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UniRef90_R9MFZ1 L G I L A D W T T D G F A Q A D A L V F V G A A G I A V R A I A P H V C H K A A D

UniRef90_S7UTZ5 E R L A T A V T R H F T R H D G H I F I M S T G I V V R M I A P L L Q H K S V D

UniRef90_UPI0004727FBF W A R G D E L Q D L F K A Y K G L M I F I S S T G I I A V R A I A P V L E D K T K D D

UniRef90_G5IHX8 E S L S A W T G K Q F E S R D G I I F V G A A G I A V R A I A P F L K D K M T D D

UniRef90_E7RVM7 G G V K E Q M G E I F R Q Y D Q L V C F V S V G A I I R L V A P H L Q G K E T D D

UniRef90_A9KP90 E P L K E W T K R Q F D E A E G I I F I G A T G I A V R A I A P F V K D K T K D D

UniRef90_R51FK1 E S S L S Q W T G K M F A E K R A M I F V S A T G I A V R A I A P W I R D K M T D D

UniRef90_H1CIE6 S S L E G W T A W A W A R A D A L V F V G A A G I A V R A I A P H V R D K F S D D

UniRef90_K0B9V0 E P T T D K I V E L F K N N S A L I C I F S L L G A V I R L V A P H L K D K K T D D

UniRef90_U2SE02 I S L E N W T R D A V T R H F T R H D G H I F I M S T G I V V R M I A P C L Q S K A V D

UniRef90_E4RK37 S S L S Q D L T A E L F K S Y D G L V F V M A L G I V V R M I A P H L Q S K K K S D D

UniRef90_D4K602 G S L A E W S S A Q F V Q S D A L I F V G A A G I A V R A I A P H C K S K T T D D

QUERY	90	100	110	120
UniRef90_S5YZG7	P A I V C I D D K I N Y V I P L L G H W G A N D I A R E L S V I L N S T P I I			
UniRef90_F5LAZ7	P A V V V I D D K G E H V I S V L L S G H G G A N E L T T R R A A A I L G A R P V I			
UniRef90_UPI00041F2B99	P A V V V I D D K G Q F A I S V L L S G H G G A N A L T T R E V V A A C L G A T P V V			
UniRef90_UPI000307BBC5	P G V V V V D D K G E N V I S V L L S G H G G A N E L T T R E I A A L L K A H P V I			
UniRef90_K0IK96	P A V V V I D D R A N H V I S A L L S G H G G A N A L T T R E V V A A A I N A R P I I			
UniRef90_E3IEZ9	P A V V V I D D K G E H V I S V L L S G H G G A N E L T T R E V V A E I L H A Q P V I			
UniRef90_W4QW25	P A V V V I D D K G Q H V I S V L L S G H G G A N E L T T R E V V A E E L L G A A P V I			
UniRef90_UPI00034594E2	P G V V V L D D K G E Y A I S V L L S G H G G A N E L T T R E V V A E N L G A I P V I			
UniRef90_K6D874	P A I V V I D D K G E N V I S V L L S G H G G A N Q L T E K I I A A L L H A N P V I			
UniRef90_UPI0004745E96	P A V V V I D D C C K N V I S V L L S G H G G A N E L T T R E V V A E N L G A I P V I			
UniRef90_F3ZW49	P A V V V I D M G K F A I S L L S G H G G A N N L T K Q V A N I I G A C P V I			
UniRef90_R516Y7	P A V L V I D E C G K F V I S L L S G H G G A N E L A L Q A A E A L H A V P I V			
UniRef90_UPI000374B9B3	P A V I V I D E Q G E H V I S M L S G H G G A N R L T T R E I A E E L L D S H P V I			
UniRef90_T0BN77	P G V V V I D D R A E H V I S V L L S G H G G A N D L T R K V V A A A L G A R P V I			
UniRef90_R7CMV8	P A V L V V D E C G K F V I S L L S G H G G A N E L A L K T A E I I L E A I P V V			
UniRef90_UPI00047AAC39	P A V V V V D D K G Q F V I S V L L S G H G G A N E L T H E L S Q H I Q A T P V I			
UniRef90_F4XEY2	P A V I V V D E G G Q F V I P I I S V L L S G H G G A N D L A R E I I A T L I G A V P V I			
UniRef90_A9A121	P A V I V I D D K T N F V I S V L L S G H G G A N E L T E K I I A E K L Q A Q P V I			
UniRef90_D4LSG3	P A V L V V D E C G K F V I S L L S G H G G A N A L T L K T A E I I L G A E P V V			
UniRef90_R7DBH6	P A V L V I D E C G K F V I S L L S G H G G A N E L T L E V A E L L G A V P V V			
UniRef90_F4B858	P A V I A I D D E G K F V I P I I S V L L G A H W G A N E Y A E E I L A R L L D S T P V I			
UniRef90_R6L1H0	P A V L V V D E C G Q F V I S L L S G H G G A N A L T L E T A E I I L E A Q P V I			
UniRef90_R6NPL4	P A V V V V D E Q G Q F A I S L L S G H G G A N E L T E E I I A E I I L R A Q P V I			
UniRef90_V6AVF6	P A V I V I D D K A S F V I S A L S G H G G A N E L A Q Q I I A D K L G A T P V I			
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UniRef90_B1HRE9	P G V V V I D D R G E N V I S V L L S G H G G A N E L T H E V V A A A L G A N P I I			
UniRef90_UPI00036F62F9	P A V V V V D D K A Q F A I S V L L S G H G G A N A L T E R V A E I L G A T P V V			
UniRef90_U6SNM8	P A V V V I D D K G E H V I S V L L S G H G G A N E L T K E V A N I I L D A K P V I			
UniRef90_G8TU81	P A V V V I D D R A R H V I S V L L S G H G G A N Q L T A R D I V A R V L H A T P V I			
UniRef90_X4ZH42	P A V I V I D D R G Q H V I S V L L S G H G G A N A L T L E V A K A L G A R P V I			
UniRef90_R5NK82	P A V L V I D E C G Q F V I S L L S G H G G A N E L T A V R C A G Y L H A T P V V			
UniRef90_R5HA92	P A V V V V D E G G G R F V I P I I S L L S G H G G A N G L A H R I I A A A G G G S P V I			
UniRef90_U5CLW3	P A V V V V D E K G G L F A I S L L S G H G G A N E L L A K R I V A E I L E A Q P V I			
UniRef90_A0A023X237	P G V V C V D A R R F A V A L L V S G H G G A N E L A R R V A E T L G A E E A V I			
UniRef90_O87697	P A V V V V D D K G E N V I S V L L S G H G G A N E L T R E V V A A A L R A H P V I			
UniRef90_UPI0003749395	P A V I V I D D K A Q F V I S T L S G H G G A N K L T N D I A D K L G A T P V I			
UniRef90_UPI000470F1D6	P A V I V I D E R G E H V V S M I S G H G G A N R L T R Q V A Q L L D S H P V I			
UniRef90_F9VN11	P A V L V V D D S G K Y V I P I I S L L G A H W G A N D L A L L I S K L L N A E A I			
UniRef90_B0K2L0	P A V V V V D E K G K F A I S M I S G H G G A N R L T L E V A S I I I G A Q P V I			
UniRef90_W4EC68	P A V I V I D E R G E N V I S M L S G H G G A N R L T L E V A S I I I G A Q P V I			
UniRef90_U1W918	P G V V V V D D R G H H A I S V L L S G H G G A N E L T R E V V A A L L G A Q P V I			
UniRef90_R5XPE3	P A V L V I D E C G K F V I S L L S G H G G A N E L A L T A S E I I L N A Q A V V			
UniRef90_R6R024	P A V I A I D E T G N F S V P I I S L L S G H G G A N D L A E Q A F L T G A V P V I			
UniRef90_R5QFV4	S P V L V M D E K G K H I P I I S L L S G H G G A N E L A C R I L A E A T G A E P V L			
UniRef90_F8DQ07	P A V I V M D E Q A N S V I S L L S G H G G A N Q W T R L I A R L T G A T P V I			
UniRef90_U4Q815	P A V V V V D E Q G R F F S I S L L S G H G G A N E L L A S K V V A Q V L K C M P V I			
UniRef90_D9TRJ5	P A V V V V D E K G K F A I S L L S G H G G A N E L T L K V V A S A I G A Q P V I			
UniRef90_D5WT74	P A V V V V D D A G R F F A I S V L L S G H G G A N R L A E R V V A E V L G A Q P V I			
UniRef90_R7FAK5	P A V I V L D Q N G T F V I S L L S G H G G A N Y L T K R I I A A A I Q A Q P V I			
UniRef90_D3E2H9	P A V V V V D E C G Q F S I P I I S L L S G H G G A N E L A L Q I I A D I L N A I P V I			
UniRef90_K9D504	P A V V V M D E Q G H F A I S L L S G H G G A N E W T A E I I A Q V I G A T P V I			
UniRef90_UPI00047C5CF4	P A I M V M D E Q G R F V I S L L S G H G G A N A Y T E K I I A K G I L G A I P V I			
UniRef90_R6R413	P A V V V L D E C G R F A V P I I S L L S G H G G A N A L T H E V V A A A L D A R A I			
UniRef90_UPI00037B03A9	P G V V V I D D R G E N V I S V L L S G H G G A N E L T H E V V A A A L D A R A I			
UniRef90_R6W70	P A V V V I D E Q G K F A I S S L S G H G G A N E L T R Q V V A A L L H A R P V I			
UniRef90_M8D761	P A V V V I D D K A E H V I S V L L S G H G G A N E L T R E E I V A E T L G A Q P V I			
UniRef90_M6D1U5	P A V L C V D D R A N F S I C V I S V L L S G H G R G N F F T E R E L A E T L A N I P V I			
UniRef90_U5RRRL5	P A V V V I D S S C K F I I S L L S G H G G A N E L T C K L L A S I I L K A V P V I			
UniRef90_UPI00042528FD	P A V V V M D D M G R F S I S L L S G H G G A N E L A E R L A S R C A A I I T G G Q A V I			
UniRef90_E6VQP4	P A V V C L D Q D G R F A V P I I S L L S G H G G A N E L A S R C A A I I T G G Q A V I			
UniRef90_B7IHG5	P A V V V I D E K G N F V I S L L S G H G G A N E L L A K R L I S K I I L D A V P V I			
UniRef90_R5A5D4	P A V V A V D E R A Q F A I P I I S L L S G H G G A N S L A R A V V S Q V C G A Q A V I			
UniRef90_E9SKQ1	P A V I V V D E L G N F T V I S S L L S G H G G A N E L A L A A S I I L G A Q P V I			
UniRef90_A1HPX3	P A V V V V D E A G E H A I S V L L S G H G G A N D L A R L V V A N A I G A R P V I			
UniRef90_C3L320	P A V I V I D S T G K Y V I S V L L S G H G G A N E L A A E K I I A R V L E A E P V I			
UniRef90_W4LL55	P G V V T V D E A S R F V I A L L S G H G G A N A L L A R T V V A G H L G A T P V I			
UniRef90_F9N797	P A I L V M D E G G G H F V I S S L L S G H G G A N E W T S E V V A M I T G A T P V I			
UniRef90_A6LKW6	P A V V V I D E L G K N V I S S L L S G H G G A N E L T L K I I A K I I L N A N P V I			
UniRef90_B8FH70	P A V I C G D E A G H F V I S S L V S G H G G A N E L L A R E I L A S I I L D A Q P V I			
UniRef90_F3KN53	P A V I V I D D K A N F F V I S S V L L S G H G G A N E L T T Q I I A Q K L I D A K P V I			
UniRef90_R8W575	P A V L V V D E N A K F V I S S L L S G H G G A N A L T E Q I I A Q A L I G A Q A V I			
UniRef90_D9SP01	P A V V V I D Q K G K H V I S S L L S G H G G A N E I L A R N I V A K V I S A T P V I			
UniRef90_F2NFE4	P A V V V L D Q E G R F A V P I I S S L L S G H G G A N E I L A C R V V A A T L G G T P V I			
UniRef90_UPI000370A2EF	P G V L V I D D A A E F V I P V I I S S L L S G H G G A N A Y A E K V V A A L L N A T P V L			
UniRef90_T0FB61	P A V I C V D D K G S F S I C V I I S S L L S G H G R G N F F T Q I V S K A L E N T P V I			
UniRef90_M1WW62	P A V V V C M D Q E G Q F S I A V P I I S L L S G H G G A N E L A V R C A E C I I G H P V I			
UniRef90_AORYY2	P A V V V I D D A E N F V I S T L S G H G G A N R M A E V V A A K L G A T P V V			
UniRef90_V614Z7	P A V I C V D D R A N F S I C V I I S T L S G H G R G N F F T E R E L A K T L S N T A V I			
UniRef90_R9MFZ1	P A V V V V D E A G R F A V P I I I S L L S G H G G A N D L L A R R I I A A Q C G A V P V I			
UniRef90_S7UTZ5	P A V V V I D E L G I H A V S I L L S G H G G A N A L L A R R A A E A V D A V P V I			
UniRef90_UPI0004727FBF	P A V I V I D E C G R H A I S V L L S G H G G A N E L T L A A A K A I G A K P I I			
UniRef90_G5IHX8	P A V V V D E R G R F A I S L L S G H G G A N E L L A G L A A E I I L G A V P V I			
UniRef90_E7RVM7	P G V I A V D D A A R F V V P I I I S L L S G H G G A N V W A E Q V A R L L G A T P V L			
UniRef90_A9KP90	P A V L V I D E K G E F V I P I I I S L L S G H G G A N E L L A Y E I I A S L I R A I P V I			
UniRef90_R51FK1	P P V V T V D E G A Q F V I P I I I S L L S G H G G A N E L L A R H I I A D W L E A V P V I			
UniRef90_H1CIE6	P A V V S V D E A G R F V V P I I I S L L S G H G G A N E L L A R R V V A A L T G G Q A A V			
UniRef90_K0B9V0	P A V L V I D D K K N F V I S V L L S G H G G A N E L L T E E I I A E K I G A Q S V I			
UniRef90_U2SE02	P A V V A V D E S G R Y A V P V V I S S L L S G H G G A N D L L A R E I I A R I I C G A E A V I			
UniRef90_E4RK37	P A V V T I D E K G G N N V I S T L S G H G G A N K L S L D I A Q K I G A N A V I			
UniRef90_D4K602	P A V V V V D E C G R F A V P I I I S L L S G H G G A N D L A R A I I A T V C G A V P V I			

QUERY	130	140	150	160
UniRef90_S5YZG7	T K L S I E R A N I L I A K I I N P E N I V K I N A A L L R D E S C I D G I			
UniRef90_F5LAZ7	T T A S D D L F G R E F G W A W E S D D N L T P V S A A V V N N E E P V A I N W W			
UniRef90_UPI00041F2B99	T T A S D D L F G R Q F G W E W E S P E K L T P V S A A V V N N E E Q V A V N W W			
UniRef90_UPI000307BBC5	T T A S D D L F G K R F G W V W D S A E K L T P V S A S V V N N E E K V A V I Y Q D			
UniRef90_K0IK96	T T A A D D L V G R E F G W T I E N F E N V T K T S A F M V N N E E K V A V I Y Q D			
UniRef90_E3IEZ9	T T A S D D L F G R S F G W G W E W E S A E K L T P V S A A V V N N E E Q V A V I D W W			
UniRef90_W4QW25	T T A S D D L F G K R F G W V W D S A E K L T P V S A S V V N N E E H V A V A V N W W			
UniRef90_UPI00034594E2	T T A S D D L F G R E F G W Q Y E S D E K L T P V S A A V V N N E E K V A V A V N W W			
UniRef90_K6D874	T T A S D D L F G S R F G W V W D S A E K L T P V S A S V V N N E E H V A V A V N W W			
UniRef90_UPI0004745E96	T T A S D D L F G K R F G W V W D S A E K L T P V S A S V V N N E E H V A V A V N W W			
UniRef90_F3ZW49	T T A S D D L F G A D E H G L K I E N K N D V K T V S A A L I N G G R V A W Y T D			
UniRef90_R516Y7	T T A T D D D V F A K K N N C H I F R M K E A K E V S A A L L A G E K V G F Y E F			
UniRef90_UPI000374B9B3	T T A S D D L L G R E F G W R A D S F A P M K T V S A A V V N N E E A V A F L W L			
UniRef90_TOBN77	T T A S D D L L G R A Y G W E A N F E K V T P V S A A V V N N E Q R V H I D W W			
UniRef90_R7CMV8	T T A T D D D V F A K K N N C S I F N M K A A K E V S A A L L A G K K V G F Y E F			
UniRef90_UPI00047AAC39	T T A S D D L F G R E F G W I V E Y D K K V T P V S S A V V N N E E P I V I N W W			
UniRef90_F4XEY2	T T A T D D D Q W A R R Q G Q L M V C N P E Q I L S V S S R L L A G E T V G F S A W			
UniRef90_A9A121	T T A A D D L L V G R D F G W K I D D D S N V T R I S S A H M V N E E P I G V F Q E			
UniRef90_D4LSG3	T T A T D D D V F A K K N N C H A I F N M K A A K E V S A A I L L A G E S V G F Y E F			
UniRef90_R7DBH6	T T A T D D D V F A K K N N C C G Q N M K A A K A V S A A I L L A G E P V G F Y E F			
UniRef90_F4B858	T T A S V E E F A K L I N C K L N V E N I V K I T S A L L L R G E E V C V K G L			
UniRef90_R6L1H0	T T A T D D D V F A K K N G C E F F M K A A K E V S A A L L L A G E S V G F Y E F			
UniRef90_R6NPL4	T T A T D D D V F A K K N G C F S D M E L A K E I S A A L L L A G K E V G V S D F			
UniRef90_V6AVF6	T T A A D D L L G R E F G W K I D D D S N V T R I S A F M V N E E K I G I Y Q D			
UniRef90_I5B077	T T A T D D D V I A R D Q G L Y I E N K A A I K H V S M A F I K G E P L P V H D P			
UniRef90_R5C913	T T A T D D D V F A K K N D C A I F P M T A A K A F S A A L L A G E P V G F Y D F			
UniRef90_B1HRE9	T T A S D D L L G A R F G W V W D S A D K L T P V S A S V V N N E E H V A I D W W			
UniRef90_UPI00036F62F9	T T A S D D L L G R E F G W Q L D D D R H V T P A S A A V V N N E E P V A V I W W			
UniRef90_U6SNM8	T T A S D D L L F G S R F G W E W E S A K F L T P V S A S V V N N E E H V A I E W W			
UniRef90_G8TU81	T T A S D D L L G R E F G W V I E N E N E L I T A V S A A V V V N N E E R I L V D W W			
UniRef90_X4ZH42	T T A S D D L L F G R G F G W E I E S F D K A T P V S A S V V V N E E H V A I V Q W W			
UniRef90_R5NK82	T T A T D D D V F A K K N G C A I F H M K A A K E V A S A A L L L A G E K I G F Y E F			
UniRef90_R5HA92	T T A T D D D S W A K E Q N C H V M E P E R I I K G V S G K L L E G E T I W M C P W			
UniRef90_U5CLW3	T T A T D D D V F A K E E E G Y L I E N E K D L L K K V S A A L L V N G E K V K F V V I E			
UniRef90_A0A023X237	T T A S D D D A F G R D L G F K L E R G S D V A S V A S A L L V S G E T V R L E W R			
UniRef90_O87697	T T A S D D D L F G K R F G W V W E S A E N V T P V S A S V V V N E E E I A V S W W			
UniRef90_UPI0003749395	T T A A D D L V G K D F G W K I D D D S N V T K I S A F M V N E E K I G V Y Q D			
UniRef90_UPI000470F1D6	T T A S D D D L L G S E F G W R A E S F A A M K T V S S A A L L V N G E A V A F L W L			
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QUERY

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M K E L A V V V L G R R G K E L A R R L K E G L P S P V K V Y L P Y
R I A I I A I T R N G A R L L G S Q L R E G L G T A D L H V L Q K
M P A V A V Y A V T R K G A R L S R R L A E A L D G E E S G V Q G F
M K R P L A F V A I T K H G V H M V R Q L Q E Q L E Q A D V Y Y M D K
R I A L V G I T V H A I T K H G S A Q A T L A R Q R P Q A S L C V A Y E
N T A K P I A L F C L T P N G V R L A Q R L Q A Q L Q L A P G F I P F N
K V A V V V A L T K Q G I Q K G A E V E K A L T K R G H Q V M F F
V R L L A F T Q K G M E L A R R L A A E I L S G E A A R C G E G
A S F S Y T E R G K E L A R V S A L L T E A G
K T A V I A I A L T K H S V A H A L K L V S S M E N T T L L V S E K
K L A V I S F T E R G S R L N A A V T E L L R Y A E K Y G L S D
K I T I I T L T K G G L E L A L K V R N F L P E A E L F T M P D
R I A L V G I T V H A I T K H G S A Q A T L A R Q R P Q A S L C V A Y E
K I A I I T T E N G D K I A S L I K K G I S G E T S E E S D Y
R V A V I A I A I T R N G G L L G Q K L V Q G L R A N V T I F S K
K I S L V C F T R A G A G L C V R L M E G L S K S G D V C E G F
K I A I I I A L T K G G K T L A L V L Q E F L E E S H H Y L K G P
K E Y A L F C L T E G G I A L A R R L Q S Y L L A N T D G R F M A F
K L A M A A F T A R G A A L G R Q L A A A L T A E E L D L P A M
M K E N I A I I L V S E E G G L P T A R L I S H E L G D A P V F T T H F
R I A L V A I T K H G L S Q A L R L A A Q L P D A C L T V S E K
N T E N K T A I L A I T E N G R N L A I K I S D L L G G C D I Y F K K S
R G I A V I Y A T A E D S A R K I W N I K K E Y P S V L F
R I M K I S I I N V T K M G N D I A Y K I K E H L N D K H Y F K K E D
R V A I I A I T A N G A K L G A D L K R G L P Q S T L F V I E K
I G L L A F T R R G E V L S H R I S D F F P N E S C Y N R E K
R V A I I A I T A N G A K L G A D L K R G L P Q S T L F V I E K
D
R V A I C L A F T E K G Y T L A C R L A M A L D G T A D R S G Q P
R I T L I S F T Q K S S L L C K R L V D Y L K E E G H S I V A Y
N I A V F S L T E N G R Q L S A R T A D V L H T D D N S A V V F
M K K T G L I A F T E H G C V L G E K L R E L P E K H P F R K V K
K L A G I C F T T E G K K I A L D V R R I L D D F Y N S D K V K
G L A I W S I T P N G K I L G Q K I Q K S V Q G S T L F V S A F
K I G I I S F T A K G S R L C S R L A N G L A G E M L E C T G Y
A L F V L T E R G L E T A E R V R G V L P S A A G Q E A A A
I V I L S F T D A G C Q M A C K V R E N F I Q S G Y R V K V Y
A I F T F T Q S G F L L G I N L A K A L E E Q G K K H I Y T Y
A I I C L T A R G Y Q L G Q R I K N E I P D R D Y D A L I F
R L S C F T E A G A G L C I K L Q E L P G G D L M I P V S S
M I E R F W R G V L I L S V S E E G W K T A E D I T D R L R S E D I C C T G Y
A V I S F T G K G G R W N R V I T D R L R S E D I C C T G Y
R I A I C F S P S G A T L G Q R I A A D W E L T Q C F G A D H
K K I A I I A I T R N G A R L G T Q L R D G L G S A E L Y V L Q K
R L S L I C F T G A G A K L G A R L L K E L K L S G H E C R G Y
K V S I I S F S R A G Y R L S E M L Y W V M K E R G Y E V E S Y
N L A V I A I A T D N G I K T A F R I A E E M E G L D I Y L P Y T
K I A S I A F T E N G A K I V K M L V R E I G V K G Y V F E F
Y Y I T A A G K Q I A E P L Q Q Q F G G I L R G K E
K L S I V A F T K T G A A L L N R L K D L L Q A Q E Y E V G I Y
N L S I T F T E N G T K L A E K I R Q A F V N T K T E E A K N
A A I A L T R S G I I Q A R R L R E E I S G L T V Y A M P D
R I A V V S L N E K G D N I A S T I A D N I D I D I Y S K A E
L S V I S F T E N G L A L S G K V R E T F T A E E V A V Y V E
K I A C F S T E E G R K L G N Q I V D S M E A G E P Y S I H S
M T K I A I L A I T P T G I E L A K K I R M T W D D E D L F V F P T
T W P R M A V Y A M T R Q G L G L A G R I A A M A P S A E G E V R G F
M K K I A V Y S F T E K G N L I G E K M I S G L D S Q I E H F Y N A K
K P Y A V Y A I T L H G L G I A Q R L L S G L P G A E L Y V S E K
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K I G I V S V I T D S G D I M A E K L K K Y Y D A H I Y A V K D
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R I A V L A I T R G G A R L A G R L G H L L P D Q V H L Y L P F
L A L F C L T P G G V R L A Q R L Q P M L A Q I S L H S E S F
A I L A L T K G G A Q I A A T L G K L L G Q A Q L Y T R Y F
V S L F S L T P G G Q Q I A R R L R Q A F P A L S G F L P F D
K I S I I L A F T A N G V A L S L K I K E L L D S Q G N Q T A C Y
R L C I V A I T R H G A S Q A A R L A Q A L P Q A D I C T A Y E
K L S I I S F T E N G K R L S E H I Q K V L D K D M S V C L Y T
R I A V V S I T K H G V E K A R H L H Q V L P G S H L Y Y M E K
N Y A I V A I T K H G T D I A R K L G R S F Q N A D I Y Y M D K
M K N I T I I S F T K K G G D I N K R L T D I L S E S D I T V K P L
K I A V I S V T E N G N K I R M A A G I K H C D G S A V P F
R I A V V S I T K H G I A L A G K V V V A A L P G A Q L F T C Y E
M T N E A A P R V V L V A I T K H G A Q Q A A G L A R Q L P E A S V C V A Y A
I A I V S I T N A G T K I G I Q I K Q A L K N L V D H S I A K
V A V H A I T K N G V A L A R Q L A E V M P E V E L F I G F S
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	50	60	70	80
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UniRef90_D7AE02	F A L L K G L V A R L W P D V K G F V	F I M A A G I V V R M I	A P L L E S K D K D D	
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UniRef90_A0LCC7	F P I K H H M A E L L A S F E Q L V	F F V S I G G V V R L I	A P H L K S K E S D D	
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UniRef90_UP10004786D1E	G S L L K D L V K D K F N F Y D I L I	F I M S T G I V V R T I	A P L L Q H K S Q D D	
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UniRef90_UP10001C36F30	G S V V S S L V G D I F R K M D A L I	F F V C A C G I A V R A I	A P F I R S K T T T D D	
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UniRef90_A6TJF0	L P L G E K V A Q L F S A Y D I L V	F I M A T G I V V R S I	A P L L Q H K S Q D D	
UniRef90_W1JAR9	E G F A N T V R K V V F T Q Y E A L I	M I G A T G I A I R V I	A P L L K D K M T D D	
UniRef90_A6NSF3	D S L A D W T V A R E F A R A D G L I	F V V G A C G I A V R A I	A P H V K D K L L T D D	
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UniRef90_G9F055	F F N F K E I L V K K S F Q D Y D A I	F I I S T G I A V R A I	S P F I Q S K D K D D	
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UniRef90_K0NQU0	K K L L S K E I H Q F S A F G G H I	F I I F S T G I A V R M I	A P L L K S K M I D D	
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UniRef90_R4KLN7	N E L L A P V V Q S V F N R N R Q L I I	F I I M A L G I V V R M I	A G H I R D K T T T D D	
UniRef90_D9R4B5	T S L S Q S W T Q E R Q S Q K E G I V	F I I M A G A G I A V R A I	A P F L R S K A E D D	
UniRef90_A0A031LQP7	S Y N P K I L E N Y W D C I D L V I	F I I M A L E G S I R I S C I R F A K S K D K D D	S C I R F A K S K D K D D	
UniRef90_F7KC04	G F Y K E L L M E S L F S S C D L L L	F I I G A A G I A V R A V	A P P F I R G K A Q D D	
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UniRef90_F0JIY0	E S S L L Q E W T G N Q F E T R E G L I	F I I G A A G I A V R A I	A P P H L R G K T E D D	
UniRef90_N9VSH0	S S S L Q E W T G N Q F E T R E G L I	F I I G A A G I A V R A I	A P P W V K D K R T D D	
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UniRef90_D9QVW2	T S L S Q S W T Q E R Q S Q K E G I V	F V V G A C G I A V R A I	A P F V V R D K R S D D	
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UniRef90_R7ILH5	F N V K S I L T E E L M Q K Y Q A L L	F I I F T A C G I A V R A I	A P Y I K S K D K D D	
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UniRef90_R2P8C9	F E I K T L M E A T W K E Y D G I I	F I I I S T G I A V R M I	A P Y V V K D K K S S D D	
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UniRef90_S9P0I5	T A G G S L I I P D D F K N R D A L I	F I I I S T G I A V R M I	A P L L H S K T T D D	
UniRef90_R7R7H4	L P M G P T L S R T F T A Y D C H I I	F I I I S T G I A V R M I	A P L L E D D K K V D D	
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UniRef90_G9Y6K8	G S F A A S M A Q A F T R F D A L V	F I I G A T G I V V V R V L	A P L L Q D K L Q D D	
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UniRef90_UP100036099D4	F T K G D E F P A L F P K Y Q G L I I	F I I M A G A C G I A V R A I	A P L L K D K K V D D	
UniRef90_R9IJZ9	G N L K C I T E V K R H F T D D A V I	F I I M A G A C G I A V R S I	A P Y I K D K F C D D	
UniRef90_S0G3H3	D D M K Q M T A K C Y G E Y D G I I	F I I M A G A C G I A V R M I	A P H V V S K L S D D	
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UniRef90_N0AVW4	T R L I G D A V A D Q F H A Y G A H I	F I I M I L A G A I V R V I	A P H I R K K T T T D D	
UniRef90_I0R5Q6	F M V G D E F A D F E K K Y N G L I I	F F I S L G A V V R M M A	P V L Q D D K K V D D	
UniRef90_R7L0S1	F T K G D E F P A L F P K Y Q G L I I	F I I M I L A G A I V R V I	A P L L Q D D K K V D D	
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UniRef90_UP1000368BD47	R S I T A F V V S E Q F S R Y D A L I	F V G A L G I C V R A I	A S S V Q S K Y T D D	

	90					100					110					120																															
UniRef90_R6E977	S	P	V	L	V	M	D	E	R	A	E	Y	V	I	P	L	L	S	G	H	G	A	V	E	I	A	R	E	I	I	A	G	S	V	G	A	K	P	V	I							
UniRef90_A4J811	P	A	V	V	V	L	D	E	K	G	Q	H	A	I	S	L	L	S	G	H	G	G	A	N	V	L	A	Q	R	I	A	V	L	I	G	G	T	A	V	V							
UniRef90_A9D3E3	P	A	V	V	C	V	D	E	Q	G	H	H	A	V	A	F	A	G	H	H	G	G	A	N	E	M	S	R	R	V	V	A	Y	L	G	T	A	V	V								
UniRef90_UP100030D9224	P	G	V	V	V	D	D	A	A	R	F	V	V	P	V	L	S	G	H	G	G	A	N	E	L	T	R	E	V	V	A	A	A	A	L	E	A	R	A	V	V						
UniRef90_F8FEM9	P	G	I	V	V	I	D	D	R	G	E	N	V	I	S	V	L	S	G	H	G	G	A	N	E	L	T	R	E	V	V	A	A	A	A	L	E	A	R	A	V	V					
UniRef90_U2KAN6	P	A	V	V	V	L	D	Q	R	G	K	H	V	V	S	L	L	S	G	H	G	G	A	N	A	M	A	E	Q	A	V	V	A	A	A	A	L	E	A	R	A	V	V				
UniRef90_F6B828	P	A	V	V	V	I	D	E	Q	G	Q	F	V	V	S	L	L	S	G	H	G	G	A	N	E	L	A	R	R	V	V	V	A	E	L	L	G	A	R	A	V	V					
UniRef90_C9RCU4	P	P	V	V	V	V	D	E	G	G	R	F	A	V	S	L	L	S	G	H	G	G	A	N	E	L	A	E	K	V	V	V	G	I	L	R	A	V	P	V	V						
UniRef90_D7AE02	P	A	V	V	V	M	D	E	G	G	R	F	A	V	S	L	L	S	G	H	G	G	A	N	E	L	A	C	R	C	V	V	A	A	A	A	L	E	A	R	E	V	V				
UniRef90_F3Z200	P	A	V	V	V	L	D	E	A	G	R	F	A	V	S	L	L	S	G	H	G	G	A	N	E	L	A	I	T	V	V	V	A	A	A	A	L	E	A	V	T	P	V	V			
UniRef90_UP10003B6511D	P	A	V	V	V	D	D	K	G	Q	F	A	V	S	P	V	L	S	G	H	G	G	A	N	E	L	A	K	R	V	V	V	V	A	A	A	A	L	E	A	V	T	P	V	V		
UniRef90_H0C2A7	P	G	V	V	V	D	D	A	R	F	V	V	P	V	L	S	G	H	G	G	A	N	E	L	A	M	E	T	V	V	V	V	A	A	A	A	L	G	A	D	P	V	V				
UniRef90_UP1000468CE7E	P	A	V	V	V	I	D	E	R	G	Q	H	A	I	S	L	L	S	G	H	G	G	A	N	E	L	T	L	R	L	V	V	V	A	A	A	A	L	G	A	D	P	V	V			
UniRef90_D5XFJ7	P	A	V	V	V	L	D	E	K	G	C	N	V	I	S	V	L	S	G	H	G	G	A	N	E	L	T	S	E	L	V	V	V	A	A	A	A	L	E	M	G	A	N	P	V	V	
UniRef90_G9RQE0	P	A	V	V	A	V	D	E	C	G	R	F	A	V	P	L	L	S	G	H	G	G	A	N	E	L	A	R	R	I	V	V	V	A	A	A	A	L	P	G	A	L	P	V	V		
UniRef90_H1HS61	P	A	V	L	C	L	D	E	Y	G	R	F	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	R	F	L	V	V	V	A	A	A	A	L	G	A	A	V	A	V	V		
UniRef90_A0LCC7	P	G	V	V	C	V	D	A	A	R	F	V	V	P	V	L	S	G	H	G	G	A	N	E	L	A	K	R	V	V	V	V	A	A	A	A	L	G	A	E	P	V	V				
UniRef90_C6L9S7	P	A	V	V	V	M	D	E	K	G	V	V	S	L	L	S	G	H	G	G	A	N	E	L	A	M	E	T	V	V	V	V	A	A	A	A	L	G	A	D	P	V	V				
UniRef90_UP10004786D1E	P	A	V	V	V	M	D	E	A	G	R	N	V	S	L	L	S	G	H	G	G	A	N	E	L	A	T	R	R	V	V	V	V	A	A	A	A	L	G	A	N	P	V	V			
UniRef90_UP10003B6111E	P	G	V	V	V	I	D	E	K	G	S	F	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	R	R	I	V	V	V	A	A	A	A	L	P	V	V						
UniRef90_Q897J7	P	A	V	V	V	M	D	D	A	G	T	F	A	V	S	L	L	S	G	H	G	G	A	N	E	L	A	E	R	C	V	V	V	A	A	A	A	L	S	G	A	R	P	V	V		
UniRef90_A1AU03	P	A	V	V	V	M	D	D	K	G	R	F	V	V	P	V	L	S	G	H	G	G	A	N	E	L	A	E	R	C	V	V	V	A	A	A	A	L	S	G	A	R	P	V	V		
UniRef90_UP10001C36F30	P	A	V	V	V	I	D	E	K	G	R	F	V	V	P	V	L	S	G	H	G	G	A	N	E	L	A	E	R	E	V	V	V	A	A	A	A	L	S	G	A	R	P	V	V		
UniRef90_UP10003B336AF	P	A	V	V	V	C	I	D	D	A	G	F	V	V	P	V	L	S	G	H	G	G	A	N	E	L	A	E	R	E	V	V	V	A	A	A	A	L	S	G	A	R	P	V	V		
UniRef90_UP10004632CD2	P	A	V	V	V	L	D	L	G	R	F	S	V	V	P	V	L	S	G	H	G	G	A	N	E	L	A	E	R	A	V	V	V	A	A	A	A	L	S	G	Q	A	V	V			
UniRef90_A6TJF0	P	G	V	V	M	D	E	K	G	Q	N	V	V	S	L	L	S	G	H	G	G	A	N	E	L	A	M	T	Q	R	V	V	V	A	A	A	A	L	T	M	I	N	A	P	V	V	
UniRef90_W1JAR9	P	A	V	V	V	L	D	E	K	G	Q	F	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	D	I	L	D	G	Q	A	V	V	V	A	V	V	V	V	V	V	V		
UniRef90_A6NSF3	P	A	V	V	V	A	V	D	E	A	G	R	W	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	R	R	I	V	V	V	A	A	A	A	L	T	G	Q	A	V	V		
UniRef90_UP10004632CD2	P	A	V	V	V	C	V	D	S	T	G	R	F	V	V	P	V	L	S	G	H	G	G	A	N	E	L	A	E	I	N	A	T	P	V	V	V	V	V	V	V	V	V	V	V		
UniRef90_E8WQC2	P	A	V	V	V	L	D	E	A	G	H	F	A	V	S	L	L	S	G	H	G	G	A	N	E	L	A	T	T	C	V	V	V	A	A	A	A	L	T	G	A	T	V	V			
UniRef90_G9F055	P	A	V	V	V	I	D	E	K	G	R	F	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	E	T	K	I	V	V	V	A	A	A	A	L	S	G	A	E	P	V	V	
UniRef90_D1PMC8	P	A	V	V	V	A	V	D	E	C	G	H	F	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	E	R	S	I	V	V	V	A	A	A	A	L	S	G	A	E	P	V	V
UniRef90_G8LZA2	P	A	V	V	V	I	N	E	T	G	E	Y	V	V	P	V	L	S	G	H	G	G	A	N	E	L	A	H	K	L	V	V	V	A	A	A	A	L	T	G	G	R	A	I	V	V	
UniRef90_W7V0Z1	P	A	V	V	V	M	D	D	S	G	N	F	V	V	P	V	L	S	G	H	G	G	A	N	E	L	A	E	I	I	A	V	V	V	A	A	A	A	L	G	A	S	T	V	V		
UniRef90_R6G2U0	P	A	V	V	V	I	D	E	Q	G	S	Y	A	V	S	L	L	S	G	H	G	G	A	N	E	L	A	T	F	A	V	V	V	A	A	A	A	L	S	G	A	Q	P	V	V		
UniRef90_I5AQX9	P	A	V	V	V	I	D	E	K	G	F	C	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	T	E	L	S	E	R	M	G	S	T	P	V	V							
UniRef90_KONQU0	P	A	V	V	V	D	D	N	A	N	Y	A	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	K	Q	I	V	V	V	A	A	A	A	L	P	G	V	V	V	V	V		
UniRef90_G5HLC7	P	P	V	V	V	D	E	A	G	R	F	V	V	P	V	L	S	G	H	G	G	A	N	E	L	A	V	R	I	V	V	V	A	A	A	A	L	G	A	V	V	V	V	V			
UniRef90_UP100037DE038	P	P	V	V	A	V	E	D	G	S	A	V	V	P	V	L	S	G	H	G	G	A	N	E	L	A	R	R	I	S	V	V	V	A	A	A	A	L	G	A	V	V	V	V	V		
UniRef90_R6LR99	P	S	V	L	V	M	D	E	K	G	S	Y	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	K	E	I	V	V	V	A	A	A	A	L	P	V	V						
UniRef90_G5GF1	P	A	V	V	V	C	I	D	E	T	G	R	F	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	R	R	I	S	V	V	V	A	A	A	A	L	P	G	V	V			
UniRef90_R4KLN7	P	A	V	V	V	L	D	E	A	G	Q	H	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	R	R	I	S	V	V	V	A	A	A	A	L	P	G	V	V				
UniRef90_D9R4B5	P	A	V	V	V	M	D	D	R	G	F	S	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	M	R	L	V	V	V	A	A	A	A	L	P	G	V	V					
UniRef90_A0A031LQP7	P	A	V	V	V	S	I	D	R	S	K	F	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	D	R	S	I	V	V	V	A	A	A	A	L	P	G	V	V				
UniRef90_F7KC04	P	A	V	V	V	M	D	E	C	A	Y	H	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	T	R	R	I	V	V	V	A	A	A	A	L	P	G	V	V				
UniRef90_R5HC29	P	A	V	V	V	M	D	D	E	K	G	F	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	C	R	C	V	V	V	A	A	A	A	L	P	G	V	V					
UniRef90_Q39YE7	P	A	V	V	V	C	M	D	Q	T	G	F	V	V	P	L	L	S	G	H	G	G	A	N	E	L	A	D	R	C	A	V	V	V	A	A	A	A	L	P	G	V	V				
UniRef90_FQJIY0	P	A	V	V	V	C	V	D	E	K	G</																																				

	130	140	150	160
UniRef90_R6E977	T T A T D D [V F A A D N R L R I	G N R T T A K Q I S A A L L D G K C V G F Y A E		
UniRef90_A4J811	T T A T D D [V L A K A L D C G V Y P C Q R I	K L F N R L L V E G E P V Q I V S P		
UniRef90_A9D3E3	T T A S D D [M L G A H L G W A L D P E E A I T Q V S A A V V N G N P V V I D W W			
UniRef90_UP100030D9224	T T A S D D [I L G R E L G W R V E A P K N I T R V S A H V V N E E P I A F D W W			
UniRef90_F8FEM9	T T A S D D [L F G R R F G W V W E S A D K L T P V S A S V V N E E R V A V N W W			
UniRef90_U2KAN6	T T A T D D [L F A K E N H L T I E N L E E L K Y I S G A L V V A G E E P V S L C A F			
UniRef90_F6B828	T T A T D D [I L A R Q L N C D I Y P L H R V K L F N R Y L A E G E E P V A L Y S E			
UniRef90_C9RCU4	T T A S D D [V F A R Q Y N L A L Y P R A H L P R A T R A L L E G E E E I W L Y W D			
UniRef90_D7AE02	T T A T D D [L L A K E A G W A I E D L S R I K T L N A L L L E G E E E I A V V D P			
UniRef90_F3Z200	T T A T D D [L L A R R R G M A V A D A S K I K H V S A A L L L E G R R V T T L F D P			
UniRef90_UP10003B6511D	T T A S D D [L F G R S F G W E I E S F A K A T P V S A A V V V N E E R V A V Y W W			
UniRef90_H0C2A7	T T A S D D [I L G R E L G W Q V E A P K N I T R V S A A V V V N E E P V A V H W W			
UniRef90_UP1000468CE7E	T T A T D D [T L A A Q L D A G M R D F R A V K T I N Q L V V S G Q R V G L W W D			
UniRef90_D5XFJ7	T T A T D E M M A K E K G W A V G D F S L V K K V N A A I V N C A P V H L C D E			
UniRef90_G9RQE0	T T A T D D E W A V R Q G C C V L D V P R K R V S A K I L A G G T V L R S P W			
UniRef90_H1HS61	S T A T D D [V F A V Q N G L R G S R E K A K R V S A A L L R G E E V A F L T D			
UniRef90_A0LCC7	T T A S D D [I L G R E L G W K V E A L K D I T R V S A A H M V N E E A V A F N W W			
UniRef90_C6L9S7	T T A T D D [V F A R K N Q L Y I T S M E R A K Q I S A E V L D E K K I G F Y D F			
UniRef90_UP10004786D1E	T T A S D D [L L A Q Q N N C V I T D W E K T K I T A H L V N G G N V G I Y S E			
UniRef90_UP10003B6111E	T T A T D D [V F A K N N N M V I N D M K E A K A F S A R L L V A G E E V E F T V E			
UniRef90_Q897J7	T T A T D D [M I L A K E N N L V I D S L K D A K E I A S L L V K G E E I V F L D E			
UniRef90_A1AU03	T T A T D D [M L A K E Q G W L I D N L S G V K T L N R L L L D G E E I C G F Y T E			
UniRef90_UP10001C36F30	T T A T D D [C F A S A N G L L I T D M T A A K D V A A A L V D G E K C G F Y T E			
UniRef90_UP10003B336AF	T T A S D D [I F G R E Y G W K V E D H D T L V E V S A H M V N G R K I A L V Q E			
UniRef90_UP10004632CD2	T T A T D D [L L A K E H G L F I S R L D G I K D I S S L L N G H D V G F S D F			
UniRef90_A6TJF0	T T A S D D [L L A Q Q L N C E I A D W Q L T K T L T A H I V N D G I I G L Y C E			
UniRef90_W1JAR9	T T A T D D [L L S Q Q I D G K M E N R A N V K T V N Q M L V N G K R V G I W W H			
UniRef90_A6NSF3	S T A T D D Q W A A R Q G F A I E D R T A A K A I S A A L L A G E T V G F S E F			
UniRef90_W2C5C1	T T Q S D D T L A R R F D W R T A S H A E M N N M I S L F V G N Q P T A L L T D			
UniRef90_UP1000368BFC3	T T A S D D [I L G R E L G W Q V E A P K N I T R V S A H V V N E E P I A F N W W			
UniRef90_UP100046476D7	T T A T D D M I L A K K I N A H V D N R D N V K D V N S L L V N N K P V G I Y D G			
UniRef90_M1IT15	T T A S V E E L A N N L I C K V I N V N A I V R V T S A L I R G E K V C V E G V			
UniRef90_C1FVE8	T T A T D D [I I A K E N N L V I E D L K K A K D I A A L L V N G E K V A F V D E			
UniRef90_D7GPA8	T T A T D D [V F A K D H G F V I T D R K L A K E I S A D I L A G E P V G V F G F F			
UniRef90_W2BZQ2	T T A T D D [V W A V K N N C R V A N T D E I K T I S G A L L Q G E K V G L S D F			
UniRef90_E8WQC2	T T A T D D [M L A R V V N G W R V E D L S R I K V L N A L L L E G K E I A V A D P			
UniRef90_G9F055	T T A T D D [I I A K E N D L V I E N L K K A K D I A A L L V N G E K V A F I D E			
UniRef90_D1PMC8	T T A T D D E W A R R Q H C A V L H A S C I R R V S G A L L A G K T I R V T E F F			
UniRef90_G8LZA2	T T A T D D [V W T K E N G L H I L N I E N I K Y I I S A A L L K G Q K I G F C D F			
UniRef90_W7V0Z1	T T A T D D S F A V A N G L I T D L T A A K E I L A S D V L D D K K I G F F S E			
UniRef90_R6G2U0	T T F A V D V F A R K N N L V I S D M E L A K E M A M A L L R G K T I A W G A			
UniRef90_I5AQX9	T T A T D D V Y A T E N N M I S N M T Y A K E V S A A L L A G E P V G F Y H F			
UniRef90_K0NQU0	T T A T D D M I L A K E Q G L I Y E T P Q N I K H V N M A F L K G A K V R L Y D P			
UniRef90_G5HLC7	T T A T D D V F A A E N R L V I A D R E A A K Q V S V D L L E G T P V G F F S D			
UniRef90_UP100037DE038	T T A G D L R F G V A L G W S L A N P E D A K A A M A A L L D G A S A V V D D W			
UniRef90_R6LR99	T T A T D D V F A K S N G L V L T D R K K A K E I S A V V L D G K K I G F Y S F			
UniRef90_G5GF1	T T A T D D V F A K E N L L E I S D R K T A K K I I S A A L L E G K S I G L S D Y			
UniRef90_R4KLN7	T T A T D D D L A R E Y N M A I D P L T A V R R V N S A I L V N G R K V H I Y D I			
UniRef90_D9R4B5	T T A T D D L F A R E Q G L V I T E L K K I K E I S A A S L K G E K I G F C D F			
UniRef90_A0A031LQP7	T T A S V E R I A S F I I A K V E N P Q E L L A K V N G A I V R G E K V C L N G			
UniRef90_F7KC04	T T A T D D L F A R E N G L A V R N T E A I I R E V S G R L L H G E K V A G F Y S E			
UniRef90_R5HC29	T T A T D D S W A K Q E G L T V V N P S G I K E I S A G L L Q G Q T K K L S E F			
UniRef90_Q39YE7	T T A T D D M L A K E E G W A I D D L C R V K T L N A L I L E G E E I A V V D P			
UniRef90_FQJIY0	T T A T D D S L A M A K G L L A I G T L N K V K D V N M A L L E D R T V Q L Y D P			
UniRef90_N9VSH0	T T A T D D N F A K E Q G Q L W S D M K T A K A V V S A D V L L A G E P V G F S D F			
UniRef90_UP1000375287B	T T A T D D [V F A R K N G C Y I S D M D L A K E I I S A A L L V D G K E E V G F S D F			
UniRef90_D9QVW2	T T A T D D M L A K E I D C R I D P F S N L K H I I N A A I V N D K E I I N I F D Y			
UniRef90_R6M979	T T A T D D T F A V R N N L H I G D T K L I K E I I S S R I L N D K K V G L Y T D			
UniRef90_R5UXR9	T T A T D D E V A K N N H L A I E N I S V L K Q I I S G A L L N G K S I W L Q S			
UniRef90_F0SZ42	T T A T D D L W A A E H N L Y I Q D M E A A K K I I S A L F L E G K T V G L E E F F			
UniRef90_R9LA35	S T A T D D L W A A S Q G L S L G E R E L A K R V S V A A V L A G E K V G F D D F			
UniRef90_R5HXW1	T T A T D D L F A K K C G L S Y Y N R E G I J A K V V S S K I L D G K T			
UniRef90_W8U9T7	T T A S D D T L A Q R G L G C A I D S L E D A K R V T A L I V N G E T V A I D S R			
UniRef90_L7EI6	T T A T D D T I A T E N N L I I D N L K D A K N I I S A L L V D G E K V V A F I D E			
UniRef90_R7ILH5	T T A T D D L F A K R N H L A I A D R E G I A K I I S S K I L N D K K V G L Y T D			
UniRef90_A8MG29	T T A T D D L F A K S N D Y Y M E D M E S V K N I T A M M I H G K K I G F Y S E			
UniRef90_R2P8C9	T T A T D D L L S K D N G W Y A D F K E T T K R V N R L L A N H Q K V G L			
UniRef90_C7LVZ1	T T A T D D T L A Q N R D C V I A D P S R I A I N S D L A E E G G R V T V H D P			
UniRef90_E9S5Q0	T T A S D D L F A Q K N N Y A I L S M E D A K V I S L M V D G K A I G F C S E			
UniRef90_S9P0I5	T T A S D D I L G R E L G W R L D D L E N V T R G C A A V V N E T P V L F S W W			
UniRef90_R7R7H4	S T A T D D V F A T K N H L K I S D M T L A K K I I S V A I L D G E K T G L S G I			
UniRef90_W6N5G9	T T A T D D V L A K K H N L I I D S L K S A K D I I S A L L V N G K K V G F T D E			
UniRef90_UP100047C099A	T T A T D D V F A T K N N L G I N D M K R A K E F S A R I L A G E P V A L D W W			
UniRef90_G8QGW8	T T A S D D L L G R E L G W T F E T H D E V V K A S A A V V N D E P V A L D W W			
UniRef90_F6DJW5	T T A T D D L L A R E L L A C R I Y P P S E I I K R F N R F L L V E G E Q V I L Y S R			
UniRef90_G9Y6K8	T T A T D D M L A Q K L I D A Q L I A D R Q G V K R V N Q M L V S G D R V G L W I D			
UniRef90_K8DYN3	T T A T D E M L A Q E L I A C E I Y P A R R V K L F N R L L A E G E K V T L L C S R			
UniRef90_UP1000393FCDD	S T A T D D L L A Q Q L N A A S E Q L H A A K T I I N Q L V S G H T V G L H I D			
UniRef90_K4LC18	T T A T D D D E W A A F H D A W I S D L K A A K E I I S A R I L L A E K P V G F Y S E			
UniRef90_UP100036099D4	T T A S D D I L G R H L G W R V V E A P K N I T R V S A H V V N G E P I A F D W W			
UniRef90_R9IJZ9	T T A T D D V F A K R N G L S I I E N K D G I V V K V S S K I L L A G E S V T M S I E			
UniRef90_S0G3H3	T T A T D D D M I A R D Q N L E I E N P S A V K T I I M M F L K N H P V F M H D P			
UniRef90_U4WNM8	T T A S D D L L F G R G F G W E L D S F E K V T P V S A S V V N E E K V A I W W P			
UniRef90_N0AVW4	T T A S D D L L F G K R F G W V W D S A E K L I T P V S A A V V V N E E K V A I E W W			
UniRef90_I0R5Q6	T T A T D D I L F A K E N N L L I I S S R K L A K D V S A A L L D N N C I D L D S D			
UniRef90_R7L0S1	T T A T D D S F A A A N D L Y I C E Y D I A K E I I A A E T A N G G N V G F Y S D			
UniRef90_UP10004653159	T T A T D E L L A R D L G L P I D N P L A T R R V N A A L A G E S V A V F D P			
UniRef90_Q47FE7	T T A S D D L L G R E L G W T F E T H D E I V R C S A A M V N D E A V A L D W W			
UniRef90_C5CPCE8	T T A S D D I L G R E L G W K V E A P K N I T R V S A H V V N G E P I A V V V W W			
UniRef90_UP10002492B0D	T T A T D D L L A K N L H A W Y P N K E N T K L I N R K L A E K E R V Y L Y I E			
UniRef90_A8FV20	T T A S D D D M M G A H L G W T L D P E K S I T S V S A A I V N A K P V L I C C W W			
UniRef90_UP1000368BD47	T T Q S D D T L A R E H R W H P E T T V P M N A I I T A F V N T R P T A L L T R			

170 180 190

UniRef90_R6E977	P W Q G T F P D R L R C G S K S E L	
UniRef90_A4J811	W I L T L S Q P D N N R P K G P V V H T N H V Q H K G E P R L M L R P	
UniRef90_A9D3E3	Q H D K K L P Q H L Q L T Q D L S Q L Q D T Q A V A A V V I	
UniRef90_UP10003D9224	T R S T P L P A N I H C F E R F E D V D L D R F R A V L W V	
UniRef90_F8FEM9	H L D T P L P P N I H V Y D T I E A A L Q E P P H G A L V V	
UniRef90_U2KAN6	P V E K N F P E T V Q I Q P F V A I A D T T E S V A A P H V L Y L R P	
UniRef90_F6B828	W Q L P P G L T A G F D L L K D R T D D P G T S P V V Y I	
UniRef90_C9RCU4	E	
UniRef90_D7AE02	E D R L	
UniRef90_F3Z200	N Y D R P L P D H I R V V D S F A E A D Q A P F D A A L V V T H R L L	
UniRef90_UP10003B6511D	T R P T P L P P N I H R H T R L E D V D L A R Y R A V L W I T H R P V	
UniRef90_H0C2A7	E P L R H E Q A H C D T R G D V T D L G T L P E L D A L V C V S L R	
UniRef90_UP1000468CE7E	E I N T S L P K N V V Q F P R V V V T N R F L P G N S E D T L F L R P	
UniRef90_D5XFJ7	P V A G T P P A G V A A D G G A F D F E L T V H S A D A G V L R L V P	
UniRef90_G9RQE0	F P L R D L P E G L V A G Q L C I R I S A A P D P E A E N C L V L T P	
UniRef90_H1HS61	P E D K P L P K N V Q L F N R F E E V	
UniRef90_A0LCC7	P V I G S I P E E L E V C G C I S L Q E E K P Y K Q T L T L V P R	
UniRef90_C6L9S7		
UniRef90_UP10004786D1E		
UniRef90_UP10003B6111E	E G L C L I P K S T V V G M G C R R G K S C E E L Y D F L T G K L R E	
UniRef90_Q897J7	E N I I P L P K G Y K D C M G V V Y V T N K I D Y K	
UniRef90_A1AU03		
UniRef90_UP10001C36F30		
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UniRef90_A6NSF3		
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UniRef90_UP100046476D7		
UniRef90_M1IT15		
UniRef90_C1FVE8		
UniRef90_D7GPA8		
UniRef90_W2BZQ2		
UniRef90_E8WQC2		
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UniRef90_W7V0Z1		
UniRef90_R6G2U0		
UniRef90_I5AQX9		
UniRef90_KONQU0		
UniRef90_G5HLC7		
UniRef90_UP100037DE038		
UniRef90_R6LR99	L S D A R L P R D V R L V S S I V K D L P E P D E G R M T T L V Y R P	
UniRef90_G5GF1	P V E G K L P E E L K L C E T E E L L R N Y P	
UniRef90_R4KLN7	K V R G T F P E R V	
UniRef90_D9R4B5	P L H E T G S Q L K I Y S H V V I T N R C L D E P L A N T M F l R P	
UniRef90_A0A031LQP7	P F S G K L P D G L V	
UniRef90_F7KC04	I D L N L G D H F I K G D D C K Y V I S I G K A K G E H V I F l R P L	
UniRef90_R5HC29	P W E G E L P S S L L F S E K E K E D A R K P E	
UniRef90_Q39YE7	P I S G K L P E G L V F C D I Y I G I H R L T D R K Q E P L Y L I P	
UniRef90_FQJIY0		
UniRef90_N9VSH0	E D W L G L A W N	
UniRef90_UP1000375287B	P A A G S V P E G F T Q K E S C I T V K R Y P E N H D F L K l F l	
UniRef90_D9QVW2	P W I G D I P S E L I L L D G I Y V T D N Y Q K H P F V H T L Y l V P	
UniRef90_R6M979	E L D L G S D K N L T V V I S N Q P V K L P E N L A Q K P Y L Y l R P	
UniRef90_R5UXR9	Y E L L K N V P D	
UniRef90_F0SZ42	D L P V T G T E Q Y P Q I S F V I S D R T Q T R L E T L P T L Y l R P	
UniRef90_R9LA35	E I I A G E V P P Y I L V G I C I A L D D R R K P F A T T L N L I P R	
UniRef90_R5HWX1	P V A G R L P D G L	
UniRef90_W8U9T7		
UniRef90_L7EIJ6	D I K V E L P E S I V S Y G I R V T N R V P E P A N L P C A Y	
UniRef90_R7ILH5	K N R I S V P E A Y V N L A D I Q K C C E F E K I L V	
UniRef90_A8MG29	Y G H L D V P E E L C L R E Y P V D I L I D A E G Q G E C L I H L F P	
UniRef90_R2P8C9	M D G V I D Y E N L V I L E N L E N I N T E E G V I A V T	
UniRef90_C7LVZ1		
UniRef90_E9S5Q0	E N R L R L	
UniRef90_S9P0I5	D P P I N Y P H I L Q E K D F N S H L K T L T E E K K L R R S Y H R	
UniRef90_R7R7H4	P E D K P L P P G V R	
UniRef90_W6N5G9	I P Q G S L P D E L T L N P C I S P F T D Q K P Y T E T L H L I P R	
UniRef90_UP100047C099A	R N I I Q C P K G Y V Q R G I V I T H R D E I S G l D N K I K L	
UniRef90_G8QGW8	P R H G P V P A N I K Q F S R L E E V D l D S V A A V L W I S H R P	
UniRef90_F6DJW5	W A L S P E Y R A G F T Y I D R Q E D I P L G H P V V Y I	
UniRef90_G9Y6K8	P	
UniRef90_K8DYN3	W P L P H R Y R S G F T Y L E G C P T D V R G P V V Y I	
UniRef90_UP1000393FCDD	P W L	
UniRef90_K4LC18	D I E G E M P E N N M G I G I C V S L N D R K P Y P I T L N I V P R	
UniRef90_UP100036099D4	T R S T P L P A N I H C F T Q W A E V D	
UniRef90_R9IJZ9	T G H T H L P D A I Q L P I Y V D I V I T S E E G T F D T T I L L K P	
UniRef90_S0G3H3	Y L A G K I P E N P D A P S I V V D D Q T R T T G R H D L V L R P	
UniRef90_U4WNM8	Y P D K P L P G H F Q V Y H S M A E A W N D T F Q A A L V I T P R V L	
UniRef90_N0AVW4	T Y D R P L P D Q F T V Y P S V A Q A Q K K S H S A A L V I T H R L L	
UniRef90_I0R5Q6	I K S I D V K E L L K K L N P K I K V R I T D R I Y D D T I V L T L I P	
UniRef90_R7L0S1	T G C L N T P D N K R L G I C I S S D A A K M P F E H T L H L I P	
UniRef90_UP10004653159	A G H G P L P G N V T L F K R L E E I D	
UniRef90_Q47FE7	T R P T P L P A N I H R F A R F D E V D	
UniRef90_C5CPPE8	D Y F L P K V H M L K G F T I I T K N Q P E A T D A P V V V V	
UniRef90_UP10002492B0D	R Q A R P L P E H L E L T D P Q R L Q Q E D V K A G I L I	
UniRef90_A8FV20	Y L E R T A P E H V K I F Y R F E D I D F Y Q H E S P V Q T L Y Y R P	
UniRef90_UP1000368BD47		

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UniRef90_B6FXV4	R I A I I A V T E K G K N T A E K I I A S E L E N V D V F F Q K
UniRef90_A9GMA5	K P Y A I Y A I T R H G I S I A R K L I E G L P G A D L Y V S Q K
UniRef90_C6E675	V A I I A I T G N G A R L G K V L Q E G I P D S R L F V I F S
UniRef90_C0GDW8	A V I A V T P G G Q K L A R R V A E D L R S P G D G A I S Y
UniRef90_I0GP99	R L A C M A L T E Q G Q L Q L A Q T I R Q C L D Q Y K L Q V Y T F
UniRef90_J7U8W1	K R I A L F C L T P G G K A L A E K I R P L L P V S D G F E P F R
UniRef90_W6R9S9	M K S L A V I A L T Q G G A S T A R S L K Q R L A R D D E N Y Y S R
UniRef90_A5VM80	N I T V F S F T K N G K D I N I R L M D I L K N T D S R M R V F
UniRef90_J5GHV8	K K I A I L S I T K N G K E L L G L K I K R N M S T A H L Y Y V K K
UniRef90_UP100037BE6EF	M K R N R K Q Y S V F V I T K H G L E I A K K I Q A I W Q D I D L F V S A K
UniRef90_M3IFL9	R I A I L A I T A G G K K L A T N I A L R L P N A S L L A D E
UniRef90_Q6ARS3	S E R E K M K I A V I S V T E Q G D I I A E K L K E C L D I D L Y S V K K
UniRef90_UP1000466DDE3	M K R V F L I S F T D N G Q S L A E K I A S G L N Q K G M D A Q A S
UniRef90_C6PWV5	N T E N N I A I V C I T D N G K N L A V K I Q K K L K E G K I Y F V K K
UniRef90_X8K4S7	M N K K I N V L S F T K K G S Q K N K E L C S Y I T E Q E Y D C I G Y
UniRef90_R5X3R3	K I A V I S F N S K G N S A Q V I K E S I N A D L F A K K G
UniRef90_R5XIM7	M I L S R K P Y A I Y V I T K H G L K T G I E L L Y S I G E A E L F V S P K
UniRef90_U2CKR3	K I A I Y A I T L H G A R Q A R R L A Q T F L F A D V F V A P V
UniRef90_I0XN71	M E K G L A I V A I T E N G L E I S R K I S E S F P A D E N K V K I F
UniRef90_F9TVD8	M R T I I I T F T H D G M K V A E K A A Q S M K D A D N Y V I S F
UniRef90_UP100046D14D2	M M E A I P G N A I A L L T L T G R G A E L A R R L Q R E L P P G S T V H G L A F F
UniRef90_S0AU09	K V A L V A L T G Q G L S T A R N I V E R S D E E V H P H Y F
UniRef90_R6JV71	K I G I I S F T A R G T R L C C H L A S R L S G G V D E C T A F
UniRef90_UP100040352A1	K N T A I I I A V T A G K A L A A S I K E A L L A Q S E G F A A L E
UniRef90_L0F401	K T A I V V L R D Q G L R T A C R I I E K W P E E E P T L L Y F
UniRef90_C5EU34	A V I V F T A T K A R N T G T K L K N V D R L V F Y K Y A
UniRef90_H3SCT5	A Y L I A F T A K G L A L A Q K L A A A Y P G S V T R C G H E
UniRef90_I4A6S6	K V A V I S V T N K G A E L A S K I A P L I G E V D I Y A K T Y
UniRef90_R6PG08	A I V V L G A S A I D T A R R I Q R V Y P G A Q V H G L P Y
UniRef90_E2ZJM4	R V S C I A F T E R E G Y A L A E R T A R A L S D S R G F G E G K
UniRef90_T0K6N4	R I A L F C L T F G G M A L A R R L Q S H L A V E T G F R A F D
UniRef90_H7EYQ8	I G I I S V T E K G D I L L G E K I R E A L L G G Y K K S K M Q D
UniRef90_D6E6H1	R V A V I V Y L T P A G G V L A E R L E R E L P E K G I E V P P T
UniRef90_D3UX01	R V V L V A I T K H G A A Q A A K L A P K L P Q A D I I T A Y E
UniRef90_S6EQ01	K V V L V A I T K H G A A Q A A K L A P K L P Q A D I I T A Y E
UniRef90_K4LRP5	M K K T G I A F T E H G C V L G E K L L R D L L P E R H S F Q K V T
UniRef90_UP1000303D109	R V A V W A I T P N G I K L G G R L A R A L P G C P E G A M G F
UniRef90_UP100036871A6	S M N A S T P G D V A V Y A V T A K G L A L G R A L P A A D G G A V P F
UniRef90_R7EFA6	K I A V I S L N N K G D I I A E R I G K S I D I D L Y S K T K
UniRef90_C0QFF3	P L A V L A L S R G G C A L G R Q L A G Q L H A D F F A C K
UniRef90_C4XGG5	R V V L V A I T K H G A A Q V A A M A R Q M P Q A A V C V S A K
UniRef90_R4K6S0	M T A L H V V A F T R D G T E L A R L I A S R L L G G W E G V S P L P
UniRef90_E8REQ9	A M F T F S R G G C A T A R R I L A A L P E W M C Y T M P R
UniRef90_A2SN0	K P Y A I Y V I T K H G M K T G K E L F H S L K G A D L F V S P K
UniRef90_D1Y752	F T K Q G C E L G K R I A S A L L S D K Q A E C A S Y
UniRef90_R5EXW9	M K K K T A I I L V S P S G L P V A S V L Q K E L E Q S T V Y C T Q I
UniRef90_M6DSZ9	R L A C M A I T E Q G L L Q L A Q T I R H C L D E Y D I Y V S E F
UniRef90_C7N897	A I V I L G Q N S V P L A R Q I I A A L P G G S S L Y G L A F
UniRef90_UP100040F1773	K V Y V I S F T K K G T L L A Q K I C Q K L E R A Q D D I E M V
UniRef90_UP100047CFDE9	N I E S K I A F I C V T K N A M N L A V D R N I M E D G D V Y I T E K
UniRef90_D8G3N9	N I A V V V T P A G L E T A R A L Q A A L P G A V L H G L S G
UniRef90_N1ZNG0	T K E N I A V F A I T G N G L K Q A E R I Q K V L T D I L A N W I Q K
UniRef90_T4VZR2	M S D I G V I A V T A R G R S A A E R I A Q A W P D Q V R I V E A K
UniRef90_M2ZWE6	R V A V Y T L T L P G L T V A E R I A G A L P G S A L Y V A E K
UniRef90_G8PEL1	K I G M I C F T A R G A G G C R L L C G R F R D A E G I L P Q D
UniRef90_UP1000369A951	A L I T L T S G G L A T A Q R L K P L L P G V L I H A I A F
UniRef90_K7R203	K I A I I A V T E R G R D L A I T L A E T V V A T I F V P E K
UniRef90_R7PLN8	A I W A V T S Q G A N C R K I A R Q F P G A H I Y A A L F
UniRef90_C7R203	M K E K T A I I L I S S Q A L P M A Q L L E K E L G D C T I F C T Q V
UniRef90_R7C6D9	K T A I I V I S E A G G I A L A K T I E Q E L P E S E I F C H S I
UniRef90_I4D6G3	M R N K I A I Y A L T A E G A G G L A S I L I S K I N A D L F V L S F
UniRef90_R6ZY46	R V V L V A I T K H G L S Q A L Q L A A K L P D A H A V S E K
UniRef90_Q64TB0	K P M A V V W A I T P N G Q K L G I R I C S G I L G K A D L F I S E F
UniRef90_L0R897	R L A V V V A I T R H G I A L A G R V V A A L P G A R L F A C Y E
UniRef90_R9KEL3	T E N K I A F I S V T K N G K E L L A F K I K E I L N E G D I F I V I N
UniRef90_UP100045EC461	K L A V Y V A V T R Q G L A P A Q R I C D A L G A D V Y T I P F
UniRef90_UP10003B36E31	M Q K I A I I Q I S D A G S E I A S Q L Q C E L G A E L I
UniRef90_N6ZTD6	K I A V I V Y G Q A S V P I A R Q I V D A L P N A T L Y G V S F
UniRef90_T2RCY5	S I L E R L W R G V L I V Y A S D S G A D T A N R L F R L R G T G V P T A M I
UniRef90_UP100037555D5	N T V K P I A L F C L T P G G G L R L A K R L A A Q L P L A P G F L P C E
UniRef90_D5ES11	M K E N I A I I L V S E G G L P T A R L I S H E L G D A P V F T T H F
UniRef90_UP1000381C828	K T A V I A V T E R G A G I A L R L R E S L G G S P G T Y P I E
UniRef90_E1QNKO	K I A C Y F T K E G E K V V K K I K D V Y E K V D V F S K
UniRef90_D4F6J1	N T V K P I A L F C L T P G G G L R L A K R L A A Q L P L A P G F L P C E
UniRef90_W2C9R6	M E K T T V L A I T K N G I K I G Q N L K K L F P D W N I F C P Y S
UniRef90_D9S0T3	M S N P F A A V A I T K H G V E M M R D I G A R F P G T D V Y Y M A K
UniRef90_I7J5Q9	N I S I S F T T K G A K L S K I L F N R L D N Y E V K C F S K
UniRef90_C4LFB7	M K A I I I S E A S L P L A K T L Q R E L P D T L I Y C I S I
UniRef90_I3D1W6	I T V I A A T N R G R R L A A R L G D H L D A H V A E
UniRef90_UP1000471A4AB	R V S I L L T L T E N G R K L G E S L K T G L K D D T L L S V E T
UniRef90_UP10003B435FF	R S F A I Y A I T K H G V R I A Q R I G E K L P G A D V Y V S E K
UniRef90_R6HY19	M D R A S K N Y K F I C F T A A A G R Q L M E K I L L K I P G E T G A C L E T L F E E K
UniRef90_UP100046D58F9	M H N Y K F I C F T D A G G C N L M L K V V K S L S E I E D A I I P N
UniRef90_D9PYR5	L C V I S V T K K G D S I A R K I I G K E F N G F L K S E M E N
UniRef90_UP10003B7A449	R V C L P I A V A I T K H G I C T S H K F A A V F D G L P T V V Y H
UniRef90_F5LGR4	R S F A I Y A I T K H G V R I A Q R I G E K L P G A D V Y V S E K
UniRef90_R7RPY1	M H N Y K F I C F T D A G G C N L M L K V V K S L S E I E D A I I P N
UniRef90_UP100047E2834	L C V I S V T K K G D S I A R K I I G K E F N G F L K S E M E N
UniRef90_N9WKE4	R V C L P I A V A I T K H G I C T S H K F A A V F D G L P T V V Y H
UniRef90_UP100035FA184	R S F A I Y A I T K H G V R I A Q R I G E K L P G A D V Y V S E K
UniRef90_D8PF10	M H N Y K F I C F T D A G G C N L M L K V V K S L S E I E D A I I P N

50 60 70 80

UniRef90_B6FXV4	R G I K E L T R E L F N K Y E C I I F V S A C G I A V R C I S P F I L K S K F E D
UniRef90_A9GMA5	L F D G A L L T E A F T A Y D C H V F V I S V G A V V R M I A P L L K N K K V D
UniRef90_C6E675	E P V P A L I S R L W P E C R G F I C I M A T G I V V R C I A P L L Q A K D R D
UniRef90_C0GDW8	T T L R Q A V T D C F R Q K E A L V L I M A C G I A V R I L A P L I E S K Q T D
UniRef90_I0GP99	H K L S E A V E N N F T A Y E G L I F V M A T G I V V R T I L A P L L K D K L T D
UniRef90_J7U8W1	D G F A A T L Q Q A F A E N D A L I V I G A T G I T V R V L A P V I Q D K K M S D
UniRef90_W6RSS9	R T L K E I T K E A F D K Y K G I V F I S S T G I A V R S I A K F L K G K D K D
UniRef90_A5VM80	G A F T A T I H H L F K K Y D C I V C I M A T G I V V R A L A D V I I D K T V D
UniRef90_J5GHV8	T D L K E T V K E H F N D D A I I F V G A T G I A I R S I A P Y I K D K F S D
UniRef90_UPI00037BE6EF	K K L K E F V P K I F G E Y D Y I I F I M A C G I V V R T I I A P L I E N K F I D
UniRef90_M3IFL9	F I Q D A T L R E T F R E Y D C H V F I I S V G A V V R M I A P L L V D K A R D
UniRef90_Q6ARS3	G R V G E K F S R H W Q S F D A F I V C I M A T G I I A V R S I A P H I Q S K T S D
UniRef90_UPI000466DDE3	E D T A G L I S H I F H R Y D A F V F C I C A C G I A V R S I A P H I Q S K T S D
UniRef90_C6PPW5	S G I K V L T E K I I K E Y K A I I F V S S T G I A V R A I A N Y L E S K D K D
UniRef90_X8K4S7	R S L S D F A S K G F K E A D A L I F V G A M G I A I R A I A P H V A S K V K D
UniRef90_R5X3R3	K K L K D F I P T I F N K Y R Y I V F I M A T G I V V R T I I A P L I Q S K F Q D
UniRef90_R5XIM7	E Y I L S L W I G K K W G K E D F F I G A I G I A V R L I A P W V K D K Y S D
UniRef90_U2CKR3	F N L K E I A K A L M E N Y N A L I F I A S T G I A V R A V A P Y L R S K A E D
UniRef90_I0XN71	F I S E A T L R E T F T E Y D C H V F I S V G A V V R M I S P L L V S K K T D
UniRef90_F9TVD8	G P L S G F F T E K F A D Y D H H V C F F A A G I V S R M I G P L L R D K R T D
UniRef90_UPI00046D14D2	E P V A T L L A R L W K E A G P V L V M A A G I A V R A I A S L L E D D K T R D
UniRef90_S0AU09	V S L K E T I K E L L F T G Y E T I I F I M A L G A V V R L I S P Y I K N K F E D
UniRef90_R6JV71	D S V G R V I R E Q F M N C D R I I L F I C C A A A I A V R T I I A P Y I K S K V T D
UniRef90_UPI00040352A1	S D T G A E L A E I F A Q S G R P I G C A S G I L I R F L G P L L S D K G T E
UniRef90_L0F401	E L L K E V V P R I W Q S G S L I F I M A T G I V V R Q I A P Y L Q G K D R D
UniRef90_C5EU34	M P L G Q W T K T M F R E Q R A M V F V G A V G I A V R A I A P F V R D K M T D
UniRef90_H3SCT5	P D F A T G M R L L F Q R Y D A L V C I M A T G I A V R T I I A P A I T D D K L Y D
UniRef90_I4A6S6	S E L K E V L P E L W E G S S L I F I M A T G I V V R H A P Y L Q G K D R D
UniRef90_R6PG08	E K G D A E L R E K I V Q Y S K L V F I C A C G I A V R T I I A P F V K N K K E D
UniRef90_E2ZJM4	A H L A D W T A R Q F A G S D A L V F V G A V G I A V R A I A P H C Q S K A Q D
UniRef90_T0K6N4	C C L G D L A G E L F S N Y D G I L F I M A A G I V V R V I A P Y V R D D K R V D
UniRef90_H7EQY8	D N F G E H L R D L Y R A N T P I I I A L C A A G I V I R S L A P V L G D K D N E
UniRef90_D6E6H1	V D L R A W T A L A W E A S D A L V F V G A A G I A V R A I A P H V A S K A S D
UniRef90_D3UX01	S G F A N T V R N A F I Q Y G S L L V M V G A T G I A I R V I A P L L K D K L I D
UniRef90_S6EQ10	F L L D K I T K E C F E K Y D S L V F I S S T G I A V R A I A N Y L K S K D K D
UniRef90_K4LRP5	A D P A G L V R G C Y E G G L A I M A V G I A V R L I A P L L K S K W E D
UniRef90_UPI000303D109	F A R G D E F P A L F P S Y K G L I V I I S L G A V V R M I A P L L Q D K K T D
UniRef90_UPI00036871A6	G A L L R T Q I P L M F K G Y D Q I I Y F V S L G A V V R L I A P H L V S K D E D
UniRef90_R7EFA6	G T L L R E W A E E W I P K L D G I V F F S A T G I I A V R T I I A P F V V S K K T D
UniRef90_C0QFF3	Q T L T Q T V Q E Q F H G Y D S H I F I F S T G I A V R V I A P L L R S K C H D
UniRef90_C4XGG5	A S L S E L V A E T F H Q R R A H V F I C A C G I A V R A V A P H L R G K A V D
UniRef90_R4K6S0	F N I I N N I T K E L L M K E Y E A V I F I L S S T G I A V R S I A P Y I K S K D I D
UniRef90_E8REQ9	G R L L A A V V M A Q V W P H Y R G I V C I M A T G I V V R T I I A P L L G D K Y H
UniRef90_A2SN0	F A F K D E I A G L F E R Y D Q I V F F F V S L G A V V R L I A P H L K S K D E D
UniRef90_D1Y752	G A I I A A W T R E Y F S A S D A L V F V S A C C I A V R A V A P C L E N K K A R D
UniRef90_R5EXW9	F E E P G F L P A C F C S S S M D A L I F V G A C G I A V R E I A P Y V K S K K T D
UniRef90_M6DSZ9	F I S E A T L R E T F M E Y D C H I F A I S V G A V V R M I S P L L V S K K T D
UniRef90_C7N897	G N L L S A W T G H H W Q D T A I V F V G A S G I A V R S I V A P Y V Q D K F S D D
UniRef90_UPI00040F1773	D H I I A A F V E Q N F T E F S T F I F I G A M G I C V R S I A P C L G H H T D
UniRef90_UPI00047CFDE9	G K L L S E A V T K N F Q A Y E G L I F V M A T G I V V R T I I A P L L Q D K L T D
UniRef90_D8G3N9	T N F G E T L R E L F A A G T P I I I G I C A A G I L I R T I I A P L I T D D K R Y E D
UniRef90_N1ZNG0	T S L L E K W T Q K A F E E A D G I V F V G A C G I A V R A I A Q Y L K N K Y Q D D
UniRef90_T4VZR2	G K L L S D F M P K L F R N Y E V L I F I M A T G I V V R S I S N E I K S K F D D
UniRef90_M2ZWE6	R V E A A A H L R A L F A A R T P I V G I C A A G I L I R A L G P V L G D K Q A E D
UniRef90_G8PEL1	G D F K A T L L Q T Q F K A V V S C L I I I M A S G I A V R S I A P V L E D D K T K D
UniRef90_UPI000369A951	D R P A D A L R T A F A E C G S V V S M L A V G A T V R V L A P L L G G K T T I D
UniRef90_K7R203	E P I K E L L R R T W A L H D G H V F V M A A G I V V R A I A P L I L D K R V D
UniRef90_R7PLN8	R S L L S E W T G S M F G Q K R A L V F I G A A G I A V R A I A P Y V R D K M T D
UniRef90_UPI00047C68D9	G K L L A D H L R T L F A A G E P I I I G L C A A G A L I R I L A P L L S D K R S E D
UniRef90_E3YPF2	H N F G T G L R T I F T E Y Q A L I C I M A T G I V V R T I I A P V I E D D K L S D D
UniRef90_D6ST58	Q S L Q Q A V E E K F G R Y R S H V F V M A A G I A V R I I A P H V T S K L L S D D
UniRef90_I4D6G3	Q R L L G D L V P A L W Q E G S V L I F I M A S G I V V R K I A S L I D R K D R D
UniRef90_R6ZY46	A S Y S E F V A A S F A A Y D R F L F I G A M G I C V R C A P C V S D K Y A D D
UniRef90_Q64TB0	S N L L Q E A V P E I F H K F D A I I F I G A M G I C I R A I A P H I E D D K H
UniRef90_L0R897	T S L L A D L V S D K F S A Y E A H I F I A A S G I A V R M I A P H L K N K A A D
UniRef90_R9KEL3	T K C K A C M E E Q M Q K E R N A L L F I G A C G I A V R A I A P Y L T D K L H
UniRef90_UPI00045EC461	F A L L S A N I G M L F A R Y D Q V V M F I I S L G A V V R L I A P H L K S K D E D
UniRef90_UPI0003B36E31	S S L L S R E I V K R R F Q R Y E K H V F I F S T G I A V R M I S P L L Q S K L A D D
UniRef90_N6ZTD6	G K V G A Q V P A L F A N F D G L V A I V S L G A V V R L I A P H L K D K D S D
UniRef90_T2RCY5	G R L L G N F T K D L M E K Y E V L I F I M A T G I V V R S I A S H I K N K F E D D
UniRef90_UPI00037555D5	D S L L R E C V R E T F I R Y E G H I F V A A T G I A V R V I A E H I V A K D T D
UniRef90_D5ES11	Q R T T D V G N Q W A A Y D A F V F I G A M G I C V R T I I A P Y I E D D K H T D
UniRef90_UPI000381C828	T Q F G E T V R E L F T Q G T A I V G I C A A G I L I R T I I A P L L S N K W Q E
UniRef90_E1QN0	K Y D G D L L G R Y W D C Q F D A I I V L V M A L S G A V R L V C K Y A K S K V A D D
UniRef90_D4F6J1	G G F A Q A V R T A F A H Y S A L I F I G A T G I I A V R V L A P C L Q D K L C D D
UniRef90_W2C9R6	P S Y A Q F V M A A H F R E Y D L F V F I G A M G I C I R S I A P F I K D K Y T D D
UniRef90_D9S0T3	G D F I E F V H G I F P K Y R G L I F V T A T G I A V R S I A S H I K N K F E D D
UniRef90_I7J5Q9	E N F K E N I L K I V Y K E R I I F I S A V G I A V R I I A P Y I R S K W Q D
UniRef90_C4LFB7	G S F A A T A A Q A F T T H T A L V V I G A T G L T V R V I A P L L K D D K L S D D
UniRef90_I3D1W6	E P T S E K I V E L F K N S N A L I C I F S L G A V V R L I A P H L K D K K T D
UniRef90_UPI000471A4AB	F A R G D E L G D L L K F K R Y N G I I L C I S L G A V V R M I A P L L V D K K V D
UniRef90_UPI0003B435FF	K S L L T E W V R K E F K K H H A I F I G A C G I A V R V I A P S L K N K L V D
UniRef90_R6HY19	T S C H R F I E E H F N D F D S I V F I G A M G I C V R S I A G C I K N K Y K D
UniRef90_UPI00046D58F9	Q S P K P A L R H A W S N S N A L V M V M A S G A A V R L I A P Y I E S K K T D D
UniRef90_D9PYR5	L J H R D I D F R E V F S R S D M I I G I M A A G I M V R K I A P L L E N K F S D D
UniRef90_UPI0003B7A449	G G L S D W T K E N F K G K N V L V F I G A C G I A V R V I A Q Y I T D K T E D D
UniRef90_F5LGR4	G S V R M L F P A L F P A Y K G I C I S L G A V V R M I A P L L Q D K K K D D
UniRef90_R7RPY1	S T Y R D N L K E I F K N S R A V I F I S S T G I A V R L V A K F L K S K Y E D D
UniRef90_UPI00047E2834	K D L L K S F I E K S F K T G N I L V F I G A M G I A V R S I A N G F I K K K D V D
UniRef90_N9WKE4	F K L K E V T E K A F N N F Y T I V F V S S I G I A V R A I A P F I K D D K T T D
UniRef90_UPI00035FA184	G A L L K D E I G P L F A A F D Q L V C I I S L G A V V R L I A P H L K G K D E D D
UniRef90_D8PF10	L P M G P C L S E T F T A Y D C H I F I I S V G A V V R M I A P L I K D K K V D

	90	100	110	120
UniRef90_B6FXV4	P A V L V V D D N G N N V S L L S G H G G A N E I T L K I A D V L N A N P V V			
UniRef90_A9GMA5	P A V V V C V D D T A R F S I C V L S G H G R G N A F T E K V A G L L G A Q P V V			
UniRef90_C6E675	P A V V V L D A G K G F A V S L L S G H G G A N A L A K S C A S L T G C T P V V			
UniRef90_C0GDW8	P A V V V M D E A G G S F A V S L L S G H G G A N E L T R Q L C Q A I G A G P V V			
UniRef90_I0GP99	P A V V V F D E Q G K H G I S L L S G H G G A N E L A T W L A G R I G G Q A V V			
UniRef90_J7U8W1	P A V I V M D E K G Q H V S L L S G H G G A N E L A T W L T L E I S K I L S N I A V V			
UniRef90_W6RSS9	P A V V V V D V C S K F S I S L L S G H G G A N E L A W T R L I A R L M R S E P V V			
UniRef90_A5VM80	P A V V V M D E K E K A R H V V S L L S G H G G A N E L A E Y I G G A L G A T P V V			
UniRef90_J5GHV8	P A V L V I D E L G R Y V V S L L S G H G G A N E L A E Y I G G A L G A T P V V			
UniRef90_UPI00037BE6EF	P A I L V S D E K G K N I S L L S G H G G A N E M T L Y I S N L L N S N P V V			
UniRef90_M3IFL9	P A V L C V D D K A K F S I C V L S G H G R G N F F T E K L A E E V A A L T G G Q A V V			
UniRef90_Q6ARS3	P A I L V L D E G G S F V V P V L S G H G G A N A L A L R L G S L L G A Q A V V			
UniRef90UPI000466DDE3	P A V V V I D E G G S F V V P V L S G H G G A N E L A L R L G S L L G A Q A V V			
UniRef90_C6PWV5	P A I L V I D S S S K F V V S L L S G H G G A N E L T L K V A N I L K S I P V V			
UniRef90_X8K4S7	P A V V V I D E K G N N A S V L L S G H G G G N E L T H V A E I A E A N P V V			
UniRef90_R5X3R3	P A V I V T D E K G T N V V S L L S G H G G A N E M A L Y I S H L I E S N P V V			
UniRef90_R5XIM7	S A V L V M D E K A Q Y C P V L S G H G G G I E L A H M I E N C M G A M P V V			
UniRef90_U2CKR3	P A V L V I D V F G K H V V S L L S G H G G A N E L A L E I A E L I K A E P V V			
UniRef90_I0XN71	P A V L C I D D Q A K F T V C L L S G H G R G N F F T Q R I S D L L G N I P V V			
UniRef90_F9TVD8	P G V V C I D D H G Q F V V P M L S G H G G A N A L A L Q I S Q A L S A T P V V			
UniRef90UPI00046D14D2	P A V V V L D P D G R F A V P I L S G H G G A N A L A R R A R V L G G T P V V			
UniRef90_S0AU09	P C I I V I D D G G K F V V P V I L S G H H G S N E L S K G I I A G I L N A S A V V			
UniRef90_R6JV71	P A V L V A D E Q G R F L I S L L S G H G G A N E W C S Q L S C K I G A V P V V			
UniRef90UPI00040352A1	P P V L S L A E D A S S V V P L L S G H H G A N R L A R I L A D L L E G H A A I V V			
UniRef90_L0F401	P A V L V L D E K G E V V S L L S G H G G A N A W T R T V V A Q W L D A Q P V V			
UniRef90_C5EU34	P P V V V V D E A G R F S I P I L S G H G G A N A L A S R I I G C I G A V P V V			
UniRef90_H3SCT5	P A V V V M D E K G Q H A I S L L S G H G G A N D L A R K I L A E L T G A A P V V			
UniRef90_I4A6S6	P A V L V L D E K G E F V V S L L S G H G G A N A W A K S V V A Q W I H A Q P V V			
UniRef90_R6PG08	F A V V V C D E D G K F A V V S L L S G H G G A N E L A E N V V A E I L G G Q A V V			
UniRef90_E2ZJM4	P A V V V L D E C G R F A V P I L S G H G G A N D L A R A L A A V C G A V P V V			
UniRef90_T0K6N4	P A V V V M D D G G N F A I S L L S G H G G A N E L A Q R I V G S A V G A T P V V			
UniRef90_H7EQY8	P P V L V V G E D G S A V V P L L S G H G L A G V N R M A R E I I A A A L E V V S P A V V			
UniRef90_D6E6H1	P A V V V A I D E A G R F A V P V I L S G H G G A N E L A Q T V V A R A A G I P V V			
UniRef90_D3UX01	P A V V V L D E K G Q F A I S L L S G H G G A N D L A R Q V V A D L L G G Q A V V			
UniRef90_S6EQ01	P A V V V V D V C N K F S I S L V S G H G G A N N L L A K E I I S K I L N N T L V V			
UniRef90_K4LRP5	P G V V V V D E G G K F A V V S L L S G H W G G N S L T R L T A S I L G A T P V V			
UniRef90UPI000303D109	P G V V V V D D R G E H V V S V V L S G H G G A N E L A L E V V A A A I G A R P V V			
UniRef90UPI00036871A6	P G V V V V D D A G Q Y V V P V L S G H G G A N A W A K S V V V A Q W I H A Q P V V			
UniRef90_R7FEA6	P A V V V V D E Q G N Y A I S L L S G H G G A N E L A K F A A E S I G A V P V V			
UniRef90_C0QFF3	P A V V V V D D R G □ N A I S L V S G H G G A N N L L A K E I I S K I L N N T L V V			
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UniRef90_D1Y752	P A V V V C L D D R G R N V V P V L S G H G G A N E L A R R V V A A A L T G G R A V V			
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UniRef90_M6DSZ9	P A V L C I D D Q A K F T V C V L S G H G R G N F F T Q K I I S G L L E N I P V V			
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UniRef90_T4VZR2	P A I L V I D E K G K N V V S L L S G H G G A N E M T N Y I I S S L I G A N P V V			
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UniRef90_I7J5Q9	P A V L V I D D M G R Y V V S L L S G H G G A N E L L A K A V V A K A T G A V P V V			
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130 140 150 160

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UniRef90_I4D6G3	T T A T D D E Y A R R F G W K V E P V D H L P A V N R L L E E K V L K V V T P
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UniRef90_L0R897	T T A T D D L L A R E N N L V I G I C L I K H I N A A L L D G D Q V A V Y D P
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170 180 190

P E A A P L P P G V R L V A S D R D S R S H P E I V E R A V V Y R P
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P D M A A E Q D K Y A L P G L V A D L R T L P E L D A L V C V S Y R
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I D G D Y N I D T R G F N I C K Q D E V N K L D Q V I V I
T G E P N W
I A I H S L P P D L R V K A D I V S I S T K R E E G Q L L H P R S L
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D I D T R G F T L K Y E D M L L D K R N N E E I N D L E T V V V
G Y K G K V P K E V V C C G I V T A Q K K E E N Q K S N R L Y L
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P L E K D L P K G V E I A S D R T D I K T K T P E V Y S N S V I Y R P
Q H K R S M P R H I
P V A G G L P
K A Y K K L
C L Q E E H P L R Q D A A Y C F V K D E E K A H A H L W I T P
A P P H E L P E Q A E A L V W V T H R Y R L P E L K V H T V K L V P
C L P E E H P L R Q D P Y Y H F L K D K D K E
E I P K D F V Q T V E K I G V Y V T Y K T I E P F E N T L K L Y K K S L
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P I S G Q P P E G V D I A S D
P A L I D E K G Q C D T R G F V E S L D D L P E L D A L V Y V S H R
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W A L P E R C R P G M E V V
M H E T P L P D N I Q V F D N I P D L S A D E E V I L Q N G V L Y R P
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 K P Y A L V A I T K H G V E H A R K Y I E I F P Y A D L Y Y M K K
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 M K E N I A I L L S V E A G L P L A Q T I R E L G A S S I Y T T H I
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 M G Q K L G I V S F T E H G S Q L N E R L R E M L E R S G Y V C E S Y
 A I I S L T E K S I Q Q A Y K L S D I F E N A D V Y I M F Y
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UniRef90_A0A010ZGY3	G S L G E W T G A R F A E A L V F V S S C G I A V R A V A P H L R G K D K D
UniRef90_A0ZK8V	T N F G D T V R E L F A E G T P I G I C A A G I L I R S I A P M L S D K K Q E D
UniRef90_D1BN66	D S L K S H I G Q I F K D Y D Q V L F I C Y A L G V V R M I A P Y I E H K S K D D
UniRef90_V4ITW1	G P T R A Q M A G L F A D F D G I A V C S L G I L V R L I A S L V E G K D R D
UniRef90_G7WDK1	S R L K D I V P Q L W Q E S E V L F V M A S G I V V R Q I A S L V E G K D R D
UniRef90_Q2RJ12	G G L P D F L G E I F H Y R Y R G L I L I M A A G I A V R A I T H M V S K L T D
UniRef90_R9SPN6	K N V K E N F N Y A F N N Y D G I I A I M A S G I T V R T V A P L I K S K D K D
UniRef90_S8GY28	R T I D E F L R K D F H T F D A F I F V G A L G I C Y V R S I A P Y I E N K H I D
UniRef90_Q1YF65	E A A G P H L Q A F F R E G P T V A L M A A G A L I R I A P L L S D K S A E
UniRef90_D3UM95	H A F R T G M Q A L F S K Y Q G L I C I M A T G I V V R T L A P V I Q D K L S D D
UniRef90_UPI00037D59E8	G K L S E L L P Q L F A R V D G I C I M A S G I V M R L L A P H L K G K D Q D D
UniRef90_E1YAE9	T G M L R V V K K N F S L Y L R H F I F I A S A G I V V R A I S P H L A S K Y E D D
UniRef90_S5L8Y5	H D F G T A M E I F T K Y Q A L I C I M A T G I A V R T L A P H L A D K V L S D D
UniRef90_E0QHN4	E S L S G L L S T I F S K Y E S L F I M A T G I V M R L L A P H L A D K V L S D D
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UniRef90_D5E753	Y S K N I F R E A F E K Y D W I A V F A T G I V V R D I A P L I K D K W T D D
UniRef90_C0Z7I7	F E R G D E E A R G Q L F S N S V R M L S L G A V I R M I A P L L E D K K K K D D
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UniRef90_A0ZK8V	P P V L A V A E D G S A V V P L L G G L S G V N D L A R R I V A E E L D V K P A I			
UniRef90_D1BN66	P A V V V M D E V G H V I S L L S G H G G A N E L T R K I I A R L V A D A D P V			
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130 140 150 160

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N I A V F A I S A R G K S V G K R C Y P G S A I H G L A F F
M N K I I I T Y T E A G L A I I A K T I A S S F D A E I F Y K D D
K I G V L A M T A G G R K L A A R L A A E L E G A E L V P V D
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A I V I L G P S A L A T A R R I Q A L Y P Q A V I H G L A Y
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A V F A L T E T G T K L A R R I L G K L L P D E T N E K C F G
K N I V C Y S F T E N A Q I I G E K L I T E F K K N N K I Y I E H F
C Y T D A G C E L M K R T V A A L C Y E N E V I V S K V
L L V L N Q A G L A A A E V I A R R F S T A R I H G L A F F
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S Q D G M V L A N R L A K H L D D R E C H I Y T K
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R G I A I V T L S E E A R E L A Q L L K R E L Q E A D L Y S T Y L
N I A K P I A I L F C L T P G G V A L A Q R I I A A Q L P L T P G F L P C E
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A I I C V S S A A G L A L A R T I A S E L S G E T E D V S C V
M D K K T A I I L I S E E G L P L A H R L P E F P Q A D N T C L N V
K I A I I S V S K K G Y E L S L L L K E H L D K D S N T D I Y Y
R P L A V Y A L T P G G A A L A R R I A G A L G V L Y S A Q P F
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A L Y A F T D K G V V R A K E I A A G L G A P D V V R T P G
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K L A F W T V T K G A G N I I A R K L K E H L K D Y E I D V F T L
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I G I I S V T E K G D F I G D K L L K D S F K G I Y K S K C E D
K T A V I S F T Q N G N A C N R R I I T G L K M A G Y T T E G F
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L F S
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V D E N
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A I V I L G P G S L A T A Q R V Q Q C Y P Q A V I H G L Y Y
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A L F A L T A G G V Q L A V R L A D A V D G S T V E T V Y F
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UniRef90_J5HRH7	V R L A D V M Q D A F G R Y D T L V C I M A T G I V V R M I A P Y I I N S K L Y D	G A L T V R V I A P C I Q N K A T D D	
UniRef90_UPI00037F87D1	D S L P H L L D E I W G R F G A L V L V M S L G I V M R L V A P R L R S K T I D D	G A L T V R V I A P C I Q N K A T D D	
UniRef90_M9SKL8	T T A D E W T E R S F A E C D A I V F V G A V G I A V V R E I A P F I R N K T V D D	G A L T V R V I A P C I Q N K A T D D	

	90	100	110	120
UniRef90_A0AHU1	P A V L V M D E Y G Q F I S L S G H G G A N E L T E Q I A E F T G G V S V			
UniRef90_K2P8B6	P P V L A V A E V G S S V V P L L G G H H G A N D L A R R I A T A L G A H A A			
UniRef90_H5Y426	P A V L V L D E T G K F V I P L L S G H G G A N A W A A L I S D R I G A V P V			
UniRef90_F6D6H5	P A V L V L D E N G E H V I S L S G H G G G N D F T L K M A D I G A E P I			
UniRef90_F2J5F3	P P V V A V S E D G A S V V P L L G G H H G A N D L A R R I A D G L G G H A A			
UniRef90_E3DP15	P A I I T I D D Q G Q N V V S T L S G H G R A N E L T L E I A K I L G A R P V			
UniRef90_E2CF41	P P V L A V S E D G Q S V V P L L G G H R G A N E L A R S L S S L L D G H A A			
UniRef90_UPI00046563C7	P A V V M D E E G E Y V I P I L S G H G G G A N N L A R M M E S L T G A T A V I			
UniRef90_D2Z8F1	P A V V V T E D G E L V L P L T G A H G G G S D L A R S L A S D L G A H L V S			
UniRef90_UPI0004788434	P A V L V I D D K A K H V I S L L S G H G G A N E L A I D I A K T I G A E P V I			
UniRef90_D6Z407	P G L V V V D E C G Q H A I S L L S G H G G G N E L A R R V A L L C R G Q A V V			
UniRef90_F9ZBN4	P A V V N V D A T G H F V V S V L L S G H G G A N A L T E R L A R L L G A Q P V V			
UniRef90_F6ACN3	P P V L A V A E D G S A V V P L L G G L G V N R M A R E I A A A L Q V S A A I			
UniRef90_L0L258	P A V V V V D S N L N F A I S L L S G H H G A N E L V R R I S E I G A I P V I			
UniRef90_UPI000319001A	P P V L A V A E D G S A V V P L L G G L N G V N N L A R K I A N V L S I K P A I			
UniRef90_F0KDW5	P A I I V V D V L S K Y T I S L L S G H G R A N E M T L K I S K I L G S I P I			
UniRef90_UPI0002EC9ABB	P A V L V V D E Q A H H V I S L L S G H G G A N Q W T A K V A D Q L G S D P V I			
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UniRef90_UPI00047A0807	P A V V V I D E K G H Y V I P V L L S G H G G G V E Y S K R L A E I V S G E A V I			
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UniRef90_J5HRH7	P A V L V F D E Q G R H G I S L L S G H G G A N E Y T Q R L C A V I G A D P V V			
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UniRef90_M9SKL8	P A V I S V D E L G R F C P I L S G H G G A N G I A V R V A G H I G A V P V V			

130 140 150 160

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UniRef90_E2CF41	T T A G D S A F G V A L G W S L A N P E D A K P V M A E L L S G A S V W I E G D
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UniRef90_D6Z407	T T A S E D L W A E D R Q L V P A T P E V M T R A A R L V N R G T L R V Y S E
UniRef90_F9ZBN4	T T Q S D D L L G K E N G W K M E Y R R S L N E L I S I F V N Q R P T A L L T D
UniRef90_F6ACN3	T T S G E L R F G T C L G Y V L A D I D Q G K R F V S D L L G G E S L R I D G E
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UniRef90_G2HAW3	T T A T D D L L A A R A G L S M A D I A M V R H V N G A L L A G E T T V W I C D P
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UniRef90_S7TFM7	T T A T D D L L A Q E R G M T I A D L S T V K R V S A A L L D G A R V P L H D P
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 P

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

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UniRef90_U4VAW7	D D F G E T L R S L Y R E G Q P L L A	T V H F G D A I R S L Y E E G R P I I A L C A A G I V I R T L A P P L E N K R I E	
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UniRef90_UP10003B50B8E	C T L D E W V Q E H F Y T A K T L V	C T L D E W V Q E H F Y T A K T L V F I G A V Q I A V R A I A P H I R G K D S D	
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	90	100	110	120
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UniRef90_UP100036F266F	P A V L V I D P E G K F V V	S L C G G H G G G D R L	T T Q E I	A A F L N A T P I I
UniRef90_UP100035D96E2	P A V L C M D S T G K N I V	S L S G H G G A N G L	T K Q I	A H I L G A N P V I
UniRef90_H0JEC8	P P V L A V A E D G S A V	P L L G G L A G A N R	T A R Q I	G M L L N V A P A I
UniRef90_UP100034B9C6E	P A V V V V D E A G K F A I	S L C G G H G G G D R L	T R T I	A A Q L G A E A V I
UniRef90_U2PQ13	P G V V V V D A K G E Y A I	S L L S G H G G G N E L	A I K V	S E I L K A M P I I
UniRef90_E5BH86	P A V L L I D E G K H F V I	S L S G H G G A N E	T Y K I	A S L L N L I P I
UniRef90_E0MLL5	P P V I A V A E D G S S V	P L L G G L H R G A N E	M T Y R I	A E K L N G H A A I
UniRef90_I3DH27	P A V L L I D E G K H F V V	S L S G H G G A N E	M T Y R I	S E A L N L I P V I
UniRef90_A3IT50	P A I I I V I D P T G Q Y V	S L C G S H G G A D R L	L A Q L I	A H H L H A T P I I
UniRef90_L8N114	P P V I A I A E D G S A V	P L L G G L N G A N D L	A R A I	A A L I R A N A V V
UniRef90_Q8ZZB6	P P V L V V T H D L K V I	P I P L L G L H R G A N E	L A G E L	A A L I R A N A V V
UniRef90_K9TUC1	P A V V V V D E A G K F V	S L C G G H G G A D R L	L T K I I	A A Q L I D A T P I I
UniRef90_K8M0C7	P A V L C V D D R A N F S	C V L S G H G R G N F F	T E K I L	A Q T L S N I P V I
UniRef90_S0J6U1	P A V L V L D E Q G N Y V	P I L S G H G G G N R W A	F A F I L	A E E L P A V P V I
UniRef90_UP10002892DA6	P A V V V I D D R G E N V	S M I L S G H G G A N A L	T H T V	A E A L N A N A I I
UniRef90_U3H9B1	P P V L A V A E D G S A V	P L L G G L G G V N R M A	R E I	A A Q L E V A P A I
UniRef90_R6I8X6	P A V L S V D E G G N F V	P L L S G H G G A N G F A	K V L	A K V I K A T P V V
UniRef90_J5TXW1	P A V I N I D S T G R H V	V S V L S G H G G A N E	L T R D I	A S L L G A E P V I
UniRef90_Q3JSE8	P P V L A V A E D G S A V	P L L G G L A G A N A L	A R E I	A D A L G V A A A I
UniRef90_X7E6Q4	P P V L V L D E A G K F V	P I L S G H G G A N E	N E W G A Q V	A G R L G A Q L V M
UniRef90_K6UBS9	P G V V A V D L S C K Y S	I N I L S G H G R G N E L	T L K A	A E I L N A T P I I
UniRef90_M1PIU8	P C V L V L D E N G Q F V	S L L S G H G G G N L L	A R E I L	A D F L G G Q A V I
UniRef90_R9T4X7	P A I V V L D E R G S Y S	P L L S G H G G A N T L	A K I I	A E M I G A E A V I
UniRef90_F6CSU3	P P V L V L D E A G Q F V	P I L S G H G G A N N W A A Q V	A E M L G A Q L V M	
UniRef90_K2R316	P A V L V V D E N K K H V	I S L I S G H G G A N Q F S	I K I I	A G V I G A V P V I
UniRef90_K9RT41	P P V L A V A E D G S A V	P L L G G L K G A N Q L	A R H I	I N I L D V N A A I
UniRef90_B3CDT6	P A V I C V D S M G R N A	I S V L S G H G Q A N K I	T Q D V	A H I L G A N P V I
UniRef90_G1WJS5	P A V V V I D E A G T W C	P I P L S G H G G A N A L	A I R L	A R G L G A Q P V V
UniRef90_A3Y662	P P V L V L D E M G K F V	P I P L S G H G G A N D W A	H Q V	S C L K S Q L V I
UniRef90_U2PV55	P A V I T V D D H A N F V	I S L L S G H G G A N E E	C E K I I	A Q G I G A I P V I
UniRef90_M9R0A7	P P V V S V D D G R V V	P I P L L G G H G R G A N R L	A R D I	A D A L Q G V A A V
UniRef90_R6KJ19	P A V I C V D S T G R Y A	V S V L S G H G K A N E	M T E N I V	A H I L G A E P V I
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UniRef90_M9RJ5E	P P V I S V S D D D G K I	V V P I L G G H H G A N R L L	A R D I	A D A L H G T A A V
UniRef90_F6CHV1	P A V V V L D E K G Q F V	I S T L S G H G G A N E	L A Q Q L	A G A L Q A V P V I
UniRef90_G4RJ14	P P V L V L D E R R G R Y V	P I P L G S H G R G A N E L	A R E I L	A P L L G A E A V I
UniRef90_V6JTC4	P G V V C V D E G G R F A	V S V L S G H G G A N E	L A E A V	G E L L G A E P V V
UniRef90_Q2BP19	P P V L V I D E Q G K F V	P I P L L S G H G G A N N W A L	E V V	S R L L D A Q P V I
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UniRef90_A3CL64	P A V V V M D E K A T N V	I S L S G H G G A N Q V	T R D I	A E E L L G S N P V I
UniRef90_R5SRV4	P A V V C I D S T G R Y V	P I P V L S G H G G A N E	L A Q D V	A G A L G A E A V V
UniRef90_U5P3L5	P A V I V M D E K A N H V	I S L L S G H G G A N Q V	T L K I I	A E E L L D S N P V I
UniRef90_H4F5R1	P P V L V V S D D G A S V	P I P L L G G H H G A N D L	A R F I	A T G I S A H A V I
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UniRef90_H1PTF7	P A V L V A D E G E N F I	I S L L S G H G G A N D L	A N E A	A E K L G L L P I
UniRef90_K9SRU1	P P V I A I A E D G S V V	P I P L L G G L N G A N D L	A R Q I	A D G L S T K A A I
UniRef90_A9AHY5	P P V L A V A E D G S A V	P I P L L G G L T G V N A I	A R E I I	A A Q L G I A P A I
UniRef90_Q0FDF8	P A V I S V P D D G S T V	P I P L L G G H R G A N R L	A R Q I	A N G L K S H A S I
UniRef90_E11GF2	P A V I C L D E A G N S V	P I P L L G G H R G A N A L	A R Q I	A D I T G G H A A I
UniRef90_J7U6L3	P P V L A L A E D G S A V	P I P L L G G L A G V N R L	A R E I	A A H I L G V A P A I
UniRef90_G2DZE7	P G V L A V D A G A R F V	P I P L V S G H G G A N A F A E R V	A G M L G A T A V I	
UniRef90_S0FWY5	P A V L V I D E K G R Y V	P I P V L S G H G G A N S L A V R I	A D I L S A Q P V I	
UniRef90_E0E2E4	P A V L V V D E L G N V I	I S L L S G H G G A N E	F C R L I	A T R I G A N P V I
UniRef90_UP10004682E1C	P A V I C I D S T G K Y V	P I P V L S G H G G A N Q W A G M I	A R A I G A T A V I	
UniRef90_U4VAW7	P P V L A V A E D G S A V	P I P L L G G L S G V N D M A R Q V	A A A L E V V A P A I	
UniRef90_X5D7B0	P A V I N I D A N G Q F V	P I P V L S G H G G A N E	A N L L G A T P V L	
UniRef90_D4J2I5	S P V I V I D E L G K N V I	P I P V L S G H G G A N E	A R L I	G K D L S A N P V I
UniRef90_G8MEN9	P P V L A V A Q D G S A V	P I P L L G G A S G V N V L	A R E I I	G A A L D I A P A I
UniRef90_K6W516	P G V V V V D E A G R F A	P I P L V S G H G G A N E L	A T R I	A R A L D G T P V V
UniRef90_UP10004108033	P A V L V L D E N G Q F V	P I P L L S G H G G A N E L	A R Q V	S N L L E N Q L V I
UniRef90_C4ZB04	S P V I V I D E L G K F V	P I P L S G H G G A N E F A V L	A A A L M N A T P V I	
UniRef90_R4X2E1	P P V L A V A H D G S A V	P I P L L G G V R G V N V L	A R E I I	G A A L G I A P A I
UniRef90_K9VWL5	P P V L A V A E D G S A V	P I P L L G G L H G V N D L	A R E I I	A A A L G V Q P A I
UniRef90_M3JPR7	P P V L S V A E D G S A V	P I P L L G G L S G V N D L	A R T I	A H A L E V V A P A I
UniRef90_UP100036B9249	P A V V V A V A E D G S A V	P I P L L G G L N G V N N L	A Q Q I	A A A L G V K A A I
UniRef90_UP1000475E6FC	P A V V A L D E T G R F V	P I P V L S G H G G A N A L	A G R I	A A A L G A A P V L
UniRef90_W6MB53	P A V V V V D E A G K F A	P I P V L S G H G G A N A L	A R Q I	A T A L G A T P V L
UniRef90_R6L2F4	P A V I C V D S T G R Y A	I S V L S G H G G A N E	T A A I I	A G A L G A E P V I
UniRef90_J3HLX8	P P V L A V A A D D G S A	V V P I L G G T T G V N V L	A R Q I	A A I L D V P P A I
UniRef90_C6HVT5	P A V L V G D V Q G R F M	I S V L S G H G G A N K L	T T E I I	A R T T G A L P V I
UniRef90_U2C4B5	P A V I N V D S T G R F V	P I P V L S G H G G G N E L	A R Q I	A G I T G G E A V V
UniRef90_K9XYL4	P A V V V I D A Q G R F V	I S L C S G H G G A D L	A Q Q I	A K A L R A V P V L
UniRef90_G9YES5	P P I L V I D E K G N F V	P I P V L S G H G G A N A L	A R H I	A K A L R A V P V L
UniRef90_E1JZ83	P A V I C L D D A G T F A	I S L L S G H G G A N A L	A R E A A A C C V G A V P V V	
UniRef90_A6LVU7	P G I V V V D L S C K Y A	I N I L S G H G G G N E L	T Y K V	S E I L N S M P I I
UniRef90_A0A038GZB4	P P V L A I A Q D G S A V	P I P L L G G M S G V N V L	A R E I I	G D A L G I A P A I
UniRef90_W4NU00	P P V I V A V A E D D G A	V V V P I L G G L S G V N A M	A R E I I	A A A L D V P P A I
UniRef90_A3V191	P P V I V I D E A G Q Y I	P I P V L S G H G G A N A E	A A A K I L	A E I T G G V S V I
UniRef90_UP10003B50B8E	P A V I V I D E A G Q Y I	P I P V L S G H G G A N A E	A A A K I L	A E I T G G V S V I
UniRef90_E3GJF5	P G I L V M D P D G K Y V	I S L L S G H G G A N E	A A K R M D A Q H V I	
UniRef90_O27459	P G V L V V D E K G S N V	I S L L S G H G G A N D F A I K L	A G L I G A N P V I	
UniRef90_L1KJS0	P G V V C V D E G G R F A	V V P I L S G H G G A N E	A R E I V	G A G L G V A A V
UniRef90_R6B5M7	P A V I C V D S I G K H A	I S V L S G H G G A N E	L T E A V	A G A L G A E P V I
UniRef90_K9S6V4	P A V V V V D E A G Q Y V	I S L C G G H G G G D R L	A R Q I	A R Q I L G A T P I I L
UniRef90_Q2CAA1	P P V L S V S D D G A V	I V P I L G G H R G A N R L	A R E V	A G A L G G V A A V
UniRef90_V6JMB1	P G V V C V D E A G R Y A	V S V I L S G H G G A N S L	A K E V	G S T L S A T P V I
UniRef90_UP100037E115F	P A V V I L D D T G K F A	I S L C G G H H Q G A D Q L	T R M I	A L Q L G A T P V L
UniRef90_U2CVT3	P A V L V M D E H A V H	V V P I L S G H G G G N D W C R	Q V	A L L T G A E P V I
UniRef90_K9RM98	P A V V V I D E T G K F V	I S L C G G H H Q G A D K L	A N L I	A V Q L G A T P V L
UniRef90_E6M163	P A V L V M D S G G R F V	I S L S G H G G A N A E A V M L	A K R L S A T P V I	
UniRef90_Q31M35	P A V L A I A E D G S S V	V V P I L G S L Q Q G A N Q	A Q V L Q S H A A I	

130 140 150 160

UniRef90_D5V0M9	S T A T D D M F A K K N G M K I E N L N K [] A N I S N R L I N K Q K V K V F S Y		
UniRef90_UP100036F266F	T G A S I [] D V L G V P F G W R K G K G D W T A L A S A I A H S Q P V Q V M Q E		
UniRef90_UP100035D96E2	T T Q S D D T I G T K Y N W T L K N A K H L N H P I T L F V N K K K T A L F I D		
UniRef90_H0JEC8	T T S G E L R F G T C L G Y A L A D V D V A K H R V A D L L A G A P V R I E G E		
UniRef90_UP100034B9C6E	T S A S [] D T L G E P F G W Q R G T G D W N G V A G A I A R Q E S I Q I I Q E		
UniRef90_U2PQ13	T T A T D D M I A K E N N L L I T D M K K A K D I S A F L I E G K K V V F E D E		
UniRef90_E5BH86	T T S S D D I I S Q K L N A E L E D L K S A K E V T S L I V D G K T V		
UniRef90_E0MLL5	T T A G D L R F G L A L D W V L S N P E Q A K D V M A A C L A G Q A V S V D G E		
UniRef90_I3DH27	T S S S D D T I S Q K L Q A E L E D L Q S A K E V T S L I V D G K K V		
UniRef90_A3IT50	T G A S I [] D L L G L P F G W R K G P G D W T G V S H A I A S Q K T I Q V I Q E		
UniRef90_L8N114	T T T G D L R F Q T S L G Y R L L N D E Q A K T F L A D L L A G K T V K L I G I		
UniRef90_Q8ZZB6	T T V A V E V T R L L C K L E Q S A V L E V Y K A L I E G K R V C V E G L		
UniRef90_K9TUC1	T S A S V D L L G V P F G W H K G K G D W T E V S A A V V R G E P V Q V I Q E		
UniRef90_K8M0C7	T T A S D D I I L G R G L G W T L E H P D N V T R G C A A V V V N E A R V L F N W W		
UniRef90_SOJ6U1	T T A T D D V F A A G N G L V L S D R R L A K E I S G A V L R G K K I E F Y C E		
UniRef90_UP10002892DA6	T T A S D D L F G A K F G W Q W D S P D Q L T P V S A S V V N E E H V A I N W W		
UniRef90_U3H9B1	T T S G E L R F G T C L G Y A L A D I E Q G K R F V S D L L G G E P V R V E G E		
UniRef90_R6I8X6	T T A T D D E W A A R N N M I I N S M K A A K D F A A A L V D G Q E V G L F D Y		
UniRef90_J5TXW1	S T Q T D D L F S R R Y G W V T K S S E G L N R P I A L Y T N G E K T A L L L E		
UniRef90_Q3JSE8	T T S G E L R F G A C M G Y A L A D I D A G K R F V S D L L A G E S T R V E G W		
UniRef90_X7E6Q4	T T A		
UniRef90_K6UBS9	T T A S D D I L A Q K N N L I I E D L K K A K Y [] A S L L I N N K L V G L K D D		
UniRef90_M1PIU8	T T A S D D L W A E K N G L G V D D S C K L T E K S A K L I N R G M L T L F T E		
UniRef90_R9T4X7	T T A T D D S F A E E R G M Y I S S M A C A K D I S A Y I L E K G N V G F S D F		
UniRef90_F6CSU3	T T A		
UniRef90_K2R316	T T A T D D A L A N Q Y W L D I H Q A D L I K E V N Q L I A E D G K V D L Y		
UniRef90_K9RT41	T T T G D I R F Q T A L L Y H L V N P E D A K E F L A D L L S G A S I K L L G N		
UniRef90_B3CDT6	S T L S D D T L G Q E F G W E V		
UniRef90_G1WJS5	T T V T D D S W A A S R G F C V L E P E R I R S V S S S L L A G A G A T L F D G		
UniRef90_A3Y662	T T A S		
UniRef90_U2PV55	T T A S D D T L S Q K I K A K L E S L D D A K R V T S L I V N G E N V S I H		
UniRef90_M9R0A7	T T A G D V A L G V A L G Y R L Q N P D D A K S V M A T L L S G G G V T W N G F		
UniRef90_R6KJ19	T T Q S D D T L G D K F D W A A I P G E M M N N I S L F V K K V P T A L F T E		
UniRef90_UP10004786B8E	T T A S D D I F A K E N N L I I E D L K K A K Y I A A L L I D K K V I G I K D D		
UniRef90_M9RJ5E	T T A G D V A L G V P L G Y R L Q N P E N A K S V M A T L L S G G G V T W N G A		
UniRef90_F6CHV1	T T A T D D V L A R K Y N L T M E P F T A V K Q V N A A L V N G E T V T L C S E		
UniRef90_G4RJ14	T T A V E D A G A P A E I F L C G M D A A A R V N K A L K E G R R V C V R G R		
UniRef90_V6JTC4	T T A T D S V L A G L D T L G L P C E G S V A L V S R A L L D G E P V A L E T E		
UniRef90_Q2BP19	T T A		
UniRef90_N0A9C9	T T S G E L R F G A C M G Y A L A D I D A G K R F V S D L L A G E S T R I E G D		
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UniRef90_R5SRV4	T T Q S D D T L G Q P N G W T C L P A D A T		
UniRef90_U5P3L5	T T A T D D N I A K E N G W R E E L R H L V K V F N S Y L A N K D C V Y F Y Q E		
UniRef90_H4F5R1	T T A G D L K F G V A L G Y R L A N P E N A K V V M A E L V A G S S A R L A G		
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UniRef90_H1PTF7	T T S S D D T L S Q K M Q G E L E S L E K A K N V T S L I V D G K E V N I L L		
UniRef90_K9SRU1	T T A G D L R F K T T I G W R L A N T D D A K T F L A D L L G G A Q V R L I G W		
UniRef90_A9AHY5	T T S G E L R F G A C D G Y V L A D L A Q G K R F V S D L L A G A S T R I D G P		
UniRef90_Q0FDF8	T T A G D I A M G V A L G Y R L Q N F K D A K P V V M A S L L T V R V S G E		
UniRef90_E11GF2	T T A S D D L L G Q E Q G W R V D P A S A L T H T M G C L V N G D A L G C		
UniRef90_J7U6L3	T T S G E L R F G T C L G Y A L S D I Q Q G K R F V S D L L G G E S V R I E G Q		
UniRef90_G2DZE7	T T A S V D I L G R E L G W R V E A P E N L R R A A A S V V D G E P V V L D W W		
UniRef90_S0FWY5	T T A T D D S W A E E H G C F I A N I E N I K Y I S A I L R G E T V G L Y D F		
UniRef90_E0E2E4	T T A T D D M L V K K M W A N V D K L R G L D I N S A L L K G G D I Y L Y D P		
UniRef90_UP10004682E1C	T T Q S D D T L G R E N G W E T E T G G T M N E L I A Y F V N K K R T A L L L I E		
UniRef90_U4VAW7	T T S G E L R F G I N L L T L A N P D D A K S F M S N S L L A G Q K L R L E G W		
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UniRef90_B0C1C5	P A V V V L D E P G Q F V I S L L C S G H Q G F V I S L L S H G G A N D L T Q L L A Q Q I G A T P I I			
UniRef90_B7K1P8	P A I I I D Q K G F V I S L C S G H Q G A D Q L T Q L I A H L L N A K P I I			
UniRef90_UP100031D321F	P S V T V L D D A G H Y A I C L S S C H G G G N Q A T Y D V A K I L Q A I P V I			
UniRef90_F3NQW4	P G V V V D C V D E A G R F A V S L V S G H H G G G A N E L A R A V G V L G A E P V V			
UniRef90_D5ZPU9	P G V V C V D E G G R F V I S L L S S H G G A N D L A R E V A G V L G A E P V V			
UniRef90_N6X306	P G V V V L D E A G R W A I P V L S S G H G G A N A I A G V L Q Q A V G A T P V L			
UniRef90_UP1000476A0F9	P P V L A V A E D G S T V V P L L S G H G L R G V N L A R Q M A A A G C P A A I			
UniRef90_B2TPG1	P G V V V D D L A N N Y S I S L L S S H G G G N Q A T Y D V A K I L Q A I P V I			
UniRef90_E1QJ0	P A V V V V D Q L G Q W A V S L V S S H G G A N E L A R R V A G A L G G Q A V I			
UniRef90_D4TLB6	P P L L A V A E D G S V V V P L L S G H G L T G V N E L A R Q I G A G L N V K P S I			
UniRef90_T0MBM8	N T V L S I D D S G K F V I P V I G G H H G A N D M A I S G G E A V I			

130 140 150 160

UniRef90_UPI0003697EDF	T T A T D D V I A R D F N F K I A S F V S □ R Y □ N A E L A D G E D I		
UniRef90_U2ZJ42	T T S G E L R F G T C L G Y V L A D L E Q G K R L V S D L L L G G A R L R V E G E		
UniRef90_R5B6Q7	T T Q S D D T I A T K Y G W A T E C K E Q M D K A I Y K F V N G L P T A L I T R		
UniRef90_Q2JU70	T S A S V D V L G H P Y G W R R G S G D W N G V A A A L T R G E P V A V E Q		
UniRef90_UPI0003B476E4	T T A T D D L W A K D H G L Y I A N K E G □ A M V S S K V L E G K D I T I N Q Y		
UniRef90_D5WHL8	T T S G E L R F G T C D G Y A L A D □ G Q G K R F V S D L L L A G E S T R I E G D		
UniRef90_C0D1C2	T T A T D D V F A A K N S L I I A D R E A A R H V A M D L L E G R E V G F		
UniRef90_A6X058	T T S G E L R F G I N L L L T L A N P D D A K N F T S N L L A G Q K V Q L D G W		
UniRef90_UPI0003B37130	T T A T D D V F A R K N G L V I S E K E K I K K I S S K V L R G E K V R F		
UniRef90_R6X1F6	T T Q S D D T F A K Q Y G W E		
UniRef90_R5UH18	T T A T D D V F A M E N G L I I T D R E E A K K I S A G I L E K K N T G I S E F		
UniRef90_A0Y6M1	T G S A □ D V L G T P F G W K R G S G D W T G V S A A I A Q Q K T V Q V Q Q E		
UniRef90_M1LW20	T T A S D D L L A Q Q N N L V I E D □ K K A K H I A A V L V N N E I I G I K D D		
UniRef90_B0NJA8	T T A T D D K F A Q E N H L W I A D M A K A K R I S A R L L A G E E I I V D E N		
UniRef90_T2JB68	T G A S □ D I L G L P F G W R K G P G D W T G V S H A I A C Q K R V Q V I Q E		
UniRef90_D6XCQ9	T T A T D A V G L P G D L G L P V F E G A V A A V S R A L L D G D A V A L S G W		
UniRef90_A8AEP9	T T A T D D T L A F Q L N A R M T D R S A V K I V N Q M L V S H Q R V G L W W D		
UniRef90_A6LAW7	T T Q S D D T L G K K Y D W T L I A K D S N A A I S T F V N G K P T A L L T D		
UniRef90_A0A024KA84	T T T G E L R F G I N L G Y Q L L N S A A A K S F V S E L L S G R P V Q I D G D		
UniRef90_F5IXS9	T T Q S D D T I G E K Y N W T T T N A D N F N E P L T A Y V V N R K P T A L D V V		
UniRef90_UPI0003689E13	T T Q S D D R L P G R F G W F P V S E E K M R E A L G I F V A G K P T A L L T D		
UniRef90_F3ZUV2	T T Q S D D T I G K K Y N W V T R S N V N N F N Q P L V V N K E K T A L L T A		
UniRef90_K9SLF7	T T A S V D L L G A P F G W Q R G E G D W T K V S A A V I A K Q L P V Q V W Q E		
UniRef90_R5G1M0	T T Q S D D T L P R Q F G W K L E T V G A L N E A I T K F V D G V P T A L L L C D		
UniRef90_C7BRY0	T T A T D D T L A T Q L D A D I Q D F R H V K V I N Q M L V S G Q K V G L W W D		
UniRef90_F7V355	T T A T D D E W A K R Q N C R V D N P A W I K R I S G R I L A G G T A V V Y S		
UniRef90_G2FZQ2	T T A T D D E Y A R R Y H W Q V E P I D H L P T V N R L L L E Q G S L K V W T S		
UniRef90_A0Q340	T T A T D D V I A K E K G Y I I D L L K M A K E I A S M L V N N E K V A		
UniRef90_F8JY30	T T A T D A V G L P G L D L G W P V E G A V A A V S R A M L D G D P V R L D A H		
UniRef90_Q10WL6	T G A S □ D I L G K P F G W Q R G E G D W N T V S G I A R E E T V Q V L Q E		
UniRef90_UPI0003B2F53D	T T A		
UniRef90_C4GBG7	T T S T D D L W A K K N G L G I L N R E R I Q A I I S S S I L R D E K V G V W G W		
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UniRef90_C7D640	T T A G D V A L G V A L G Y R L K N P Q D A Q G V M A E L L A G G G V T W T D E		
UniRef90_E0UB60	T G A S □ D I L G L P F G W R K G E G D W T Q V S A A I A R Q E K V Q V I Q E		
UniRef90_F2F1P6	T T A S D D L F G A R Y G W V W D S E E K □ T P V S A S V V N E E Q V A I K W W		
UniRef90_Q2S8A6	T T A		
UniRef90_C5AGL3	T T S G E L R F G A C D G Y A L A D □ G A G K R F V S D L L A G A G T R V D G E		
UniRef90_K9GLK2	T T A G D V T H G I A L G W S L A N P A A A K P V M A A L A A G Q P V T V E G D		
UniRef90_A3JV10	T T S G D V A L G V A L G W K L E N P E D A K G A M A A L L G G A K A Q Q S G N		
UniRef90_S6HNS5	T T A		
UniRef90_E5Y4Q0	G S P A D D E A A A Q E H A R I L N P E A V R A L N A A L L D G S P I A F C G		
UniRef90_K7RQY4	S T A T D S □ G V P A L D □ G W A Y E G D V A G V T G A I I A G R P V A V E H P		
UniRef90_A0A023BU19	S T S S D D T L A E T Y G W K T K S S I P L N K I I S L F V V N R K S T A L		
UniRef90_K5ZM36	T T Q S D D T L G E K F G W S V D N E N A M N A C I I A A F V V N K K P T A L I T E		
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UniRef90_A0A011P600	T T A S D D L L G R E L G W T I E T H A E I V R V S A A V V N D E P V A L V Q E		
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UniRef90_W7Y2C6	T T V S D D L L P Q K Y S W Q L E C G N Q L T H L M A S F V N G E K T A L L L E		
UniRef90_V4V4S5	T T S G E L R F G T C V G Y V L A D □ E Q G K R F V A D L L G G Q P V R V E G T		
UniRef90_V6F7H7	T T A G D L K L G V A L G W H V A N P A A A K P V V A A L L A G K P V R L E V E		
UniRef90_B1YBB2	T T A V D E D F E R Y M L C D M G R E G R L L V N K A L K E G R R R V C V E G G		
UniRef90_A5D3Q6	T T A T D D L L A R Q W S F L P V P R E G V K G V S R A L L E G K R L V F Y T E		
UniRef90_J5CC43	T T S G E L R F G A C D G Y V L A D □ A Q G K R F V S D L L A G A S T R I D G T		
UniRef90_F0YXJ0	T T A T D D V F A K E N H L Y I S S R R L L A K E I S A A V L L Q G K K V G F Y S Y		
UniRef90_UPI00035CD0FC	T T S G E L R F G T C L G Y V L A D □ E Q G K H F V S D L L A G G Q R V R L E G H		
UniRef90_K2IUT0	T T A G D V S M G I A L G W R L G N P E N A K S T M A A M L A H G G A T V T G D		
UniRef90_W9VEJ9	T T A S D D L L G K E L G W Q L A S H D D L L R A S A A M V N G E P V A L V Q E		
UniRef90_UPI00037E4737	S G A S V D I L L G V P F G W N R G E G D W T G V S A S I A R F E R V Q V I Q E		
UniRef90_U6EFC1	T T S T D D S I A R Q Y Y L D I Q P K L I K E V N Q L I A E D T R V D L Y		
UniRef90_F4XTE7	T G A A V D V L G I P F G W Y R G K G D W T R V S A V V A R G E I V Q V I Q E		
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UniRef90_T3G5D3	T T A T D D M I A K K L N A H I D N R E S V K E V N S M L V N N K C V G L Y V D		
UniRef90_A3VZC3	T T A G D V A M G V A L G Y R L A N P G D A K A A M A A M L S G E G V C V S G E		
UniRef90_UPI00047641AC	T T A G D L G L G V A L G W R L V D P A A A K G V A A G L L A G E		
UniRef90_R7B5B5	T T A T D D V F A A E N E L V I S D R E L A K Q I S A A E L R G E K I G F S D Y		
UniRef90_F8X4A1	T T Q S D D I L G E K Y G W T T S N T A N F N E P L T T F V N N K T T A L L T Q		
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UniRef90_M9VF97	S T A T D S L G V P A L D L G W A Y E G D V A G V T G S I I A G R P V L V E Q P		
UniRef90_UPI00036EEF9D	T T A S D D L L G R E L G W H F E S H D E L V R A S A A V V N D E P V A L L D W W		
UniRef90_A1KBE5	T T A S D D L L G R E L G W T F E T H D E I V R A S A A V V N D E P V A L L D W W		
UniRef90_G8X4A5	T T S S D D T L P K E Y N W K S K T I E M N K I I S I F V N N N K P T A L		
UniRef90_C9KJ47	T T A T D D A L A A E L G L F P E S H A A I L A I N S A L L R G E S I S Y Y V D		
UniRef90_A2SSE2	T T A T V E E T A K F G G L T I V N R S S T R E V N G A I L D G D V P		
UniRef90_R6GY19	T T A T D D T F A K K Y D M A I E N I G Q L K H I S G A L L A G K K V N V F T N		
UniRef90_UPI00037781E2	T T A G V D Q I G V P F G W Q R G A G D W T A V S G A V A R R R E P V Q V I Q R		
UniRef90_B1WSU7	T G A S I D V L G L P F G W R K G L G N W T G V S H A I A S Q K T V Q V I Q E		
UniRef90_B0C1C5	T G A S I D T L G I P F G W Q R G A G D W N A I A G A I A R G E T V T V H S E		
UniRef90_B7K1P8	T G A S D L V G L P F G W C K G Q G N W T Q S S L I A Q G K T V Q V I Q E		
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UniRef90_F3NQW4	T T A T D D L P G L D L G L P V E G A V A A V S R A L L D G E P V A L R A E		
UniRef90_D5ZPU9	T T A T D A V L A G L D T L G L P V E G D V A A V S R A L L D G E A V A L R A E		
UniRef90_N6X306	T T A S D D L L G R E L G W F E S H D E I V R A S A A V V N D E P V A L L D W W		
UniRef90_UPI000476A0F9	T T S G E L R F T L T L G F R A A N P Q D S K R F M S D L L A G V G V R L N G		
UniRef90_B2TPG1	T T A T D D I L A K E N N L I I E D L K K A K Y I S A I L V N E K I G L K D D		
UniRef90_E1QJT0	T T A T D E M E A K A L G L V V E N L A A L A G L S A A L I D G R A A P V H D P		
UniRef90_D4TLB6	T T T G D L R F R T A L G Y Y V N P D N G K K F I A D L L A G A K V K L L Q G L		
UniRef90_T0MBM8	T T A S D E S I A E K Y S M A F K N V E N L N K I S G D I V N G N P V N V I N K		

170 180 190

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UniRef90_R5B6Q7	P P E A N L P D N V H M V D A L V T N R E D L S E Y D A S L Y L K P		
UniRef90_Q2JU70	A P W L D		
UniRef90_UPI0003B476E4	L A N S K L P		
UniRef90_D5WHL8			
UniRef90_C0D1C2			
UniRef90_A6X058			
UniRef90_UPI0003B37130			
UniRef90_R6X1F6	P L L G D I P E E L T I C G S E E Q L E G C C		
UniRef90_R5UH18	A G S T L W Q H H L P A T H S F E F T S T Q T P Q A Q I W I S P		
UniRef90_A0YM61	Y D M L E I S K G Y E		
UniRef90_M1LW20	R I K G E P P E G I R M V D S Q S Q E K E P K N P S W R H T L Y L V P		
UniRef90_B0NJA8	A G S K L W Q D N L		
UniRef90_T2JB68	P L P P E G P Y G I R V T D R L A E L S E R E V V L R P P T L V V		
UniRef90_D6XCQ9	E E L A D D V S R C D R V T D L H Q L P E L D A L V C I T L R		
UniRef90_A8AEP9	Y L E R T V P S H V S I F Y S F E A I P Q Q D Y E L L M I V		
UniRef90_A6LAW7	A P W L E F S G L I V D P S R I R I V D A P T E A G P D E L V Y L R P V		
UniRef90_A0A024KA84	D E G T Q F M E R T V A G H V K I Y Y R Y E Q E Y E L L I T V Y L Y P		
UniRef90_F5IXS9	W L E A H L P A H V E V F Y R L E D I D		
UniRef90_UPI0003689E13	Y L E R T K P E H V D I F Y K Y E D I N F D		
UniRef90_F3ZUV2	S W Q S H L P D		
UniRef90_K9SLF7	Y L E R T K P S F V D V Y Y H L E D L D I S K Y Q L L I A V T P R E L		
UniRef90_R5G1M0	E P L L S E C E H C D T R G F V P V T C L D P E L D V L V C V T L R		
UniRef90_C7BRY0	P F P I A G T P P A Y V A C V R Q D A D K K P E		
UniRef90_F7V355	Y T L P P L S E N E K V K A N V I V S A F P D L N Q D D C V Y L I P		
UniRef90_G2FZQ2	D V H P A L P P N V T A S D V R L V V G D R V E E L D G R T A V L R P		
UniRef90_A0Q340	V W Q K H L P H		
UniRef90_F8JY30			
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UniRef90_UPI0003B2F53D			
UniRef90_C4GBG7	E E G S A L P G E L V R I D H I Q S L		
UniRef90_K4RCF3	A W P L P A L K V A Q E G A Y T V R L T D R D V E A G E R E V V L R P		
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UniRef90_E0UB60	V W Q D H L P E N		
UniRef90_F2F1P6	L H E T P M P D T L K I Y		
UniRef90_Q2S8A6	A P W L D		
UniRef90_C5AGL3	P W L A A L P Q S D A A A H V I R V T E R L D V G R D A L V I H P P V		
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UniRef90_K7RQY4			
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UniRef90_B8IQ4Q	P I E G S L P D N V I I S D S		
UniRef90_K9X9D1	A G S T L W Q S T A S F Q N S S L T L E T T P N T P A I Y I T P		
UniRef90_A0A011P600	D G S G N W		
UniRef90_B4W2J2	V G S T L W Q N H L P S G H P F V F D A D E E T V D V N		
UniRef90_W7Y2C6	D L E S S A P S H V D V F		
UniRef90_V4V4S5	A G W L D		
UniRef90_V6F7H7	A G D A D W		
UniRef90_B1YBB2	R L P P Y L R G Y A E G G G C D V V I K		
UniRef90_A5D3Q6	W Q L P G I E E I P S V G A V R P F P G E P G D V P		
UniRef90_J5CC43	A P W L D		
UniRef90_FOYXJ0	P V E G Q I P E E L Q V C S N L E E L N R E E Q R G S T E I L Y L P P		
UniRef90_UPI00035CD0FC	A P W L D		
UniRef90_K2IUT0	E A E		
UniRef90_W9VEJ9	A G R A D W W Q G		
UniRef90_UPI00037E4737			
UniRef90_U6EFC1			
UniRef90_F4XTE7	A G S T L W Q A H L R		
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UniRef90_I2B7T1	N A T L G Q P P E L D L R G F I P V A D I R N P G A L D N L V		
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UniRef90_A3VZC3	N I		
UniRef90_UPI00047641AC			
UniRef90_R7B5B5	P V D G I V P A E I T P G		
UniRef90_F8X4A1	Y L E R T I P E H V K V Y Y S I A V T P Y R Y P L T D I Q T I Y Y H P		
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UniRef90_M9VF97	W P L P P L P K N V T V S E R V A E R V R T D H G D D L P T V V L H P		
UniRef90_UPI00036EEF9D	A G S P D L P K N I H C F T R L E E I T P E		
UniRef90_A1KBE5	P R H G P L P A N I R L D V T R I E D I D P A A W G A V L W V S H R P L		
UniRef90_G8X4A5			
UniRef90_C9KJ47			
UniRef90_A2SSE2	I V R V P G P K I V V A D P G V S V L V T D S P Y V I G I		
UniRef90_R6GY19	K N A K K L Y P E L		
UniRef90_UPI00037781E2	D G S P L W Q A H L P I Q S S L Q V V N		
UniRef90_B1WSU7	T W Q E N L P Q N H P F Y F G F G E I S E N T Q P A A R V W I		
UniRef90_B0C1C5	L W Q A H L P P		
UniRef90_B7K1P8	V W Q N N L P N N		
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UniRef90_T0MBM8			

40

UniRef90_U2YHW4	10	V L A L S R S G E T V A R R V A D A L D A V E R A D A F F
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UniRef90_K0DRZ5		K Y A V I S V S R E G A L L G R R V K D G I S G S G E A V Y F
UniRef90_H1CYL9		V A V L A I T R H G V A L A G R I V A A L P G A R L F A P Y T
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UniRef90_B7KC23		
UniRef90_R4YN31		
UniRef90_W6LY82		
UniRef90_K9EZA7		
UniRef90_K9YRH8		
UniRef90_K9UB35		
UniRef90_R9VKJ4		
UniRef90_K2MPV1		
UniRef90_V4XNR8		
UniRef90_Q6L2V7		
UniRef90_R6AN45		
UniRef90_G7LLK0		
UniRef90_C7PTU8		
UniRef90_Q3AE17		
UniRef90_K2E235		
UniRef90_J1QIA7		
UniRef90_Q2FRR6		
UniRef90_D3P9V0		
UniRef90_UPI0003676823		
UniRef90_UPI0003B57D77		

The figure is a sequence logo representing the conservation of amino acids across a large dataset of UniProt entries. The x-axis represents the position of the amino acid, ranging from 1 to 40. The y-axis lists the UniProt entries. Each position is represented by a vertical stack of colored bars, where the height of each bar indicates the frequency of that amino acid at that position. The colors correspond to the following amino acids: A (green), C (yellow), D (red), E (blue), F (purple), G (light green), H (pink), I (orange), K (dark blue), L (brown), M (tan), N (light orange), P (grey), Q (light pink), R (dark red), S (light green), T (light pink), V (light orange), W (dark purple), and Y (dark pink). The logo shows a highly conserved N-terminal region (positions 1-10) and a more variable C-terminal region (positions 20-40).

50 60 70 80

UniRef90_G0VQT7	P N L H D E A A R A F E A A R L V V F I G A A G I I A V R T I I A P F I R H K D L D
UniRef90_W0MWH4	R E F G A T L R Q L Y Q Q N T P I I A L C A A G I V I R T L A P L L L E K G A E D
UniRef90_UPI0003B2F78A	D S L A A L M D A Q F H F R K K H V F V A A A G V A V R A A P H L R G K A E D
UniRef90_B8J3A1	T R L G D F L S T A Y R Q H G A H I F I G A A G I V V R A I A P P L L T H K S Q D
UniRef90_T2GAU0	T R F A D A L A A A W S G Y D G H V C L C A A G I V V R A I A P P L L V S K Q V D
UniRef90_S3XED9	G S A A D G L R E A W G S A D L I I S H I A L G A T T R L I A E Y L E N K K T D D
UniRef90_U2S4C5	A A A G L A A A W G E C D L I I V S H I A L G A T T R L I A P F L A D K R T D
UniRef90_D3EP06	D P L K D H L T D I F P K N R A L I F C L S A G A V I R L I T P L L R N K A Y D
UniRef90_H8L510	D D F G T R L R E L H A G D A P V L I A L C A A G I I I R A L A P R L T D K L Q G
UniRef90_F7NPX1	E H L G K L A G I I I F N Q Y D A L I F I M A T G I V V R V I A P P H V L D K R Y D
UniRef90_A4EF61	U N A L D H A R D L F A A G V P I V G V C A S G I L I R A V A P P L L E K G A E D
UniRef90_UPI0003644489	S D F G D T V R Q L Y Q Q D T P I I A L C A A G I V I R T L A P P L L E K G A E D
UniRef90_J0S9Y1	G V F E R A F E G Y D R I V A L M S A G I A V V R A I A P P L L T S K W R D
UniRef90_A9WIP4	T N L S A A V Q T A W Q Q S K A I I L I A A T G I A V V R A I A P P L L Q A K T S D
UniRef90UPI00046D180F	D R L R E L F E K L L F K S Y R R I G I M A T G I A V V R M V I S G L M E S K Y K D
UniRef90_R6XG57	G N L C L F D G E A I V F I G A L G I C L P I V K D K H T D
UniRef90_G8Q532	R E F G A T L R E L L Y Q Q N T P I I A L C A A G I V I R T L A P P L L E K G V E
UniRef90_D4KEN9	R Y M N E V I K N I I F A E Y E A I F F T S T G I A V V R M I A P F I V H K V K D
UniRef90_A1WWQ1	A L G S A L A E R F A G A L R Q V V C F C S V G A C V R L L A P H L R S K Y T D
UniRef90_E6W0S7	D S L G D Q F Q F A R L M G T R R A I V A V M A Q G I V V T R M I A P H L R S K Y T D
UniRef90_L0HEQ5	E Y S A E I F D Q V F S R R K K R I V A V M S M G I V V V R K I I A P P L L D D K W T D
UniRef90UPI0004783C7E	S S F S K G V K Q L F P T V D V L V F I G A M G I C V R S I I A P C I K N K H T D
UniRef90_I2BKZ1	S E F G A T L R Q L Y Q Q G T P I I A L C A A G I V I R T L A P P L L E K G E E
UniRef90_F2JUV0	P F G E T V Q S Y G F K Q N D D L I F V C A T G I V I R T L A P V L E S K L A D
UniRef90_K1VZJ7	D N F G D T V R E L F Q T G T P I I G I C A A G I L I R T L A P P L I N K W Q E
UniRef90UPI0003784AFA	D S L S N C L K D T F H S Y D A L I F I M A T G I V V V R T L A P F I I D K R S D
UniRef90UPI000463E977	L E F G A T L R E L L Y Q Q D T P I I A L C A A G I V I R T L A P P L L E K G A E
UniRef90_F2LU86	S K L K E L F R T L F F S S K K N I I A I M A T G I A V V R M I S G L P K S K Y R D
UniRef90_W0EB70	E R L A D I L P E L W K K S V L L I F V M A T G I V V V R Q I A P P L I Q S K D R D
UniRef90_A3YUH8	A A E L L S R H W G D A S A F V V V G A C G A V T R L V A P P L L Q G K E H D
UniRef90_D4H1Y8	T T V A D C F T E I F I S S N Y N S I I A V V M A Q G I V V T R M I A P P H V K S K Y T D
UniRef90_A7C564	S R V I E L T E Q I F N D Y Q G L I Y I M P T G V V V R A I I A P T S Q I H H K L Y D
UniRef90_B8G7Z3	T T V A E A V Q T A W S S A A R A I V F I G A A G I I I R A L A P P M L S H K T D D
UniRef90_G8PPP8	R G S K D H L R S L F Q S S G T P I I G I C A A G I L I R A L A P V L A E K R N E
UniRef90_W6K5M9	S Q T A D H L R G L F F R E D T V I I A F C A A G I V I R S L I A P V L G D K R A E
UniRef90_R5E6X4	Q R L E V V T A R I F Y E T D V I I F I G S C E T A V R T I I T P F L R S K V V D
UniRef90_L0M133	G G F A H A A T A F A R D S A L I F I G A T G I V A V R V L A P A I A D K F S D
UniRef90_U5DMM2	E P F G A W L A A Q W L Q Q R A F V F A M A T G A V V R A I I A P P L L S N K S S D
UniRef90_Q7P610	E D F T T N I N E K F S Q Y D G H F I M A S G I V I R K I I A S L I G T K D K D
UniRef90_K9V8T3	D N F G E T L R K L F T D G V P I I G I C A A G I L I R T L A P P V L G D K R Q E
UniRef90UPI0004785278	Q D F G A T L R Q L Y Q Q D T P I I A L C A A G I V I R T L A P P L L E K G A E
UniRef90_F7UKE8	G E L K T L L T S L W E R P R G I I G V G A A A I Y L R A A G P L L R D K A S D
UniRef90_W4UBU0	D S L A T A V A E R W N N H Q A F F G L A T G A V V R L I I A P P L L Q S K Q S D
UniRef90_F8B4E8	G P S R T G L A A A W G E C D L I V S H I A L G A T T R I I I A P P L L E S K K T D
UniRef90_S6INX8	G T A R E A L T A A V T E C A G G V V C F L A T G A T V R L L A P G L L T G K D S D
UniRef90_H8IAR2	Q D F G A T L R Q L Y Q Q D T P I I A L C A A G I V I R T L A P P L L E K G A E
UniRef90_G9Z4C7	K G A F A S A F R R Y R S I I A V V M S A G I A V V R G I A P P L L S D K W A D
UniRef90_B6WXV0	G G F A P A M R E A F T R Y P A L I F I G A T G I A V V R V L A P P L L S D K L S D
UniRef90_V2BHM2	C R L S A P Q R F A P K D C R P F F I V G A T G I A V V R A M A P L L E E H K S T D
UniRef90_I2JP99	G G F A N T A R Q F A T T A L I F I G A T G I A V V R V L A P P L V N D K F S D
UniRef90_K9P7Q4	D N F A S T V Q Q A F L R G E R L I L I C A T G I A V V R C L I A P V L I S D K Q S D
UniRef90_J7IVE2	E A S G P W L A R Q W G T A D A V V A V G A C G L V T R L I A P L I S D K Q S D
UniRef90UPI00047E03FC	S H L R D V P R L W Q E S A V L I F V M A T G I V V V R Q I A S L I E G K D R
UniRef90UPI000347FFF9	D K L S V L V E H L F K E Y Q Y I I F I M A T G I V V V R V I A P Y I I N S K F S D
UniRef90_Q58544	D S L A P V V A E C W T R A T Q L I F V L P V G A V V R L I I A P L L Q Q K A T D
UniRef90_E2ZC01	P I K D F K I E R N E G G F I F I M A T G I V L R K F L D E I K D K F K D
UniRef90_I3TPC3	T T V R Q V E K K L F E T S P H G F S V L A A E A F S Q K N V L I V K R K D S D
UniRef90UPI0004785BB3	R P V A E G L R S L F L A G R P I L G I A A A G A L I R M L A P V L A D K T A E
UniRef90UPI000415F33E	F A G D A Q I R R L W S E H A A L V L I M A S G I A V V R A I I A P L L E H K Q R D
UniRef90_L0D988	R N F G E T V R Q F Y Q T G T P I I G V C A A G I L I R T I I A P L L I N K N T E
UniRef90_M1WQB3	G P L R L V F P T I W Q R H D S I V A V M A L G I V V V R L A G P L A L D K R R R D
UniRef90_X8H200	E S L K S H L A N L W Q Y H R A F I F C L A T G A V V R L I A P L L Q N K S D
UniRef90_N6VXA2	M A S G I V V R K I A S L I L G T K D K W Q D
UniRef90_N1ULE6	H I K N F S I D E G D E G Y F I S A I G I V L R K I D K I K N D K F T D
UniRef90_K8GIL2	G S L K E H I Q T L L W A S H R S L V F C L A T D A V V R L I A P P L P D K A T D
UniRef90_E1R8K1	G S L A E E S A R L F P L Y E G L I F F S A V G I A V R M I S G F L R D K Y H D
UniRef90_J2R9B0	R E F G A T L R E L L Y Q Q G T P I I A L C A A G I V I R T L A P P L L E K G A E
UniRef90_K9YNF9	G S L K E H I L E N I W Q D S K A I I F I S L T M G A V V R L V S S L L G N K K D D
UniRef90_A7I7N4	R A E I F A E V F P K A R R I V A L M S M G I A V V R G I A P L L S D K W T D
UniRef90_S7VDH9	D E L L P L V R E R A Q F S G H V F V C A S G I L A V R A V I A P C I G S K D A D
UniRef90_H2C639	E Y S E E V V R Q A F K C F D G V I L I M S F S G A V R V V C K Y S T K K G E D
UniRef90_N2J116	Q P F I E I V Q Q R F Q A G H R L A L I C A S G I A V V R T L A P V L Q D K Y R D
UniRef90UPI00036BD287	K N L T I N G N E K G F I F I M A T G I V L R K I D K I K N D K T K D
UniRef90_R5VJ17	R K L G E F V G E N F S R Y S A W I F I G A L G I A V V R T I A P Y I L R S K Y T D
UniRef90_A0B5H1	M E E L L F R E Y D M I I A L M A V G I V V V R Q V C P L L R D K W T D
UniRef90_L8DZ99	H D F G T A M R E I F T K Y Q A L I I C I M A T G I A V V R T L A P V I E D K L S D
UniRef90_U9W319	G S L A P V V A N C C W G R A T Q L V F F L P V G A V V R L I I A P P L L Q H K A Q D
UniRef90_A3VBB9	P N A L D H A R D L F A A G T P I I G V C A A G I L I R A V I A P I L L A D K R T E
UniRef90UPI0003646BC1	R A R D A L A A A V T D G V D G V I C F L A T G A T V R L L D G L L R G K D H D
UniRef90_R5UJW6	R S L P D F L E E A F A Q Q F P V I F I G A L G I A V V R T V A P P L I R H K T V D
UniRef90_G4RE19	G R V D A T V A D A Y R Q G A P I V G V C A T G A L I R L L D G V L G D K M S E
UniRef90_F5YLB9	E T L H G I I R E L W E S Y E G L V F L C A S G I A I R A I A P Y I S S K Y T D
UniRef90_B8GJ16	D Y V A G V F A E V V W G V Y N R I V A V M S A G I V V V R Q V A P L L K D K W Q D
UniRef90_B3EBR7	S A V I P L T A E I I F Q R Y R E L V Y A A P A G V V V R A L A P V L Q H K L S D
UniRef90_J1JW66	S S I H K H M S E A Y T K G Y T V I A F C S T D I V I H S I L A S F L K N K T E E
UniRef90_H7EPJ7	R T L G E F T E R A F S K K T L V V F G A V G I A V V R G I A P L V K S K W E D D
UniRef90UPI00036725E3	R E G V F E T E V F E S Y R R I V A I M A M G I V I R G I A P L V K S K W E D D
UniRef90UPI0003B6EE72	E K I G T L L A A T Y K N F A A H F I G A T G I A V V R A L A P P L L A H K S T D
UniRef90UPI000468D7F5	S K L D N I M S E L W H Y D A V I F F L A T G I V V V R K I A P P F L E H K T K D D
UniRef90_10IS68	G V V K N L L P G L F D S Y D G I I L V M A L G I V V V R T I A P L I V D K K K D
UniRef90_G2J3K4	D S P R E Q F R R A F H Q R R W V A M M A S G I A V V R Y L D G L P V S K Y T D D
UniRef90_T0Z3X5	G V L K N L L P E L F A R Y D G I I F I M A L G I V V V R S I I G P L I A D K T R D

	90	100	110	120	
UniRef90_G0VQT7	P A V L V I D E K G Q F V I P L L S G H G G A N A □ A R R L A E E L Q G Q A V V				
UniRef90_W0MWH4	P P V L A I A E D G S A V V P L L G G □ G G V N V M A R S I A V G L G V A P A I				
UniRef90_UPI0003B2F78A	P A V V A L D Q E G R F C I S L L S G H G G A N A L A R E V V A A M V G A Q P V I				
UniRef90_B8J3A1	P P V L V L D A A G N Y V V S L L S G H G G G N H L A R H V A L L R A T P V I				
UniRef90_T2GAU0	P A V V V A D Q D G R F V V S L L S G H G G G A N A L A R R V A A C T G G Q A V V				
UniRef90_S3XED9	P G V V V V D E A G R F V I P L V G G H G G G A N E L A R T I A E K I G A T A V V				
UniRef90_U2S4C5	P G V V V V D E A G R F A I P L V G G H G G G A N E L A R T I A E K I G A T A V V				
UniRef90_D3EP06	P S I I V V D P K G R F V I S L C G G H Q G A N K T Q □ I A S Y L N A E P V I				
UniRef90_H8L510	A A V L A V A Q D G S S V V P L L G G L R G A N D L A R D I A A L S L D G H A A I				
UniRef90_F7NPX1	P A V V V V M D D A G E H A I S L L S G H G G A N E L T R K V A A A M G A H P V I				
UniRef90_A4EF61	P P V I S V S D D G A V V V P L L G G H R G A N K L S A Q I A Q A L G A V S A V				
UniRef90_UPI0003644489	P P V L A V A E D G S A V V P L L G G L G V N D L A R V I A A A G L I A P A I				
UniRef90_J0S9Y1	P P V V V S P G L G F A V P L V G G H H G A N D L A R E I A A A T G A V A V I				
UniRef90_A9WIP4	P A V I C L D E Q G H V V V P L I G G H R G A N A L A R Q I A A L □ T G G Q A A I				
UniRef90UPI00046D180F	P A V V V V D E G G R F A I S L L S G H G G A N S L T □ H I S S I I G C Q P V I				
UniRef90_R6XG57	P A V C V D S T G K Y V I P V L L S G H G G A N G L A R E I A K V I N A E A I				
UniRef90_G8Q532	P P V L A V A E D G S A V V P L L G G L G V N V M A R E I A A T L Q V A P A I				
UniRef90_D4KEN9	P A V V L D E K K A N F V I S L L S G H G G A N E L T L K I A D I L N A M P V I				
UniRef90_A1WWQ1	P G V V S V S D E S A R F V V A V L L G G H G G A N A W T Q R I A E E L G A A P V I				
UniRef90_E6W0S7	P A V V T C D E V G R F A I S T A S G H G G A N L L A H A V A S V T G A T P V I				
UniRef90_L0HEQ5	P A V V V S P D L R F A V P V L L G G H H G A N E L A K E L I A G I G L V P V I				
UniRef90UPI0004783C7E	P A V I N I D S T G K Y V I S V L L S G H G G A N I F S E R L A R I I G G E E V I				
UniRef90_I2BKZ1	P A V L A V A E D G S A V V P L L G G L G G V N L M A R D I V G A A L G V S A A I				
UniRef90_F2JUV0	P A V L V M D E □ G H F V I P L L S G H G G A N Q L A N N V A S L L N T Q L V M				
UniRef90_K1VZJ2	P P V L A V A E D G S A V V P L L G G L Q G V N D L A R K I A Q F L Q V S P A I				
UniRef90_UPI0003784AFA	P A V L V L D E K A Q H V I S L L S G H G G A N A L T K N L A □ F L G A D P V I				
UniRef90UPI000463E977	P A V L A V A E D G S A V V P L L G G L G G V N V M A R D I S A T A L Q V A P A I				
UniRef90_F2LU86	P A V V V V D E G G R F A I S L L S G H G G A N R L S □ L K I S S V I G C Q P V I				
UniRef90_W0EB70	P A V L V L D E K G Q F V I S L L S G H G G A N A W A K A L A D Q I K A K P V I				
UniRef90_A3YUH8	P A V V V V D P Q G R F A I P L L S G H G G A E Q L S Q R V A A L L G G E A V L				
UniRef90_D4H1Y8	P A V V T C D E V G R F A I S T L S G H G G A N I L L A H L V S S I T G A Q P V I				
UniRef90_A7C564	P A V V V V D V G G R F W A I S L L S G H G G A N D L A M Q V A N I I G V E P V I				
UniRef90_B8G7Z3	P A V V C L D E D G R F A V P L V L G G H R G A N Q L A R Q I V A A I T G G R A A I				
UniRef90_G8PPP8	P P V I A V S E D G S S V V P L L G G H R G A N A L A H E I A E I L K G H A A I				
UniRef90_W6K5M9	P P V L A V S R D G Q S V V P L L G G H H G A N V L A R Q V V A A V L D G H A A I				
UniRef90_R5E6X4	P A V V V L D E E G T T N V I A L L S G Q K T A N E L G Y S L A D Q L N A N P V I				
UniRef90_L0M133	P A V V V V I D E R G Q H A I S L L S G Q K T A N E L T I K L A G L L G A D P V I				
UniRef90_U5DMM2	P P V V V V D R A G Q F A L G L C G S H H G G N R L T R L V A N Y L G A V P V L				
UniRef90_Q7P610	P A V L L I D E G K H F V I S L L S G H G G A N E L A T Y S L A N I L K L V P V I				
UniRef90_K9V8T3	P P V L A I G E D G S A V V P L L G G L R G V N D L A R Q I A T G L G V E A A I				
UniRef90UPI0004785278	P P V L C V S E D G H M V V P L T T G H G G F D L A R S C A K A L D A T L A A				
UniRef90_F7UKE8	P A V L V V D A M G Q S V I S L L S G H G G D R L A Q I V P V A E Q L Q A K A I L				
UniRef90_W4UBU0	P G V V V V D E A G R F A I P L V L G G H G G A N E L S R T V V A E A L S G T A V V				
UniRef90_F8B4E8	P G V C V D E A R R W V A P L V V G G H G G A N D L A E R V V A A T L G A T A V V				
UniRef90_S6INX8	P P V L A V A E D G S A V V P L L G G L G G V N V L A R E I V A A G L G V A A A I				
UniRef90_H8IAR2	P A V V A I S P D L R F A I P L V G G H G G A N Q L A K K I L E K L G M M A A V				
UniRef90_G9Z4C7	P A V V V I D E R G Q Y V I S L L S G H G G A N A L T R A L A G M L G A E P V I				
UniRef90_B6WXV0	A P V L V I S P D G R F V I S L L S G H G G G N S L C R H V V A A L L D A V P V I				
UniRef90_V2BHM2	P A V V V I D E R G Q H V I S L L S G H G G A N A L T R Y L V T R R C A A V L G A E P V I				
UniRef90_I2JP99	P A V L V L D E Q G E F V I P L L S G H G G A N D W G F D V V A A Q L L G A Q F V Q				
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UniRef90_J7IVE2	P A V L V L D E E G E F V I P L L S G H G G A N T W A R K I S T Q I G A V P V I				
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130 140 150 160

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UniRef90_J2R9B0	T T S G E [L] R F G T C [L] G Y A L G D L E L G K R F V S D L L A G E T V R I E G E
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170 180 190

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 R P A T P P P P N L Y R L D D P A A L D A R A Y S A V L W V K

L E E A N L P Q
 A P W L
 Q A L T N A P Y Y L K
 A P W L D

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

P
 A D W L D
 A G E
 F I E G K I P K S L
 P

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

Y P L K P

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

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

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

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

D P P S G F D Y V V T R G N C S F T V K

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

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

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

L T N G P G M V L A G P G V S V L L R K G E Y

P
 E

40

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

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UniRef90_A4G0Y1	N I K D F E I T G N E T G F V F I M A S G I V L R K Y I P E I Q D K L K D			
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UniRef90_V0M6M6			M N D K F S D D	
UniRef90_Q7NXR3	A S G R E Q F R A A F H L H S H W I L I M A S G I A V R Y L D G L P Q S K Y S D D			
UniRef90_R5DNA3	K S T P A L I R D I F Y Q Y E G I I F I G A A A I A V R S I A P Y I T T S K F K D D			
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UniRef90_S3ZIX2	G P V R E A F E R A F R E C E Q V V V C F L A T G A V V R L A A P P L L A G K G V D D			
UniRef90_UPI0003B57C89	S S L S D W T F D N F S K G N I L V F I G A I G I A V R A V A P F I K D K T T D D			
UniRef90_Q3A7B2	S K V A D L T R G L F G R C K G I V Y I M P S G V A V R A I V P L V E H K L R D D			
UniRef90_B5IPU8	E D A R S V L E R N W S R A G G F V V V G A C G L V I R L L A P L L G S K A S D D			
UniRef90_W2F113	A D L A R A W R E C D E I V C F L A V G A A V R L L I A P L L G D K R T D D			
UniRef90_R5QKG8	K K K E D L I R E R W G K W A F L F I G A G A I V R Y I A P Y V K D K F T D D			
UniRef90_W1WD32	D S L K N H I G Q I F K D Y D Q V L C I M A L G I V V R M I A P Y I E H K S K D D			
UniRef90_D5VTD4	D I K E F S L S K D V E G Y F L S S T G I A I R K V K E I I K D K L R D D			
UniRef90_UPI0003712398	L A D D Q A I A H L F T T V D V L V C I M A T G I V V R A I A P V V V D K A A D D			
UniRef90_A5UQU1	A A L L D E V R T C W G D Y R A L V L I M A S G I A V R A I A P L I A R R K T I D D			
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UniRef90_U2SQX8	V R L S A A V R E A F S R Y D A L L F I M A T G V V R T I A P L V T S K L S D D			
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UniRef90_E3CWT7	G S L Q G R F R E L W D G A G A L L V G S L P V A V R A A G P L R D K A T D D			
UniRef90_V8C4X7	S K R Q E F I R E N W G K S G F I F I G A A G I A V R W I A P F V K D K F T D D			
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UniRef90_D1B7N6	G D L K A R F E M A W G G H D A L V F V G A V P I A I R A M A H L L S D K A S D D			
UniRef90_G7WL53	Q P F T D T V Q Q L F A K G E T L I F I C A T G I V I R S L A A V L Q S K Q S D D			
UniRef90_S6HGT2	L G I K S I V E R Y F K K E N T I I I F I A S T G I A I R A I A P Y I Y S K D K D D			
UniRef90_C5VNP4	E N L Q A A T A T A F R D A R A L V F I G A V G I A V R A V A P Y V A D K R R D D			
UniRef90_U7UTJ4	E R V V A L T G E I F S R Y E G L V Y V A P C G V V V R A I A P L V D S K L R D D			
UniRef90_Q1JZX7			K H K S E D D	
UniRef90_W3ASZ0	E K A S D W V K A Q F A K R L P I L F I G S A G I A V R I I A P L V K D K F S D D			
UniRef90_10XAJ7	G S F V N T V H K A F K Q Q Y S A L V V I G A I G L T V R V I A P L V D K M S D D			
UniRef90_C4URE2	M K R L L E K Y D L V A I M A V G I V T R S L C R H L Q D K W R D D			
UniRef90_F4BUR3	G P V R A A V A R A F E D C D Q L V C F L A T G A V R V R L L A P L L R G K A A D D			
UniRef90_UPI0003692B0E	N I K N F S L E R E D E G F I F I C A M G I V L R K Y I D K I K K D K F K D			
UniRef90_C9RG62	D D A G A Q V G E L F R A G R P I L G V C A A G I L I R L L A P L L K D K R A E			
UniRef90_UPI00037DEB24	G R Q M D A F A R A F H T A R A W V F I G A A G I A T R F V S G L P H S K L T D D			
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UniRef90_K9Z2W3	G A K D A A R A L W D R A E G I L F V G A L P I A V R A V S G L L E D K G K D D			
UniRef90_H0UMW2	G S T Q N F V L S E V R K S D V L V L V M S L G G A V R I I E K A S I L K E E G D D			
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UniRef90_G3J1R1	G S A G N V V R Q L F G E G R G L V L V M A A G I A V R F L S G L P E D K R R D D			
UniRef90_B1I5R6	S Q R Q Q F A L A Y R R H R Q W M I G A T G I A V R F L D G L P Q D K H S D D			
UniRef90_R0ECH7	E R P R A Q F A R A F H E R R A W V L V M T T G I A T R Y L E G L P V D K R T D D			
UniRef90_E8U433	R R Q M D A F A R A F P T A R A W V L V I G A A G I A T R F L A G L P R S K L S D D			
UniRef90_Q1J3Y7	V K L S D F K K D G N E S G Y I F I M A S G I V L R K I D E I K N D K L K D D			
UniRef90_A6UQN6	L L S Q R Q Q F A L A Y R R H R Q W M I G A T G I A V R F L D G Q P Q D K H R D D			
UniRef90_I3CW76	G P P R E A F E K L W E S A D L F V C I G S L G I V V R F V A P F L K D K K E D D			
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UniRef90_UPI0003B6A8F	E S S K E F K P L G T E K G F I F I M A T G I V T L R K L N E F I K D K T Q D D			
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UniRef90_Q318L8	T P L R T S L Q G L W R Q A K A I I F I G A V G I A V R T I A P Y I Q H K A K D D			
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UniRef90_W4UK54	E D A A S A V A E A F R A G R P I F G V C A A G I L I R L I A P L L R D K H V E D D			
UniRef90_UPI000368267A	I I Q Q Y W Q E G G V L M V I G A T G A V T R L I A P L L R D K K R D D			
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UniRef90_C1D344			G I W G S L L D Y D C I V A Y M P T G I V I R G M C P W L R S K W V D D	
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UniRef90_UPI0004733631			G R S R E V F A R L Y P T R A Q W V L I G T T G I A V R F L D G L M T D K R R D D	
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UniRef90_K0K9N6			T I A E T L R S A F R A G R P I V L I G A S G I A I R A I L A P L I A D K A D E	
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130 140 150 160

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UniRef90_B5SC77	T T A T E A R K P L T L G I G C R R G K S M E A I G R A V M A		
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UniRef90_W2F113	T T A T D A T G T S P L D I G M P V E G D V A A V T R A M L D G D E V A L D A T		
UniRef90_R5QKG8	T T A T D D V F A K K N A L Y I T D R E A A K R S A A V L D G E L I G I Y A Q		
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UniRef90_A6UT07	T T A T D D E L A T K Y F L E M P N K K D I L K N K K V L T E K		
UniRef90_U2SQX8	T T A T D D A L A A K L G L R P M P K A M Q E T N G A L L A G A		
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D K S L D N P D N
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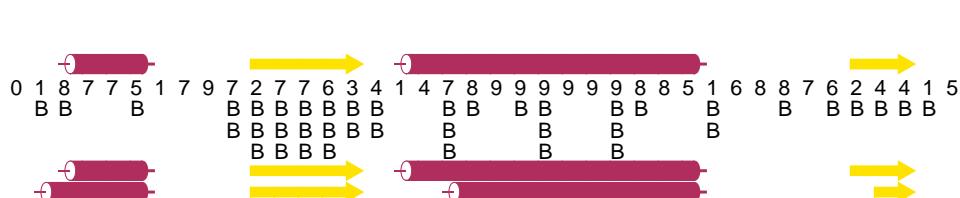
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Sequence alignment of UniRef90 entries showing sequence conservation across various proteins. The alignment highlights conserved regions with colored boxes (yellow for hydrophobic, blue for polar, red for acidic, green for basic).

Key UniRef90 entries listed on the left:

- UniRef90_Q3AUT3
- UniRef90_A2BYQ0
- UniRef90_C7QGL0
- UniRef90_U2AP81
- UniRef90_R7APX8
- UniRef90_D1JAC9
- UniRef90_C6WDM9
- UniRef90_W7SN62
- UniRef90_W7KQ23
- UniRef90_O29533
- UniRef90_UPI0002E09AD4
- UniRef90_UPI00036B2347
- UniRef90_W0E307
- UniRef90_Q18FW7
- UniRef90_F7JF60
- UniRef90_UPI000345DFA7
- UniRef90_UPI000347796E
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- UniRef90_Q7V9Z8
- UniRef90_UPI000237B5ED
- UniRef90_A2C4V2
- UniRef90_G4FPP7
- UniRef90_U1GEE2
- UniRef90_W5WQX9
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- UniRef90_UPI00047020D9
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- UniRef90_T2RW52
- UniRef90_C3MJ61
- UniRef90_M1J1S9
- UniRef90_C7LYE1
- UniRef90_A0A031LKT2
- UniRef90_U1ISL2
- UniRef90_B6WQM5
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Sequence positions marked at top: 1, 10, 20, 30.



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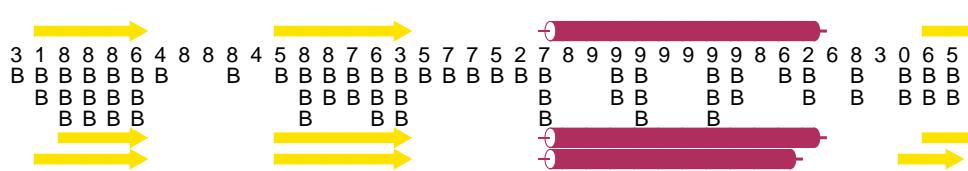
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T
T S G S V
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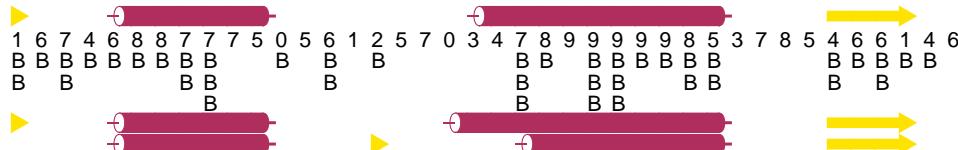
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