386FBF8	E H Y T S D S T F L V F M S H G V R A G L C G T K T D I L S L D T I Y E K F N N		
UniRef90_UP100034FCF05	E H K L S D S T F L V F M S H G C G I M H S E K N P D V L L Q Y D T I F N I F N N		
UniRef90_K7F9M9	D H Q T S D S T F L V L M S H G V R A G L C G T K S H I L P V D T I Y S T F N N		
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UniRef90_UP10003F09FFD	E H N S S D S T F L V F M S H G C G T T Y S K E N P D V L L S Y H T I F E I F N N		
UniRef90_P55867	E H A D S D S T F I V L M S H G D K P G V C G T D S K K L Q V D E I F S T F N N		
UniRef90_UP10003AB94BB	E H K S S D S T F I V L M S H G I L E G I C G T A H D E L F Y D T V F Q I F N N		
UniRef90_I1VB10	D F S K Y A C L V V C L S H G D E G T V Y G T E G N Q V L I E D A K K Q F N N		
UniRef90_A5HAU7	M D Q M K D C C F V V L M A H G E E G I L Q G V D G N T I R L D E L F C M L T N		
UniRef90_L9KML3	E H Q S S D S T F L V F M S H G C G T K H R N K D P D I L H D D T I F K I F N N		
UniRef90_H9GHH6	D H G D C F V S I I S S H G Q E G S V F D C E G Q P V Q L T Q I F K A L S P		
UniRef90_Q16PQ5	S Y L S T E C F V F Y I L A H G N H D K I Y L N D S V L Y V E D V L A L F N N		
UniRef90_UP10003BC792F	P H L H T D S V F V V I M S H G S L Q G V C G T D C K P F E I N I Y K S L N T		
UniRef90_E0W1C4	I D K N H S A F I L I L S H G S E N V I Y T S D S Q A V D M N T I E M V F Q A		
UniRef90_UP100032A362F	P T L P T D S V F V V V M S H G G M G T I C G T G N H R M E I L D R I Y E R L N S		
UniRef90_UP10003DF492A	UniRef90_UP10003AF8DE6	E L R N V D S C F I I I S S H G N H H P Q Y M Q N C K T V L C T D I L D Y F T A	
UniRef90_UP10002B4C7DF	S K L I K D C V S V F V V V M S H G G F G T I S G S D Q V D F E I I D K I Y E C L N T		
UniRef90_K1PUG0	S M E T I D C F V V C C I L S H G F K D G V Y G S D G K K V T F Q E M K T S S M N K		
UniRef90_UP100044223B8	V S V E S D C F A C V I S S H G M I E H F T Y T R D G V V R T N E L L E L F N D S		
UniRef90_UP1000328F5C5	E H Q S S D S T F F V F V F M S H G I L D G I C G T D P D I L R D D T I F Q I F N S		
UniRef90_Q919L7	E H R F S D S T F L V F V F M S H G I L D G I C G R K H D I L N D D T I F R R I F N N		
UniRef90_UP100026514D4	E H K Y S D S A F V V I M S H G K H Y H R T N N P D S F P V D N I V Y R R L N S G		
UniRef90_UP100038385F0	I N A E G D S F C L F F M S H G N W T D A R P A D H R I V T R D E I K A K L T G		
UniRef90_UP10003B67CE6	E Q T V K E C F V G I I S S H G E E G V F G C D G R A V N L A E I Y S C F R S S		
UniRef90_I1VB12	P K K H T D S V F V V L M S H G K L G K I L G V D W K E F P I N N I L F K H L G S		
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130                    140                    150

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 L D P R S G  
 R I G

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

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

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

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

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

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

R N K E F N Y L H N R N G  
 G Q Y E R L G

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

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

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

Y K M Q S Q P L G V C L I I C N K K F D  
 A Y T M K S K N R G V L F I V N I I D F P D P E      K K R N G  
 N N F Y D T N T F P R G T L T I I N V N N F M K S S G V H K      D S R L G  
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50 60 70 80

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UniRef90_G3RS56	T C A D R D N L T R R F S D L G G F E V K C F N D L K A E E L L L K I H E D S S S
UniRef90_B4JNA9	T D K D K K E R L T D F V S G L G Y Q V E A H D N V D H W E L L D H I R S A C S R
UniRef90_G3USQ1	A D V D V K E M T K L L E G L G Y Y N V E C H E N I T S Q E M I T V M K K F D H K
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UniRef90_UPI0003443A19	S E N D I L G M Q G L L E N L G Y S V V I K E N L T A L E M I T E L K N F A T R
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UniRef90_B0WL97	T D E D V K T L R H W F I Q Q L C N V I E Q C D P K T D S I I D M I I A T N S A
UniRef90_C3YTT5	S T K D V E G L E D F F L K I D Y K V T T E E D L T K D Q M M D T L E L T K R E
UniRef90_H2LPF5	A E K D E E N M D R L L S K L G Y S V V K H K S L T G K A I N E A F I E F T K H
UniRef90_E9J3H1	A K H D C D N L L K K L F E E M G F T V I S Y G N L T G Q E I I K N K I K E F K N K
UniRef90_UPI000329A7C1	A Q K D A K R L H G T L S R R G F E V E L H S D L S G D E I I Y E L F V Q E S R R
UniRef90_UPI0003292CCE	D A F Y E R L I S D L G F E V K C F D D L K A E E L I M L K I H E V S T S
UniRef90_L5K2W4	N D T E I L R D T F A S L G Y D V Q C F S Y Q S M N N I I Q I L R K V C M P
UniRef90_UPI0001CB9DD6	H I F E K L D F E V E V H H D D L T A R D M Y T C L G N I G E R
UniRef90_W5JJK4	T A V D K K A L E E L F T R F G Y E M I V E E N I T H L Q I L Q S V S R A V Q K
UniRef90_UPI00038BD0D1	N D I E Y L R R T F T S L G Y Y H V H P F L F P S A E E L I K I L H R F A G P
UniRef90_B4H2Q9	T D M D K Q R L T N V F S K L G Y R V E A H D N L H D L S M L H H I R Q A C Q R
UniRef90_I1FF06	S E E D E E K L K E A F D K Y R Y E V I T M K N L E A D A I K D A V K K V V Q K
UniRef90_UPI0001D611E5	S E E D L D A L E H M F Q Q L R F E S T M K R D P T A Q Q F Q E E L E K F Q Q A
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UniRef90_Q30DV6	T F T S L K Y E V R I K N D L T R K M E L I M S D V S K E
UniRef90_D6X3B3	A E V D E R N L K E L F E K M G F Y V D L Y R N L S R D E I I K T V V K K F S E K
UniRef90_UPI0003299D66	A E K D E E N M R K K L L I S A L G Y E V V K Y T N L T G K A I I N K A L I D F S K H
UniRef90_T1PK82	T D V D R D K L K E L F S S F G Y T P V V C N N L T H E E M Q N I I R D T V Q R
UniRef90_H0WE17	A D V D V R D M K T L L E A L E Y Q V I V R E N I T A L E M T E V K A F A A C P
UniRef90_UPI0003D08D8E	N D T E Y L R E T F T S L G Y R V Q P F L F P S S H E I T Q I V R R F N M T
UniRef90_UPI0001CEO2D	T G N N V E A L Q N T F A S L G Y E V V Q P C S A R R V D D V I R T L G Q V C M P
UniRef90_UPI000388CE52	A E K D I E V M N K W F D K Y Q F K T P S C I D P P N G Q E I L P A L E E F R D Q
UniRef90_UPI000155E979	C N H D I I G M K G L L E D L D Y S V H V E E N I T A T A T K L V L R T F A T R
UniRef90_G0XQG1	T D N D V K S L K K V F G N L G F K I I V F R D L E Y E G I I K N L T A I A T Q
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UniRef90_1IVAX0	S H N T A E K L K E A L I Q L K F E A E I F S D F T Y D E I E T K V N D I C R R
UniRef90_E9HAH1	S E K D V I H L D Q L L Q Q L G Y K V I I K S D L T W M E M N D E L E S F T K E
UniRef90_F6ZNZ2	N E T E L L R D T F T S L G Y E V Q K S L H L T M D G I L Q V L Q R V C M P
UniRef90_UPI0003314E12	G D V D H S T L V A L F K L L G Y S V H V L L D Q T A
UniRef90_F7F390	N D A E T L T A T F T S L G F E V Q C H Q C L R T E I I H K T L G Q V A C T
UniRef90_H2VEU2	A T K D A R K L H S T F K M G F K V E L H D L S S D D I Y E L F H D E S R R
UniRef90_C3Z777	F E G L K F T V R C Y M D M T F M A M I T T L Q H V G E E R
UniRef90_A9YDV4	A R R E A E K L S R V L A Q L S Y R V K L L H N R T A K E M E D L Y Q Q E C S R
UniRef90_K9K902	A E K D Q E N M E K L L K A L G Y D V V K R T N L T A K E I I D A A M I E F K N P
UniRef90_T1PAQ7	A D E D T H S L L Y L F K Q L G F K L F S Y T N L S H E V F F D I L G K L L K S
UniRef90_B4N271	T D V D K Q K L L D N V F S S L G Y Q V E A H D N K D H L E M I S L I R H A C E R
UniRef90_UPI00046B35D7	A D L D I K G L K Q T I E G L E Y T V D V K K N L T V K A M E T E L W N F A A R
UniRef90_L5L0F8	S E V D L L G M Q D L L E S L G Y S V V E K V N L T A L E M E I V L R L F A A R
UniRef90_G6CTS8	S R L D L L M A L E R T M T S L N F K V K S K N L N H E V F Q F I K D V L K Y
UniRef90_P55210-2	T D K D A E A L F K C F R S L S L G F D V I V Y N D C S C A K M Q D L L K K A S E E Q
UniRef90_UPI0003C2B5C5	N D T D M L E E T F Q E V G Y E V H C Y K Y L S V E A M N Q T L H E A S K Q
UniRef90_UPI0002A4891C	N L L D L N F D V R S Y D D A K Q T E V L L D R I H E A A E E
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UniRef90_K7FB21	T F K A L G F E V R C H K Y L S V E A M K Q T F H E V A R Q
UniRef90_F6W768	A K R D G E L M K Q L W E G F Q C K V I V K E N R T A G A M F K F L N D F S R S
UniRef90_E1C4U6	T D M L E E T F R G L D Y E V H C H K H L N V T T M N E T L I K V A R Q
UniRef90_UPI00042C37D8	N D T D L Q Q E T F T S L G Y E V K F R P H L T V N E I M H I L G Q V H M P
UniRef90_UPI000386F26A	N D T D V L L E E T F R G L G Y D V R C H R Y L N I N T M N Q L L K V A R L Q
UniRef90_Q8IRY7	T D V D K E R L I E V F S S M G Y N V E A Y D N V D H M G I I E R I R S A C D R
UniRef90_A0A034VLM2	S D Y D A K L I K E T I L K Y K L N V D T K K N P T V N N I K D T I R K L T T K
UniRef90_UPI00033447E2	S N H D I I G M K G L L E D L D Y S V X V E E N L T A R D M V L K L R I F A C C
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UniRef90_F7F274	S S I D C E K L Q R R F S L L H F M V E V K H D L T A K I N I V Y S L S Q V
UniRef90_Q9GV89	S E V D V Q A L L N S F F K G L G W C V K S C N N L K R E D I I G S I A R E Y S A
UniRef90_I1EE04	K D E A S L N S T F T S L G F D R V H Q N K T A A E I G S I A R E Y S A
UniRef90_Q5C0Y4	S S H D V T K L Q L L F E D F M Y S V A V I R N V N G E N L I K V V R E F A R K
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UniRef90_F6K5S1	C T A E F Y E T H H Q Q E M Q E K L Q S F A Q P
UniRef90_UPI00034F2819	A E R D T R I L H R A L H T R G Y R T R I L T D P D A Q D I I Y T A F H T E S K Q
UniRef90_W5LN76	A N C D A K K L H C I L T K L G Y K V E L H M D P S S K E I E D A V I D F S K R
UniRef90_UPI0004448136	A E K D E E N M E T L L K G L G Y E V V K Y R N L T G R A I E D A V I D F S K R
UniRef90_H2UDK1	W E K D V G N L M T L F E K L R F S V D I I K N C T V Q D L L K K R L D R D K Q K
UniRef90_V4B2H0	T V C D G T N M T R A F K N L H F A V H A E H N I G I H M L Q Q L I Q F D A Y H
UniRef90_E0WCW0	V Q Q L E S R I R E L G F E V R Y H P F L N V D S M V C T L N D V A R K
UniRef90_UPI0003317481	A V H D A A R L T K S M T R L G F E V R I Y R N Q P K Q N V G D L L E K L G K L
UniRef90_H9G5H6	A E K D L K L I T N W L E K C K F E Y T S C I D P N E A E I L T K E L K Q F R D G
UniRef90_E4XA23	T D I D A A S L K K T A F K L G F K V K T H D L E R K E I I Q D K M W K Y A K K
UniRef90_G3VWK1	A E V D I L N M Q E L L Q S L G Y S V V K I K E N L T D Q E M E T E L M Q F S G R
UniRef90_H2YCE3	N V A D G L R D T F S S L G F E V Q C F L C L P V K D M I Q V L H Q V S S P
UniRef90_UPI000359C072	A D V D S E S L I H F R E I G F T T F H Y K N L N Q V Q F F K T L Y E L T S S
UniRef90_UPI00033AA4B	T E D D A E I L C N L F L E L G F K I D K I N N P K S T D V L K I L K Q Q A A N E
UniRef90_B4L090	A E K D L L V M R S L F K I H K F Q V T E M I D L D L K Q Q E V I P K I T E F R N G
UniRef90_UPI0002B4129E	A G S D L K Y M K K T F K R L G F K V D C H E N V K G S E L V S I L N K C S Q Q
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 E Q S Y K M D A V T K G H M F I L N M T E  
 K N N R T R L A I I I N N M K F R F V D S R D G  
 E E I Y A M E K K T R R L A L I I C N T K Y D H P N E Q N K D C I G  
 D E R Y R M Q S Q P L G I C L I I  
 V I I F N N E R F D N S N E F R S G  
 I R K V K T G L C I I I S Q M V F I G Q K Y E T R F G  
 G L C I I I N Q M Y F M K E Y E T R F G  
 Y Y P M M N H K N R G I A V I F N H E H F D I H N L K S R T G  
 E K E Y N I S R N N G L C V I F N N V N F K N M E R R L G  
 L A V I Q D R P G D Y R N G  
 T Y S M K S K N R G I L F L V N N I K F D T  
 N I R K I K K G L C I I I N Q M F F M G E K Y E I M L Q N R E G  
 N R Y P V A S R P P G L C I V F N D S Y R M T S N P R G V C L I I D C I G N D G A K L K D C V G  
 M Q S R P L G I C L V I I D C I G N D G A K L K  
 V Y P M R S N P K G H A L I L N I N N K D K D K I I G  
 I Y P Q N V K F V G R A L I V N N D T F K G D S K K G V Y R S G  
 Y N M N F E K V G K C I I I N N K N F E P V T G M G V R N G  
 K K T N R I A L L I N I E T F N K S L Y K C R  
 E E R Y V V R K E T M G F C L I I D C V G N L Q T I C W D L E K F D N H L H Y E T R Y G  
 M G G C R E G L N F I I N N H P S K C L F Q L N I G I P S L T K C C N Q  
 E R Y V V R K E T M G F C L I I D C V G D R V G  
 D K M Y N M K K L L K G H I K I I S M E L E K F E N G L Q Y E T R F G  
 Y N L R A N Q R G V C V I I D C V G N D G G S G L S T R L G  
 I M I A I S E Y N D N T Q W P N L P N V K E K D L K N F D L A Y V L R A D P C G H C L I I I N N V N F S R A T Y H V S E D P K G Y C I I I N N N T Q K Y D D Q T I K E M K V L S N R  
 G L A I I I N N Y E Q E C D N K D K R R R H N L P I L H A P T Y K I I W T P F S Q S L I F G K I K T I I A I S E Y N D N N T W K N L V N  
 V V Y I F N H E N F S D P K L N R S G  
 P T I S A P R L I Y I F N H E T F K N D L H E P R I G  
 E K Y D L S A E R R G Y I L K N G L V I M I G I S E Y D K N M G W P N L C V I K G R S G  
 R N V H V Y I F N H E K F D T Q T E Y R V G  
 Q D R P G  
 K N Q Q N K G N E T T D G N R F K  
 Y K M D T T P R G Y C L V I S M S G K K E D R E P G  
 E K Y D L R K P A Y V L I F H N I F K N D K K F H R K G  
 R S G  
 N S D S I R F A I I D N C G E A K V E E D G T R I L R T G  
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 E E Y Q M N P E Q R G L C V I I D C V G Y D G  
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50            60            70            80

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 L E Q T F K A L | H F S V D V H Q Y L | L S S D E V F S A L N M I L N K  
 A E G D G D S L I D I F R Q I G F K I F S Y K N L D Q R Q F F N T L S A L T S Q  
 T R K D G E A V K E V F T W L Q F E T V E H M D L G A E Q I R A K V E E Y S K K  
 S A Q D V K V L R A T F E Q L K C K V E V I T D A T L A T I K R T V R M L E T K  
 A S N D S D I L I Y V F R Q L G F K I F I T T N G S R E Q F F D L L D A L L K S  
 M M  
 T D V D A A N L R E T F M N L K Y E V R N K N D L T R E E I V E L M C N V S K E  
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 A K T D R K L M K Q L W E G C Q C E V E V K E N Q T A E A M W D S L I K F S R S S  
 A E V D S N S L I H F R E L G F K I F P Y G N V N Q H Q F F E I L R K V T S S  
 S D T E V L R D T F I S L G Y Q V Q Y R L Y L Q T E D I F A T L Q E V C M P  
 A Q C D V I A A L V D L C Q A L G F K V T L R T D P T A Q E F C E E L V H F Q K R  
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 T N A D F C G I N D F F E K L N F E C H V E T D P S K K E V E C F L E E T A C R  
 T L R Q L D F V K P F D N L T A A R V Q Q E I A N L A K K L K P V S K E  
 A E V D S D S L I H L F R E M G F T I F A Y N N M N Q E Q F F D T L G K V T S K  
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 T E H D V T A L V N L C Q A L G F K V T L R T D P T A Q A F R G E L V Q F R E K  
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 A E A D E K N V R H L F E N V G F H L Q Y E Q D V P L R E L K E Y L K A L K N T  
 S E A D A D N L R D L F L D L G F D V T R L D N P K Y T D V M S N L E K K I A N K  
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 M  
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90                  100                  110                  120

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UniRef90_E9HEP5	D Y S D C D C F V M V I L S Y G I D G A V M C C E D K L I P V E Q I I S Q F Q A		
UniRef90_K1RBQ0	N F S K Y A S L V V C I L S H G E G T V F G T D G D Q V S I E D V K T Q F N N		
UniRef90_J1VAY5	T A A K Y Y C L L V F I M S H G N E D G I R T N D G K T I S L V D I V S Y F K N		
UniRef90_S9WRQ2	N H T D Y D C L L V V V M S H G Q D G K I C A F D T M Y D V E D V W M P F T S		
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UniRef90_E4WTM8	E H A D S D S C F V M V I L M S H G D E S G I C S S Q D D V F P P D E I F K C L N T		
UniRef90_I1F4H6	N M D D C E M F G L A I M T H G D A Q G I V S A K D K M L H I S S F I N P I K S		
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UniRef90_W4YQQ7	N F S N Y S C L I I I I I M S H G L M N D Q I A A D G E T Y G F E D I V E K C T S		
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UniRef90_UPI0002653872	D C S K M T C C V V A V L T H I N E E D I F C T D K P L K I I S S D I R N V F C T		
UniRef90_B2FZJ7	D H K G M C S A V F L L M A H G N E E G I Q C Y T D K K L V T T K F I R D T V S G		
UniRef90_W5MFE7	D H T E S D C L L V V I V A M A H G N N D K L T L R R S E M H I D D L W T D F V G		
UniRef90_G3VWR8	E H K M S D S T F V V I M S H G T E E G I C G V D Y N P L T T K A I G R I F S N		
UniRef90_UPI00045464CC	E H Q S S D S T F L V F M S R G T S N G I I G I D H D I L L A K D T I F E I F N N		
UniRef90_T1QGM5	G L G A C D S F A C V L V S R G G P G T V L G P A G P P F P L R R L R T F F T G G		
UniRef90_B4KUFO	D H S K Y D C F L L V V M S H G L E G Q K V Y A K D M A Y P V G R L W Q P F L G		
UniRef90_UPI000258DB00	N F E D R S A L V L V I L S H G Q R Y E T I A A K D G D Y K L D D D I I F P I		
UniRef90_W4WXO0	F G T D Y D C I F V C I L S H G C K G G V I T S D E E T V N I E T I E H K I C		
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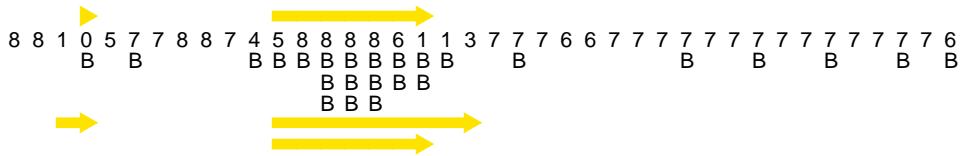
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 K G

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

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

lupas\_21  
 lupas\_14  
 lupas\_28  
 jnet  
 conf  
 sol25  
 sol5  
 sol0  
 jhmm  
 jpssm



	50	60	70	80
UniRef90_T1JIT9	E K D I T N F K Q L F E Q L N Y K I V C N P S P K M D F M D Q L V I T N L A E E		M K K Q L T N L A E E	
UniRef90_X6LLZ1			D F K R K	
UniRef90_X6LWG1	K Q L F E K E L N Y E F E C N Q F P Q I T K Q G V Q A F L T K T I V K H E L H E		I L N F Q L R K	
UniRef90_X6LCI7	E N L R C I L V K L K F K V Q L H T D L N A D A I H K V L L D L S H Q		I S K D V E S L Y K T F H K L G C S I E V H N P V F D E V S S T I K N L S R P	
UniRef90UPI0003F0611F	I S K D V E S L Y K T F H K L G C S I E V H N P V F D E V S S T I K N L S R P		T D V D V Q N I Q H V F T E I G Y E I E T H S D L T A E D L K N K L T F D S P	
UniRef90_W4XV66	T D V D V Q N I Q H V F T E I G Y E I E T H S D L T A E D L K N K L T F D S P		M K R V L R D F A A R	
UniRef90UPI00038BC5D5	M K R V L R D F A A R		E D Y E D F K K L F A D M R F D V K S Y S G E M K F T V V E N L E A V L E E E	
UniRef90_F6TBD6	E D Y E D F K K L F A D M R F D V K S Y S G E M K F T V V E N L E A V L E E E		S D K D V E K L T K T F K K F K C N V E K I R N A T L E T V Q I T A S R L E R E	
UniRef90_B4NP3	S D K D V E K L T K T F K K F K C N V E K I R N A T L E T V Q I T A S R L E R E		A M Q E I E K T M E I I S R H L G M I T H T E K N P I K E T I E R V K E E L M K P	
UniRef90_A0T2L6	A M Q E I E K T M E I I S R H L G M I T H T E K N P I K E T I E R V K E E L M K P		S H L D V G K I D Y V F K E I G F K N E T C S D L T A K Q F E D E L K F V T P	
UniRef90UPI00026549C4	S H L D V G K I D Y V F K E I G F K N E T C S D L T A K Q F E D E L K F V T P		E K D V T N F K Q L F E Q L K Y E V V C N S V P K M Q D I Q S F L N H D L H E	
UniRef90_X6LVZ7	E K D V T N F K Q L F E Q L K Y E V V C N S V P K M Q D I Q S F L N H D L H E		S D V D V R N I Q H V F T E I G Y E I E T H S D L T A E D L Q D K L T F G Y V	
UniRef90UPI0002654205	S D V D V R N I Q H V F T E I G Y E I E T H S D L T A E D L Q D K L T F G Y V		A I K E T D N V L A I S K H L G M I S H K A L D P T K E T I E S F K N E L M K P	
UniRef90_R4PV13	A I K E T D N V L A I S K H L G M I S H K A L D P T K E T I E S F K N E L M K P		F K T D A A L I K E T F V S L E F N T T V Y Y N L E A G K M S S L F S M F K H L	
UniRef90UPI0001CBA25A	F K T D A A L I K E T F V S L E F N T T V Y Y N L E A G K M S S L F S M F K H L		M G F P K G V Q E A R S R S G I E D T V R R R F G A E	
UniRef90_A8Y2G1	M G F P K G V Q E A R S R S G I E D T V R R R F G A E		K D L F E K E L K F T F V C N D S E K M T Q E D V K D F V E G T I I S H K L R K	
UniRef90_X6NGF3	K D L F E K E L K F T F V C N D S E K M T Q E D V K D F V E G T I I S H K L R K		E D E K V G E L I K T L K D L G F T V D V E K N K T R D Q M I K L L K E V A A K	
UniRef90_K1QHS5	E D E K V G E L I K T L K D L G F T V D V E K N K T R D Q M I K L L K E V A A K		S D Q D A T K L E E L F G N L N F T V E L K R N V T K E Q L E S K L R H Y Q H E	
UniRef90_11F410	S D Q D A T K L E E L F G N L N F T V E L K R N V T K E Q L E S K L R H Y Q H E		V F E Q L G F A V T I E Q N I T A T E M E N Q A A R L A E E	
UniRef90_C3ZQU2	V F E Q L G F A V T I E Q N I T A T E M E N Q A A R L A E E		L E K R A F F Y W P C F V S L G F Y S H R E T L N G S W Y I Q D I L C	
UniRef90UPI0002A4C8FE	L E K R A F F Y W P C F V S L G F Y S H R E T L N G S W Y I Q D I L C		T E S D G A S M A A F T E L G Y T I V H K H N I T G L I L A S I L R R T N I Q	
UniRef90_11FI4	T E S D G A S M A A F T E L G Y T I V H K H N I T G L I L A S I L R R T N I Q		T N K D V N R L T E V F G N L G F K V I Y N D K E H G E I D T V T E I S T R	
UniRef90_G0XQF5	T N K D V N R L T E V F G N L G F K V I Y N D K E H G E I D T V T E I S T R		A N D S A S L V A E E L Q L F G F E V R P R Q N V K K K Y I M D E I S M E N I E	
UniRef90_L1IH15	A N D S A S L V A E E L Q L F G F E V R P R Q N V K K K Y I M D E I S M E N I E		A L N Q A M E L K S T L L E N C S C Q V V L K E N K V G K M Q T A I D D L T K A	
UniRef90_R7U9S7	A L N Q A M E L K S T L L E N C S C Q V V L K E N K V G K M Q T A I D D L T K A		A K R E A E K L S E A L S E L N Y K V K L M H N S T A K E M E D L Y Q Q G P S V	
UniRef90_U3HZQ3	A K R E A E K L S E A L S E L N Y K V K L M H N S T A K E M E D L Y Q Q G P S V		S D D D I E H L M A T F V G L K C K M T I F P D A T V A D V R S T M Q A L E E K	
UniRef90_B4KUE9	S D D D I E H L M A T F V G L K C K M T I F P D A T V A D V R S T M Q A L E E K		K K L F E Q E L N Y Q F V C N Q S P Q M T K K D V Q F M D R L F V D F E L R T	
UniRef90_X6PDR1	K K L F E Q E L N Y Q F V C N Q S P Q M T K K D V Q F M D R L F V D F E L R T		N P R D A F K R L K Y K V X D K N D L T C Q E A I E L T S S F S K I	
UniRef90UPI000273A0CE	N P R D A F K R L K Y K V X D K N D L T C Q E A I E L T S S F S K I		E K D I K H F R E L F K E L N Y K F V C K E P K M K Q D V Q E F L V N L M Y K	
UniRef90_X6MMW3	E K D I K H F R E L F K E L N Y K F V C K E P K M K Q D V Q E F L V N L M Y K		E K D V K N F R E V F K Q L N Y E F V C N E K M N K E D I D E F L E N V I Y K	
UniRef90_X6LMB7	E K D V K N F R E V F K Q L N Y E F V C N E K M N K E D I D E F L E N V I Y K		K E L F E Q E L N Y E F V C N Q S P Q M T K K D V Q S F L A K L V A N Y D L H D	
UniRef90_X6M0V1	K E L F E Q E L N Y E F V C N Q S P Q M T K K D V Q S F L A K L V A N Y D L H D		K K D V E N F R Q L F E Q L G Y E F V C K E D V K Q F L I K L L S H K L V I K	
UniRef90_X6P9M6	K K D V E N F R Q L F E Q L G Y E F V C K E D V K Q F L I K L L S H K L V I K		A I K P A K K L K K T L E K C A G K V V L K E N L T V E K M K T A V D D L V K T	
UniRef90_X6NNT5	A I K P A K K L K K T L E K C A G K V V L K E N L T V E K M K T A V D D L V K T		M E T A L R Q F A H P	
UniRef90_R7TLP6	M E T A L R Q F A H P		T K L F K Q E L K Y K F V C N K E A K M N K E D V N E F L A N L T V T H K L H K	
UniRef90UPI0002ADB051	T K L F K Q E L K Y K F V C N K E A K M N K E D V N E F L A N L T V T H K L H K		K Q L F E E L Q Y D F V S N N T P N M T Q E E I K D Y L D E T I L T K K L R K	
UniRef90_X6N4E9	K Q L F E E L Q Y D F V S N N T P N M T Q E E I K D Y L D E T I L T K K L R K		V N V D C D K L K Y L F S E I G F E V L T Y Q N L T L E Q T R A T L E Q M S S V	
UniRef90_X6LJT3	V N V D C D K L K Y L F S E I G F E V L T Y Q N L T L E Q T R A T L E Q M S S V		K S V F K Q E L N Y E F I C N D K P K M N K E D V H E F L T D L M T Y H K Y K	
UniRef90_G0XQH3	K S V F K Q E L N Y E F I C N D K P K M N K E D V H E F L T D L M T Y H K Y K		S E K Y V N A L K F T I I S L G A T V E L Q K D L T Y D Q E T K K I D R I L Q D I	
UniRef90_X6ME08	S E K Y V N A L K F T I I S L G A T V E L Q K D L T Y D Q E T K K I D R I L Q D I		D K D V Q N F K H L F N T L Q Y K F V C N S E L Y M Y L S E V I L H N K L R E	
UniRef90_E9GUH6	D K D V Q N F K H L F N T L Q Y K F V C N S E L Y M Y L S E V I L H N K L R E		E Q L F Q K E L N Y E F E C N Q S P K M N K E D V H E F L T D L M T Y H K Y K	
UniRef90_X6NPJ1	E Q L F Q K E L N Y E F E C N Q S P K M N K E D V H E F L T D L M T Y H K Y K		S E K D V E Q L K S F F T E I G F D D K S Y E D L T S T E M N E I I I K E F S L Y	
UniRef90_X6NT75	S E K D V E Q L K S F F T E I G F D D K S Y E D L T S T E M N E I I I K E F S L Y		K E I F E K Q L R Y D F I S N K S D Q M S K E D V Q E F F D E M I L K H K L Y K	
UniRef90_H2DL21	K E I F E K Q L R Y D F I S N K S D Q M S K E D V Q E F F D E M I L K H K L Y K		T C C N G D R V I D T F S K L G F Q D F V Y R N M T T A D L K D I V T L L T R H	
UniRef90_X6NKG3	T C C N G D R V I D T F S K L G F Q D F V Y R N M T T A D L K D I V T L L T R H		S E R D V I Q L I R E L K I A R I P Y I L I E D C N R D Q L L E I V H Y I S S K	
UniRef90_A4KXL9	S E R D V I Q L I R E L K I A R I P Y I L I E D C N R D Q L L E I V H Y I S S K		G E N D E A S L R S T F E N L G F D V R I R L N L T A A K M E F I A A E E Y S A M	
UniRef90UPI0003C3A1CB	G E N D E A S L R S T F E N L G F D V R I R L N L T A A K M E F I A A E E Y S A M		E T D I K N F K Q L F Q K L N Y E I V C N Q S P K M N F M D R I V L N F K C K	
UniRef90_I1EFC1	E T D I K N F K Q L F Q K L N Y E I V C N Q S P K M N F M D R I V L N F K C K		Q Q I F R E E L N Y Q F M S N K H P K M Q K R S V I Q S F L A K F A A K Y K L H D	
UniRef90_X6LDV7	Q Q I F R E E L N Y Q F M S N K H P K M Q K R S V I Q S F L A K F A A K Y K L H D		E F D N D M A V V K K I F K C I G F I V H S K A D I L F E K I K Y V I N K F E M D I	
UniRef90_X6LKM7	E F D N D M A V V K K I F K C I G F I V H S K A D I L F E K I K Y V I N K F E M D I			
UniRef90UPI00046R88D1				

lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
ipssm

		90	100	110	120
UniRef90_T1JIT9	N H V N S N C I I C L S H G E E G R V I G V D G Q M I S I D D V V A E F T S				
UniRef90_X6LLZ1	N A Y D D G L I M I C G H G E N E N M L V A D G K Y I S S I D E M R T S F N C C				
UniRef90_X6LWG1	N T N K Y D G L I L V I C C G H G E N G N M L V T D G K H V S S I D E M R T S F N C C				
UniRef90_X6LCI7	N T K K Y D G L I I I C G H G E D G N M L V A D G N S I S S I D E M R T T F N C C				
UniRef90_UPI0003F0611F	D H S D H D S I I I V C V L S H Y G P G K I Y G C D G K P L T V A E L A E Y L M T				
UniRef90_B3MG31	D F K L Q S A L I I V I L S H G H P K E E I K A D N Q K Y D L L D E V I N P L				
UniRef90_W4XV66	N H E G M C S A V F V I M G L G S T T G I E C T D G L V T Y T F I M M N K V S				
UniRef90_UPI00038BC5D5	E H K S S D S T S T F L V F M S H G I F D A I C G T T H D V P L Y D S I F Q I F V N N				
UniRef90_F6TBD6	I Q R N P S C F I C M F I G H G G P G F I N T A D G K L D I H E N I L S K F M P				
UniRef90_B4N5P3	N F E E H S A L V I V V L S H G G Q N E T I M A K D G E Y S L K D I L H P I				
UniRef90_A0T2L6	K Y Q F Y S S F T C W F M S H G D S N S V V L A D G E T E R E W F L T S F				
UniRef90_UPI00026549C4	K H E G M C S A V E F V I M A H G N E T T G I Q C K C N K H I V T M K F I I M D K V N T				
UniRef90_X6LVZ7	N K N K Y D G L I I I I C G H G E D G N M L V S D G K Q V S I D I K I R S T F N C				
UniRef90_UPI0002654205	R H H Y M P S A V F V I M G N G S S T G I H C T D E P V T Y K F I L E N K V S				
UniRef90_R4PV13	K Y R F Y S S F T C W F M A H G D E E S M E F A D G N T I E R K E F L K M F S				
UniRef90_UPI0001CBA25A	D E D T D C C L L I F L I T H G S F V G V K G T D G K T L G Y D I M K E L S N				
UniRef90_A8Y2G1	A D H G D S A I L V F L T H G C V D G V Y G T D G K V F Q L N Q V F V L L S P				
UniRef90_X6NGF3	N A N N Y D G L I I M V I C G H G D D D G N V L V T E G K S V S I D E I R N A F N C				
UniRef90_1KQHS5	D F K D D Y C F I C I V L S Y G Q D G V I T C Y D G M Q L P V S E L Q E C L K G				
UniRef90_I1F410	D H S K F C T I F				
UniRef90_C3ZQU2	N N I P C S A L V V V V L S P G H D R R L H G S D K Q G V S H R D F M A Q F E E				
UniRef90_UPI0002A4C8FE					
UniRef90_I1FII4	Y P K S C K R I I A F V F A G H G E T T L L I M N D G E S I T I D F I V E T L S P				
UniRef90_G0XQF5	D H T E T S C L F F A F L T H G D K R G R L				
UniRef90_L1IH15	T L S H Y D C V L V Y I I A A V G D G E C F L A I D N E K Y I K D I W K R F E E				
UniRef90_R7U9S7	N L I A D F D N V W L V L S S H G D W E T F P N N D K P T H Q A D V I W G T D D T				
UniRef90_U3HZQ3	L H A D F G V S L L T A L S P P D A T R L C C S N M Q I R R N L H K Q S R R G G				
UniRef90_B4KUE9	N L I E D R S A V L V V I L S L C H Q Y E T I A A R D G D Y N I D E I I F P L				
UniRef90_X6PDR1	N A K Q Y D G L I M I C G H G K N G N M L V T D G K S L S I D E I R A S F N C				
UniRef90_UPI000273A0CE	D H S X R S S F I C V I P S R S E E G L I V G R D G A H E F X K I N E F F F S G				
UniRef90_X6MMW3	N L S N Y D A L I I I C G H G D A G N A L V T E G E S I S I D T I R S F F D R				
UniRef90_X6LMB7	N K R N Y D A L I I I T L G H G E G D A L V T S D G E H V P V D E I R S L F N C C				
UniRef90_X6M0V1	N T H K Y D G L I M I I C G H G E N G N M L M T D G K S L S I D E I R A L L F N C C				
UniRef90_X6P9M6	N V N N Y D G L I M I I C G H G N D N T F V T S E G K T V S I D K I L R M A F N F				
UniRef90_X6NNT5	N K K R Y D A L I I I V S G H G D K G D V L I T D G K K T S I D S I T L F N C C				
UniRef90_R7TLP6	D P A D F D S V W L V L S S H G D W N Y F R D S D N Q K H T D E D F V Q I Y S L				
UniRef90_UPI0002ADB051	E H Q S S D S T F L V F M S H G I L N G I C G T K H W D L H D D T I S E I F N N				
UniRef90_X6N4E9	N E K K Y D A L I I M I I S G H G D K G D V L V T D G K N M S I N N I R T S F F N S S				
UniRef90_X6LJT3	N V N K Y D G L I M I I C G H G D N G N V L V T E G K A V S I D E I R A S F F D C				
UniRef90_G0XQH3	L A G Y E C V F L V V S S H G H E R R Y R C S D G K F I S I Y A I V D F F N N C				
UniRef90_X6ME08	N K K Q Y D A L I I M I I S G H G K V G D V L V T E G D T I S I D E I R T S F D C				
UniRef90_E9GUH6	N N W N L F N D L V I A I M S H G R I L G R F L T A D S G E K D I I N D I C S E F S G				
UniRef90_X6NPJ1	N I N R Y D G L V F I V C C G H G E E N G L I T S D G K V V P F D E F R N K F D C				
UniRef90_X6NT75	N I K K Y D G L I I I C G H G Y G Y E K G N M L M T D G K L I I S I D E I R K I F F N C C				
UniRef90_H2DL21	I I A K N I N S A V I I I M S H G K N K R I S G I D G H F V D L Q R H V Y K I L S C C				
UniRef90_X6NKG3	N T N N Y D A V V V I I I C G H G D I G D A L V T D G K T L G I D Q I R T Q F D C				
UniRef90_A4KXL9	N H R T Y S C V V V V I I L T D G A A V G E I K T A D G S Y K L R D F M T L F D V				
UniRef90_UPI0003C3A1CB	D F R P L N N L V F I M S H G G Q D G L L Y T H D G Q I N P E A V I K P I				
UniRef90_I1EFC1	E H K G V F F I L V I S S H G G E G D I V Y				
UniRef90_X6LDV7	N T N K Y D G L I M I I C G Y G Y E N G N T L I A D G K C V S I D K I R S S F N C				
UniRef90_X6LKM7	S S H E Y D G L I I I C G H G E N G N M L V A D G K S L S I D E I Y E S L G C				
UniRef90_UPI00046R88D1	C R S F K A N S I V V F I M C H				

lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
incom

130                    140                    150

UniRef90_T1JIT9	S L A G K P K L F F I Q A C Q G N D R L R P V P V E S	
UniRef90_X6LLZ1	Y K M E S F K D L P K I F I I D A C R G E N I P K A H E I	
UniRef90_X6LWG1	D K M E S F K D L P K I F I I D A C R G E N I P K S H E I	
UniRef90_X6LC17	N K M D S L K N F P K I F I V D C R G K S I P T S H K M T T	
UniRef90_UPI0003F0611F	S K S P Q L D G K P K L F F L T A	
UniRef90_B3MG31	L K N P T L L K G K P K I L V V Q A C K G V W E A D A I P F R R D	
UniRef90_W4XV66	R M K F M K G K P K M I F F Q S S R G S R C H C	
UniRef90_UPI00038BC5D5	Q N C S H L K D K P K V V I I I Q A C R G G N	
UniRef90_F6TBD6	Q D C L K G K P K I F L F Q T C R G T R H	
UniRef90_B4N5P3	L K N Q T L N D K P K I F F V Q T C K G K	
UniRef90_A0T2L6	P D I S T F Q L K P K V F F M V S C R G A N	
UniRef90_UPI00026549C4	M K H M N G K P K I I F F Q C C R G D	
UniRef90_X6LVZ7	N E M E S F K D L P K I F I I D T C R G E N I P K A Y E	
UniRef90_UPI0002654205	R M K Y M K G K P K M I F F Q G N R E K A K E E T E A D	
UniRef90_R4PV13	N I E S F Q L K P K V F F M V S C L G T K R	
UniRef90_UPI0001CBA25A	E D C P N L A N K P K M I F L S T Y E S D D G V Q	
UniRef90_A8Y2G1	E S P Q L A L K P K L I F V E S C R G S N R D A G Y S V V E D	
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UniRef90_U3HZQ3	N K R S V T G D M K L F L I Q V S Q D T K L D C G T Y X D	
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UniRef90_X6PDR1	N K M E S L K D C P K I F I I D I C R	
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UniRef90_X6LMB7	D R I S S F Q N L P K I F F I D V C R G T	
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