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QUERY

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

QUERY		90	100	110	120
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QUERY

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QUERY		170	180	190	200
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 M N G Y H G K I I L R I N L S T R L V S E E T L N P T Y L R D Y I G G S G L G L R
 M G T H R G K I I L D I N L S T G A V K T T K I E D D V L F Y R K F G G S G L A A K
 K S Y N G K I I L H I D L L S N K T F S V E Y P D K N F Y R R Y W G G S C L I G A Y
 Y G Y G G R V L R I D L T E R R F R I E P L D S S W I R P V I G G R A A N T K

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50 60 70 80

L | Y D Y | P E I | D P | A P E A Y | V A | V M A G P | V T G T A | P A S S R Y A | V C G
 M | L L D E D P K I | D P | L S E E N K I | I I A T G P | L G S T Y A P S S G R V M V I T
 Y | L I D E T K G I | D P | L G P E N K I | I F M T G P | L T G T P S P T G R Y S V V A S
 T | Y I D E D P N V E A | I S E E N K I | I I A T G P | V T G T A | I P T G G R Y M V I S
 I | L F K E K P G I | D P | L G P E N K L | V F A T S V I | T G T P I | P G V N R I V V A A
 Y | L W D R | P G L | D P | L S P E N P L | M F W T G P | L T G T A I | P G P S R I T V C T
 T | L W D E P P G I | D P | L S P | L N K I | I A V G P | L T A | P I P N S G K I L V A A
 L | L F D M T D K T E | P L | S E E N P L | M F L T G P | Y T G T P A | I S S A F Y N V T T
 R | F F E E P R D V V D | P L | G P E N A L | Y I G I G P | L E G T S F P G S C R V I N F T A
 Y | V F E N G P Q V D P | L | G P E N L L | C I M M N G P | L S G T R A K M S G R L A V V T
 L | L Y D L T R D L D P | L | S P D S P L | L F I T G S F T G S K V P S S S R Y A I C A
 Y | Y D E V P A | C D P | L | G P D N R L | I F M T G P | V T G S L A P T S G R H C V T T
 Y | V F E Q G V D V D | P L | G P D N L L | A F M N G P | L S S G T Q T T M S G R I I A V C T
 L | L W D N P P G V D P | L | S P Y N T L | V I A S G P | L S G L P L P S S G K L V V T S
 T | L F D E | P G I | D P | L | G P D N V L | C F G A G P | L S G T G V P L S S R I E V S A
 L | L W D Y R P G I | D P | L | S P E N L L | I V A | P G | L P T G L P G S T G K V V V A A
 I | L W N H K P G V D P | L | G P D N R L | I F M T G P | F S G R P V P S S S R T C V V T
 M | I Y Q Y P A D I | D P | L | G E F N D L | I F A T G P | A T G I G F P E P G R Y H V M T
 L | M H E F D P G V D P | L | S P E N C L | V F A T G P | L T G T A A P M S G H Y S L I T
 I | L Y E E T E G I | D P | P | G E E N R L | I F M T G Y A T G T A V P | L S G R F H V I T
 L | L Y Q R Q P G T D P | L | G P E N I | L G F M P G P | L T G T A V P G S S R I T V V A
 I | L F D E K P N | N P L | H S D N V L | C I S T G P | I T G L L G P T T G R I I N V A T
 M | L W A E P H D A E P L | S P E N I | L S F N T G P | L T G T P T P S A S R T S V C F
 I | L F N H V P E I S P D S K N L | I F G T G P | L T G T A A P P S S G R I L T L V T
 L | L M D M Y P G M D P | L | S H Q A P | L I F G V G P | L G G T P A P C S S G R F S L T F
 Y | L Y E E A P H T D P | L | G P A N K L | I I T G P | F T G T A V P C S G K L A I V T
 I | I Y S R Q K G V D P | L | G P E N I | L G L T T G P | L T G T P A T M G C R Y I A V G
 Y | V F D Q G P D V D | P M G P E N I | L A F M T G P | L T G T Q V T M S G R I I A V C T
 F | L Y E A T T E T D S | L S S Q S P | I I F M T G P | L T G T G V P G A G R H E V I F
 I | L Y D E E P G I | D P | L | G P E N K L | V F A T G P | I T G T R A P T S G R H S V S A
 Y | M L K E D P K V D P | L | S P A N K A I | V A T G P | L T G V T V P S S G R W C S V T
 Y | V L K E T P G V E A L | S P E N V L A L | C T G V V T G T P I S G Q S R I L T S V A
 M | L R A K A S K V D P | L | G P E N P | L P I F G P | L S G T S A P T G G R Y N V V T
 R | L W E V P P G V N P | L | G P E N K L | M I A T G P | M V G F P H G L G S R V V N V T A
 Y | M L D M P P G V D P | L | G P E N I L | V F A P G | L L T G T V I A P C V P R Y T V C A
 Y | I L K L P S H T D P | L | S P A N I | L T F M C S V T T G A A V P G Q S R I I N V N A
 Y | L A E E D P K V D A L | S P E N P | L I F M T G P | L T G T M A S T A G R Y S V I T
 L | F L D L G Q D A E P L | A P E N P | L I F M T G P | L V G T V A P S A S R F A V C A
 Y | V F D N G P E V D P | L | S P E N I | L C F M N G P | L T G S A I N M S G R I L A V C T
 L | L F D L P P D V H P | S P K N V L L I A T P | N G L L G V T T G R I I D V T S
 Y | L M Q F T P K A D P | F G P E N T | L T F A | S A P T G L A I S Q G S R A T A V I A
 V | L W D E Q P G V D P | L | S P D N I | I I A T A G P | F T G T L A P G S G N I I Y W A F
 F | L K N I T P H T E P | L | S P D N V L | I I F A T G P | I L T G S F G P A V P R Y T V C A
 Y | V F D Q G P D V D P | L | G P D N L L | A F M T G P | L T G T Q T V M S G R I I A V V T
 Y | M L K E M P H T D P | L | S P D N L L | I F A P S V I T G T P A P A I P R Y T V C A
 M | V A A E V P G C D P | L | G G E E N K I | I I F A A G P | L T G T K V P G T G R F S A S A
 F | M Q D F D P E L D P | L | S P E N P | L I I T T G P | L T G T S V P M S G H F S I T C
 L | L L Q N V K P T D P | L | S A D N K L | I F T L G A A S D T I M V G N S R Y G V F S S
 Y | L L K M K P G V E P | L | S P E N I | L I V F A T S V I C G A P I S G Y N R Y T V A S
 L | M W D E Q E P T D P | L | S P D N L L | I I A T A G P | M T G T L A P G S G N I F W A F
 L | L L R D E P G I | D P | L | S P A N K L | I I T A G P | A T G T G T L L P G S S R Y G V F S
 Y | Y W E V P P E I S P | L | S E H N K L | M L S T G P | L A F G T G F P L G S R I L N V S A
 L | L Y R E T P E L D P | F S P E N P | L I I F G V G P | L T G T F A P S S G R C T V T S
 L | F L D L A C D P D P | L | S P E N P | I I I F A A G P | L S G T A A P C S S G R C V A F F
 M | L Y D E D P K V D P | L | S P E N K L | I I Y A S G L | L T G T A A S T G G R Y M V I T
 Y | L Y D E P P H A D P | L | G P E N R L | I I F M T G P | L T G T L A P T S G R H C V A T
 Y | L Y E E I D P C D A L | G P E N K L | I I M A T P | L T G T M A S T G G R Y S V V T
 L | A L K E D P K A D P | L | G P R N K A F V M T G P | L T G V G P | E S S G R W C S V T
 F | I Y K E P P G T K P | L | S S A N K I | I I F A P G | A F S G L I P G S S K V A V I A
 F | Y Y N E I K D I K P | L | S S D N K L | I I F F T G P | L T G T T G S A T T K I I G L A T
 L | M R D Y F M L D P | F A P E M P | L I F A V G G P | L C G T V A P T A A R L T V V S
 Y | L M E E D P K V D P | L | S P D N K L | I I I A T P | G L T G T M A S T G G R W S A V T
 I | I Y R E P P G T D P | L | S P G N K L | L F V P G A L T G L I P G S S K V I A V S
 L | L Y D E V P K A D P | L | G P E N K M I | I T P G | L F V G T G I G T G S K T A F N F
 I | I Y K E P P G T D P | L | S P A N K F V | F A T G G L T G L V P G G S K V I A V S
 I | L Y D E I P G A D P | L | G P D N V L | V F A C S V V T G A P | L T G T M A S T G G R W S A V T
 Y | L T E E V D P T E P | L | A P E N K L | Y M V T G P | L T G T M A S T G G R Y S C V T
 Y | L F N C D E N I S P F D P A N P | L I F M T G P | L T G L P V P C G N N T T A V S
 V | I F D E A P K A G P | F D P E N R L | I I F A L G P | L T G T M A P S T S R P E V I S
 Y | F Q E Y S P G T D A L | S P D N P | V I I M T G P | L C G T L V P L S A R F C F M S
 Y | L L H E P I G V D P | L | G P E A K L | V F A V S M L | T G T A V S Q G Q S R S S A M A
 I | L C D E V A D V D P | L | G P D N V L | V F A C S V V T G A P | L A G F N R Y A I G A
 L | M R D Y F R L D P | F D P Q M P | L I F A V G G P | L C G T N S P T A A R L A C V S
 Y | L F E A G P D V D P | L | G P E N R L | S F M T G P | L T G T Q T V M S G R I A L V T
 Y | A L K E P Q G A D P | L | G P E N A L | I I T N S V T | T G S P A P G V M R Y S V S A
 L | L Y N H E P G T D P | L | G P D N A L | V L S A G L L | S G T P A P A G A R C Q I S A
 V | F Y Y K Y K D I D P | L | G P E N V L | A F T T G P | I T G I A V P S P G R H H V M A
 Y | L V S E D P G A D P | L | A P D N K L | I I Y A T G P | L T G T M A S T G G R Y S V V T S
 L | Y Y D I I E P T H P | F D D D N P | L V I F T V G P | L T G T M A S T G G R Y S V V T S
 L | L F K E V D K T D P | L | S P Q N M I L | I S T G V L | G G T T F P S S G R T H A T F
 L | L W Q E N V K A D P | L | G P G N K L | I I F A L G P | T A G S G F F G V G R F G V F A
 I | L L D E I D P V D P | L | S S E N K L | V I M T G P | V T G A S V P T G G R Y V V V T
 L | Y Y D E F R D M Q P | F D D P N L | L V F A T G P | A T G E K V P T S S R Y H S V C S
 L | H Y M R S F E V D P | L | S P Q N P | L V I V T G P | L T A T K A P S T S R L E F C A
 I | Y F E E I P E V R P | L | D E A N K L | I I F M S G P | L T G T I V P G S T K F Q C A T
 F | L Y D L K P G I D P | L | G E E N E I I F I A G P | L A T G A Q S C A R F E I Y F
 L | L T D M D P K I D P | L | S D K N I I L V F A A G P | L T G T G I P L G S R Y E V S T
 L | M Y D E P P E T D P | L | S I E A K I | I F I T T G P | V T A T S M G T A G R Y Q V V F
 I | L N R E I K G I D A L | G P D N I I L G F I T G P | L F N S H N A P L G G R L E V V A
 L | F L D R P P D V D P | L | S D K N V L | F L M A G P | L S G T N F P T S S R I V A V F
 Y | L I K F K R N T D V Y S P E N L | I I F A T S V V T G A N V P G F C K F S V I S
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UniRef90_X1NAE3	K S P L T G F W Q A N S A G F W G R D L K R S G F D G V I F E G I S P K P V Y				
UniRef90_KOB203	K A P L T G T L G T S G G F F G T H L K K S G L D M I I E G K S K E P V Y				
UniRef90_D5TZV0	K S P L T G T Y G E S E A G G F F A P E L K Y S G F D V V V E G A S E K P V Y				
UniRef90_A1HS03	K S S A N T S T V A W S C M G G Q F A P E L K F A G Y D G I I I T G K S D K P V Y				
UniRef90_E1QRS5	K S P L T G S Y G D G N V G T W L A V H M R K A G L D M I I E G K A E R P T Y				
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UniRef90_H9ZZR0	K S P L T G L L W G E S T A G G H F P A S L K L S G Y D G I L F V G R S S K P P V Y				
UniRef90_Q0W0W8	K S P L T G C Q V T S H A G G Y W G T Q L K L A G Y D G I I V Q G Q S E A P P V Y				
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UniRef90_I3TE36	K S P L T N G Y G D G N I G S M A S H H H L K R A G F D A I V I Q G K A K K K P V Y				
UniRef90_S7V762	L S P Y S G I L G D G N A G G F A H R L K R A G Y D Q V V I T G R A E R P P K Y				
UniRef90_S5ZUK6	K S P L T H G Y G D G N L G S R T A V M L K K A G F D A V V F S G K S E K P S Y				
UniRef90_B5YH00	K S P I T S T L T Y S N I G G F F G P E L R F A G Y D G I V I T G K A N S L C Y				
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UniRef90_D6SL08	K S P L T G I F A D S N C G G H F G P E F K M A G F D H L V I T G K A A H P V Y				
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UniRef90_X1M0F5	K T P P L T G G W G D A N S G G D F G P Y L K F A G Y D A V F F N G I A D K P V Y				
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UniRef90_L9VP00	L S P L T G I L G E A T S S G G D W G T A L R R A G V D L V I V E G E A D E P V Y				
UniRef90_B1L4Z7	K A P P L T N T I H D A Q S G G K F G P E L K F A G F D A V I I V E G A S E K P V Y				
UniRef90_UP1000373F45F	K S P P L T G C I G D A Q G G G F F P A E M K F S G F D A V I I K G K S P K P V Y				
UniRef90_G7VAH1	K S P P T T G F G D S N A G T H F S E E M K F A G Y D Q I V V E G R S D R P V Y				
UniRef90_V4KEF7	R S P P L T G L L G D S N A G T H F S E E M K F A G Y D A I V I K G Q A E A P V Y				
UniRef90_K4LJ72	R S P P L T G A F G K S E A G G W W G P E L K A A G Y D A I V I K G Q A E A P V Y				
UniRef90_K2CQB1	K S P P L T G M G G T G D S Q A G G F F P A E L K F A G F D G I V I V E G K S A A P V Y				
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UniRef90_H5SCL3	K S P L T D T G W G E T R S S G G K F G S W M K Y S G F D L I V I R G R A P E P V Y				
UniRef90_D9Q110	K A P P M T G G W G E T R S S G G K F G S W M K Y S G F D L I V I R G K A K D P V Y				
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UniRef90_I3R6S0	K S S P L T G T V T D S H H G G W S G A R L K W S G L D G L L F T G K A D H P V Y				
UniRef90_X0ZUF3	K S P L T G A E G E A E A G G W W G P E L K K A S F D A I I I K G S S K T P V Y				
UniRef90_A5D3S9	K S S P L T G T I F D S N A G G R W G V E L K R C G Y D A I I I E G K A N A P C V Y				
UniRef90_W9DX04	K S S P L T S T L F S T N V G G Y F G A E L K F A G I D A L V I T G K A E K P V Y				
UniRef90_R4KTA1	K S P P Q T G G Y A E S Y S G G R V A P V M R R A G Y D A I I F E G M S D K P V Y				
UniRef90_C8X5A6	K S P P L T N T C N F G E S E A G G Y F A P E L K F A G Y D A I I C K G K A Q Y P V Y				
UniRef90_L0A9J8	K S P P Q T N F W G E T R S S G G K F G P F L K F S G F D M I V I K G K S D E P V Y				
UniRef90_F6CKB4	K S P P L T G L Y A E S Y A G G R V A P A I R R T G Y D A V I V E G A S D A P V Y				
UniRef90_G8ZG95	R S P P Q T G L L G D S N V G G H F G A E M K Y A G F D Q I I I E G K S D K P V Y				
UniRef90_K0NF08	K S S P A Q D G F G D A N M G G H W G A E L K Y A G Y D Q I I I E G K A D S P V Y				
UniRef90_G7V8Y1	R S P P A T G T M G A A N M G G H W G P E L K R T G F D L L V I V T G A A E V P K I				
UniRef90_E4RMW0	K G P P L T G T T G T T A S S N S G G F F G P E L K F A G Y D G I I V F E G K A E K P V Y				
UniRef90_H8IA10	K S S P L T G C O T T A H A G G S W G A E L K F A G Y D G I I V E G K S S K P V Y				
UniRef90_Q0A941	K S P P L T G A I A C S N S G G F F G P E L K M A G F D M I I F E G A S A T P V Y				
UniRef90_A3DMB4	K S P P L T D T H D S Q S G G K F G P E L K F A G F D A V I L E D V S E K P V Y				
UniRef90_B5IGC0	K S P P E S G L I N D S Y A G D R F G P M L K K A G F D M L I I E G K S D K P V Y				
UniRef90_X1AHH0	K S P P E T R Q Y L C S N S G G F F G P H L K K S G Y D G L I I E G R S E E P V Y				
UniRef90_A5G6L0	R S P P L T G T I Y D C S A G G R F A W R L K A A G V D A L F L T G Q S A K P V Y				
UniRef90_UP100047C660C	K G A P L T G A I A C S N S G G F F G G E L K M A G W D M V I L E G R A P S P V Y				
UniRef90_Q9V2P2	K S P P E T M L I S D S S G G D A F G P K L R G H F D A L I I I E G R A E E P V Y				
UniRef90_B7R233	K S P P L T G G Y G R S M A G A K M G G E E L K K A G Y D V L I I E G Q S E E P V Y				
UniRef90_E7FHG8	K S P P T T R L I T D S S G G D A F G P K L K G H F D A L I I E G R S E E P V Y				
UniRef90_Q0AVX1	K S P P L T G A S N G F S S N S G A F L G L R L K C A G D G M I I K G Q A Q K P V Y				
UniRef90_K0C456	K S P P L T N A L A C S N S G G F F G N E M K C A G W D M V I L E G K A S S P V Y				
UniRef90_N0BDW9	I N A D T G T T G A S H T H G Y F G P N L K K A G F D G I I I T G K A E S P V Y				
UniRef90_F0JJF5	I S P H S Y A S R S N F G G Y W G A E L K F A G Y D A V I V Q G K A P K P V Y				
UniRef90_C7LNC5	I S P H T G T V F E S N A G G F F G P E L K F A G F D G M V I T G R S E K P V Y				
UniRef90_X0X8T2	K S S P L T G A W G E A E A G G F W P A E F K A A G Y D A I I E G V A P K P C V Y				
UniRef90_V4J088	K S S P L T G G F A R T E A A G F W G P E L K F A G F D A I I R G T A A R P V Y				
UniRef90_B5EAJ7	R S P P L T G T I Y D C S A G G R F A W R L K G A G G L D V F V T G K S A T P V Y				
UniRef90_M0NRL2	K S S P L T G T V T D S H H G G W S G A R L K W A G L D G I I I E D G A S D E P V Y				
UniRef90_D9QP08	K S S P L T G A F G T S E A G G F W W G P R F K K A G Y D G V I I K G Q A A E P T Y				
UniRef90_UP100046D3022	K S S P L T G L L G S A N M G G F F G P E L R Y A G F D H I V I V Q G R A E K P V Y				
UniRef90_A1RWK6	R S P P L T G S I A S N S G G F F G A Y L K F A G Y D M I F I E G A S E K P V Y				
UniRef90_A0A01PGV1	K G P P L T G A V A C S N S G G F F G N E M K C A G W D M V I L E G R S P Q P V Y				
UniRef90_B5IFU9	K S P P L T G T L L D S N S G G F F W G K E L H Y A G Y D A L I V K G K A E E P I Y				
UniRef90_K0NNU2	L S P H T S G W G D S N C G G H F F G P S M K R C G Y D M L I I T G K S P K P V Y				
UniRef90_K8DXR2	R S S P L T G G F G F S C G G H F F P H L K F A G Y D G L I I E G C A D R P V Y				
UniRef90_U7VAJ8	K S P P L T G M I A C S N S G G F F G A E V K Y S G F D G I I E G K S S T P K Y				
UniRef90_Q8TQ38	K S P P Q T G T V G S G N S G G F F G P Y L K F T G Y D A V V V R G I S K E P V Y				
UniRef90_O29907	R S P P F T G I W G E S N S G G F F G M A A Y L K Y A G W D G I I V E G A S D K P V Y				
UniRef90_X1HRS5	K S P P E T G I Y L C S N A G G F F G P H L K F A G Y D G L I M E G R A S K P V Y				
UniRef90_B5Y6N4	K S P P Q T G G Y F Q S S G G F F G P E M K F A G Y D G L I I K G K S E K P V Y				
UniRef90_A2SPV7	L A P P L T G L L A V A S N S G G F F V F G W K L K K A G F D A A V I T G K S A K P V Y				
UniRef90_K2C645	K S P P L T G I L C D S S S S G G H H W G S E F K Q T G Y D V L V I E G K A T E P V Y				
UniRef90_Q9HJ31	K S P P M T G T W G D S N C G G K F F A P E L K N T G F D A L F V K G I A K R P V Y				
UniRef90_X1TFB6	K S P P Q T G I W G Q A S A G G S F F A A E V K K A G Y D G I I A S G M S S K P V Y				
UniRef90_X1CTV8	K S P P L T N L A S E S F D G F W G P E L K F A G Y D V I V V K G I S N K P V Y				
UniRef90_X1FLH9	K S P P L T G I L G D S A A G G Q F G A E M K L T G F D Q I I L T G K A G S L L Y				

		130	140	150	160
UniRef90_Q3ABB7	L	E V K N G R V E I K P G S N L	K G L D S Y E M Q E E L	K K V Y G S N V S I A G	
UniRef90_UPI0003B36C05	L	W I Y K G K V E I R D A S M L	V G K N T K E T D K I L	K R L T H P E A G T F Q C	
UniRef90_X1NAE3	L	V T E D G K A E L R D A S H L	W G K N T S E T T R L I	R E E L G E K F N V S C	
UniRef90_K0B203	L	L I E N D K A E L R S A K H L	W G K K L E D T T K T L	K S E T S D K H K I L A	
UniRef90_D5T7V0	L	W I R D G R A E I I R D A T H L	W G L T T K E T V V E E I	K K E L L R P F A R I G C	
UniRef90_A1HS03	I	V I D D A K V E I K D A A H L	W G K S T N Q T D L L L	G P Q F R T L Y	
UniRef90_E1QR55	L	Y I E N R G D E F N S A E D L	W G L D T F T E D K L	K R V H G S D V G M V L	
UniRef90_B5IB16	I	Y I E D G K V S I E D A T N L	W G K G V F E T T D Y L	E R K Y P S A K I A A	
UniRef90_I4BZ43	L	F I H D E A C E F R D A S N L	W G K D I P D T Q K A I L	I E E L D S R V Q V A A	
UniRef90_F6DIE0	L	L V K D G E V S I H D A S D L	W G K T T H E T C R I L	R E R H G K D A D V M A	
UniRef90_H9ZZR0	L	F V H N G E A E I K D A S D L	W G L T T Y E T Q E A I L	R D E L G R D V K V A S	
UniRef90_Q0W0W8	L	F I D D G E P Q L Y D A G N L	W G R D V F Q T D L L V	K E E Y D K K V S V T A	
UniRef90_L9XBZ3	A	Y V E D G E V E L R D A S E L	W G E G F H A A R D A I L	E D E Y G K N L S I M G	
UniRef90_I3TE36	L	Y I E N D K V S I I N P A D D L	W G L D S F G V E D K L	V R E H G K N V G I L T	
UniRef90_S7V762	L	W I D N A H V E E I N N A D D L	W G L D T T W E T A D A L	V A H G K E I S T A C	
UniRef90_SSZUK6	V	Y I E N E K V E I I N N A D D L	W G K G T W S T E D T L	K G K D A G V L L	
UniRef90_B5YH00	I	V I D D D K V E I I R D A K K F	W G K M R T D A F D K A L	E E L K D R R Y K T V Y	
UniRef90_N0BN87	L	E V V D G S A E I I K D A S D L	W G R N V F D T T T R I L	S D R V G R R C S V A C	
UniRef90_L0KUT9	S	Y D E D V E L I A A D H L	W G K D T R E T T L I L	K G S V A C	
UniRef90_D3S0H1	L	Y I E D G H A E L I R D A S H L	W G K G T W S T E D T L	R E E L G K D N I V S	
UniRef90_X0XSS2	C	D D E H V E I L K D A A H L	W G E G V F E T T L A L	Q E E Q R Y D T K V A A	
UniRef90_M7T774	L	D D D K V V L K D A S H L	W G K D T R E T T E A I L	D E I G K D F R I S C	
UniRef90_V7I8S7	L	N N E K V S I I E D A S F I L	W G K D V W E T E D I L	D K N R F I D D M Q V	
UniRef90_X1R115	L	W I D N D Q V R I I K D A R H L	W G L D T W E A D A G I L	R Q E L G E R A Q V A C	
UniRef90_D6SL08	L	K I Q N D Q V S I I E S A A H L	W G Q G T R A T E F R I L	R D A C C G A E S V V L I A	
UniRef90_K8EFF6	L	F I I D N G K A E L I R D A S H L	W G K D T Y E T E D M L	Q A E H G Q K T Y V S C	
UniRef90_X1M0F5	L	V E V E D G A V E L H D A S H L	W G K G V H E T R D I L	A E E H G K N L S M M G	
UniRef90_Q3MQ9	A	W V H D G E V E F R D A N H L	W G K D T Y E V D K I L	K G E T D E K A S T A V	
UniRef90UPI000379F961	L	W V H D G E F E L R D A S G L	W G K D T H A T T E A I L	Q K K D V G D D A V V S T	
UniRef90_L9VP00	V	H V E D G E F E L R D A S G L	W G L D V P E T T D R I I	Q K K D V G D D A V V S T	
UniRef90_B1L4Z7	L	W I H D G E A E I R D A K H L	W G K D T H A T T E A I L	R E E L G V L T	
UniRef90UPI000373F45F	L	W M H G E A E I R D A G H L	W G L T T D A E D K L	E D K I L E V L Q	
UniRef90_G7VAH1	I	L I Q D D N V E I I K D A S H L	W G K V V S E T E A T L	R Q E I S E K A K I A L	
UniRef90_V4KEF7	L	Y V T E S G V E F M D A E G L	W G L R V S E A H E A I L	R R E E K D H R V Q V A V	
UniRef90_K4LJ72	L	W I D D G K V E I I R D A G K I L	W G L E T G T A A A A I	K E E L G D E V R I A Q	
UniRef90_K2CQB1	L	W I N D G K V E I I R D A S H L	W G K T T K E V D A L I	N D H K V Q V A Q T	
UniRef90_W4LAF4	L	H I I E N D K A E L I K S A D F I L	W G K T A W E A D E A L	H K Q Y Q P Q L R Q V A T	
UniRef90UPI000478239D	L	H V T T G G Q V S I I Q P A D K I L	W G L D S Y A T Q Q A L	K A Q H P R A S V A C	
UniRef90_Q67J86	A	J I C E N G T V R I L A D A S D L	W G K G I R E T V R I L	Q E R R H G R N V S V M A	
UniRef90_D3S1J0	L	L I E D G S V E I R D A S D L	W G K G V F E T T H V L	K R E E L D P K I V E A Q	
UniRef90_H5SCS3L	L	W V H D G Q A E I R D A S D L	W G L I T G E A A A I	K A D E L D P K I V E A Q	
UniRef90_D9Q110	V	N I A D G A V K I I K S A A A V	W G K D T L I E T Q N A L	E Q A E G E G T R V L I Q	
UniRef90_C0GC51	L	Y I E S G R A E I I R S A K R Y	W G M T V H E V T D A L	R D D T V H E A S V V A A	
UniRef90_I3R6S0	A	V V E D G D V T L H S A E H I	W G W G V H D T I D E L	E S Q L G K N L S V M A	
UniRef90_X0ZUF3	L	W I K D G K V E I I R D A H L	W G K D T G E T Q K I L	K N E E A D D K I R I A Q	
UniRef90_A5D3S9	L	T I T G G R A R L E E A G E L	W G A G G V A E T N R K I L	A E K L G K V I S T A C	
UniRef90_W9DX04	I	K I I F D E E V E I L P A E H L	W G K N T A E T T N L L	E E K G K V A C	
UniRef90_R4KTA1	V	E I I S D Q G V V F H D A S G L	W G Q D T Y A E T D E A L	K V N V P G A Q A L V	
UniRef90_C8X5A6	L	S I V D G H V E I K D A R N V	W G L D N Y Q T L E M I	K E E L D K K V R V A S S	
UniRef90_L0A9J8	L	Y I L E G G K A E L R K A S H L	W G M T V H Q A T D T L	K R E I G K D V S I A A	
UniRef90_F6CKB4	V	E I I S D R G V V F R D A S H L	W G K D T Y A T E D A L	A E V G Q K G A Q A V V	
UniRef90_G8ZG95	L	Y I I T E S G V E F M D A E G L	W G L R V S E A H E I L	L G D W R V Q T A I	
UniRef90_K0NF08	L	Y I I N N G R V E I R D A E H L	W G K N I P E T A D E L	V N V P G A Q A L V	
UniRef90_G7V8Y1	L	V V V D D G E A K I I I D A Q D L	W G Q D T Y A E T D E A L	K N E Q N H E L H I A L	
UniRef90_E4RMW0	L	S L K G D K A E L I K D A S H L	W G K G I S D T E D S L	K K R L G G E W Q I A S	
UniRef90_H8IA10	V	F I I D D G D V H F Y D A S G L	W G K D T L R T D T L	I E E F D E K A R V S T Y	
UniRef90_Q0A941	L	Y I L E D D R A E L R P A E T T L	W G K S V W T D T D A E L	H R M H Q P E L R I A C	
UniRef90_A3DBM4	L	W I H D G K V E I I R D A T H L	W G K D V H A T T D D I	Q R D E A K K L K V I A	
UniRef90_B5IGC0	I	I I V E K D K I K I E D A S E L	W G K G V Y E T S D I L	D A A I V A V	
UniRef90_X1AHH0	L	I I I E D N Q I K I K K G G N L	W G K T T K E V N K K L	W K K Y P K V G R E D Q I	
UniRef90_A5G6L0	L	A I I N G D D A E L L P A G E L	W G K A V P D T V S A L	G G S V A C	
UniRef90UPI00047C660C	L	Y I I E D E H A E L I I D A G H L	W G R S V W E I E P A I L	K S A H Q D P R I A A	
UniRef90_Q9V2P2	L	H I I Y D G Q A E I R P A K D L	W G K G N Y E V A K E L	W G K Y P N A S I A S	
UniRef90_B7R233	L	Y I I K D D E V K I V P A N E Y W G L T T G E A R K K A K E E Y P G F A T A F	W G K G N Y E V A K E L	W G K G N Y E V A K E L	
UniRef90_E7FHG8	L	Y I I H D G K V E I I N P A E H L	W G K G T Y E V A K E I	W G K G T Y E V A K E I	
UniRef90_Q0AVX1	L	I I I E D T I I I K E A S F I L	W G K G T Y E V A K E I	W G K G T Y E V A K E I	
UniRef90_K0C456	I	S I V D E K C E L P A D E I	W G K S V W E A D E W L	W G K S V W E A D E W L	
UniRef90_N0BDW9	L	W I Q D K E T E I I R N A S K F	W G K D T H E T E D L	K E K V G R E D Q I L S	
UniRef90_F0JJF5	I	N I N N D K V T I I E D A S S F	W G K D G L A Q E A I I	H Q P Q L R I A A	
UniRef90_C7LNC5	N	F I I R N D K A E L I R D A S S F	W G K D G L A Q E A I I	H Q P Q L R I A A	
UniRef90_X0X8T2	L	W I H N G K V E I I R S A R H V	W G L P T K E A Q E K L	K Q Q L T G G A K T L S	
UniRef90_V4J088	L	W I I T D G E A Q I I R D A A G L	W G L D N W Q T L E Q L	K R D V G D T H A R V V A Q	
UniRef90_B5EAJ7	L	A I I D G D R A E I I L A A G E L	W G K G V K E T V A A L	K D V G D T H A R V V A Q	
UniRef90_X1REF0	F	V I I E D G E V E I I R D A S H L	W G E E T H D A I D T L	G E E V D K A S V V A A T	
UniRef90_M0NRL2	L	F V V E D G E V E I I R D A S H L	W G K T T K E V E E I L	G D R H G S R A R V L I Q	
UniRef90_D9QPNN8	L	F V V S D E E V S I I L K T A E N L	W G K T T K E V E E I L	R E E L D P D V K V A C	
UniRef90UPI00046D3022	L	W V H N G S V E I I R D A D H L	W G G D A V Q T Q T R L	R E E L D P D V K V A C	
UniRef90_A1RWK6	I	E I I V D G H V E I I K D A S D L	W G K N V F D T T R V L	R E E L D P D V K V A C	
UniRef90_A0A011PGV1	L	H I I E N E R A E I I L P A G D L	W G R T V W D T E A M L	R K R H Q D S L V S V A T	
UniRef90_B51FU9	I	R I I N D D E V E F E S A K D L	W G L D V K A T T E R E L	K G Y G S V A T	
UniRef90_K0NNU2	I	Q M E N D S V K L S P A Q D L	W G K G C O N D T Q A E L	L N K N G E E A K I L C	
UniRef90_K8DXR2	L	E I I S D R G V A F R E E A A H L	W G L D T K E T E E I L	K E V N R P G A Q A V V	
UniRef90_V7VAJ8	L	Y I I N D D K V E I I L N A H H V	W G K T S T E T D F L	K E K Y P Q A S V L N	
UniRef90_Q8TQ38	L	S I I V E G K A E I I V P A P E L	W G M T V H A V T D E L	R T E N P R K T S L I A C	
UniRef90_O29907	L	K I V D L T G A E I I L D A E H L	W G K G G C O Y E T Q E Q I L	K D L G E K R V A T A V	
UniRef90_X1HRS5	S	I N I N D D K V K V E D A T K L	W G K T T G E V Y K T L	Q S I I Y P G A A I M C	
UniRef90_B5Y6N4	L	W I H D D K V E F K D A S Y L	W G L G L A D T E Q L I	R E E L D P Y V R V A A	
UniRef90_A2SPV7	L	L L D D N G K A E L I R D A S R L	W G K T T G E T T D A I L	P D S V P R V V S C	
UniRef90_K2C645	I	N I I K D G N T E I I R S A S H L	W G K D T Y E T Q N L L	E E L K D P S V P R V V S C	
UniRef90_Q9HJ31	I	K I I V D D K Y S I I E D A S N L	W G K D A Y E T E T E L	K K I D P K G Q A M V	
UniRef90_X1TFB6	L	V I I E D D K V E I I K D A S D L	W G K D C O Y T T D I L	K E R H G A K A D M L E	
UniRef90_X1CTV8	I	S I I I N G Q V K F N D A N D I	W G M E T K E T I D T I	K K K L N D K A R V V A C	
UniRef90_X1FLH9	L	M V T E S G V E F V D C P E C	W G K G T I I E T T E T I	K E K K L D Y S I Q V A A	

		170	180	190	200
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UniRef90_UP10003B36C05		G P A G E K	L S L I A N A T F D G H R M A G R T G V G A	V F G S K N L K A A	
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UniRef90_A1HS03	V R G T N [V] V P [V] A
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UniRef90_B5IB16	V K G R H R V E V A
UniRef90_I4BZ43	V R G T M P V E V A
UniRef90_F6DIE0	V V G T H D
UniRef90_H9ZZR0	V Y G N M E P P I A
UniRef90_Q0W0W8	V R G T Q S F Y A A
UniRef90_L9XBZ3	V K G T K M P Q P A
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UniRef90_S7V762	V R G T T P V P A A
UniRef90_S5ZUK6	V R G T R D P P V
UniRef90_B5YH00	V K G S K Q P D V A
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UniRef90_D3S1J0	V R G S G S L E V A
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UniRef90_F6CKB4	F H G E A R C E A A
UniRef90_G8ZG95	V R G D G F V E V A
UniRef90_K0NF08	L R G T N P V E I A
UniRef90_G7V8Y1	V R G T K T L P I A
UniRef90_E4RMW0	V K A D E K
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 M K G W S G R L L W I D L T R K E S K V V E Y P A E W S L M Y L G G R G L A A R
 □ F S W F K R I L W V D L S R G E F R E W R Y P G E M A R M F V G G R G Y A □ K
 M Y G W A G Q I L R I N L D N G S I T K E D T S K Y □ E Y T G G □ G I G Y K
 F G Y N G K I L V V D L T N Q T W S V D E R D E A W Y R T Y W G G G S L A S W
 G Y W G K L L C V D L S R E E T S V A T F D E G F A R K Y L G G V G L A A R
 T G V N L E I D L S R G S I E R E G T D S R L T E L H G G G L G T N A K
 F G Y M G K I L W V D L T T G G T L Q E E E I Q D S L Y N K F L T G Y G L G A K
 Y G W A G K I L R V N L S T G S I T T Q P T D P Y K E Y I G G M G L A N K
 Y L Y T G Q L L H V D L T N K K I H S T T I P Q T L R K K Y I G G W G M A V K
 M R G F Y G R L L R I D L S T R H W Q A E E I P D E V L A A Y L G G K G L G T Y
 Y G W T G K I L R V N L T D K T T V S V T P T D P Y K E Y L G G M G I A N K
 G Y A G K I L D V D L E T G E L K D K M P D E E I L R R Y G G K G L G L K
 G □ N G K I L R V N L T Q G T H A I D R P D E A W Y R M Y H G G R G L I A Y
 M K G T L G K V L E V D L S S K T V E M R P I E D K T M Y D Y L G G L G L A T R
 G Y M G K I L W V N L S D E T T F K E E E L S D E I Y R Q Y L G G Y G L A T K
 Y W H Q L L E V D L T A G D H S T A E L S E E F V R T Y L G G A G F T T R
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 □ L H G Y G G H I I L R V D L T S G K I L R E K T D P G Y M L E T I G G R G L L N S R
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 □ L K G Y A G R V G F V D L S A G R T W I E P L D E R V A E L F I G G K G F L Y Y
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50 60 70 80

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UniRef90_B8FCJ2	I L Y D E P P G I D P G P F S E E N I L A F G V G T L V G S P F P T S A R T E E A S A
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UniRef90_A3CSC2	V I W D E P P K G T K A Y D E E N K I I F G A G P L T G T G M P C S S G R T N I T S
UniRef90_B2A8G1	V I L F D Y L D D T D P L S A D N I L M I M N G P L S F T S A P S S A R M V I C S
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UniRef90_B8GIR3	L V S D L N P T T A P L G E G E N V I V F A T G P L T G S G V P L G A R Y G V I T
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UniRef90_B6GDF3	I I M Y D E V P E V D W M D E E N K A V L A V G P L T G S G V P L A G R S T W A S
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UniRef90_X1AAL8	I I L F D N Y D F K K K I S P E N L L I F M T G P L T A T R L P G C T R F S V C S
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UniRef90_A2BKT0	Y G F R L I P P A D P L D P P N N V L V V A P G L A G H A P A A S K L G F L A
UniRef90_M1QA36	I L A E E M E N V D P L S P N N I M V F A T G P F Q G L G I P P G A G R H H L M S
UniRef90_D8WWC9	I I I Y D R V P E V D P F S P D N L L I F G T G L L H G T P V V G A N R T V V N T
UniRef90_UP10003B36BB9	L L L D E N P G A D P L G P E N R L I F I A T G P L T A T R L P G C T R F S V C S
UniRef90_X1EQW5	Y L F E L I D E I D P L S P R N K M I M N G P L S F T S A P S S S R F V I C S S
UniRef90_X1RUU1	L F A D R F K P T D P F S S S K N L I I F G T G P L V G T I V P G S S R T V A I S
UniRef90_R4KNV1	Y L Y K Y K P H A D P L S P D N V L I I G T G L T G T L S P P N S G R Y S V T C
UniRef90_C6A4Y4	V I H K E L K K I P K E D E S N I M V F A V G P L T I D G P N G G R V V T V G S S
UniRef90_P76192	I M Y D E P P G T K P F D E A N K L V I F A T G P L T G S G A P C S S R V N I T S
UniRef90_C6BXM6	T L F N E V P H I D P L S P E N V Y C F G A G P L S G T P L G T S R V E V S T

		90	100	110	120
UniRef90_A8MCP0	K S P L T M A W G E A H A S G F W G [V E L K K A G F D G I I I K G R S S N P V Y				
UniRef90_G4T234	K S P L T G T [V A C S N S G G F I G M E F K N A G W D M I I F E G K A S S S P V Y				
UniRef90_D9Q2W6	K S P L T G G Y G D G N [V G T T F S N E M R K A G L D A V V F S G V S D K P V V				
UniRef90_X0RSY8	K S P L T N G W G E S R C G G D F G P E V R A A G W D A V V I R G V A R K P S I				
UniRef90_A2BJR2	K S P L T G G Y G D G N [I G T R A A V N L R A A G W D A V V I E G K A D Q P V Y				
UniRef90_F0JDQ7	I S P H K P L V S R S G F G G Y W G A E L K F A G Y D A V I V Q G K A K K P P V F				
UniRef90_D6SP27	M N P L T G G F G E S E A A G Y L G P A L K H A G F D A V V L K G K S P Q P V Y				
UniRef90_X1HVE4	K S P L T G Y W G M S A G G H M G P E L K R A G F D A V V I T G K A K R P V Y				
UniRef90_X1UCA9	F S P Q T L L M A Y S I M G G F W A P E L K F A G Y D K V I I R G K S P K L V Y				
UniRef90_G7WGJ6	K S P L T N T W G D A N C G G Y F A P A I K S S G Y D G I F F V G K S E E K P P V Y				
UniRef90_C8WNS2	L S T F T H L V V D A H C G G M I G A K I K L A G W D A V V L E G A S D H P P V Y				
UniRef90_C0Q9G1	K S P L T G T L F E S N I G G S F G P E L K F A G Y D G I V V T G K S D T P P V Y				
UniRef90_F6CLF8	R S P L T G F Y G E S Y S G G H V G A A M K R T G Y D A I I I Q G Q A K N P T L				
UniRef90_R9KUL8	L S T Y T H Q V V D A H T G G M I L G A A I K K A G W D A I I I E G A S D E P P V Y				
UniRef90_Q8PTR7	K S P L T G A V G S G N S G G K W G P Y L K F A G Y D A I V I R G I S E K P P V Y				
UniRef90_F5L739	K S P L T G A V Y G D G E A G G F W G S F L K R A G Y D A I V E V E G Q A E K P P V Y				
UniRef90_B5Y609	K S P L T N G F G R S V A G A Y L G V E L K K A G Y D A L V I K G K S D K P P V Y				
UniRef90_X113M0	K S P L T G T W G D A N C G G Y F G P Q V K C G Y D A I L V K G A A R N P K I				
UniRef90_L0AE07	K S P L T G G Y G K S L V G A K M G D Q L K R A G Y D A L T T G A C D E P S V				
UniRef90_Q67MQ7	I S P L T G L L T S S N C G G S F G L H L K K A G C D G V V V T G R A E E G P V W				
UniRef90_I0I214	K S P L T G T V A D S H M G G W T A A K L K W A G D G L V F K G K A E K P P V Y				
UniRef90_A3MSA0	K S P L T G G W G D A N A A G G G R F G P K L K E A G F D A V F I C G V S E K P P V Y				
UniRef90_Q39TB0	R S P L T G T I Y D C S A G G R F A W R L K A A G F D A L V V T T G K S A T P P V A				
UniRef90_Q74B50	R S P L T G T I Y D C S A G G R F A W R L K G L V G D A L R L S G R S E T P P V T				
UniRef90_A5D4X4	K S P L T E L W G E S N V G G H V G A E V V K K T G D G F I L K G V S D K P V A				
UniRef90_X0S5H0	K S S L T E Y F N Y S N L G G N W G A Q L K L A G Y D A L V I Q G K S E K P V Y				
UniRef90_X1RCW0	K S S P I T G Y W G E S N G G G H I G P Q L K R C G F D A I A I T G R A R K P P M Y				
UniRef90_UP10003B5A78E	R S S P L T G S [□ H D C C H C G G N F G P R L K A A G Y D Y I V □ G K A E K P P V Y				
UniRef90_D5X9X4	K S S P L T G G F G E A E A G G N W G P E L K F A G F D A V V I T G K S E K P P V Y				
UniRef90_M1ZII3	K S S P L T G T V T D S H M G G W S A A R M K W A G I D N I I V R G A S A T P P V Y				
UniRef90_O30212	K S S P L T G L W G E S T S G G F F A V S M K K A G I D G I I I L T G R A E K P T Y				
UniRef90_L0HMP4	K S S P L T G T I L D S N S G G F F W G K E L H Y A G Y D A L V V K G R A E R P P V Y				
UniRef90_D4F3C9	L S T F T T K G V V D A H M G G F F A Q A M K F A G F D A L V V T T G K S D K P P V W				
UniRef90_V7I0Z5	K S S P L T G T I C N S F S G G Y L P V E L K Y A G Y D M V V I E G A S D E P P V Y				
UniRef90_UP100036CE031	K N A F N N G L G S A N V G G F F G P T L K K A G F D A A V I S G R S E K P P V Y				
UniRef90_A5CZ17	K S P V Y N G W N D W N D S G G Y F G P T L K K A G F D A V F V N G I A D K P P V Y				
UniRef90_X0W9R0	K G P M T N M A G T S Q A N G Y F G A F L K L S G F D G V I V H G K A K K W L Y				
UniRef90_D6XVI4	R S S P L T N T V T D S H M G G W T A A R L K K W A G F D N L I F T T G K S D K P P V Y				
UniRef90_J1L5N7	K S S P L N G T L A S A N S G G T F G W K I K K A G F D A A V I S G R S E K P P V Y				
UniRef90_S0FXK3	K S S P L T G L L G S C N M G G F F A P E M A W G F H H L V I T G K A D K P P V Y				
UniRef90_D7CNR4	K S S P I T G L F G T S N S G M F F G L R K C G Y D G V I V K G Q A P S G V Y				
UniRef90_A5D527	K S S P L T G T W G E A S V G G S W G R E L K R A G Y D G L V V L E G K A E E P P V Y				
UniRef90_F6CQG1	K S S P L T G I W G E A S V G G S W G R E L K R A G Y D G L V V I T G R S P K P V Y				
UniRef90_X0S4W1	K N A F T G G Y G S A N C G H F G A E M K Y A G Y D N V V I T G R S P T P P V Y				
UniRef90_F6CPB0	K S S P L T G G W G D S N S G C T L A A E L K K A G Y D G V F F S G I S P K P V Y				
UniRef90_X1MIU5	K S S P L T G G W G D S N S G C T L A A E L K K A G Y D G V F F S G I S P K P V Y				
UniRef90_UP100036CB5D9	I S S P Q T K L M A F S M M G G F F W A P E L K Y A G Y D K V V L R G K S P D L V Y				
UniRef90_X1A0F2	K S S P A T N M Y F K S N V V G G F F K G A E L K F T Y G Y D Y L I F H G K A E K P P V Y				
UniRef90_A3MSM4	R S S P L T G I L G G S V V G G T L G S V V M K Y A G V D A L M I V G R A E R P P V Y				
UniRef90_C0QFC8	K S S P L T G G W G E A N C G G S F S P A I K R C G F D G I F I T G Q S N T P K P V Y				
UniRef90_G0HPJ0	L S P L S G I L G D G N A G G E F S A M L K F A G Y E Q I I V T G R A Q K P K Y				
UniRef90_X0SV01	K S S P A T E G F C Y S N F G G S W G A Q L K F A G F D G L V V H G K S E K P P V Y				
UniRef90_C6A4Y2	R S S P A T G I H G D S N S G G D F A M E L K H A G Y D F I V V T G R A E E P P V Y				
UniRef90_B8FCJ2	K S S P L S G G W G D S N S G C Q V P F L K R C Q V D A V F Y G A A E K P P V Y				
UniRef90_A4J5K2	K S S P L T N R F G T S N S G A F F G M Q L K C A G F D A L I I K G K A K K P V Y				
UniRef90_UP100046D12E9	I S S P Q T G L Y A H S I F G A F F G P E L K H A G Y D Q I V F R G K A P D L V Y				
UniRef90_M7TDF4	K S S P E T G I L G D S N S G C T L A A E L R Y T G F D R I I Q G K S K K P C Y				
UniRef90_G2MG18	K S S P L T G T V T D S H M G G H F S P E M K F A G F D G L V F D G R A E K P V Y				
UniRef90_A3CSC2	K S S P L T G T L T S A N S G G K F G T S M K R A G Y D A V V I R G R A Q R P V Y				
UniRef90_B2A8G1	L S N P Y N A I L T D S H M G G H F S P E M K F A G F D G I I E G K A D K P P V Y				
UniRef90_N0BP59	K S S P L T G I W G E N G A N G G F F G P E M K F A G F D G I I E G K S E K P P V Y				
UniRef90_X1JVB3	K S S P Y T G L W G E N G A N G G F F G P E M K R A G Y D G I I T G K S E K P V E				
UniRef90_L0HKD1	K S S P L T G G F G R T V V G A P M G V E L K K A G Y E M I I E G K S D E P V I				
UniRef90_X1MN51	K S S P L T G F L G S G F F G P E L K F A G Y D H L F I E G R S K N P V W				
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UniRef90_K0NCN3	I S S P Q T N M F S N S F G G Y F G P E L K H A G Y D K I V L R G K S Q D L V Y				
UniRef90_UP10003B446EE	L S P L T G I L G D G N A G G T F G L C M K R S G Y D Q F I V F T G A A P K P V Y				
UniRef90_UP10003B7AD33	K S S P L T G L V G D S S L G G R L A F Q L K R A G W D G L V F D G R A Q R P V S				
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UniRef90_W4RT67	K S S P L T G T V T D S H M G G W T A A R L K K W A G I D N V I F K G K S D K P V Y				
UniRef90_B8GIR3	K S S P L N G T L C S S D S G G F F G T E L K R A G F D A V V I S G R S P T P P V Y				
UniRef90_E1QUQ8	K S S P L T G G W G D S N A G G F F G P K L E A G I D A I F V T G V S E K P V Y				
UniRef90_G2MUW3	K S S P L N M F D D S Y F G G H F I Q E V K Y A G Y D A I V I S G K S E T P V F				
UniRef90_H1YZH1	L S S P L S G I L G D G S G G F F A S E V K A A G Y D Q I V I T G R A E K P P V Y				
UniRef90_O58641	L S S P L T N L L G G S S A G G D F G A A L K F A G Y D G I V I T G K S K E P T C Y				
UniRef90_B6GDF3	L S T F T H L V V D M H C G Q L G A M L K Y S G H D G L I I E G K A K K P C Y				
UniRef90_I4C504	L W P T C W P V A S G H M G G H F F A A E L K Y A G Y D A I I E G R A D R P V W				
UniRef90_UP1000364E3FF	L S C C L T G I L G D G N V G G S F A H C L K K A G F D Q I I I S G K A Q K A V Y				
UniRef90_N0BKB8	K S S P L T F G Y G E S Q C G G Y L A Y E M K K A G I D F L Y I T G K A R K P P V Y				
UniRef90_X1AAL8	I S S P L T G I W G E A S C G G R F G I Q L K K A G F D G I V I K G V S D S P V F				
UniRef90_F0QV65	K S S P L T N R W S Y S T V G G T L G A Y M K Y A G V D V V V T G I S P R P V H				
UniRef90_A2BKT0	K S S P L T G I L C D T Y A G Q V F A S K L K L A G F D A L V V L G A S D E P L V Y				
UniRef90_M1QA36	K S S P K T E A V N G S Y V G G F F G E K L G K S G Y D G I I I R G S A D D P L V Y				
UniRef90_D8WWC9	I S S P Q T G L F A H S V M G G W G P E L K F A G Y D R I I I R G K A P D L V Y				
UniRef90_UP10003B36BB9	I S S P L T G L Y C E S Y A G G K V P E S M D S A G Y D A I I I S G R A D R P M V				
UniRef90_X1EQW5	K S S P Y T N L W S E S N C G S M S F A F N L K K Q A G F D H I I I S G K S E R P V Y				
UniRef90_X1RUU1	K F P A T G A V A N S C G S M S F A F N L K K Q A G F D H I I I T G K S E K P V Y				
UniRef90_R4KNV1	I S S P E S G I L G D G N I G G F F G A E M R F A G I D F L Y I I T G K A A S P P V Y				
UniRef90_C6A4Y4	I S S P E T G V W G E T H I G T R F A I E M K K A G F D A I V I K G K A E K P V Y				
UniRef90_P76192	L S T F T T K G V V D A H M G G F F A A E L K Y A G Y D V I I E G K A K S P P V W				
UniRef90_C6BXM6	L S S Y S G I L G D G N A G G S L A F M M K R A G L D Q I I I S G Q A E A P C Y				

130 140 150 160

UniRef90_A8MCP0	H D G E A E V R D A S K Y W G L T T V E T D L S L K N D G D K A R V A A		
UniRef90_G4T234	L Y L E N E K A Q L L P A D E I W G Q S V W Q A D E W L H N R H Q D P L R I A A		
UniRef90_D9Q2W6	V E I E N T K V N F E P A D D L W G L D T W T A E E R L R K R Y G R F A G I V E		
UniRef90_X0RSY8	L V I N D R K V S I K P A D H L K G K T V T E K I E K I K N Y L D S D F K V M C		
UniRef90_A2BJR2	L V I E D D K A W L E P A D D L W G L D T F R A A D K L E E R F G K T A G I L L		
UniRef90_F0JDQ7	I N V V N D E V T I E D A S D M W G K D T F E T Q D M I K A K T D E K T Q I A V		
UniRef90_D6SP27	L W I N N G Q V E L R D A A H I W G K E N A P T L D T I K N E L E K K I R I A S		
UniRef90_X1HVE4	L W I N D G K A E I R D G S K F W G L E T L Q V V D A L K E T V D T K A T V V S		
UniRef90_X1UCA9	L W I N N D K V E I R D A T H L Q G K G C L E T E E L I K Q E L K P K A Q V A T		
UniRef90_G7WGJ6	L L I D G D R K A L I I D A T Y L W G M D S N D T I D D L T N R Y G A H F K T A C		
UniRef90_C8WNS2	N I V D D K V E I K D A G F V W G M G T R E T T E M L C L R K E G V E A C V A A		
UniRef90_C0Q9G1	L K I V N S K V L L E D A S P V M G K G F Q T E N W L K K Q V D Y E A K T L A		
UniRef90_F6CLF8	L E V T D Q G V S F R D G T K L W G L D C Y A A E D A L A E V G A R G A Q A V V		
UniRef90_R9KUL8	L K I D D D D V E I K P A D K V W G M G T R A T T E A L L S R R E G T D F C V A T		
UniRef90_Q8PTR7	L T I D G K A E L V E A P E I W G M T V P A V T E E L L N R A P K K T S I A C		
UniRef90_F5L739	I A I E D G Q V A I H D A S D I W G K D T A Y V D E Y L K A K H G R G A K V C Q		
UniRef90_B5Y609	L F I D D D H V E I R D A S H L W G K D A I E T Q E L L K A E L G N V R T G A		
UniRef90_X13M0	I A I D D D D K Q I L D A S D L W G L D A V Q T E D K L A E K Y G R V Q V A S		
UniRef90_L0AE07	L V I E D D D V R L E P A D D L W G L D T R E T H D R R L E E R Y G S A F R S A I		
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UniRef90_I0I214	A Y V E D G K V T L H D A S D V W G K G H E T L R I L R E R H G E D C D G M A		
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UniRef90_Q39TB0	I A I T P S G A E I V D A S Q L W G K T V H D T V T A L L A G R G S V A T		
UniRef90_Q74B50	L V V T A G G V E F V D P V E L W G Q T V P E T V A A L S S R G S V A A		
UniRef90_A5D4X4	I Y I N D D K V Q F I D A R D L W G K D V F E A S D L I R S K T D E K A R V A C		
UniRef90_X0S5H0	I L I Q D E T V E I R D A S T L W G K S T V E T R E M L K Q Q L G S S V N I V A		
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UniRef90_D5X9X4	L Y L R D G Q V E I R D A G N W G L N T S E T E K R I L F D D T D P R V K V A C		
UniRef90_M1ZII3	L F V E N G K A E L H D A A D L W G K G V R A T V R A M Q D R Y K E D L S V T		
UniRef90_O30212	L F V S D G K V E F R D A G D I W G K S T S K T L E I V Q N E T D K K A R I A C		
UniRef90_L0HMP4	I R I R D D E I S I E D A S H L W G E N V E C T K N L E S M G S V A C		
UniRef90_D4F3C9	L H I D D D Q V S L E K A D F L W G K G T R A T S E A I C R L T S A E T C V A A		
UniRef90_V7I0Z5	L S I K D D K V S I I R S A E K L W G I N A L D T Q I Y L K E E N D Q S C R I A C		
UniRef90_UP100036CE031	L W I C D K K V E I I D A A Y L W A K T T W E T E R E I R K N L N D E I I R V A A		
UniRef90_A5CZ17	I W I D N G K V E I I R E A S K Y W G M T S N A F R E L I K D L G D N R I K A A F		
UniRef90_X0W9R0	L H I H D G T A E L R D A E H L Q G K D T W E T E D T I K K G I S R Q S S V Y S		
UniRef90_D6XVI4	L Y V E D G K A E L R D A G D L W G K G V H A T V K E L E E R Y S K D T S I M T		
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UniRef90_S0FXK3	L W I H N G E I E I R D A G H L W G K N S T D T Q W A I R D E L D D E V K S M V		
UniRef90_D7CNR4	L L I E D E R A E I R D A S D L W G K D A W E S L D I L K A R H G E C Q V A L		
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UniRef90_X0S4W1	L W M E D G E A Q L R D A S H L W G A T T W D A E R S I R E E H D N E V R V S G		
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 V| Q G N G S V | V | N | V |
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 F| H G R A G | C | E | L | A |
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 V| S G N Q R |
 V| K G K Q M | P | K | M | S |
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 A| V G D K R | V | E | V |
 V| N G D Q | P | V | V | I | A |
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 V| I | G T K E | V | E | P | A |
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 A| R G S G R | C | T | V | A |
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 V| R G S K A | L | H | I |
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UniRef90_Q2LXV6	Y G E T G Y L E I N L S T G N I E R V Q S D P K T A E N F F G G V G S S L K				
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UniRef90_D3SPG8	Y W K R Y L L I D D L T S R T T E T Y D I S Q D T V E K F F I G G N G M G S Y				
UniRef90_G7Q8Z1	M H G F Y G R I I L S I D D L G R R E A V I E P V G D A L L L A A Y Y L G G K G L A T R				
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UniRef90_D7EBC6	M Y G W M G K T I T V D D L S S S T V T E T T T D E K N L R T Y I G G R G L G V R				
UniRef90_I4BY18	M Y G Y N G K V L N V D D L T E K K Y W V E Q I P D E W I L N Y V G G E G F G A K				
UniRef90_R6I5N8	G Y M G K V I R L D D L S S R S V S I E Y P W T D R D R Q L Y I G G K A M A S K				
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UniRef90_D0WJ15	M K G F F N R I I I I N V T D Q T T E V Q K I I D D Q M L K I Y M G G K G L G A T H				
UniRef90_Q2LT59	M H G V F G K Y I L E V D D L T K G S Y E V K N L P P E I L L K Y I L G G G L G A T R				
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UniRef90_D3RY23	K S P L T G G V G D A N M G G A F G A E L	R F A G I D H I I I R G R A E K P V Y		
UniRef90_Q2LX6	I S P V S N L I C Y P T A G G F F A P E L	K Y A G Y D K I I F R N K S P E L V Y		
UniRef90_U1NKZ2	K S P L T G T V T D S H H G G W S G A R L	K W S G F D G L M F D G Q A D D P V Y		
UniRef90_O58642	V S P V T G L I G G S S T G G E F P S A L	K F A G Y D G L V I T G K A E K P V Y		
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UniRef90_D8WWE2	I S P Q T D L L A Y P M M G G F W A A E L	K Y A G Y D K I I M R N K S P K L V Y		
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UniRef90_F7V4J6	V G A S I N Q Y C W G N I G G W F A T E L	K Y A G Y D G F I I I E G K A Q K P T Y		
UniRef90_XOXYE4	K S P I Q N R F S Y C N L G G S W G A Q L	K F A G Y D G L V V Y G K A D R L V Y		
UniRef90_UP10003B4D6A4	K S P L T G L F L D S H G G S L S P E I K	K Y A G Y D G I I I T G K A E H P S Y		
UniRef90_Q2LQ04	V S P Q T D F V A Y S M M G G F F S P E M	K Y A G Y D K I I I F R G K S P K L V Y		
UniRef90_A5D4Z7	R S P L T G I W G E A S V G G R W G R M L	R R S G Y D A L V L Q G R A E K P V Y		
UniRef90_UP100046D2E07	L S P L T G T F D A N S G G F F G I R L	K R A G Y D A L W V E G A A D A P V V		
UniRef90_K4MCQ7	K S P L T G T I S D S N A G G H L G A E M	K F A G V D S L I V L G K A A E P A Y		
UniRef90_D3RYS6	R S P L T Y A W G E S S S G G K F A T Y L	K R A G W D G L I V E G K S D K P V Y		
UniRef90_UP100046705B0	K S P P L T G F Y A E S Y S S G G R T P E A	M D R A G F D A V V I I E G R A D A P P V A		
UniRef90_A2BLI7	K S P P L T G I L G D S N S G G Q F G P W L	R F S G Y D G I V L E S V S E E P V V W		
UniRef90_D7D861	L S S L T G I L G D G N A G G D F A A K M K	H A G Y D Q I I I T G K A S K P V Y		
UniRef90_UP10003680886	K S P P Q T G L Y G E S Y A G G L V A A A M	R R T G Y D A V I I Q G R A D S P P V W		
UniRef90_H5SDE6	K S P P L T G G Y G E S E A G G Y W G P A L	R Q A G F D G L I I T G R A Q E P P T W		
UniRef90_XOXR5	K S P P L N D G F G E S E S S G G F F S V E	L K R A G F D A I I I K G K A K K P V Y		
UniRef90_M1ZGR8	I S P P L T G L L T S S N C G G N F G L S L	K R A G Y D A L I I K D K S E S P I W		
UniRef90_TOLEF5	K S P A T G T W G D A N C C G G K F G P E L	K N S G F D A V F E R G I S K D P V Y		
UniRef90_W4LA10	R G A M T G G G T N T Q A N G F F G A N L	K F S G Y D A I V L Q G Q A S R W V Y		
UniRef90_UP1000470D489	M S P F G L L T S A G L G G F I I G A G I L	K Q A G Y D N I I I E G K S D K P V Y		
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UniRef90_XOVU7	K N P L T N A W G E A H S G G F F W G P E L	K L A G Y D A I I F T G K A K R P V Y		
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UniRef90_D1CAE3	K S S P Q T G M I G D S L I S S S Y L A I A L	K R T G F D A L V I I T G K A T G W S L		
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UniRef90_C7LQZ8	L S S P Y S G I L G D G N A G E R F A T I M	K R A R A D Q I I I T G R A P R P C Y		
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UniRef90_E8N4Y1	R S P P Q T G L W G E A N I G G F V G P E L	R Y A G F D A V L V T T G K A P T P V Y		
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UniRef90_A8A8F7	V S P T G L I H D S Y S A G G R E V L G P K L	R M A G Y D A I V I T G K S E E P V Y		
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UniRef90_B8FYJ1	K S S P L T G T Y L D S F F G G R L G P E I	K Y A G Y D G I I I F G K A P P V Y		
UniRef90_Q0W315	K S S P L T G S F T D S Y G G G F W G P E L	R F A G Y D G I I I L E G K S K A P V R		
UniRef90_B1L3I8	K S S P L K T G T I L D N Y V G G S F G P E L	K Y A G Y D A V I I E D V A E K P V Y		
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UniRef90_G7V7Y8	L S P L T G I L G D G N G G G S F A L A L	K R A G F D Q V V F T G A S D T P V A		
UniRef90_G7V6Y3	R S S P L T G A F L E S D A G G T F G F F L	K R S G F D G L I I I V G K S E K P V Y		
UniRef90_D3SPG8	K S S P L Q T N G F T K G F C G G T F G N E L	K Y A G Y D G V I I M G C S D E E W V H		
UniRef90_G7Q8Z1	K S S P L T Q T G F Y A E S Y S A G G R T P Q A	V D A A G F D A I V I T G A A N T P V G		
UniRef90_L0AAH5	K S S P L T G Y L G D A N S G G D F G P W L	R F A G F D G L I I E G K S E D P V W		
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UniRef90_A2BN13	K S S P L T G G Y G E S S M G G S W P S F F	K W A G Y D A L V V L G A S E K P A Y		
UniRef90_D7EBC6	K S S P L T N T I F S A E T G G F F G K E L	K L A G I D A L V I I K G K A K S P V Y		
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UniRef90_A7NKD4	K S S P L T G T V T D S H H G G W S A A R L	R W A G D F G I L L V R K G K A S A P V Y		
UniRef90_D0LXH5	K S S P L T G T W A D S N S G G S V V A S H	R R A G Y D A L L V V R G C A A E P T V		
UniRef90_D4GPQ3	V S P L T T G G L C S S N A G G F V V S R N F	A D A G Y S A V E E L A G V S D E L V V		
UniRef90_C8X3X9	K S S P L T G L F L D S Y F G G E F G Q E I	K Y A G Y D G I I I T G R A P Q P V Y		
UniRef90_H8I8S2	K S S P L T H T F T D S Y G G G Y W G P E L	K F A G Y D G I I I E G V S S E P V R		
UniRef90_C0GID9	K S S P L L S G R F G T A N G G G S F G A V	L R Y A G F S Y L A F L G A A Q T P V M		
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UniRef90_K1XAQ3	K G P M T N L A G A S Q A N G F F G A Y L	K F S G A K L V I I F Q G K S A K L V Y		
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UniRef90_UP10004785DE4	K S S P L T G L F T D S H A G G F F G P E L	A K A G W D G I V V R G A S S E P P C Y		
UniRef90_K0NCC3	K S S P L T G F Y G E S Y S G G K V A E S I	S Q T G Y D F I I L V K G G S S R P V Y		
UniRef90_10GJX0	K S S P L T T N G F G R S V A G A Y L G V A	L K K A G F D A L V I V K G K S S R P V Y		
UniRef90_10A0T7	K S S P L T G T Y F R S V V G G G Y F G A E M	K F A G Y D G I I V V S G R A E K P T Y		
UniRef90_B5EH92	V S P Q S G T L A Y P M M G G F F A A E L	K Y A G Y D K V I F K N K S P N W V Y		
UniRef90_X0YZE5	K S S P L T G M F G M A I S S G G S V G A Q	R A R G A I N A I V V K G K A S E P P V Y		
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UniRef90_S0G5Z4	K S S P L T G F Y A E S Y S G G R A A T I	K F A G Y D G V I V V K G A A A G P P M W		
UniRef90_UP100046D9699	K S S P L Q T G F F S E S Y S G G K L A E K I	K A K A G V D V A V V L L G R A D D P V V		
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130 140 150 160

UniRef90_D8WWH0	I Y I H N D K V E I R D A S H L Q G K G A V E T Q E L I K Q E L K E D A H V A A
UniRef90_D3RY23	L Y V R D G E V E I R D A S H L W G L D T Y E T Q R E I K E E L D D R A E C M V
UniRef90_Q2LX6	I W I N N D K V E I R D A S H L A G K G A R E V Q E L L K E E E N D P K I Q V A A
UniRef90_U1NKZ2	A Y V E D D G E V E L R D A S H L W G S G V T D T I D E L E G E I G R N L S V M A
UniRef90_O58642	I K I E N D E V S I E S A E E L W G L N A F E T I D Y L T R G H S D L K V A C
UniRef90_X1EGK8	I W I N D E D I E I K P A E H T G K S T S E K L K M I R D E L D Q K I S V M S
UniRef90_D8WWE2	I W I H N D K V E I R D A S H L K G K G A L E T Q E L I R E E L N P R A Q V A A
UniRef90_B9M942	L Y I N N D T V E I R D A G H L Q G K G C Q E V A T L L K E L K E P K Q V A A
UniRef90_A8MIP7	L K I E D D K V S I E D A T N L W G K G T V E T S K M L L N G I M G K E A C I A S
UniRef90_F7V4J6	L K I E D D K I E F L P A D D L W G L R V H Q T Q Q K L L E E E H G H F F K S M V
UniRef90_XOXYE4	L L V D G D R V E I R E A T H T G M G A I S C R E R L K E E L G R A F R V V T
UniRef90_UP10003B4D6A4	I W I N D D K V E I K D G R H L W G K D T L A A N H M I K K E L L G D D S K I A T
UniRef90_Q2LQ04	I W I K D D K V E I R D A S H L S G K G S V E T Q E L I R Q E L K P R A H V A A
UniRef90_A5D4Z7	I W I N D G E V E L R D A H S L W G L D T Y E C A P A L K E E L T G E K A E V C A
UniRef90_UP100046D2E07	V V V D P D G V R F D P A S D L W G M G N R A V R A A L R D R Y G P K A A V L T
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UniRef90_D3RYS6	V V V D S S G A E V K D A S F L W G K T T Y E T Q E E L K K D E G D V S V A A
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UniRef90_X0XKR5	L W I T D G K V E I K D A S H L W G N D T G F T Q E K I R E E N D N K I Q M V S
UniRef90_M1ZGR8	I E I T E E K V L F H D A K D L W G K K V S M T Q E A L L D S E A G K I V
UniRef90_TOLEF5	L K I V D G K Y S L S A T E I W G K D A Y V T E D Y D R K V E P K G Q A L V
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UniRef90_T0LAT2	I T I D E H V R I E K R P E L W G R D F Y S L R E E L R K Q K K Y S V L G
UniRef90_XOVOU7	L F I D N D E V E I R S A K D L W G M K T S E A M D R I E I H K D P Q I E S V A
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UniRef90_E8N4Y1	L W I H Q G D A Q I R D A S H L W G K D I Y E T Q V Q I R Q E E E P R A R I A C
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UniRef90_A8MAS2	L I V S D G K V E V R D A R E L W G L D T V E T E K T L K R S F R D S A V L T
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UniRef90_B1L5D8	L V L S E N G V E L R D A S H L W G K D I Y E T E E E L L K R E H G R C S I V A S
UniRef90_E7H0G5	L Y I H N D H V E E L R D A H F V W N Q G T K R S Y A M I V A Q E T N A D A S I G V
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UniRef90_B8FCU1	E I E P G G V H F H D A S N L W G L D T E E K A L E I A S G K A G R K G A L A
UniRef90_Q2RG52	L Y I G P R R V E L R P A R D L W G K G T G D T R A E L L R R R H G Q G A R V A C
UniRef90_B9M4R8	L L I D G K K M E L R D A S A L W G I D A V E T E N R L R A V H G D D F R A A C
UniRef90_M1Z8Y4	L Y I D G D K I E L R D A S K I W G E V T G E A E R L I R E D L I E D I D I A Q
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UniRef90_X0WJM3	L K I H D A D V E L C D A S D L W G M D V F D T T D E L L R R R H E P C S V I P
UniRef90_B8FYJ1	L W I N D D Q V E I R P A G T I W G T N A L E A N A L I K D I N E P E A M L A A
UniRef90_Q0W315	M H T D D K V E F L D A A E L W G M D T I W E T T E R I K E K T P R P I K V L S
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UniRef90_E1QS96	L V I K D G E P K L K P A K H I W G K W T G A S T K I I F P P D E T K A G V A V
UniRef90_G7V7Y8	L I I D G E D V L L I E A A Y L K G T S T W E K T D I L K E R L G K D F S V A A
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 A Y G T K E T P|V
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 V E Y D K
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 F D G D S H|P|E|I
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 L R G D H
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 I K G S R|L|V|K V
 V L G S K R P|Q|L A
 V R
 V W G T R D|L|N
 A R G K S K T|G|I S
 V G G D R T|V|E
 V|R G T K|L|V R
 F Q G D R
 A Y G K R N|L|
 V P D R Q Q|V|E|V A
 I A E E K S V|P|V A
 V K G S N K P|Y|I
 V Y G S
 V S G T H E|V|S|I
 V G G S D P|P|P|L
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 I R G S K|V|V|R
 I E G N G S V|N|V A
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 F G G D A A P|D|I
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 V K G S K M|P|K L
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 G W T G S V L H I D L Q R G E S R T E H P G P D F Y A T Y C G G R A M A G A
 Y G W A G K I L R V N F T T G N I N T E D T S K Y K D Y V G G G M G I G Y K
 Y G W A G N I L R V N L L T T G T C F V E K A E E R A L N L F M G G A G L A A D
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 I F A R E P P N I E P F Y R E N K I | F V P G L L S G | L A P G A S K V A V I S S
 L L S E L D P D I D P | G P E N P L | I F T T G P L | T G L A P M A S G A V L T S S
 Y L R P H C T R Q W D H P Q M P V | C I F T G P L | T G T A A P A S G R A S L M T C
 V I Y D E V P E T H A H D E A S K I | V M A T G P L | T A T G V P C S S G R M N I T T C
 V I F D E V P G T K A F D E A N K I | V F A V G P L | T G S G A P S S S R T N I T S S
 I I L K E T E K Y D P | G S E A P L | V I A T G P L | T G T G A P G C G S V D L C F
 I W D E M P G I K A F D P E N K L I | F M T G P V | T G T A S P S S G R A E F V S
 I I W D R V P E V K P F D E G N L L | I F G A G L L | H G T P V V G C N R T S V N T
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 L L Y D L F D E I T P F S P S N K L | Y I F A G P L | S G L A T L A T S R I T V V T
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 I L W K E L G H V D P L | G P E N L L | F L T G P L | T G Y Y P G V K L A V V S G
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 L L W K E L G D V D P L | D E E N N L L | I L S G P L | T G Y Y P G M | K T A V I S S
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 I L Y D L R A G V D P L | G P E N A V F A V G P A T G T V I P G A A I T A A A T
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 I L W E R P P E V A P Q S P A N L | I L F S A G L | L A G T P I | P G A N R T C V S S
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 I I L Y K Y P Q G A D P | L G P E N K L | F I M S G P V T G T E | G F E A G R T H F V G
 L A L K E I P P G A D P | L G P E N K L | F I M S G P V T G T E | G F E A G R T H F V G
 V I Y K R L R E I K G P N P S N V L V F A S G P L | T S D L I P Q S G R V S V G F
 L L L R L H D P V R P L | D P E N N I L I | F A G G L L G G T R M I T T G R L H V G A
 L L M D N P A G V E P M S P E N H | L I I F A T G S F C G T S M W G G S R Y G V F T
 L A L K E I P R I D P F S P S N R L | Y I F A G P L | S A M A N L | S T S R V T V V T
 V F W D E V P K T R A Y D E A N K I | V F A V G P L | A G T G A L | C S G R T A V V T
 F L L K E H I T L N W D A P D M P V L | F F T G P L A N T P S P F S G F V V N V M S
 U n i R e f 9 0 _ D 1 A F U 5
 U n i R e f 9 0 _ C 0 Q 9 H 6
 U n i R e f 9 0 _ U P I 0 0 0 2 9 A D F 9 C
 U n i R e f 9 0 _ D 7 C L A 6
 U n i R e f 9 0 _ U P I 0 0 0 3 5 D F 7 C B
 U n i R e f 9 0 _ Q 4 6 E L 8
 U n i R e f 9 0 _ B 0 N A 9 2
 U n i R e f 9 0 _ A 9 B 5 8 9
 U n i R e f 9 0 _ C 0 Q 9 G 2
 U n i R e f 9 0 _ W 0 J I T 7
 U n i R e f 9 0 _ L 9 W K 0 8
 U n i R e f 9 0 _ Q 3 A 1 K 5
 U n i R e f 9 0 _ G 0 H Y C 8
 U n i R e f 9 0 _ W 0 J R I 6
 U n i R e f 9 0 _ E 1 R 1 2 5
 U n i R e f 9 0 _ A 1 H P 7 5
 U n i R e f 9 0 _ F 0 Q Y E 7
 U n i R e f 9 0 _ B 5 Y J L 9
 U n i R e f 9 0 _ C 0 Q E W 3
 U n i R e f 9 0 _ E 4 N U C 1
 U n i R e f 9 0 _ U P I 0 0 0 3 6 E 9 A 0 F
 U n i R e f 9 0 _ U P I 0 0 0 3 B 5 4 1 A 6
 U n i R e f 9 0 _ T 1 C B K 4
 U n i R e f 9 0 _ D 9 Q 1 B 6
 U n i R e f 9 0 _ G 2 M M W 1
 U n i R e f 9 0 _ E 6 N A M 2
 U n i R e f 9 0 _ U P I 0 0 0 3 6 F 0 A 8 E
 U n i R e f 9 0 _ X 0 X F 4
 U n i R e f 9 0 _ C 0 Q B C 6
 U n i R e f 9 0 _ F 7 X K L 2
 U n i R e f 9 0 _ F 0 K 8 I 9
 U n i R e f 9 0 _ U P I 0 0 0 3 5 E 1 2 B 7
 U n i R e f 9 0 _ Q 3 I M T 3
 U n i R e f 9 0 _ X 0 X 1 V 1
 U n i R e f 9 0 _ U P I 0 0 0 4 6 4 0 F C 4
 U n i R e f 9 0 _ Q 3 I S S 8
 U n i R e f 9 0 _ V 4 X F R 9
 U n i R e f 9 0 _ D 2 R V 3 8
 U n i R e f 9 0 _ E 3 G I 6 6
 U n i R e f 9 0 _ F 8 D 5 I 8
 U n i R e f 9 0 _ E 3 C Z A 6
 U n i R e f 9 0 _ C 9 R D 1 2
 U n i R e f 9 0 _ D 3 R Y 9 8

50 60 70 80

L A H D R P F D A D A L | G A E N R L | Y F A T G P | M Q S S T M S F T G R M N C T G
 I L W K E L E Y V D P L | G E E N L L | L I L T G P L | T G Y Y P G I K T A V V S S
 I F A R E P P N I E P F Y R E N K I | F V P G L L S G | L A P G A S K V A V I S S
 L L S E L D P D I D P | G P E N P L | I F T T G P L | T G L A P M A S G A V L T S S
 Y L R P H C T R Q W D H P Q M P V | C I F T G P L | T G T A A P A S G R A S L M T C
 V I Y D E V P E T H A H D E A S K I | V M A T G P L | T A T G V P C S S G R M N I T T C
 V I F D E V P G T K A F D E A N K I | V F A V G P L | T G S G A P S S S R T N I T S S
 I I L K E T E K Y D P | G S E A P L | V I A T G P L | T G T G A P G C G S V D L C F
 I W D E M P G I K A F D P E N K L I | F M T G P V | T G T A S P S S G R A E F V S
 I I W D R V P E V K P F D E G N L L | I F G A G L L | H G T P V V G C N R T S V N T
 M L Y D E S P G I D P L | G P E N K L I | F S T S P L S | S I N K V P G G G S I I L C Y
 L L Y D L F D E I T P F S P S N K L | Y I F A G P L | S G L A T L A T S R I T V V T
 L A L K E I P R I D P Y S P S N K L | Y I F A G P L | S G L A T L A T S R I T V V T
 I L N R E M K D E D P | G P D N I L | G I I T G I F N S N G V P L | G G R F E V V G
 L A Y E N I P G T E P L | A P E N P I | V G A G T L V G T S V | P A S S R V Y G M T
 L G W M F F R R G H D P F S P E A P F | I L A S G P L | L A G T G I | P M S S R A V A V F
 I L W K E L G H V D P L | G P E N L L | F L T G P L | T G Y Y P G V K L A V V S G
 Y L Y R H K P G I D P L | G P E N R L | F S A G L | L T G S A A P C S A R L H V N A S
 L L W K E L G D V D P L | D E E N N L L | I L S G P L | T G Y Y P G M | K T A V I S S
 F L R P P V C S L E I N D P D L | P L | V F A G P L | T G T | A P A S G R G T I M S S
 I I Y D F L K K I D P L | G E E N I I | V I S S G P L | N G T G C | P S S S R F N V S T
 L A H E R P F D V D P L | G P E N H | L I I F T T G P M Q A S N M S F T G R M N A T S
 I H Y D R P P E T R P F D P E N L | L V F S T G | L L C G T P A F S A N R T I V S F
 I L Y D L R A G V D P L | G P E N A V F A V G P A T G T V I P G A A I T A A A T
 Y L E S L A K G K D G L | S A E N K L | F A C G P L | T D T K A P C C G R T V V M F
 F L W D R P Q G A D P | S S E N I L Y | F G V G P I | T G F F | G S V L N V S A
 L L E K F L S F E A E P | D E R V I I | F S V G P L | T G L K M S G L A R C C E A I F
 I L W E R P P E V A P Q S P A N L | I L F S A G L | L A G T P I | P G A N R T C V S S
 L F W R F G G H R L E P | P A E A P L | I M A S G P L | T G T G V P M S S R A A A V F
 L L D K M P K G T P P L | E K E N V L L | F L T G P L | T G T S F P T S G R F V V A T
 F L L T E M K G I N P L | G P D N I L | L V L T T S V L | T G T P I | P G A N R C T V A S
 L L W E R P K G I D P | A P E A E L Y | L L T G P L | T G I A P G G A H T C L V F
 I L W D R K P G I D A L | S P D N P L | M F M P G P F S G L | P V P P S S S R T C V V T
 F Y F K Y R P E I D P L | G A E N P L | P I F M N G P | F Q G T G I P T S G R H Q I V S
 I I W D Y R A G F D P L | S P D N I F V I A M G P | L T G L S T Q G | G R G I Y Q Y
 I L F A A N G E T I D P F S G A N R V F V T G P L | T G T L A P N S G Q H A V V T
 R L L R E T P G A D P | L G P E N A L I | F A S S V M A G Q P Y V G L A S | L A V C A
 F I Y K N F H E I R G P D P S N I I | V F A S G P L | T S E I I I P Q S G R L S A A F
 L V A R Y A P F S T S Y D P S N V V V V A A G A L T G | V A P G S S K V A F A A
 I I L Y D S D A D H D A L | S E K N L L I | F G I G P S V G T G L P | A S N R C T I T A
 I I L Y K Y P Q G A D P | L G P E N K L | F I M S G P V T G T E | G F E A G R T H F V G
 V I Y K R L R E I K G P N P S N V L V F A S G P L | T S D L I P Q S G R V S V G F
 L L L R L H D P V R P L | D P E N N I L I | F A G G L L G G T R M I T T G R L H V G A
 L L M D N P A G V E P M S P E N H | L I I F A T G S F C G T S M W G G S R Y G V F T
 L A L K E I P R I D P F S P S N R L | Y I F A G P L | S A M A N L | S T S R V T V V T
 V F W D E V P K T R A Y D E A N K I | V F A V G P L | A G T G A L | C S G R T A V V T
 F L L K E H I T L N W D A P D M P V L | F F T G P L A N T P S P F S G F V V N V M S
 U n i R e f 9 0 _ D 1 A F U 5
 U n i R e f 9 0 _ C 0 Q 9 H 6
 U n i R e f 9 0 _ U P I 0 0 0 2 9 A D F 9 C
 U n i R e f 9 0 _ D 7 C L A 6
 U n i R e f 9 0 _ U P I 0 0 0 3 5 D F 7 C B
 U n i R e f 9 0 _ Q 4 6 E L 8
 U n i R e f 9 0 _ B 0 N A 9 2
 U n i R e f 9 0 _ A 9 B 5 8 9
 U n i R e f 9 0 _ C 0 Q 9 G 2
 U n i R e f 9 0 _ W 0 J I T 7
 U n i R e f 9 0 _ L 9 W K 0 8
 U n i R e f 9 0 _ Q 3 A 1 K 5
 U n i R e f 9 0 _ G 0 H Y C 8
 U n i R e f 9 0 _ W 0 J R I 6
 U n i R e f 9 0 _ E 1 R 1 2 5
 U n i R e f 9 0 _ A 1 H P 7 5
 U n i R e f 9 0 _ F 0 Q Y E 7
 U n i R e f 9 0 _ B 5 Y J L 9
 U n i R e f 9 0 _ C 0 Q E W 3
 U n i R e f 9 0 _ E 4 N U C 1
 U n i R e f 9 0 _ U P I 0 0 0 3 6 E 9 A 0 F
 U n i R e f 9 0 _ U P I 0 0 0 3 B 5 4 1 A 6
 U n i R e f 9 0 _ T 1 C B K 4
 U n i R e f 9 0 _ D 9 Q 1 B 6
 U n i R e f 9 0 _ G 2 M M W 1
 U n i R e f 9 0 _ E 6 N A M 2
 U n i R e f 9 0 _ U P I 0 0 0 3 6 F 0 A 8 E
 U n i R e f 9 0 _ X 0 X F 4
 U n i R e f 9 0 _ C 0 Q B C 6
 U n i R e f 9 0 _ F 7 X K L 2
 U n i R e f 9 0 _ F 0 K 8 I 9
 U n i R e f 9 0 _ U P I 0 0 0 3 5 E 1 2 B 7
 U n i R e f 9 0 _ Q 3 I M T 3
 U n i R e f 9 0 _ X 0 X 1 V 1
 U n i R e f 9 0 _ U P I 0 0 0 4 6 4 0 F C 4
 U n i R e f 9 0 _ Q 3 I S S 8
 U n i R e f 9 0 _ V 4 X F R 9
 U n i R e f 9 0 _ D 2 R V 3 8
 U n i R e f 9 0 _ E 3 G I 6 6
 U n i R e f 9 0 _ F 8 D 5 I 8
 U n i R e f 9 0 _ E 3 C Z A 6
 U n i R e f 9 0 _ C 9 R D 1 2
 U n i R e f 9 0 _ D 3 R Y 9 8

50 60 70 80

L A H D R P F D A D A L | G A E N R L | Y F A T G P | M Q S S T M S F T G R M N C T G
 I L W K E L E Y V D P L | G E E N L L | L I L T G P L | T G Y Y P G I K T A V V S S
 I F A R E P P N I E P F Y R E N K I | F V P G L L S G | L A P G A S K V A V I S S
 L L S E L D P D I D P | G P E N P L | I F T T G P L | T G L A P M A S G A V L T S S
 Y L R P H C T R Q W D H P Q M P V | C I F T G P L | T G T A A P A S G R A S L M T C
 V I Y D E V P E T H A H D E A S K I | V M A T G P L | T A T G V P C S S G R M N I T T C
 V I F D E V P G T K A F D E A N K I | V F A V G P L | T G S G A P S S S R T N I T S S
 I I L K E T E K Y D P | G S E A P L | V I A T G P L | T G T G A P G C G S V D L C F
 I W D E M P G I K A F D P E N K L I | F M T G P V | T G T A S P S S G R A E F V S
 I I W D R V P E V K P F D E G N L L | I F G A G L L | H G T P V V G C N R T S V N T
 M L Y D E S P G I D P L | G P E N K L I | F S T S P L S | S I N K V P G G G S I I L C Y
 L L Y D L F D E I T P F S P S N K L | Y I F A G P L | S G L A T L A T S R I T V V T
 L A L K E I P R I D P Y S P S N K L | Y I F A G P L | S G L A T L A T S R I T V V T
 I L N R E M K D E D P | G P D N I L | G I I T G I F N S N G V P L | G G R F E V V G
 L A Y E N I P G T E P L | A P E N P I | V G A G T L V G T S V | P A S S R V Y G M T
 L G W M F F R R G H D P F S P E A P F | I L A S G P L | L A G T G I | P M S S R A V A V F
 I L W K E L G H V D P L | G P E N L L | F L T G P L | T G Y Y P G V K L A V V S G
 Y L Y R H K P G I D P L | G P E N R L | F S A G L | L T G S A A P C S A R L H V N A S
 L L D K M P K G T P P L | E K E N V L L | F L T G P L | T G T S F P T S G R F V V A T
 F L L T E M K G I N P L | G P D N I L | L V L T T S V L | T G T P I | P G A N R C T V A S
 L L W E R P K G I D P | A P E A E L Y | L L T G P L | T G I A P G G A H T C L V F
 I L W D R K P G I D A L | S P D N P L | M F M P G P F S G L | P V P P S S S R T C V V T
 F Y F K Y R P E I D P L | G A E N P L | P I F M N G P | F Q G T G I P T S G R H Q I V S
 I I W D Y R A G F D P L | S P D N I F V I A M G P | L T G L S T Q G | G R G I Y Q Y
 I L F A A N G E T I D P F S G A N R V F V T G P L | T G T L A P N S G Q H A V V T
 R L L R E T P G A D P | L G P E N A L I | F A S S V M A G Q P Y V G L A S | L A V C A
 F I Y K N F H E I R G P D P S N I I | V F A S G P L | T S E I I I P Q S G R L S A A F
 L V A R Y A P F S T S Y D P S N V V V V A A G A L T G | V A P G S S K V A F A A
 I I L Y D S D A D H D A L | S E K N L L I | F G I G P S V G T G L P | A S N R C T I T A
 I I L Y K Y P Q G A D P | L G P E N K L | F I M S G P V T G T E | G F E A G R T H F V G
 V I Y K R L R E I K G P N P S N V L V F A S G P L | T S D L I P Q S G R V S V G F
 L L L R L H D P V R P L | D P E N N I L I | F A G G L L G G T R M I T T G R L H V G A
 L L M D N P A G V E P M S P E N H | L I I F A T G S F C G T S M W G G S R Y G V F T
 L A L K E I P R I D P F S P S N R L | Y I F A G P L | S A M A N L | S T S R V T V V T
 V F W D E V P K T R A Y D E A N K I | V F A V G P L | A G T G A L | C S G R T A V V T
 F L L K E H I T L N W D A P D M P V L | F F T G P L A N T P S P F S G F V V N V M S
 U n i R e f 9 0 _ D 1 A F U 5
 U n i R e f 9 0 _ C 0 Q 9 H 6
 U n i R e f 9 0 _ U P I 0 0 0 2 9 A D F 9 C
 U n i R e f 9 0 _ D 7 C L A 6
 U n i R e f 9 0 _ U P I 0 0 0 3 5 D F 7 C B
 U n i R e f 9 0 _ Q 4 6 E L 8
 U n i R e f 9 0 _ B 0 N A 9 2
 U n i R e f 9 0 _ A 9 B 5 8 9
 U n i R e f 9 0 _ C 0 Q 9 G 2
 U n i R e f 9 0 _ W 0 J I T 7
 U n i R e f 9 0 _ L 9 W K 0 8
 U n i R e f 9 0 _ Q 3 A 1 K 5
 U n i R e f 9 0 _ G 0 H Y C 8
 U n i R e f 9 0 _ W 0 J R I 6
 U n i R e f 9 0 _ E 1 R 1 2 5
 U n i R e f 9 0 _ A 1 H P 7 5
 U n i R e f 9 0 _ F 0 Q Y E 7
 U n i R e f 9 0 _ B 5 Y J L 9
 U n i R e f 9 0 _ C 0 Q E W 3
 U n i R e f 9 0 _ E 4 N U C 1
 U n i R e f 9 0 _ U P I 0 0 0 3 6 E 9 A 0 F
 U n i R e f 9 0 _ U P I 0 0 0 3 B 5 4 1 A 6
 U n i R e f 9 0 _ T 1 C B K 4
 U n i R e f 9 0 _ D 9 Q 1 B 6
 U n i R e f 9 0 _ G 2 M M W 1
 U n i R e f 9 0 _ E 6 N A M 2
 U n i R e f 9 0 _ U P I 0 0 0 3 6 F 0 A 8 E
 U n i R e f 9 0 _ X 0 X F 4
 U n i R e f 9 0 _ C 0 Q B C 6
 U n i R e f 9 0 _ F 7 X K L 2
 U n i R e f 9 0 _ F 0 K 8 I 9
 U n i R e f 9 0 _ U P I 0 0 0 3 5 E 1 2 B 7
 U n i R e f 9 0 _ Q 3 I M T 3
 U n i R e f 9 0 _ X 0 X 1 V 1
 U n i R e f 9 0 _ U P I 0 0 0 4 6 4 0 F C 4
 U n i R e f 9 0 _ Q 3 I S S 8
 U n i R e f 9 0 _ V 4 X F R 9
 U n i R e f 9 0 _ D 2 R V 3 8
 U n i R e f 9 0 _ E 3 G I 6 6
 U n i R e f 9 0 _ F 8 D 5 I 8
 U n i R e f 9 0 _ E 3 C Z A 6
 U n i R e f 9 0 _ C 9 R D 1 2
 U n i R e f 9 0 _ D 3 R Y 9 8

50 60 70 80

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

	90	100	110	120
UniRef90_M0NSZ2	I S P L T G G L L S S N A G G F M S R N F A A T G Y S A V E I L V G A S D E L V V			
UniRef90_FOLM96	K S P E S N G V V G S S V L S S E V G I E L K A S G Y D G I I I R G K A K E P V Y			
UniRef90_L0HK66	K S P E T N L I H D S Y A G D R F G P F L H R W G Y A A M I I E G R A K S P V Y			
UniRef90_Q8TJ01	K S P L T G T V I D S P L G G R L A T Q L K Q A G W D G I V I T G T A E T L V G			
UniRef90_UPI000382A3C5	R S P L T G T V I D S P L G G R L A T Q L K Q A G W D G I V I T G T A E T L V G			
UniRef90_I4A6P1	L S S W S K G I V D G H M G G H F A H A L K Y A G Y D A I I F E G K S A K P V Y			
UniRef90_U7VCA7	L S S P Y N A V G D S H M G G N F A A Q L K Y A G Y D A I I F E G K S N R P V W			
UniRef90_G7V8P0	K S P L T G T V W G E S R S G S D F G P A L R K A G I D V V I T G R A E E P S V			
UniRef90_UPI0004209B90	I S P H S E Q Y A N T G I G G S I L P T Y L K W C G Y D G I I I E G K S P V P A Y			
UniRef90_R4KP61	I N P M T G I F G H S T M G G Y L G P E I K H A G Y D R I I I R G K A P K L V Y			
UniRef90_X1G6A2	K S P L T G G W G D S R C G G D F G P N L K R A G F D H V I I E G R A E N P V Y			
UniRef90_D3PCB9	I S P L T N I V G T S S C G G P F G M E L R K N G Y E A L V I K G V A K E P T F			
UniRef90_B1YBP0	K S P L T G S L T H T N A G G N F A Y A M L R K A G Y E G I I V E G K A E E P V Y			
UniRef90_UPI0003799120	K S P L T G T W G D A N C G G G K F G P E L K N S G F D G I F I K G I S D K P V Y			
UniRef90_B8FKT8	R L P Q S R S S V G W C G G G G N F G A F M K Y A G F D F L V I T G K A D R P V Y			
UniRef90_V4JSS6	V S P L T M R W S Y S T V G G S I A V D M R Y A G A D V L L V T G R A P R P S Y			
UniRef90_S5ZN87	K S P Q T N G V V G S S V V S S E L A L E L R A A G Y D G L I V K G A S K D P V Y			
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130 140 150 160

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UniRef90_G0HYC8	L V V T D D G V E F E A V P D L A G A T V P E T L Y L D A E H G I E A Q T A V
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UniRef90_F0K8I9	I F I D E K N V K F E D A S D L W G F Y T D K T T D L L S K R H N N C E L S C
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UniRef90_G2MIR7	M N G W C G K I L K I D L S S G R T E A K R P E R W R R Y L G G K G L G A R	
UniRef90_Q2LY12	R V L Y I D L T R G E S W V E E K H D L F E E W L G G R G L A G Y	
UniRef90_A0B7L4	L Y G W T G K I L H D L D N G C I D L I R P E S G I Y H T Y I G G K G L A G Y	
UniRef90_M1PNG8	M K G L Y G R I L F I D D V T G R T F S L E P L G D A C P P L P G G K G L G T R	
UniRef90_F0JBC6	Y G Y A G K I L I V N L T D R T S Q T I D T E P Y I E W V G G H G M A S K	
UniRef90_C8WJ11	M L H A T G P L L T V E L L D D S T T V E T D I E D A A R Y L G G R G L A T K	
UniRef90_M1XP41	L Y G Y A N N L I Y I D L L S T G N V E K R K I L K E D I V K K Y F G G A G L A A Y	
UniRef90_X1JTH1	V L Y I D L L D K Q E Y R Y E Q R K D L V K Y L G G T G L A A K	
UniRef90_R7RTD8	G Y A G K F L D V D L L T R E K I K D T V I D D E T L E A Y L G G R G L G A K	
UniRef90_M7TV12	M Y G W T G H I A L I D L L T R Q Q I R T L S L S P E T Y A G H I G G R G L G G	
UniRef90_S0FUL3	M N G P K L R V L Q I D L L T E R R V G V P A D G L E H Y L G G L A A K	
UniRef90_UP100037C8238	V L Y I D L L S R K K Y W V E D R H D L F E E Y L G G T G V A T K	
UniRef90_S5Z5I4	R V L Y I D L L T N K K A D I Q E R K D L Y K Y L G G V G V A A K	
UniRef90_A4X148	D R L L R V D L L S T E S V E R V S V P D E W R R Y V G G K G L G V R	
UniRef90_D2S2B8	M S K F L R V N T T G E V K F E E V P E K Y M A L G G R A L T S Q	
UniRef90_F6CJW1	M L T I D V G D R T T S E T E I E S I H R E Y L G G R G L A T R	
UniRef90_M0LIE6	Y K G T I L R I N L S D K S V T H E Q F D G E Q L R K F V G G A G L G I K	
UniRef90_C7N2Y4		
UniRef90_X1AV49		
UniRef90_D3SYP1	M L H A K G P L L T V D V G E R T A T E T E I D D L L A E T V G G R A T A T A L	
UniRef90_L0JVF6	M K H V H G P L C S I D L D D R S S S T E D V D D V L E S F I G G R A V G T K	
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UniRef90_X0X8K4		
UniRef90_UP100046D3EED	M E A Y A G T V L D V D L T R R E V R T R R L D P D L V A R Y L G G R G L A V R	
UniRef90_R5CW60	G Y M D K V A K F D L T T G K L E D Y P W S D K E K E L Y L G G K S M A A K	
UniRef90_B2A7W4	M N N I F R V N L L S E R S V N Q V E V P E S Y Q A L G G R A L T S Q	
UniRef90_M1E7B5	M F G N N G K I A F V D L L K E R K T T I K H F N E D F Y K K F L G G S G F G A Y	
UniRef90_X1N1S5	V L Y I D L L S R K N Y W I E S R K D L F E E R I I G G T G V A T R	
UniRef90_B9LNW4	D R M L R V D L L S A E R V R S E P V P E E W L A R Y V G G K G L G A R	
UniRef90_Q3A7C8	M D K I F R V N M T D L T C K V E E V P A E F A T L G G R A L T S T	
UniRef90_D7E9G9	T S N V L Y I D L L T N E T S K L V Q R P D L F D R Y I G G T G V A T Q	
UniRef90_N0B4J6	F T G K A L E I N L S D M K Y E E I D D H H V Y E K H A G I I G L A Y E	
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UniRef90_A9A0V0	M P K I L R V N V S T R E V K M E E A P E K Y L G L G G R A L T S Q	
UniRef90_UP1000371D396	M R H A E G P L C S V D D L L T A W T V G T T D I D D V L E S Y L G G R G V G T K	
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UniRef90_X0XC74	R V L Y I D L L S K K S F T I K S R P D L F E K W L G G T G V G I Q	
UniRef90_M1E7K4	M K H A Q G P L L T I D L V E A Q T A E T T N I D D I V S T Y I G G R G L N T R	
UniRef90_V4YCA9	L V V R V N L L T D E Q I T T E T I V P Q E Y R D F F I A G K G L G A A R	
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UniRef90_X1KNN1	M Y R M L E I D L L S T G L I T K V S D L T E L F K T F G G T G V L T Y	
UniRef90_F7YYR2	K G P F N K I L L E V N L T K Q I T V C T V T K K D R V M Y L G A K G L A L K	
UniRef90_K2AM97	M I S S T F K I L L E V N L L S S G R S T I R S L P G V A T Y L G G S G L A A A K	
UniRef90_C7LNH1	Y G W A G Q I L R V N L L T T G E F S T V D T M K Y V P K Y I G G Y G I A L R	
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UniRef90_G7V558	K R A W I N L K S K E V S M E H L D E K Y T R K W G G M R G L A L P	
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UniRef90_S0G0N5	M G K I L L R V N T K E K T F T F E E T P D T Y A G L G G R A L T S K	
UniRef90_D3L4A7	M A K I L L R V N M S D R S V K H E E V P E K Y R L M G G R W L T S G	
UniRef90_W0JR77	Y G G E I L H V Y L D S G E T E R E E L A L E D A R L F L G G N G L A V E	
UniRef90_C7MLZ7	F G W T G K M L R V N L L T T H A T T T E S T E P Y K D Y I G G M G L A N K	
UniRef90_D4K0W3	Y G W T G K I L L R V D D L T T G E I T T Q D D A K Y H K Y I I G G M G M A Y R	
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UniRef90_X1AIE3	Y G Y T G K I L R I D D L T R N K I E I E E K D D L F Y R K Y M G G T C L G A Y	
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UniRef90_D8J9D6	UniRef90_V4Y7S8	M L H A T G P L L T V D V S E R S T T E S D I G S V L S A F L G G R A V A T A
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UniRef90_D2PS74	G Y F G Q A L V I D V V S D G S S T V L P L L D D V L R A Y L G G A G L G V W	
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UniRef90_Q3A7X7	M N K I F R I N M S N L L T T K C E S V P E E W A G L G G R G L T S T	
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UniRef90_F2KMS0	D H V L R V D D L S S E T V V E R E P V P A A W R R F L G G K G I G A R	
UniRef90_M0DNH0	M G K C I K V D M T T K E V K V T D L P E R Y T H L G G R L L T S Q	
UniRef90_C0GDJ2		

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50 60 70 80

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

		90	100	110	120
UniRef90_E1IHA4	R S P I T G A I G Y S W G Q G H W G G A R R A G Y D I L I I R G Q A P N W C Y				
UniRef90_E6T8Q7	R S P P V K H L I A D G H F G H F S P A M K F A G F D A I A I A I E G K A A S P V W				
UniRef90_E7QND9	V S P P L T D G L L S S N A N G G F F L S R H F A A T G Y D A I V Q V T G R S D D L V A				
UniRef90_Q9YFI0	K S P P L T G T I A W A N T G G Y V V S P A L K K A G F D A L V I V I K G K A E K P V Y				
UniRef90_X1RRS3	K S P P L T G A I I G D S Q G G G F F P A G L K F A G F D A I V I K G K A E K P V Y				
UniRef90_D2RZ62	V S S P P L T D G L L A S T S N A G G F F L S R N F T S T G Y S A V E I T G Q S D E L L I A				
UniRef90_A8MDV8	V S S P P L T S G L I H D T S V G E W F S Y M L R G A G F D A L V I V I E G A S K E P P V F				
UniRef90_X1PQ47	K S S P P L T G T I F D S N C G G S F G P E L K K A G Y D A I I I A G K S S P E P V F				
UniRef90_D2S0K8	V S S P P L T D G L L L S S N A N G G F M S R N F V D A G Y G A V E F V V G A S D E L L V V				
UniRef90_G2MIR7	K S S P P L T G T F L D S Y A G G S F P E T L A G A D C L G I V V E G A A E E P V S				
UniRef90_Q2LYI2	R S S P P L T G T A G D A S V G G S S L G T A L K K A G W D G L I V V T G R A K T L C G				
UniRef90_A0B7L4	K S S P P L T G E L G E C Y A G G R L A M A M R F A G I H E S I V I R G R A E R P C C Y				
UniRef90_M1PNG8	R S S P P L S G T I G D T S V G G R L G F Q L K R A G W D G I I I T G Q S E T P C G				
UniRef90_F0JBC6	K S S P P Q T G F Y A E S Y S S G G R T P E A I D R A G F D A I V V T G A A A D V L T V				
UniRef90_C8WJ11	I S P P F S E W Y R N S S M G M R L A G M M K E A G Y D A C L V V R G K A E A P V W				
UniRef90_M1XP41	V S P P L T D G L C S S N A N G G F F S R H V A D T G Y S A I E F V V G A A D E L L T V				
UniRef90_X1JTH1	K S S P P L T G T I W G E A D V G G S S F G D M L K R N G V D G L V V Y G S S E K P I Y				
UniRef90_R7RTD8	Y S S P P H T K E Y G E S H A G G R F A M A M A M R F A G I L D A M V I T G K S S A H P Q Y				
UniRef90_M7TV12	K S S P P L V S N G T V G S T A A T E L A H E L K T A G Y D G V I V S G K S A N P V Y				
UniRef90_S0FUL3	I S P P L T G L V G D G S M G G K M G V Q L K R A G W D G L V I T G T K S S D D T P V G				
UniRef90_UPI00037C8238	R S S P P L T G G W G E S Y A G M R L A L A L R L A G W D G I V I V I T G R A D R P V Y				
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UniRef90_A4X148	I S P P L T G E Y G E S H A G G R L A M A M R F A G I L D A M V I T G K A Q K P T Y				
UniRef90_D2S2B8	K S S P P L T G G F L D S Y A G G T F P A V L A G A L R D A I L V T G R A S E P V R				
UniRef90_F6CJW1	K S S P P L T G G I K E A N A A G G I A S Q K I A N L G I K A I I L E G K P S D W Y L				
UniRef90_M0LIE6	V S P P L T D G L L L S S N A N G G F M S R N F T A A G Y Y G A V E I I A G A S D E L L V				
UniRef90_C7N2Y4	R G G V T G L M T S A Q A N G F F G A R M R Q A G Y D V I A I E G V A E E W S Y				
UniRef90_X1AV49	E S P P L T G A W A E A N S S G G F W G P E L K Q W A G Y D G I F I S G A S P K P V				
UniRef90_D3SYP1	L S S P P L T E G L V S T N A G G Y L S R N F V E A G I S V F E V V G E S D E L L L A				
UniRef90_L0JVF6	V S S P P L T G G L L L S S N A N G G F F L S R N F T A T G Y S A L E V V T G A S S D E L L V I				
UniRef90_K0N489	K S S P P L T G L V G D S S V G G K L A T R L K Q A G W D G I V I V I K G T S Q A P V G				
UniRef90_X0X8K4	K S S P P L T G L W G E A N S S G G F Q G W R D L K R A G Y D G I V I V I E G V A P R P V Y				
UniRef90_UPI00046D3EED	K S S P P A T A T L A I Q G M P H L A T E L R L Y A G F D A V I I I L R G R A P E P V S				
UniRef90_R5CW60	I S A K T G T V A S A N C C G G T F F G Y Y L K R A G Y D A L V I I I L T G K C P E H S W				
UniRef90_B2A7W4	I S S P P L T K G I K E S N S G G T A A Q O D L A K L G L K A L V I I I E G K A Q D N Q V				
UniRef90_M1E7B5	R S S P P L T G T F S D T S A C G S S F S V H L K S A G L D A I V I I I Q N K A D K P I Y				
UniRef90_X1N1S5	K S S P P H T G N L G E S H C G G R S A I A I R L M A G Y G A V I V I V I K G V I S D P P V				
UniRef90_B9LNW4	K S S P P L T G T F L D S Y G G G A F A R L I A G S D H L G V V I I E G A A D E P V T				
UniRef90_Q3A7C8	K S S P P L T G T I K E S S N S G G T T A Q Q F A K M G L K A M I I I E G L P K E D K W				
UniRef90_D7E9G9	R S S P P L T G E L G E S Y A G G R I A T A M R F A G Y D S I V I I I T G K A K R P V Y				
UniRef90_N0B6J6	K N P L N N T Y G P A V G G G A F A R N R M K R A G Y D G I V I I I L K G K A K R H P W				
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UniRef90_A9AQV0	K S S P P Q T G I M A T A S C C G G A F F G M Q L K T A G W D G L L L V T G T A Q A P V Y				
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UniRef90_I3R640	K S S P P L T D G L V S S N A N G G F L S R N L V G T Y G Y G A V E F T G A A D E L L A				
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UniRef90_X0XC74	K S S P P L T G G W G D A N T G G H F F G S E L K S A G W D A I F V S G I A A S P P K Y				
UniRef90_M1E7K4	K S S P P L T G N L G E S H A G G R S A V S I I M M A G Y G A V I V I V I K G K S S D I P V				
UniRef90_V4YCA9	I L S P P L T E G L L S S N A N G G F I S R H I T G A G Y Y A A V E I V G N A D D P L A				
UniRef90_D3T1E9	K S S P P L T G T F V D S Y S G G H F P T M V R Y A D V L A I A I E G R A E N P M T				
UniRef90_X1KNN1	K S S P P I Y G G W G D A N S S G G Y F F G P Y L K F A G Y D G I F I T G V S E K P V Y				
UniRef90_F7YYR2	K S S P P L T G D L G E S H A G G R F W M E M L A A G F H V I K I K G Q A P E P V Y				
UniRef90_K2AM97	K S S P P L T G I F T H S S C C G G P F G M Q L K T A G W D G V L I I I T G A A K P K T				
UniRef90_C7LNH1	T S P P L H G Q Y A E S H A G G R S A L A L R F A G L D A L V I I I I G R S E R P M V				
UniRef90_E1YMH9	M L P Y P E Q F T N T S I G G H F P A R L K W N G Y D G I I I I E G K S E K P C Y				
UniRef90_B2A8M0	K S S P P L T G G I K E S N A N G G T S A D R L A R L G Y R G I I I I L E G Q A Q D Q L				
UniRef90_B1126	K S S P P L T G T G I K E S N A N G G T A Q K L A S D L I R A I V V E G R P T G F H				
UniRef90_G7V558	K S S P P L T G G F G G S S D A G G Y F F G P A L R A Q G V D A L V F K E R A T E P V Y				
UniRef90_UPI0004261B46	K N V L T G G I I A S S S C C G G Q F G V V M L K K A G V D G L I I I T G R A A T P C S				
UniRef90_S0G0N5	K S S P P L T G G I K E S N A G G L V S Q K L A K L G I T A L V V L E D K P N D Y S L				
UniRef90_D3L4A7	K S S P P L T G G I K E S N A G G T P W Q G Q K L A R L G I K A L V V E G Y G P Q D G K W				
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UniRef90_D4K0W3	R S T W S K G I I I D A H M G G H H I G P M L K Y A G W D G I V I V I T G I S A K P V Y				
UniRef90_V4XBC2	K S P P L T G A G F L D S Y G G G A F P A R L A G G S S H L G V L V T G A A D E P V V				
UniRef90_C4XHU4	I L P P L T C W P V G V G S H M G G H F F A A K L K Y A G F D A L V V E G K A D K P V W				
UniRef90_X1AIE3	K S S P P L T N L V G E S I T P G Y L G P E I K K A G Y D A I V I V I K G K A K T L S Y				
UniRef90_B1102	H S S P P L T G E W G E S Y A G M R L A L A L R F A G Y D A L V V V T G R A A H P V Y				
UniRef90_D8J9D6	L S S P P L T D G L I S T N A G G Y L S R N F A A T G C S V F E V F V G R S E D D L L A				
UniRef90_V4Y7S8	L S S P P L T D G L A S T N A N G G Y L S R N F F A A T G S V V L E I V A G A S D E L L A				
UniRef90_L9X7Y1	L S S P P L T D G L L V S S N A N G G Y L S R N F V S T G Y S V V L E I V A G A S D E L L A				
UniRef90_X1JAQ7	K S S P P L T G A Q G E A E A G G G W W G P E L K K A G F D A I I I I K G A S T N P V Y				
UniRef90_G2MM31	L S S P P L T D G L L S S N A N G G F L S R N F A G T G N A A V E L H G A A D E L L A				
UniRef90_D2PS74	K S S P P L T G T G L L T D A L A S S H F A I L A G K F T G Y D A I V V L T G R S A T P				
UniRef90_R6HJ32	K S S P P L T G T G L L T D A L A S S H F A I L A G K F T G Y D A I V V L T G Q A K R K V W				
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UniRef90_UPI0004718038	K S S P P L T G E L G E S H A G G R L A A A L R E A D I D A L I I I T G R A P H P I F				
UniRef90_K0NHX8	K S S P P L T G T G I K E S N S G G G L V S Q K L A R L G I S A L I I I E D K P D D D T				
UniRef90_Q3A7X7	K S S P P L T G T G I K E S N S G G G L V S Q K L A R L G I S A L I I I E D K P D D D T				
UniRef90_Q5V2K1	K S S P P L T G G F L D S Y A G G T F P D T L A G A D H T G I I I V T G R A S E P V K				
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UniRef90_J3EW8H	K S S P P L T G A F L D S Y S G G S F P T R L A G S E S L G V V V E G R A S E P V V				
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UniRef90_M0F5G6	V S S P P L T D G L L L S S N A N G G F L S R N V T G A G G Y A A V E L E L A G A S D D L L A				
UniRef90_D5XAZ0	R S S P P L T G E L G E S Y A G L R L G L A M R F T G Y D A I V V V K G K K A T K P T Y				
UniRef90_X1LM05	K S S P P L T G F L G D S L S S S Y W S Q T I K R A G Y D G I V I V I K G R K S P K L V Y				
UniRef90_K1Z2K7	I S P P M T Q L L A F S S M M G G F W A P E L K Y A G Y D K D V I I I L R G K S A D L I Y				
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UniRef90_V4XXM2	L S S P P L T G G L L L S T N A N G G Y L L S R N F V G T G H S V V E I T G A S D E L L A				
UniRef90_F2KMS0	K S S P P L T G N L G E S H A G G R T A T S M A N A G Y G A I V I V I K G R S K K P V				
UniRef90_M0DNH0	K S S P P L T G G F L D S Y A G G D F A G R L T G S D C L A L L V T G T A A D R P V R				
UniRef90_C0GDJ2	K S S P P L T K G I K E S N G G G L T G Q K L G A M G I R A I T I E G L P K D D Q V				

130 140 150 160

UniRef90_E1IHA4	L V I D Q G Q V R L R P A S H L L G K D T R E T D A A I R A E G N D F H V V C			
UniRef90_E6T8Q7	L K I V D D K V T L E P A D A L W G K G I F D T H A M I A Q M M G P N A Q V V A A			
UniRef90_E7QND9	V H V T D E G I E F E V P Q L A G A T V T E V G E Y M A D E H D G D E Q L V V V V			
UniRef90_Q9YF10	L L I E D G S V D L L P A E D L W G L D A V E V A L M L R R R H G D V R V L S			
UniRef90_X1RRS3	L W I T D G R Y E L R D A S H L W G A I T G E A E A T I K E E L D D K I E V L Q			
UniRef90_D2RZZ6	V H V T D D G V E F E A V P E L E E A R V S A V T E E L N D R R G L E E H L A T			
UniRef90_A8MDV8	L W V N K G K V E I R D A S R L W G M T T T R E A A R A V R E E T N R A A S V M V			
UniRef90_X1PQ47	I E I E D D R V E L K A A G A L W G K N V K E T T N L K D K G S V A C			
UniRef90_D2S0K8	V H V R D D G V T F E P V P E L K G A T V P E T T E Y L E S E H E I T V Q T A V			
UniRef90_G2MIR7	L I I D E A G A R L E P A E N W G A D T V E T A E A Y P N A S V A C			
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UniRef90_M1PNG8	I E I E D D K V Q V I V G A A E L W G K D T A T V F N I L A A G S R S V A T			
UniRef90_F0JBC6	L A I H P D G C D F H E V P Q L R G L E T Y A A E D A L L E R Y Y G R P G A M V			
UniRef90_C8WJ11	I S V V N D Q V T F N D A T D L W G L D T F E C Q E R I W D E V T H R P S V C			
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UniRef90_X1JTH1	I L I S E N K I E I K D A S N L W G K D T Y K T H E I L E K E I K N K I S A M V			
UniRef90_R7RTD8	L L I D D G V Q F R D A R A R M W G L S V E E T G K I L R Q T T H G S R S S I R			
UniRef90_M7TV12	I M V T D E G E I R D A S H L W G K L G D E T K M L N R E V G E E L R R I Y			
UniRef90_S0FUL3	I H I Q D N Q I T L A P A G R L W G M P A D R V H D T L A P G K D S L A C C			
UniRef90_UP100037C8238	L S I G P H G V R F K S A A A L W G L D C E E A G R L R Q L E P G R R S C L R			
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UniRef90_D2S2B8	L V V T N G D V N I E P A E T W G A D T V T T D E H F S D A A V V A C			
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UniRef90_C7N2Y4	I A I I D D K V E I R P A T E L L G K S T S E V Q D I L K D E M G K K V S I A G			
UniRef90_X1AV49	L L I S E G K A E I R D A S H L W G K D A N E T D D M L H Q E L E P K V K I A C C			
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UniRef90_M1E7B5	L V I D K D G V R L E E D N S L A G L G N Y E V G D K L R Q K Y G E K V T I M S			
UniRef90_X1N1S5	L Y I S Q D N I E T V D A N S L W G L D A Y Q T H E M L I E K Y K K N V S T I T			
UniRef90_B9LNW4	L L A I H D N Q I H F R D A S S L W G L D A N S L T V G R I I R E N E P S A G I M R			
UniRef90_Q3A7C8	L L S I V S G E A T I E P A S D L R G L D A A E T D A R F S E A A V V A C C			
UniRef90_D7E9G9	L L H V T M D G V T F E D A S E L L V G K Q N F D V L E A M N E K F D K K I G V M T			
UniRef90_N0B1J66	L S L H D G N I T F K D A T S L W G S S S T V D V G K I L R D P Y S G R R S I R			
UniRef90_A7NH89	I D I N S K I E I N K K A N F W G K D I V E T T K L L N S S V L A			
UniRef90_A9A0V0	I R I D G S Q V D I L P A T R L L G L D T Q A T N Q A L R R D L G D E Y A V V L C			
UniRef90_UP1000371D396	L M I T A D G A E I R D A G D L W G L E T T A C Q Q R L A A D K N T G V L A			
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UniRef90_K8E7L9	V H V R P D G V F E P V P D L E G E V P A V T E Y A D T E W D L D A Q L I C			
UniRef90_X0XC74	L S I S N Y G V R F Q S A A A L W G L T V S E T G S I L R D P G R G H R S C I R			
UniRef90_M1E7K4	L L V T D E G L E L K D A S H L W G R D T V D T E D I L R E G L I S K I R V A C			
UniRef90_V4YCA9	L S I F D N E V R F H D A R A I W G I K D A I T V G K I K E T F S G Q R S I M R			
UniRef90_D3T1E9	L H V R D D G V F F E V P D L A E A T V P E V S E Y M S D H D I R D Q L A C C			
UniRef90_X1KNN1	L R I T E G E L T L E D A T E L W G L D T K E T A R Q F E G K Q T K T A C C			
UniRef90_F7YYR2	L L F I E D G K A E I R D A A H W G K D T F E T E D M L R A E H G K Q T H T A C C			
UniRef90_K2AM97	L S I D N E V R V V V S A K A L W G M S T L A T E R I L R E R E D G K K S I L R			
UniRef90_C7LNH1	L E I T E S G V A F K D A S S L W G L D T V E T Q K R F G D K G S A L V			
UniRef90_E1YMH9	L L H V G A N V E F M D A G Y W G K D A L T T G K L L R R I L K G S G H I M R			
UniRef90_B2A8M0	L V I K N G K P S L E P A K G L W G L G L I D S Q Q I L Q D R Y K N R C D I Y G			
UniRef90_B1126	M V I N D K G V S F E A A D E L Q G L G N Y E T A K Q L L D K Y P G A G L I S S			
UniRef90_G7V558	L V I D E N K A E L V P A G N L A G M G C Y Q L N E E L W K R Y G T K S G V I S			
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UniRef90_S0G0N5	M A I L D G E V I F Q D A T P L W G L D A E A V Q E V F P K A F G K L V			
UniRef90_D3L4A7	I K I D K D G V S I E S A D D L V K K G N Y A V M E T L W N K Y G K N V G V L S			
UniRef90_W0JR77	L L H T K D G V E F F P A D D E Y I G G L Y E I F P D L F K R F G E K V S I S A			
UniRef90_C7MLZ7	V R I T E D G A S V E P A V D L A G Q G T Y E T C E A V R E R E G Y D T H V I A			
UniRef90_D4K0W3	L S V V N D K V Q I K D A S F V W G M G T R D A T S A L A R V E G T R A C V A T			
UniRef90_V4XBC2	L R I E D D Q V S L E D A S D L W G K G T F A S N K N W M V I E Q N G R E F E T A S			
UniRef90_C4XHU4	L L S L S G G E A R V E P A D D C W G L D T A E D R F P A S A V A C			
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UniRef90_D8J9D6	A S V T P G R V S F R D A R G L W G L S T E E T G R I L L W E A G R G H R S T V R			
UniRef90_V4Y7S8	V H V T D S G V E F F P V P E L A G A T V P E T S A V Y S V S E R H D L G E N C I A			
UniRef90_L9X7Y1	I V H V T D S G V E F E D V P E L E G A T V P E T S A Y L E R E R D L G A H C I A			
UniRef90_X1JAQ7	L W I K D G K V E I K D A T H L W G K E T K L V Q K I I R E Q L D E K I R I T Q			
UniRef90_G2MM31	V H V R E D G V E F E A V P V G L E G A T V P D V T E W A E E Q D L S K E H V V C			
UniRef90_D2PS74	V F V D E S G V R V L D A S Q W G L S A G Q A E E S I R T Q Y G R T W R A S			
UniRef90_R6HJ32	I S V V N D R V T F N D A E S L W G L D T Q E T Q E A L M P Q M V H D Y H I L T			
UniRef90_X1MQG7	L F I D N S E M T I L P M P E L K G G T T C L E A E G I I K E R L D T Y A H V A T			
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UniRef90_K0NH8X	I V I K K D Q V E I L A A D E Y A G M G N Y E V M E K L W D R Y G K K T G L M T			
UniRef90_Q3A7X7	L H I T M D G L T F E A A D S L V G K Q N F A I D E M I D T F G P K I G V L S			
UniRef90_Q5V2K1	L V V E A D G A T V E P A E T W G Q D T A E T D A A F P E A A V A C			
UniRef90_X1B901	L L I I T D D G K Q L L Q G N E Y K G L G N Y K L H Q R L R E K F G E N I G I Y S			
UniRef90_J3EWH8	L V V D E G D A R I E P A S D V W G A D T V E T A E R F P D A A V A C			
UniRef90_UP100046D840E	V T I R A A G V V E P A G D L W G K G A Y E A A D A L G A R C P G C G I A L			
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UniRef90_X1LM05	L F I D D D V H F K K N A K H L A G L G C F E T E A I R D E I D Q N V R V C T			
UniRef90_K1Z2K7	L W I K N D Q V E I R D A S H L K G K G A I E T A T L I C E L K P K A Q V A A			
UniRef90_C8WZA8	L I V G S R Q L Q I K D V H Y L W G H D V F S T G K L L R Q I H S Q H R S I L R			
UniRef90_V4XXM2	V H V R E D G V E F E A V P V E L A G A E V P A V T E A M A E R H G L E E H V V T			
UniRef90_F2KMS0	V V V D N G K V E H F R D A R V I W G I E D S L I V G R I K E P G R G T R T V M R			
UniRef90_M0DNH0	I V V E A D G D A R V E P A E A W G A D T V E T D A A H P D A G V V A C			
UniRef90_C0GDJ2	L V V N D D G A K L I A H P D L A G K G A Y E T T E I L R N K Y G K K A A V A C			

170 180 190 200

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UniRef90_E6T8Q7	I G Q A G E N Q V P L S V I M T Q G G H S A G G H G S V V M G S K N C K G I G
UniRef90_E7QND9	A G P A G E N R V R F A S I M T E H R A F G R G G L G A V V L G A K G V K C I S
UniRef90_Q9YF10	I G P A G E R G V R F A G I L S M S K R A N G R T G M G A V M G S K N L K A I A
UniRef90_X1RRS3	I G P A G E K G V R F A G I L S M S K R A N G R T G M G A V M G S K N L K A I V A
UniRef90_D2RZZ6	V G P A G E N R V R F A S V M T S D S R A F G R G G M G A V L G A K N V K C I S
UniRef90_A8MDV8	I G P A G E N L V K F I S N I M V E G E R A G G R G G L G A V F G S K R L K A I A
UniRef90_X1PQ47	I G R A G E K L V L L G S I M S D T F H T F G R G G V G A V M G S K N L K A I V
UniRef90_D2S0K8	I G P A G E N R V R F A S I M T S E E R A F G R G G L G A V L G S K N L K G I T
UniRef90_G2MIR7	I G P A G E Q E V L Y A T V A S D A G H H A G R G G V G A V M G S K Q L K A V V
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UniRef90_A0B7L4	I G P A G E R M V R Y A C V V V D T Y R H F G R L G L G A V F G S K N L K A I V
UniRef90_M1PNG8	I G P A A E N G V F F S A L M V D K H H V A G R S G I G L S F A A K K L K Y L S
UniRef90_F0JBC6	I G P A G E N L V A F S V I E N D Y W R S A G R C G L G A V L G S K R L K G L V
UniRef90_C8WJ11	I G P A G E N L A R V S C I V H D A G H M T G Q S G F G A V F G A K N L K A M S
UniRef90_M1XP41	V G P A G E N E V R F A S I M T T E E R A F G R G G L G A V L G S K N V K A I L T
UniRef90_X1JTH1	I G Q A G E N L V K F A S I M T D D G R A L G R C G M G A V M G S K K L K A I V
UniRef90_R7RTD8	I G R S G E N L V T Y A G V N V D T Y R H F G R L G L G A V M G S K N L K A I V
UniRef90_M7TV12	I G P A G E N M V R N A A V M S K L C H A G R Y G G Y G S V M G S K N L K A I V
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UniRef90_S5Z5I4	I G R A G E K L V T Y A N V I T E T Y R H F G R L G L G A V F G S K K L K A I V
UniRef90_A4X148	I G K A G E N L V T Y S C V N V D T Y R H F G R L G L G A V F G S K N L K A M M
UniRef90_D2S2B8	V G P A G E N Q V A Y A T I S S D A G H H A G R G G A G A V M G A K R L K A V V V
UniRef90_F6CJW1	I G P A G E M L M P A A G V T N N D S R Y A G R G G L G A V M G S K K L K A I V
UniRef90_M0LIE6	I G P A G E R E V R F A S I M T S E E R A F G R G G L G A V L G S K N V K A V T
UniRef90_C7N2Y4	I G A A G E H L L P I A S I S G D Y H H R A T S N G P G L A M G A K K L K A V C V A
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UniRef90_D3SYP1	I G P A G E N L V R F A S V M T F D S R A F G R G G L G A V L G S K N V K C V T
UniRef90_L0JVF6	V G P A G E N E V R F A S I M T S K E R A F G R G G L G A V L G S K N V K A I T
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UniRef90_R5CW60	G T A G E E F G E N A G V F S R D R A E G S S G I G A V F G W K N L K A V A
UniRef90_B2A7W4	I G P A G E Y K M T A A S I I A V T D T R A F G R G G L G A V V M G A K G L K A I V
UniRef90_M1E7B5	I G Q A G E N L V K F A C V V S N A H G F G G R G G A G V V M G S K N L K A I V
UniRef90_X1N1S5	I G G A G E N L V S Y A C V V T A E T Y R H F G R L G L G A V F G S K K L K A I V
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UniRef90_A7NH89	I G P A G E A G V A Y S A I I V A E G A F A V E P A G A G A I M A R K R V K A I A
UniRef90_A9A0V0	I G P A G E N R V R F A N I I A S G H R F L G R G G M G A V V M G S K R L K A V V
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UniRef90_F7YYR2	I G P A G E R L S P I A C V V V D S S R H F G R L G L G A V V M G S K N L K T V
UniRef90_K2AM97	I G P A G E N G V L F A N I I A S G H R F L G R G G A G T V M G A K N L K A I L
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UniRef90_S0G0N5	I G Q A G E E C L K G A S I I N Q A D G R A H G R G G L G A V V M G S K K I K A I V
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UniRef90_D4K0W3	I G P A G E N L L V D Y S T L N T S T F G N S G G G A L G A A M G N K K L K G L A
UniRef90_V4XBC2	I G P A G E A V R Y A T I I A S D G G H H A G R G G A G A V V M G T K R L K A V V V
UniRef90_C4XHU4	I G Q A G E N L A P M G M V I S S V S H S A G G V G G I M G G K N L K A V A
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UniRef90_L9X7Y1	I G P A G E N L V R F A S V M T F D S R A F G R G G L G A V V L G S K N V K C V T
UniRef90_X1JAQ7	I G P A G E N L V R F A N I I V N E L K H F N G R N G L G A V V M G S K K L K A I A
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UniRef90_K1Z2K7	I G M A G E N R V Y F A S I I E Q G R S S A S R G G I G A V V M G D K G V K A I V
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UniRef90_V4XXM2	I G P A G E N L V R F A S V M T S D T R A F G R G G L G A V V L G A K N V K C V T
UniRef90_F2KMS0	I G G G G E K L V R Y A C V T T E T Y R H F G R L G L G A V V F G S K N L K A I V
UniRef90_M0DNH0	V G P A G E R G V A Y A A T I I A S D A G H H A G R G G A G A V V M G S K R L K A V V V
UniRef90_C0GDJ2	I G P A G E M L M A N A G I I A N C C D S R Y C G R G G L G A V V M G S K R L K A V V V

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 V|H G [V]P N |K V A
 V|K G T G S [V]E I
 F G G D S R P E V
 V|R G N P D |P P A
 V|R G S G K I R I A
 I|S G T E D V A I
 V|R G S G N [V]R I
 F S G D R R R E M A
 F I|G S K S |P I A
 V|G G D S R P D L

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

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 I|E G N G S
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 A P Y P K A |P
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 V|E G D M P [V]Y V
 I|R G T G S V K V A
 A R
 V|Q G S G A [V]R I A

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 F A G D S A P E I
 F S G D S A P D V
 F D G D
 V|R G S K T |L K I
 F D G D A A P D L
 V|K G R K R V S L A
 F L G T K S I E I A
 V|R G H K D |P I
 V|S G S G A
 V|D D K G
 I|D D T G K [V]P I A
 V|R G E P P T D L A
 I|K P T K E S K V
 A R G D
 V|D D A G G P
 F D G E A D
 V|K G E E G |L A I

 V|R G T K D |H L A
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 I|N G R G S R K V
 A R D D
 I|D

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UniRef90_E7QSI8	T A R L L R I D L L S S R R A E S E P V P A S W S R R F V G G K G L A A R
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UniRef90_B0TSU2	G W T G K V L H L D L L N T W Q S V I Q Y P A Q T L Y E R C L G G R G L A G Y
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UniRef90_B3E4L1	G W A G K V L V D L L T T G V I H V E P T S Q Y H P Y I G G M G I G Y K
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UniRef90_W0JRX7	D K I I Y R V N M T T M D F S I E E A P A E W M G L G G R G L T S T
UniRef90_Q7M866	G T S N K V L E V D L T Q Q T F D V V T I T D R D R K M Y L G G K G L G L K
UniRef90_A8ZV03	M N K I L R V N M K E L T V K A E P T R K E Y Q F L G G R A L I A R
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UniRef90_E3PWY8	M Q K F I R I D M A T L K H E I T D V P E K Y A G L G G R A L T S S
UniRef90_E6VS83	R I M K V D L L T T G K A N L I E R D G R D Q Y L G G T G L A A M
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UniRef90_Q1JWU6	M D K I I F R V N M T D L L T T V E D V P E A W L G L G G R A L T S T
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UniRef90_UP100037FFFE9	G Y N D N I A I V D L D H N K V N Y E K I S Y E D K I N F L G G R G L G V K
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UniRef90_K2BXF3	E I H P S Q E D Y R R F L G G Q A L G K H
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UniRef90_S7U2A3	K F I I R V D M S S K S A K T E E C P A Q Y A G L A G R G L T S L
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UniRef90_X1SFE4	G Y Q G T L L R I N L T S G K I G E E K L T D N L V E N Y L G G R G I A S K
UniRef90_H0UQ61	W V D L L S S R R T S R E L V D E T E S R R W G G A K G L A L P
UniRef90_D8EX58	M F K I I R V N M T E L S T S S E E I P S D Y Q G L G G R G L T A A
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UniRef90_V4J446	H G Y A G K I L R L D M T N R K A V A I D T A P Y R R W G G G H G M G S A
UniRef90_X1SM66	K I L R I N M T D L S V L E E V V P Q D Y V G L G G R A L T S M
UniRef90_R4KP07	K I C R I N M R N K S I T Y E E V K S E Y M A L G G R G L T S K
UniRef90_E3H9I1	D R I I L R V N M T H L T V A S E P L P Q E Y R Y L L A G R A L T S R
UniRef90_A1HUB8	F G F C G K I V R V D L S K S K V N V D S L G E T I F R D Y L S G S G I A A K
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UniRef90_B9L4E7	L L L R F P P R V D A W A P E N P F V L A A G P F I G T G L L T T S S K L A I A T			
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UniRef90_BOTSU2	V L W D N H K D I K A T D E G N R L I I S A G P L L S G S G A I C S A R T T I T S			
UniRef90_M1WNF5	F M R S A C T C E P D H P D L P I L I F T G P L S G T M I P T S G R G T I M S			
UniRef90_F8DC92	Y L Y E E E A G A E P L G G E N A L F L T G P L T G H L P G E Q R Y V V V T			
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UniRef90_X1CYC7		G T G A P S S N R Y M V V T T		
UniRef90_F0JH9	Y L S P F A D R D H T D P D L P L L L F T G P L T T G E S P T S G R G S I V S			
UniRef90_B3E4L1	A L L Q E Y A G L D P L S P E M P L V L T I G P L C G T P V P M S S R C V L T G			
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UniRef90_Q3AOL9	V V A A E I P P T C H P G P N N K L V F A P G M L S G T P A A N S G R M S L G S			
UniRef90_D6SRJ2	L F S H F G P G E D A F H P D Q P L I L A I G P L T G Y F P L M S K T I M G F			
UniRef90_A5G482	I V A A E V P D C H P G P N N K L V F A P G L T G T A A A N S G R L S A G A			
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UniRef90_D3L0G4	L L W D A V K D T K W N D P E N E L V I S G G P L C G I Q Y P G S G K C Y T V F			
UniRef90_UP10003B7B26B	V L L K R N R E T D P L S P E N T I V I A A G L L N G L A F S G T C R Y G V Y A			
UniRef90_X0XKL5	Y V F D N G P T V D P L S P D N L L C F M V G P L T G T D V N M S G R M A I V T			
UniRef90_A8GZ52	L F W D L C E D I D G R D P R N I V T I A G S P F S G T N V P S A G G R C E V T			
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UniRef90_A6TSX8	L L K E Y C K L R E P L A S E Q P I I V T K G P M N T I F P V V T K A C T M F			
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UniRef90_B8DIU9	L Y E A Y G P G A P A E D P R Q P L I F A V G P L T G Y Y P L M S K V V C G F			
UniRef90_Q8TRL9	M L E E Y K E G T E P L D P E M P V I L S T G P L S G V Y P T C T K T V A L F			
UniRef90_G2MKY8	L A H D R P F D A D P F G P E N R A Y L S T G P L Q M S R M S F T G R M N M T G			
UniRef90_M0BU53	Y L Y E E E A G V D P L G P S N A L L F M L G P L S G R L P G E S R Y V V V T			
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UniRef90_X0WPQ4	M L N Q M K P H T D P L S P D N L L I F A P S V I T G V P A P A L P R Y T V C A			
UniRef90_G2MKM2	T V E D H P T D A D A L D P E N V I T L S V G P M T G T R F Q S T S R G V A G F			
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UniRef90_L9UJ84	L L Y K L D P G T D P L S P S N V I V I A L L G P L S G I A P G E D R F A V V T			
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UniRef90_C9R953	L F M E E A W D K P P L A P E Q P I I F A I G P F S G I Y P L A T K V V A V F			
UniRef90_C6BU89	L F D K Y H V D R P W D D P Q P L I F S I G P L T G L F P L M S K T V C S F			
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UniRef90_X0T067	I L V S E C P T C D P L G P D N V I V M A P G L L A G S A A P T S G R I S F G G			
UniRef90_A5CZ02	F V A D E V K P T C H P G K N N K L I F A P G L L T G T T A A N S G R I S V G A			
UniRef90_E3PWY8	F V N D E V I P T C H A G K N N K I I F A P G L L S G T S A P N S G R M S V G A			
UniRef90_E6VSB3	L F D E F H M D R D W D D P D Q P L I F T I G P L T G Y Y P L M S K T V C C A F			
UniRef90_E1JYZ6	L Y S K Y G P G E A P F D P R Q P L I F A I G P A T G Y F P L M S K T V C G F			
UniRef90_F6B7G4	F I L D E D P K C H P L G P N N K L I F A P G L L G G T S C P N S G R L S V G S			
UniRef90_Q1JWU6	I V A T E D P E C H P L G Q F N K L V F A P G L L S G T A A A Q S G R M S C G A			
UniRef90_M1XL14	L A F D R P F D A D P L G P Q N R I Y V A I G P M Q A S T T S F T G R T S A T A			
UniRef90_R5D6C7	L L G D S K N A A D L I V I T T G P L T G T G A P G S N Y F S I S A			
UniRef90_B9M8F2	I V A K E V P P T C H P G E N N K L V F A P G L L S G T T A A N S G R F S A G A			
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UniRef90_D5U0S3	L L A R E F R E L L D P L S P D N P L L L L T G P L T G Y Y P G V K L S V S G			
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UniRef90_X1D280	I T C D E V P N C H P L G L N N K I I I A P G L V S G T N A P T S G R I S I G G			
UniRef90_S7U2A3	F V A G E V K P T C H P G K N N K L I F A P G F L S G T T A A N S G R I S C G A			
UniRef90_M1PE03	I V A A E V P P T C H P G P N N K L V F A P G L L S G T T A A N S G R I S A G A			
UniRef90_X1SFE4	I L M D E V K N I D P L G P G N N K I I F T G P L T A T V I P T T S R L I C I S A			
UniRef90_H0UQ61	V L M E R S P C V D P L G P D N V F I L A A G L L T G M P F H G M C R Y G A Y A			
UniRef90_D8EX58	I I N K E V D P C S P L G A N N K L V F A P G L L G G T N C A N S G R I S V G G			
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UniRef90_X1SM66				
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UniRef90_E3H9I1	I I S E E V D T C H P L G K N N K L V I A P G L L S G S M A P S S G R L S V G S			
UniRef90_A1HUB8	M V F D E V P Y A E P L G P Y N K L I F A C G L L A G T T I S C A N R L S I G A			
UniRef90_X0WEV5	I L S Q E Y D N F D P F D A N S P I V F M A G L L T G T P V P A A C K A S F C A			
UniRef90_Q30Y19	M V L D E V P D T H A L S A D N K I V A A I G L L S G T T A A A N S G R I S L G A			
UniRef90_Q6AKC0	I V A A E V V P T C H P G E D N K I V I A P G L L S G T T A A N S G R I S V G A			

	90										100										110										120											
UniRef90_G7WGK1	L	S	P	L	T	G	E	M	G	E	S	Y	A	G	G	R	L	A	L	S	M	A	G	Y	D	A	V	V	I	S	G	K	A	R	P	S	Y					
UniRef90_U1QC84	K	S	P	L	T	G	A	F	L	D	S	Y	A	G	G	T	F	A	A	R	L	A	G	S	D	C	L	G	L	L	V	T	G	A	A	S	E	P	V	R		
UniRef90_E7QSI8	K	S	P	L	T	G	T	F	L	D	S	Y	S	G	G	F	P	D	H	A	A	N	H	V	G	L	F	T	G	A	S	A	D	P	V	S						
UniRef90_D1B853	R	S	P	L	T	M	G	Y	G	E	S	A	G	G	F	F	G	P	G	I	R	S	Q	G	V	D	S	L	V	L	T	G	R	A	D	E	T	C	Y			
UniRef90_X0Y0J2	L	N	A	L	T	G	G	L	G	S	S	S	A	G	G	N	F	A	V	E	L	R	Q	S	G	I	D	H	V	L	I	T	G	K	A	Q	H	P	V	Y		
UniRef90_K8ELD8	K	S	P	L	T	G	G	I	K	E	A	N	A	G	G	I	C	S	Q	K	L	A	N	L	D	I	K	A	V	I	I	E	G	K	P	A	E	K	W	M		
UniRef90_B9L4E7	T	S	P	Q	T	G	F	F	G	D	S	L	T	S	S	Y	L	A	L	V	L	R	R	T	G	F	D	A	L	V	V	V	G	R	A	P	R	W	S	V		
UniRef90_X1LST4	K	S	P	L	T	G	G	Y	A	K	S	E	V	G	G	F	W	G	A	E	L	K	H	A	G	Y	D	A	I	I	I	E	G	K	S	P	T	P	V	W		
UniRef90_B0TSU2	R	S	P	V	I	R	Q	I	T	D	G	H	F	G	G	H	F	S	P	E	L	K	Y	A	G	Y	D	A	I	I	I	E	G	K	S	P	T	P	V	W		
UniRef90_M1WNF5	R	S	P	L	T	G	G	V	F	D	C	S	V	G	G	N	L	A	T	R	L	K	Q	A	G	W	D	G	L	V	I	T	G	K	S	D	I	P	C	Y		
UniRef90_F8DC92	K	S	P	L	T	G	A	F	L	D	S	Y	A	G	G	S	M	A	D	R	L	A	G	S	D	H	V	G	I	L	V	T	G	C	A	D	E	P	V	A		
UniRef90_L0AJI8	K	S	P	L	T	G	F	L	D	S	Y	A	G	G	T	F	A	E	R	L	I	A	G	S	D	C	L	A	L	V	T	T	G	E	S	D	E	P	V	H		
UniRef90_Q2FPK9	K	S	P	L	T	G	N	L	G	E	S	H	A	G	G	T	A	V	A	I	R	S	A	G	Y	G	A	I	V	T	T	G	K	A	S	H	R	P	V	Y		
UniRef90_A8F6W9	K	S	P	L	T	G	D	L	G	E	S	H	A	G	G	R	L	S	M	A	M	Y	A	S	G	F	H	V	L	K	I	T	G	K	S	E	K	P	A	Y		
UniRef90_R4KMH1	K	S	P	L	T	G	G	I	K	E	S	N	S	G	G	S	A	S	Q	K	L	A	K	L	G	V	K	A	V	I	I	E	G	L	P	A	E	D	K	F		
UniRef90_Q64AS9	K	S	P	L	T	G	N	L	G	E	S	H	C	G	G	R	S	A	M	A	R	L	Q	A	G	W	D	G	L	V	I	T	G	S	S	D	I	L	L	Y		
UniRef90_R5EKM3	M	Y	P	T	T	P	I	I	G	S	A	H	C	G	G	R	S	A	M	A	R	L	Q	A	G	W	D	G	L	V	I	T	E	G	K	A	K	K	P	V	Y	
UniRef90_X1CYC7	K	S	P	L	T	G	A	I	A	E	S	S	A	A	G	N	F	S	T	S	L	K	Y	A	G	Y	D	M	I	I	I	E	F	E	G	K	A	K	K	P	V	Y
UniRef90_F0JIH9	R	S	P	L	T	G	T	V	C	D	G	S	I	G	G	G	P	L	P	T	R	L	K	K	A	G	D	G	L	V	I	T	G	R	S	Q	T	P	C	G		
UniRef90_B3E4L1	R	S	P	L	T	N	T	I	F	S	T	S	G	G	P	L	G	P	C	L	G	A	G	T	A	V	L	V	Q	G	T	A	S	P	C	L	V	P	Y			
UniRef90_B1L5V1	K	S	P	L	T	G	N	L	G	E	S	H	A	G	G	R	A	I	S	R	L	R	M	S	G	F	G	A	I	V	I	K	G	A	S	R	T	P	I	Y		
UniRef90_A0LIB6	K	S	P	Y	H	D	Q	Y	A	E	S	H	A	G	G	R	S	A	L	S	L	R	F	A	G	F	D	A	L	V	I	R	G	K	A	L	P	S	C			
UniRef90_X0WJZ3	K	S	P	H	T	G	F	L	D	S	Q	V	G	G	H	F	G	A	Q	L	K	M	A	G	F	D	C	L	T	V	T	R	G	K	A	H	A	P	V	Y		
UniRef90_V7I8R6	K	S	P	L	T	G	G	I	K	E	N	A	G	G	T	A	S	G	R	S	M	A	R	Q	G	L	A	I	V	I	E	G	A	E	G	S	W	I	N			
UniRef90_E1STK0	R	S	P	V	R	G	I	T	D	G	H	F	G	H	F	S	P	A	L	K	F	A	G	Y	D	A	V	V	F	E	G	K	A	E	P	V	W					
UniRef90_Q3A0L9	K	S	P	L	T	G	G	I	K	E	S	N	S	G	G	T	T	A	Q	Q	F	A	R	M	G	I	K	L	I	I	E	G	H	P	Q	E	D	K	W			
UniRef90_D6SRJ2	M	S	P	Y	N	N	Q	Y	A	E	S	H	G	G	R	S	A	L	A	L	K	F	A	G	Y	D	A	L	V	V	V	R	G	K	A	E	K	P	T	C		
UniRef90_A5G482	K	S	P	L	T	G	G	I	K	E	S	N	S	G	G	T	A	Q	M	L	A	R	L	G	I	K	A	L	I	I	E	G	K	A	D	K	W	Y	N			
UniRef90_C5C11	K	S	P	L	T	G	N	L	G	E	S	H	A	G	G	R	L	G	L	S	L	Y	E	A	G	Y	H	V	L	R	I	R	G	K	A	K	E	P	S	Y		
UniRef90_D3L0G4	R	S	P	L	T	E	Q	T	Y	D	S	N	A	G	G	Y	F	G	P	L	K	F	S	G	W	D	A	L	E	V	Q	G	K	S	D	R	D	V	I			
UniRef90_UP10003B7B26B	R	S	P	L	T	G	A	L	G	E	S	H	A	G	G	S	F	G	P	A	M	R	A	Q	G	V	D	A	V	L	E	A	A	S	E	K	P	V	Y			
UniRef90_X0XKL5	K	S	P	L	T	G	T	V	D	H	S	H	G	G	R	S	A	R	L	R	W	S	G	F	D	G	I	L	F	Q	G	K	S	E	K	P	V	Y				
UniRef90_A0GZ52	N	V	S	P	R	N	R	F	T	R	S	N	F	G	G	H	F	S	M	M	K	H	A	G	W	D	A	T	I	T	T	G	K	A	P	Y	P	V	Y			
UniRef90_X0VXZ6	K	S	P	Y	H	D	Q	Y	A	E	S	H	A	G	G	R	S	A	L	S	L	R	F	A	G	D	F	C	L	T	V	T	R	G	K	A	H	A	P	V	Y	
UniRef90_UP100037C1B8D	K	S	P	L	T	G	V	A	G	E	T	H	A	L	G	P	F	A	M	R	A	G	V	R	A	L	A	V	T	T	G	R	A	A	R	L	S	Y				
UniRef90_D3RYL0	K	S	P	L	T	S	N	I	G	E	S	H	A	G	G	R	S	A	A	I	A	N	A	G	Y	G	A	I	V	I	K	G	R	S	R	K	P	V	Y			
UniRef90_X0XA42	K	S	P	L	T	G	A	I	G	D	S	Q	G	G	F	P	A	E	L	K	F	A	G	F	D	A	V	V	V	V	G	K	S	E	K	P	V	Y				
UniRef90_A6TSX8	K	S	P	L	T	G	E	L	G	E	S	H	A	G	G	R	L	A	M	M	G	G	A	G	I	D	A	V	V	M	V	G	S	Q	T	P	I	Y				
UniRef90_R6ASP8	R	S	P	T	I	Y	P	I	A	S	A	H	I	G	G	D	M	A	A	R	L	K	Q	A	G	Y	D	F	I	I	E	G	K	S	E	K	P	V	Y			
UniRef90_D5XAY4	K	S	P	L	T	G	G	I	K	E	S	N	A	G	G	T	A	Q	K	L	A	R	L	G	I	K	A	L	I	I	E	G	Q	P	E	G	D	K	F			
UniRef90_O30159	K	S	P	L	T	G	N	L	G	E	S	H	A	G	G	R	T	A	V	S	I	A	A	G	Y	G	A	I	V	I	K	G	A	S	K	K	P	V	Y			
UniRef90_B8DIU9	R	S	P	Y	N	Y	Q	A	E	S	H	A	G	G	R	L	A	L	R	F	A	G	Y	D	A	L	M	I	T	T	G	A	R	T	L	S	C					
UniRef90_Q8TLR9	R	S	P	L	N	G	E	L	G	E	S	H	A	G	G	R	F	P	V	A	L	R	F	A	G	Y	D	A	V	V	V	G	E	S	N	E	L	L	A			
UniRef90_G2MKY8	K	S	P	Q	T	G	V	M	V	S	S	C	G	P	F	G	M	A	L	K	T	A	G	W	D	G	I	I	K	G	T	S	E	K	P	V	W					
UniRef90_M0BU53	K	S	P	L	T	G	G	F	L	D	S	Y	A	G	G	R	S	A	M	R	L	G	L	R	G	K	V	K	V	V	V	G	Q	H	P	A	V	Y				
UniRef90_W0JRX7	K	S	P	L	T	G	G	F	L	D	S	Y	A	G	G	R	S	A	M	R	L	G	L	R	G	K	V	K	V	V	V	G	Q	H	P	R	P	T				
UniRef90_Q7M866	K	S	P	T	M	G	F	F	D	S	T	F	G	G	S	P	F	P	A	Q	K	T	T	G	F	D	A	I	T	E	G	I	P	E	K	D	T	W				
UniRef90_A8ZV03	K	S	P	Q	T	G	V	M	V	S	S	C	G	P	F	G	H	M	A	L	K	T	A	G	W	D	G	I	I	E	I	P	R	E	K	Y	L					
UniRef90_F6B4D6	K	S	P	L	T	G	G	F	L	D	S	Y	A	G	G	R	S	A	M	R	L	G	L	R	G	K	V	V	V	V	G	Q	H	P	R	P	T					
UniRef90_V4JPH6	R	S	P	L	T	G	L	G	D	S	N	A	G	G	R	T	H	F	S	E	M	K	F	A	G	Y	D	Q	V	V	V	G	Q	H	P	R	P	T				
UniRef90_X0WPQ4	K	S	P	L	T	G	Y	H	N	Q	Y	A	E	S	H	A	G	G	R	S	M	S	G	S	A	L	R	F	A	D	D	V	L	V	V	G	K	A	R	L	S	A
UniRef90_G2MKM2	K	S	P	T	M	G	F	F	D	S	T	F	G	G	S	P	F	A	Q	K	T	T	G	F	D	A	I	T	E	G	I	P	E	K	D	K</						

130 140 150 160

UniRef90_G7WGK1	I A I E G D D □ Q L K D A R P I W G M D S D V V G Q F L R D S E Q G R R S I L R
UniRef90_U1QC84	I D V S E G E A T I A P A T T W G D D T T Q D T D A A H P D A A V A C C
UniRef90_E7QSI8	V R I E D G D A T V E P T D E □ L W G S T V E E T C D A F E R P T A C
UniRef90_D1B853	L W V Q D R Q V S V I P D P A M A G M E T G E V M D R L R D R H G D C T A V V
UniRef90_X0Y0J2	L W V H D G K V E I R R A D □ V L W G Q D T T S T E H L Q E Q L G D E I A V A C C
UniRef90_K8ELD8	V K I S P D G A E L L P A D D L A M K G T Y E V T A I L R E R Y G S K V G V I C
UniRef90_B9L4E7	L F V D D D Q V R L L P A E H L G R D P E E T A A T L R S E L G R D I R V A A
UniRef90_X1LST4	L W I H D G E V S I R D A S H L W G M K T K E T E Q T I R T E L G D S I R V A G
UniRef90_B0TSU2	L K I I D D E V T L E P A D T I W G K G M F D T F A A V A K M M G Q Q A Q V A A
UniRef90_M1WNF5	L E I R D D T V L I R D T E F W G E S C D H V C S H L Q H D T S T S V A V
UniRef90_F8DC92	L E V A D G E V S I E P A D D W W G L D A R E V D E R V P D A A V A C C
UniRef90_L0AJI8	V V L E G G T A A L E P A E T W S H D T V E T A E A Y S D A A I A C
UniRef90_Q2FPK9	L S I T K D G V A F R D A R A L W G T G R S D T A A R I K D G T P G T R T I L R
UniRef90_A8F6W9	L S V D N E R V E I V S C K S L W G R S A L S T E R I L R E K E D T K K S I I R
UniRef90_R4KMH1	L H I D N N G I K I E Q E T E L L G K G N Y E V D R L S K K Y G D K I G V I T
UniRef90_Q64AS9	L A I D G N K V K F R D A S S I G G M D A Q T V G R I L R E A E T G S R T I I R
UniRef90_R5EKM3	V Y V N N D D V Q I R K A K A N H W G E G T R R A A A L I N Q E T S P T A S V T V
UniRef90_X1CYC7	L W I D D D N V E L R D A K N L W G K T T G E T E V T A I A E T A P E A K V A C C
UniRef90_F0JIH9	I E I D D D T V R V V E T S L W G R D T D A V L H E L E Q R L P E D T S L A C
UniRef90_B3E4L1	L E E I G P T G E R L I P A D Q L W G L G C G A A L Q Q L G Q F G A A A V
UniRef90_B1L5V1	L S S I H D G R V E F K D A S S L W G V V R S S L T L G K V R E P W P G L R S I M R
UniRef90_A0LIB6	L S S V G S R H L E L K D V H F L W G M D L L R T G K M L R R M Y E G H R S I L R
UniRef90_X0WJZ3	L H I K D G Q C R I L D A R E L W G K G V F E T E R I L K K R H P G A K V G S S
UniRef90_V7I8R6	L R I S S S G S E L L E A P E F A G L G T Y E T T S R L L D R F G R D S S V I S
UniRef90_E1STK0	L R I E D D E V R L E S A A A L W G K G M H D T F A W V A K T M G Q S A Q V A A
UniRef90_Q3A0L9	L H I T M E G V T I E E E T E T V G W Q N F A V I E A M E K R Y G D K I G V M S
UniRef90_D6SRJ2	I G L G S R E V H I Q D V H F L K G M D I F K T G K K L K P T N P G H R S I L R
UniRef90_A5G482	L H I V N K D G V T I Q E E T E L L G K G N F A V I E D L E A R E L G K K T G V L T
UniRef90_C5C111	I V I E N D R V K L K Q A Y S L K G M S A L A T E R V L R D R E H G K R S I I R
UniRef90_D3L0G4	L F I D D N N K V E V Y E S P F E D I N A V T I T E A L H E Y F K R N I S V S
UniRef90_UP10003B7B26B	L W V E N G S V T V H D A S D L W G K T N R E T F E T L A A R R H G R I I S A L L
UniRef90_X0XKL5	A Y V E N G E V E L R D A S D L W G K G V H D T V K A L L D R H G D D V S V V A
UniRef90_A8GZ52	I D V R N H H V M I R D A S H L W G K D T H E T Q Q F I Q E N T T Q K A S V L A C
UniRef90_X0VXZ6	L E I K D D K V Q L K D A N E F L W G R G T F Y T T E K L K E L F D E K A K V A C
UniRef90_UP100037C1B8D	L L V E D G E V S V R D A E E L R G L G T A A T T D A L R A R H G G D A S V A A
UniRef90_D3RYL0	V V V D E D K V H F R D G R V I W S I Q D S I V T V G R I I A E R E K G R G V M R
UniRef90_X0XA42	L W I Q E G K Y E L R D A S H L W G L I T G E A E A T I K E E L D E K V I E V L Q
UniRef90_A6TSX8	I H I D G E K V H F K E A S A L W G L K I D E T T R L L H E Q M W G I R S I M V
UniRef90_R6ASP8	L Y I N N D N F E L R D A K G I W G Q G T R R A Q Q M L A D Q T S P M A S I A V
UniRef90_D5XY4	I H V D K N G C R V Q V G E N E V G K G N Y E V V A R L T E K F G S K I G V L T
UniRef90_O30159	L V V E P G K V H F R D G R V L W G I P D S L I V G R I L A E N E S G R G M M R
UniRef90_B8DIU9	L V V G S R R L E V H D V H Y L R G Q D V F V T G K Y L R R F G K D H R S T V R R
UniRef90_Q8TLR9	V T V H D D K V A F R D A S S I W N L S S A I D V G Q I L R R V E P G A S I I R
UniRef90_G2MKY8	I H V T D P E V R F E E V P E L E G A R T S A V S E Y M D E H H G L G E N C I T
UniRef90_M0BU53	V V V E D G A T V E P T D A W G E D T I E T A A A H P D A A V A C
UniRef90_W0JRX7	L S V T G G D V T I E S S S E L W G L D A A E V D E R F P D A A T A C
UniRef90_Q7M866	L H I T K E K V E F F P V P E L V G K N N Y E V L D Y M L E K Y H K K V A V M S
UniRef90_A8ZV03	L L L D S K G V T F K D A A D L W G K D T Q E T Q A L L A K E G Q S L V
UniRef90_F6B4D6	L K I T A D G A E L I P A G E Y W G L G V Y Q T A L L R Q Q F G D K V A V S C
UniRef90_V4JPH6	L Y V T E S G V E F M D A E G L W G L R V S E A H E A I R R E K D P R V Q V A V
UniRef90_X0WPQ4	L Y I K D G K V E I K D A T H L W G K D T G A T Q K I I K E E A D D K V R I A Q
UniRef90_G2MKM2	V N V T E E G A T L E P A D E L A G F D T Y E T C E A I R E R E G Y D T H V L A
UniRef90_UP10003FAEA0D	L H I S R E G V A I R E D G T L Q G L G N F A V L E A L Q A R Q A R K I G V I C
UniRef90_L9UJ84	L V I E D G D A R L E R S D C Y W G L D T V E T D D R V L E R A G P G W E L A A
UniRef90_E8R270	L W I D G L D P S H D D A G D V W G L P A A V A E R R L L E R F E R G R R S I W R
UniRef90_C9R953	L V I D E K G V A F K D A R G V W G L D T E E T G R L L R F E R G R R S I L R
UniRef90_C6BU89	L S L G M R H L E V K D V Q F L A G K D V F S T G K I L R S M F P G H R S I L R
UniRef90_A9WAX1	L L L D G D T V R L R S A R H I G R D T V A T T A A L S Q E L G S D V R I L L A
UniRef90_X0T067	L E I T A K G A A I V E A D D T K G L W N Y A L C E K L C E R Y A K T A S F I S
UniRef90_A5CZ02	I K V T M D G V T I E D A P E I I G K G N Y E A I R V L N A K Y G D K V G I A L
UniRef90_E3PWY8	Y V I K D M N E P A E I L G G C G N Y D A I R I L G E K Y G S H V G I A I
UniRef90_E6VSB3	L A V G S R R I E L I D V H Y L R G A D V T T G K L L R K I A S G H R S I L R
UniRef90_E1JYZ6	Y V I D G A V V E E A P A E I I G K G N Y E A I Q V L N K K Y G E K V G I I
UniRef90_F6B7G4	Y V I T K D G V S I A A E E S E L L G S G N F A V I D A M V E K F D K K I G V I T
UniRef90_Q1JWU6	L H I T K D G V S I A A E E S E L L G S G N F A V I D A M V E K F D K K I G V I T
UniRef90_M1XL14	V V V T D D D G V A F P D V P E L A E A T V S T V A H V D E A R G V G A A V V C
UniRef90_R5D6C7	L G I L N E H F T L H K A G G I W G K T V S T T N A E L Q R N C R V K C G M L T
UniRef90_B9M8F2	L H V N K D G V S I A A E E S E L L G K G N F A V V E T L E K R L G K K T G V I T
UniRef90_M0FW75	L V I E D G S A T I E A A E T W G A S T V E T A R A F P N A S V A C
UniRef90_UP100036B67DF	L L V D A E G A R V E P T P E L A G L S A A A E D V L R E R F G R G W R A A V
UniRef90_D5U0S3	V F V E N G N V E I R D A S S I W G L G G L K L I K Q F N S L L K E D V K F V Y
UniRef90_X1RCN4	L S I R D G E A E I K D A A H L W G K T T G E A Q A I I R E E L G N E H V I V A
UniRef90_UP100037FFFE9	I I I A K D G T I A I E D A S S L W G K N N S E V I K L R A K H G D S R I L S
UniRef90_E6NBK6	M V M T D D G I S F V D V G E R G L G A V E T C A A V R L L A G D A R V L A
UniRef90_K2BXF3	M V I T R K G I F L D D A S D L A D T P N S V T E E I L K T K H S G K P A I I S
UniRef90_X1D280	L H I N K D G A E L I P A D D L E G K G M Y E V D V N F L G Q R Y G N V A I I G
UniRef90_S7U2A3	Y V I D G V S F D E A P A E T L G G M G N Y D V V K V L Q A K Y G A D V G V A V
UniRef90_M1PE03	Y S I S P G E I T I S K E E K V G K G N F A V V E D V E K R F S D K I G V I S
UniRef90_X1SFE4	I W I N H G K V E I K D A T Y L W G K D T F E T E D I K K
UniRef90_H0UQ61	L W V E G G E V S V L D G E F R G L E T G E V M D A L Y E R H G K C T A V V A
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UniRef90_UP100047B322D	L K I N N H S L E L K G E H S W G L N T D E T T R L L H D Q P G R R R S I L V
UniRef90_K7QY31	L R L T E G E V F F E P A E G L L G L G N Y E A A K R L F S A Y G Q K I A F A L
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UniRef90_X1SM66	L W I R D G C V E I R D A S Y L W G K T T W E T L D I I R E H R D E I H T L S
UniRef90_R4KP07	I K I D K N G A S V V E E N E V W G L G N Y T A F K K L S S M Y G E K V G V I G
UniRef90_E3H9I1	I K I T S E G I S M E D A S Y L K M K G N Y E T G D I L R E K F G K K T T V M S
UniRef90_A1HUB8	L V L N K N G G E L R R A D Q L A G K G T E K A A L L R Q E F G A N V G L I L
UniRef90_X0WEV5	L W I D D D E I Y I K S A Q S I W G L D T Y F T T N K L L E A T D S K A R V A C
UniRef90_Q30Y19	I I I T K D G V Q F V D A A D M V G K G T Y E S M D M I A G Q Y G K K A S G M I
UniRef90_Q6AKC0	L A V S P E G I T I A E E S E V L G M G N M A I K I K A R T D D K I A L M L

170 180 190 200

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UniRef90_E7QSI8	I G P A G E R E V R Y A T V A S D G G H H A G R G G A G A V M G S K K M K A V V	
UniRef90_D1B853	V G P A A E A L L V R F A C I V N D L [H] H V N G R S G L G A V M A S K N V K A V A	
UniRef90_X0Y0J2	I G P A G E N L A R V S T I L F T G G R A A G R C G L G S V L G S K N V K A I A	
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UniRef90_B9L4E7	G R A G E R L V R Y A A V V N D G R L A G R T G P G A V L G A K R I K A I A	
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UniRef90_L0AJI8	I G P A G E N E V R Y A T I A S D A G H H A G R G G A G A V M G S K K R [L] K A V V	
UniRef90_Q2FPK9	G R A G E N L I R Y A S V T S E T Y R H F G R M G L G A V F G S K K L K A V L	
UniRef90_A8F6W9	I G P A G E R L S P I A C V T V D S S R H F G R [L] G L G A V M G S K K N L K A I V	
UniRef90_R4KMH1	G Q A G E Y K L [C] S A N I S V K D Y R S A G R G G L G A V M S S K K I K Y T	
UniRef90_Q64AS9	T G R A G G K L V R Y A C A V S E T Y R H F G R L G L G A V M G S K K N L K A I V	
UniRef90_R5EKM3	I G P A G E N L L L P M S V I L N A K S H T G G G L G G V V W G S K N L K G A	
UniRef90_X1CYC7	I G P A G E N L L V R F A C I M N D M G R A A G R S G V G A V M G S K K N L K A V A	
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UniRef90_B1L5V1	G R A G E R M V Y R Y A S V I L E T Y R H F G R L G L G A V L G S K K L K A V V	
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UniRef90_X0WJZ3	I G P A G	
UniRef90_V7I8R6	I G P A G E N L L L S A G V F V S D S R A A A R G G L G A V M G S K K [L] K A I V	
UniRef90_E1STK0	I G P A G E H L V A Q S T I Q T Q G G H S A G G H G A V L G S K N L K A	
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UniRef90_D6SRJ2	I G P A G E N L L V R Y A C V N V D T Y R H F G R M G S G A V M G A K N L K G I	
UniRef90_A5G482	I G P A G E L K M T A A N I S V K D P R S H H G R G G L G A V M G S K K I K Y S	
UniRef90_C5C11	I G P A G E R L S P I A C V T V D S S R H F G R [L] G L G A V L G S K N I K A L V	
UniRef90_D3L0G4	T G K G A E T T N W G C L N M S F Y D K Q A G R G G G G T V F R D K K L A A V	
UniRef90_UP10003B7B26B	V G P A G E R C V R Y A C V I N D L R H A N G R T G M G A V L G S K R	
UniRef90_X0XKL5	I G Q A	
UniRef90_A8GZ52	I G P A G E N Q A A L G C L I H G A G N A A G Q G G N G A V F G S K N L K A I S	
UniRef90_X0VXZ6	G Q A G E N V K Y A N I V S E E R A A G R T G M G A I L G S K K L K A I I	
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UniRef90_X0XA42	I G P A G E N	
UniRef90_A6TSX8	I G P G G E R G V K Y A S V T V D S F R H F G R [L] G L G C V M G S K G [L] K A I V	
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UniRef90_D5XY4	G Q A G E T R M A A A N I S V K D P R S A G R G G L G A V M G A K K V K Y T	
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UniRef90_B8DIU9	I G P A G E K G V A F A C A N V D S F R H F G R L G L G A V M G A K N L K G V V	
UniRef90_Q8TLR9	I G P A G E K G V T Y A S V N V D T Y R H F G R L G L G T V F G A K K L K A L L	
UniRef90_G2MKY8	I G P A G E N L I R Y A S V M T F D S R A F G R G G L G A V L G S K N V K C V T	
UniRef90_M0BU53	I G P A G E R E V A Y A T I A S D E G H H A G R G G A G A V M G S K R L K A I V	
UniRef90_W0JRX7	I G P A G E H G V T Y A T I A S D G G H H A G R G G A G A V M G T K R L K A I V	
UniRef90_Q7M866	I G T P G E M R M N L A N I S V K D P R S H H G R G G M G A V M G S K K V K C T	
UniRef90_A8ZV03	I G P A G E N G V S F A N I A S G E R Y L G R G G M G A V M G A K R L K A I C	
UniRef90_F6B4D6	I G P A G E K K L A A A G I A N T D S R Y S G R G G L G A V M G A K G I K A V I	
UniRef90_V4JPH6	V G P A A E N L V K F A G V L F N V Y R A A G R T G M G A V L A S K G V K A I A	
UniRef90_X0WPQ4	I G P	
UniRef90_G2MKG2	A G P A G E N E V R Y A C L L H D G K R V A G R G G A G A V L G S K N V K A V A	
UniRef90_UP10003FAEA0D	I G P S G E Y K L S G A N I S V K D P R S H H G R G G L G A V M G S K R I K Y L T	
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UniRef90_C9R953	I G P A G E N L L V P L A G V N V D T Y R H F G R L G L G A V L G S K N L K A L V	
UniRef90_C6BU89	I G P A G E K L S A M A C I N A D T Y R H F G R L G S G A V M G A K N L K G V	
UniRef90_A9WAX1	I G P A G E A G V A Y A S I V A E Q G Y L V E P A G T G A V M A D K K L K A I V	
UniRef90_X0T067	I G P A G E L Q L T G A S I A T T D N R H A G R G G M G A V M G S K G L K Y V A	
UniRef90_A5CZ02	A G P A G E M R L P A A N I S F K D P R S A G R G G L G A V M G S K K V K A V V	
UniRef90_E3PWF8	I G P A G E H R L P S A N I S F K D P R S A G R G G L G A V L G S K N V K A I I	
UniRef90_E6VSB3	I G P A G E N L L S P A Y A C I N V D T Y R H F G R L G G G G T V M G A K N L K A I C	
UniRef90_E1JYZ6	I G P A G E N G S A Y A C I N V D T Y R H F G R L G A G A V M G A K N C K A V V	
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UniRef90_X1RCN4	I G Q A G E N L L V R Y A C V L N N L K N A Y G R L G M G A V M G S K N L K A I A	
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UniRef90_E6NBK6	I G P A G E K Q I P I A T V V N D M G R S R S S G R H G V G A V F G S K N L K A I V	
UniRef90_K2BXF3	I G P A G E N Q V R F A S V Q S G G R T F G R Q G F G A V M G S K N L K A I V	
UniRef90_X1D280	I G P A G E M M L T N A G I S I N D G R Y A G R G G M G A V M G S K G L K A I V	
UniRef90_S7U2A3	I G V A G E M K L T G A N I S F A D P R S A G R G G L G A V M G S K K I K A V V	
UniRef90_M1PE03	I G Q G G E M Q M A A A N I S I K D P R S L G R G G L G A V M G S K K L K F A	
UniRef90_X1SFE4	UniRef90_H0UQ61	I G P A A E R G V R F S C L V N D L H H V N G R A G M G A V M A S K N V K A V A
UniRef90_D8EX58	I G Q A G E M K L A S A S V A F T D A R H A G R G G L G A V M G S K G L K A I V	
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 V T G T G T V S V
 A R
 A A G
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 I D D T G A P G V
 I S A D K S | V | E | I | A
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 V R G T K G V
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UniRef90_E8N5N4	K W L R V N M S D L S V K V E D V P K K Y E Q	M G G R W L T S S
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UniRef90_A8ZW71	M P K I L R I N T R T R E Y R L E D M G P	Y L G L G G R A L T S R
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UniRef90_X1JE63	M E K V L R I N V G A E N G P V A T I E E L G A Y A G L G G R A M T T T	
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UniRef90_E1JXY8	K S P L T G G I K E S N T G G T F G Q K M S K M D I K A I V F E E I P A E D K Y			
UniRef90_X1H6T1	L S P L T G T M F D A N S G S Q F G V R L K W A G F D A L V I K G E S S S P V W			
UniRef90_X1HDG4	G E A S S G G F F G K E L K S A G Y D I V I V K G K S Q S P V Y			
UniRef90_X1EC23	R S P L T G I W A D S C A G G N W A T V F N R T G F D A L V I V R G R S E S P S Y			
UniRef90_A0A017T7H6	K S P L T G R L N D A L S S S G F A I A G K R T G F D A I V I T G R A R V P S V			
UniRef90_X0TC89	K S P L T N A W S E S K C G T D F G P D L K R A G Y D A V I I E D R S E K P V Y			
UniRef90_L9X6X5	V S P M T N G F F D S T F G G T L P Q A L K T T G F D G V V L H G A A E E H S Y			
UniRef90_H0PV80	R S P D S Q A I L D T N G G D Y F P S F V K R H G D H V V L Y G L A P Q W T L			
UniRef90_A6TL56	K S P L T G G I K E S N A G G T I S Q Y L A G H D I K A L V I E G Q P K N W W V			
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UniRef90_K4LG38	K S P L T G G I K E A N A G T P A A Q A L K A M G I K A I V I Q G Q P N G Y W I			
UniRef90_X1N8D3	K S P A T E C F S Y S N L G G S W G A H L K F A G Y D G I V I Q G E S D R S V Y			
UniRef90_X1PCR4	K G A L N N G A A S T Q A N G F F G A Y L K F S G F D G I L I Q G A S P P N W K Y			
UniRef90_T0K7F1	K S P L T G T I K E S N T G G T F S Q K M A K M G I K A L V I E G M P E E F Y I			
UniRef90_G7WCT0	K S P L T G T I K E S N A G G T A G Q Y L A G H N I K A L I I E H L P K D K S I			
UniRef90_B8F8T3	K S P L T G G I K E S N V G G T M A K A I A G L L G I T A I L V E G Q A P E G A L			
UniRef90_Q30X59	R S P P Y T G E W S E S H A G G R L A L A M R F S G Y D A L M I T G R A R S L S C			
UniRef90_D8J9A8	K S P P L T G A F L D S Y S G G E F A G A L A G A D C L G V L V T G R A D E P M A			
UniRef90_X1MVX7	K S P P Q T G G I G D T N C G G T F G P E L R F A G Y E G I I E G K A A E P V Y			
UniRef90_C6BSZ9	K S P P L T G G I K E S N G G G Q F A Q V L P R L D I Q A I I F E D K P E M F S I			
UniRef90_A5GAJ1	K S P P L T G T I K E S N A G G T A A Q N L A K L R I K A L I I E G M P G E D K F			
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UniRef90_T2GFD1	K S P P L T G T E T E Y A E T H A G G R L G L S R F S G L D A L V L T G A A A R L T C			
UniRef90_UPI0003B60531	K S P P L T G T I K E S N S G G S F A Q K L A K L G I I G V L E E Q S D S W I N			
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UniRef90_I0I4W2	K S P P L T G G I K E A N G G G T F S Y A L G Q L R I A G F T L A G A S P D W V V			
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UniRef90_E5Y644	K S P P L T G G I K E S N S G G T G G Q F M A R L G Y A A I I I E G K T D D D L W K			
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UniRef90_S7UZK8	K S P P L T G G I K E S N A G G T G S Q A L A R L G Y A A V I I L E G Q G E D M Y K			
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UniRef90_K2CPU1	K S P P L T G G I K E S N A G G G L S Q G M I A K L R L A A I I I E G V P E K G K W			
UniRef90_W0SEJ2	R S P P D S Y A F L D A S A G D Y P F A P T K R L G Y D H V I L Y G L A P Q W T L			
UniRef90_F3YU66	K S P P Y N D Q Y S E S H A G G R L A L A M R F A N A D A I I L F R G R A K T L S A			
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UniRef90_B8J1R4	K S P P L T E G I K E S N A G G Q P G G H L A R L G I L A V I V E N M A E E G Q W			
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UniRef90_Q67J71	I S P P V T G G I Y A E A E A G G G A W A A A L Q R A G F F A A L V V E G R A E R P V Y			
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UniRef90_X0SAH7	K S P P L T G G I K E S N A G G T V A A A L G R L G I T A V V I E G Q A P E G S I			
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UniRef90_UPI0004784407	I S P P L T D N V V D S N A G G Y F G P Y L K F A G W D A I E L Q G K S D E N V V			
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130 140 150 160

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UniRef90_S7T774	V H V G A R V I E T K D A N Y L W G A N V F T T G R V I R R A F P G H R S I M R
UniRef90_X0Y2T6	L Y I N D D K V E I R D A G F I W G K N I Y E T E D I L R Q E L D D I K V A S
UniRef90_E1JXY8	Y V V K D G V S F D E A P A E T I G M G N Y A I K V L Q A K Y G P K V G V A L
UniRef90_X1H6T1	L E I S Q D G A Q I H P A G D L W G R E I P E V V S H L K
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UniRef90_X1EC23	L W I C N D K V E I R D A S R M W G K T T S E T D R E I K A G L I I G S G V
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UniRef90_L9X6X5	V V V D E D G A E V K S A N G L E G T E T Y E T C G E I R D R E G Y D T H V L A
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UniRef90_X0WJN4	I T I E E D D K Q I L D A S D L W G L D A V Q T E D K L K D K Y G R V Q I A S
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UniRef90_K4LG38	L R I K G G S G L E P A E E F I G M G I Y E F A E R V K K K Y G K V D F A V
UniRef90_X1N8D3	L S I H D G N Q I K D A S H L W G M G A I E A R K A L K A E L G S S V R V A A
UniRef90_X1PCR4	L Y V H D G V A E L R D A Q H L V G Q N T W E I E D T I K K E L G Y G M S V F S
UniRef90_T0K7F1	L K I D M M G V T I D P A E L L G G C G N Y E A I T V L N A K Y G A K V G I A L
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UniRef90_B8F8T3	S I I K D G S I S L L D D G C Q H K G M R T Y A L T R L Q T Q Y G K N I S V A C
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UniRef90_D8J9A8	L T I E D G E A T L E P T D A W G A D A A A A T A G A F D G R V A C
UniRef90_X1MVX7	L W I R E G E A E I R S A K R Y W G K G T W G A E D G I R K E L E P N A K I V S
UniRef90_C6BSZ9	V E I Y A D R V E F K D A T P I V G K D N Y P A H E E L K K I Y G D K A V T A L
UniRef90_A5GAJ1	I Q I N K D G V T I R E E A E L I G K G N Y E A I K T L M G R I G E K V G V I
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UniRef90_X1GGS9	L W I N N D K V E I R D A S H L Q G K G C L E T E L I K Q E L K P K A Q V A T
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UniRef90_D6SQF6	V V I N D Q G V S L E K A N D L K M L A N Y D L I D K L K P V H G E K V S V I S
UniRef90_X1HFF2	V V V Q D D K V D F R P A K H L L G K T V S E K H R I I K E L P T G R F S I G C
UniRef90_K2CPU1	L V I N K D G V K F E S A S D L V G K G M Y E V D E L L W K Y P K S A V I G
UniRef90_W0SEJ2	L K I S R E A I E F L D A T P Y V G L D N D T A A A V E R D F N K D M A L A R
UniRef90_F3YU66	A V I G A R R L G L V D V H Y L K G M D V F S T G R S L R K T F S G H R S L M R
UniRef90_X0V358	L W I N D D T I E L R D A A H L W G K G T Q E T I R R
UniRef90_B0VEX1	I Y I Y D G D K G I V Q S A P D E E I N S H I L A E E L I K E F A Y Q F V S V S
UniRef90_X0V340	I Y Y I Y N N D E V E I K D A
UniRef90_E8N5F6	I F I D D E G I V R V E E A P L E V L D T H I L N R Q L T E M Y W R S I S V I S
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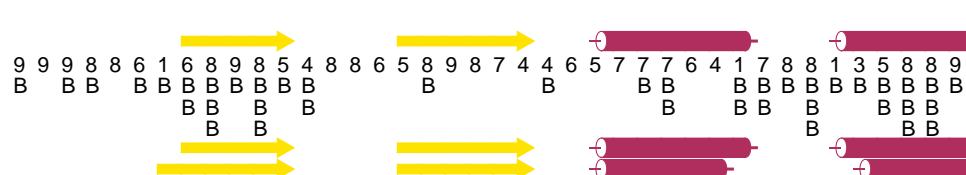
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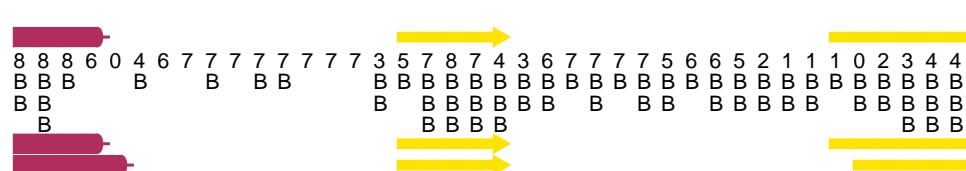
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UniRef90_C0QHP4	T G T A A K H S L L G C L N F R V R Y K Q A G R G G I G T V L A D K K V K A V V
UniRef90_X0SDV3	I G P G G E N G C D F G C I S E R D H A A G R T G M G T V M G F K N L K A I V
UniRef90_E4RMV6	I G V E A E N K M I A A G I S I N D H R Y A A G G G L G A V L A A K G V K A L I
UniRef90_R6RXU6	T G Q A A D R M M P L A S I F V T Y P F Y C P R S G V G D I P G S K G L R A V V
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UniRef90_UPI00047E7ECB	V G I A G M N K I D F A K I M L R N N K S C G K D G L G K L M A N K N L K A I V
UniRef90_UPI00036FF8BD	I G Q A G E N W Y M G A V A L E D K C R F A G R G G M G S L M G Y K N I L A L V I
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UniRef90_X1KX55	
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UniRef90_X1KKV3	I G P A G E N E V R F A S I M T S E E R A F G R G G L G A V L G A K N V K A V T
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UniRef90_X1N8V2	
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 UniRef90_X1HSE4 A G G T F K I N
 UniRef90_G1USJ5 L|D
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 UniRef90_X0WKJ4
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 UniRef90_UPI00037D71CC V|D G T K
 UniRef90_M1WK73 I|D P A G
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 UniRef90_X1NTQ7 V|Q G S G K L V A A
 UniRef90_X1B7N9
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 UniRef90_X1UWH1
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 UniRef90_K0NCN1 A R
 UniRef90_E3GFL5 I|
 UniRef90_S0FXP9 A R
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 UniRef90_K1XLQ7 A
 UniRef90_T2GAY5 V|D G R Q P T A V
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 UniRef90_X0SVD3 V|K A P K S
 UniRef90_E4RMV6 I| D
 UniRef90_R6RXU6 L|K
 UniRef90_X0WYD2
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 UniRef90_B2A5Y7
 UniRef90_X1T3P9
 UniRef90_I3RDD2 F G G K K R

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UniRef90_E1K0S7	I L H	D L T A A T S R R	V P C D	A S G L V G G R G M A G L	
UniRef90_E3CUF5	G Y T K E	V C V V D	G N R D G K Y Q S L S D E F	V D R F T G G R G F G L G	
UniRef90_X1HFY8					
UniRef90_F8AIC1	R	V L K L D V	G K R E I	I S T E D F E K E D	V F G I I Y G I H L H S E
UniRef90_C6A542	V L K V N L	N L N E K S I N	L E D F E R E G I Y G I I	D Y A L Y L H D	
UniRef90_G8QRX9	I L L V Y	D V G Q E T W E K I P	L S E S E S K T M L	G G R L L A L K	
UniRef90_G0Y701	Y A E T G Y N L E I	D L T R G S I E K V I E T A A D	L A E F Y L	G G Q G S A A K	
UniRef90_V4JEE4	K V L Y I	D A S T R S F R F E K I S D P N I Y G I I	D L G L K V H M		
UniRef90_E9M0H6	Y A E T G Y N L E V D	L T R G N I E V V I Q T D P R D T E L Y L G G L	G T N A K		
UniRef90_D9Q014	K V L Y V	D A T K R S Y K I E S I N D P E L F G I V D	L G L Q I		
UniRef90_G0Y6Z8	Y A E T G F E L E I	D L S R G S V D R V E S D P E	L T K L H L G G L G T S A R		
UniRef90_X1JJA4					
UniRef90_G0HLL0	V L R L N L D E K K V E S E E L E R N G I Y G V I Y G I E I	H E N			
UniRef90_R5B786	M G K T I V I	N L N T N S I S E M P T P A E H Y	G R G L J A M K		
UniRef90_W4LMU4	V D L T A S V I H H A D L A C	C Q D M E D F L G G I G R S F K			
UniRef90_Q9UYC8	V L K I D V E K K D I K L E D F E R E D	I Y G I Y V H T			
UniRef90_A8MAS5	K V L N V D L T S G S V S I T S V E A Q	G P V T L G V R			
UniRef90_X0WFP3	M N K I I R I D M T E L K V T T E K C P P D Y	Q L L G G R G L S A R			
UniRef90_F0QWW3	K V L R I I D L N A N S L R T E E I P A Q	G P I T L G I K			
UniRef90_FOLKH4	M S K I I L K I N L K T K E I S M N E I Q Q E G	I Y G I I D Y A L			
UniRef90_X0Y5H8	R S L H R V D V S K D S Y N Y E E D D E D	L G I I D Y G I K V H I K			
UniRef90_L0AC53	K I L K V D L N A N S W R V E D V A A Q	G P V T L G V R			
UniRef90_E1QS58	K I A R I N V D T E K L K Y E D I S R E S K Y F L L G G R G L S S Q				
UniRef90_X1T0Y1	V L K L N V E G K E V I V E D V D I K D A Y G I I Y G I H V H T K				
UniRef90_F4HMZ9	M N K I I A I L D A A T Q S V Q Y Q D D D G T E Y	G R G L A V K			
UniRef90_R6SM84	M E H P T A H I I L F C D L S A G A C R R E P L D P E	L A R Q A P G G R A L A V A			
UniRef90_C4XL98	V L H L K L D E R K V E S E E F E K E G V Y G I I Y G L E L H E R				
UniRef90_Q5JHJ4	L L E I D M G K N K V E K Q E I D A S	G P L E A A I			
UniRef90_A4WHD7	R V I E V D V S T G S W R L V E H P	L R R E K G K G V F G V L D Y G L K			
UniRef90_E8T4T7	V L L E I N V E S G E V V R R E L E S T	L G E I L G P V D L G I E			
UniRef90_G0EHF6	I L R V A L G L G S V V R R L P A P E A L L L V S A W G G R G L A G				
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UniRef90_G7Q9Z5	R V L R I N V E N G N W Y K E Y D G N	E I I G P V D L G I H			
UniRef90_Q8ZXY6	M E H A P S H I I L F C D L S A G A C R R E P L D P G	L L A R A C C G G R G L L A G A			
UniRef90_X1U4X4	K V L F I I N V K S G K G I A Y E E I T N D S K Y Y L L G A R G L T S Q				
UniRef90_E0SQV4	K V L F I I D V G S L R W E I K E Y E	I P P Y L G P V E I G V K			
UniRef90_I2PZA5	K L L T I I D V G S Q K V G K K E L N	V S G I L E I A L			
UniRef90_K6FM34	R V A F V D L G R S S V E V R E V E A Q	G P V S L G L K			
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UniRef90_A1RTV9	M K G	V L I I N V K S K K F E V I E	K N F L P I E W G F Y W		
UniRef90_K1YME7	R V A F I I D L E K L S V N I A E R D A Q	G P V S L G V Q			
UniRef90_F2L1R3	K N A L I I N A K S G K V E I I E	K N I I T P V R W G L Y W			
UniRef90_A3DPV6	L L E I I D V E K R E V A K R E I S A T	G P V D A A L			
UniRef90_X1FB18	R A L F I I D V A E R K H W I E E F P	L N E V F S P I S L A L K			
UniRef90_E1R7E9	V L E I I D V G K K R A Q R R S V A A	G G P L E A A L			
UniRef90_X1D5F5	K V L S I I D L T K K E Y E V K S F	E D L N S Y I G G V G L G F K			
UniRef90_D5VUC3	K V L W I I D V N Q K T W E I K N Y P	I P P Y L G P V D I G I R			
UniRef90_Q703Y3	M K N I I I N A T T K K F E I I E	K N I I L P I T W G L Y W			
UniRef90_N6V357	R A L F I I D L Q R K L A E V K	S D A N L K K Y I G G V G I G L K			
UniRef90_A3MTX3	K I L L L I D A S S R R H W V E E Y D L S E I Y S P I S G L K L H M E				
UniRef90_D5UOS7	K I L L L I D L E K K K Y E I E Y I D K K T K K F Y M G G F A L S L F				
UniRef90_B1YAQ1	I L E I I D L E E E N W R R I N I N A	L G P V E A G V K			
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UniRef90_UPI00035BCC04	I D A S N R K Y E V	V D K E L L T L N W G I Y W			
UniRef90_C7P689	I D A S N K K Y K I I E	K E F L P L N W G I Y W			
UniRef90_K2D418	R V V F I V N P G E K T S R L A E Y D L S E V R	G P V S L G V K			
UniRef90_E8R8U8	M K N I I I D A S S K T Y	P L D W G M K L H N D Y			
UniRef90_C7HSE4	E T I E G T Y L P				
UniRef90_A8A977	R V L L V D P G T G F Y K I K K Y S F E	R Y F G P V D L G I H			
UniRef90_X1FU4A3	Y E E L E E S E F P I S F G	I N L H T K			
UniRef90_B8D3Z4	I N V S E K N Y	G I D L H N K			
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UniRef90_G0H073					
UniRef90_A4FXX8					
UniRef90_X0XXD1					
UniRef90_A6IJU58					



UniRef90_C0Q9I5	50	60	70
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UniRef90_E1K0S7	I L W D R P P E [V]	D P F D P Q N L I L F S T G L L H A T P V P G A N R T S V D T	
UniRef90_E3CUF5	L L	D E S A L D A A V [C] F A P G R L A G F D L P G A G H V S L A F	
UniRef90_X1HFY8	L L W D S N E H T K W N D P E N E V V I S G G P L C G T Q Y S G T G K A H I V T		
UniRef90_F8AIC1	V Y K S Y E [V] E P Y D P R N I V V F G K G P F A G S A L P G S H R L M F F F		
UniRef90_C6A542	E V Y K T Y E A E D H Y D P K N V M V F G K G P F A G S I L P G A H R M T F V Y		
UniRef90_G8QRX9	Y A E Y E N L G S Q A Y E S G N P I V I A A G S A S D I S L A C C D S F T L V T		
UniRef90_G0Y701	L L W E R V P E T D P F S P D N L L V F S T G L L H G T P L P A C N R T V V N T		
UniRef90_V4JEE4	D L K S Y E H D P L E P G N P I V L G I G P F A G G A V V G S H R I V A V F		
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UniRef90_G0Y6Z8	I L W D R V P E T E A F S E D N L L I F A T G L L C G T A A P G C S R T I V S T		
UniRef90_X1JJA4	M I N E I E P K V K W Y D P E N L L C G F A G S L V G T M T P G A C R V D L S T		
UniRef90_G0HLL0	L L E T Y K V E P Y D P K N V I M G M G P F S G T L P G A H R L M F F F		
UniRef90_B5P786	L V R Q Y A E D C S R L D E G N A L A I V C G L L T G T N A P C A N R A S V A A		
UniRef90_W4LMU4	L L E G H D V T D V F S P A S P L V M N L G V F S G T E V M T G L R I F F S A		
UniRef90_Q9UYC8	Q L K T Y E L E P Y D P R N V M I I G K G P F A G S A L P G S H R L V F F Y		
UniRef90_A8MAS5	I L S N E D Y S K D P L D P S V P F I I G I G P F V G G K L P G V H R A I A V F		
UniRef90_X0WFP3	I I L N T E V P A L A H P S H E N K L V V A P G I L A G T M A P S F G R I S F G A		
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UniRef90_F4HMZ9	I I K T Y E V D P Y D P R N V L I F G K G P F S G S S L P G S H R L V F F Y		
UniRef90_R6SM84	I I L L K Q Y M A D N V F V I T P G L L T G T P V P C A T R A T I V G		
UniRef90_C4XL98	I I L L A A R P R A V V W D A P D A A V V L A P G A L A G F D L P G G V S F A A L A G		
UniRef90_Q5JHJ4	I I G T H S I E P Y D P K N V V V M G M G P F S G S I L P G A H R L M F F F		
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UniRef90_E8T4T7	V H E E L K Y K H A P Y S P Y N A V V F G K G P F A G S I L P G S H R L V F F F		
UniRef90_G0EHF6	V H Y R E T W R T C H D P L A P C N T L V L G L P F T G S P L P G S N R G V A V F		
UniRef90_G7VCM8	H R E R E T W R L D P L A P E A P V V F G M G P F V G G R L H G V H R L I F V F		
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UniRef90_Q8ZXY6	I I H E R E T W R L D P L S P Q V P V V F G M G P F V G G R L Y G V H R L I F I F		
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UniRef90_E0SQV4	I I H E E L K W E K D V F D P S N A V I I G T G L F A G S K L F G T H R L V V V F		
UniRef90_I2PZA5	L L E A S L P P S P W D D P R A A V V C F A P G R L A G C S L P G A G H R L A I A F		
UniRef90_K6FM34	F I L A A R P R A A W D A P E A A V V L A P G A L A G F D L P G G S F A V L A G		
UniRef90_X0XGP8	I I V H D E P P K C D P L G P E N K L I V A N G L L T G S P P N S A R T S V G G		
UniRef90_F8C5K6	I I H L E E I I W K Y E I F S P Q N V L F L G T G P F A G S K I F G T H R L I V A V F		
UniRef90_A1RTV9	T V H K E S W R L D P L S P E A P V V V F G F G P F V G G R L Y G V H R L V F V F		
UniRef90_K1YME7			M I A S
UniRef90_F2L1R3	V H E E E S W R R D P L S P E T P L V I I G M G R F V G G R L I I G V H R I I V A V F		
UniRef90_A3DPV6	I I H L E K Y K S W K K Y D P D N A V V I G A G I I F T G T N L I Y G G H R F V A V F		
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UniRef90_E1R7E9	I I L F S L F P S A S L F I A P G L L T G S S L P F S G G W S A V M		
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UniRef90_D5VUC3	H E K F E T Y K L D P Y H P P N V F T M S S G V L P I V V G G H R L I V F T F		
UniRef90_Q703Y3	I I H E R E T W R T D P L S P L S P L V I I G M G N F V G G R L I I G A H R I I I A V F		
UniRef90_N6V357	H K K Y E T W K Y D V Y S D K N I F C C G S G I I P L P G G G H R L I F S F		
UniRef90_A3MTX3	Q L H R E R W R L D P L S P Q I P V V F G L G P F V G G R L Y G V H R L I F V F		
UniRef90_D5UOS7	L H M E R Y K T W S K Y D P S N A L V L G T G L F A G S K I L Y G V H R F V A V F		
UniRef90_B1YAQ1	R I H R E T W R L D P L S P E C P V V I I G Y G P F V G G R L Y G V H R L I F V F		
UniRef90_V5RTC2	L M E M Y Y D K N P L I F A V G P L N G L F P F A S K T A V V I		
UniRef90_UP10003B5CC04	I I H L E E V E S F E V F S G A N V L F L G T G P F A G G K I F G I H R L V A V F		
UniRef90_C7P689	H N K F E T W K Y D V Y D E K N V F C F G S G V L P I I I G G H R L I F S F		
UniRef90_K2D418	I I L L S E N Q D R D P V V F S I G P L N G F F P F C S K T S I		
UniRef90_E8R8U8	I I Y K S W S K P V Y H P D N V L V L G A G L F A G S K I M Y G T H R F I I A V F		
UniRef90_C7HSE4	F I L N K N K N F K N P W M I F T S S L I E Y K N P I S K F I I M G		
UniRef90_A8A977	I I H L K Y Q T Q D W D P K N L V V M G T G P F A R S P F F G S N R L I I V F		
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UniRef90_D7EA46	H F D Y R S Y E Y S E Y S K N N V L C F G L G K L I A G S K I P G T Q R L I F S F		
UniRef90_UP10003659C20	H E K Y E T W K Y D V Y D D K N V F C F G K G V L P V I G G H R L I F S F		
UniRef90_F6BBX9	H K K F E T W K Y D V Y D E R N V F C F G R G V L P I V V G G Y R L I F S F		
UniRef90_I3TF44	I I H V Y E S W K K P V Y H P D N A L V I G T G L V A G S K I Y G V H R L I V A V F		
UniRef90_D7DU39	Q T Y K E D I Y S D N N I F C F G K G V L P I I I G G H R L I F S F		
UniRef90_A6UN71	H E T W K Y N P F D E K N L F C F G R G I L P V I G G H R L I F S F		
UniRef90_UP100036020FB	I I T E E Y R S L N F G V G I I F A G S I I P G S N R L I V T G		
UniRef90_G0H073	Q E T W K Y D A F D E K N L F C F G K G V L P I I I G G H R L I F S F		
UniRef90_A4FFX8	Y E T W K F N A Y N E K N L F C F G K G I L P I V V G G H R L I F S F		
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UniRef90_A6JU58	V K T Y E I H P Y D E N N V F C F G P C V I P I I G G H R L I F S F		

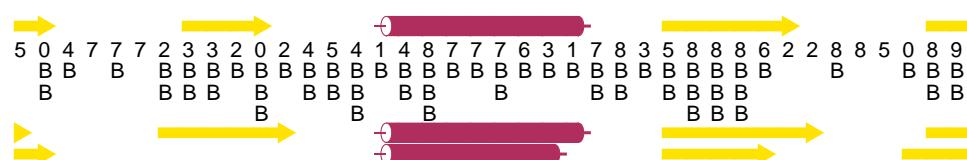


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 UniRef90_E9M0H6
 UniRef90_D9Q014
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 UniRef90_A8MAS5
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 UniRef90_F0QWW3
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 UniRef90_I2PZA5
 UniRef90_K6FM34
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 UniRef90_X1D5F5
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 UniRef90_A6JNT1
 UniRef90_UP100036020FB
 UniRef90_G0H073
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90 100 110 120

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

lupas_21
 lupas_14
 lupas_28



This figure displays a sequence alignment of UniRef90 entries, showing the conservation of amino acids across different positions. The alignment is color-coded to highlight specific features:

- Conservation:** Positions where all or most sequences share the same amino acid are highlighted in light blue.
- Hydrophobicity:** Positions where hydrophobic residues (A, C, D, E, G, H, I, K, M, P, S, T, W, Y) are found are highlighted in light green.
- Polarizability:** Positions where polar residues (A, C, D, E, F, G, H, I, K, M, N, P, Q, R, S, T, V, W, Y) are found are highlighted in light purple.
- Chirality:** Positions where chiral residues (D, L, F, I, M, P, T, V, W, Y) are found are highlighted in light orange.
- Hydrogen Bonding:** Positions where hydrogen bonding is likely (D, E, F, H, I, K, M, P, T, V, W, Y) are highlighted in light red.
- Electrostatics:** Positions where electrostatic interactions are possible (D, E, F, H, I, K, M, N, P, Q, R, S, T, V, W, Y) are highlighted in light yellow.
- Conformation:** Positions where alpha-helical (A, C, D, E, F, G, H, I, K, M, P, S, T, V, W, Y) or beta-sheets (B, C, D, E, F, G, H, I, K, M, P, S, T, V, W, Y) are found are highlighted in light grey.

The alignment shows a high degree of conservation across the UniRef90 database, with many positions showing identical residues (light blue). Hydrophobic and polar residues are frequently found in similar positions, while chiral and hydrogen-bonding residues are more scattered. The alignment spans from position 130 to 160, with a large gap between positions 130 and 140.

lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
ipssm

170 180 190 200

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UniRef90_G0Y702	T G P A A L Q A G S P L A T V A A D R W H D A G G T G G G A A L A A K N V V F I A
UniRef90_E1K0S7	T G Q A A K H S F I C G M N M S F Y D K Q A G R G G G G T V L R N K G V H A I V
UniRef90_E3CUF5	S G R G A E N T V T W Y D V R R R K V R Q A G R G G T G S V F R D K K I L A I V
UniRef90_X1HFY8	V G P A A L N T N Y F S Q A L R N G K R M V G R G G P G S V L R A H N V V A I A
UniRef90_F8AIC1	V G P A S L N T N M F S Q T L R N G K R I V G R G G T G S V L R A H N V I A I I
UniRef90_C6A542	L G P A G E H Q V P Y A S I W S D G T N F G R G G V G T V F G L K N I K Y I T
UniRef90_G8QRX9	
UniRef90_G0Y701	
UniRef90_V4JEE4	V G P G A F R T R F A G I F S Y V S D S A S R G G G G S V M A A H N V V A I V
UniRef90_E9M0H6	V G P G A Y K T I F F S Y V L D D K G N S A S R G G G G S V M A A H N V V A I T
UniRef90_D9Q014	
UniRef90_G0Y6Z8	
UniRef90_X1JJA4	
UniRef90_G0HLL0	V G P S A L N T N Y F S Q A L R K G E R L V G R G G S G S V L R A H N V V G I I
UniRef90_R5B786	T G R A A D M L L P L G A L F T T Y P F T C P R S S F G D V A A S K G I R A I V
UniRef90_W4LMU4	I G P A G E N W Q H Y A A I A C C K P R F A G R G G M G S M M G S K N L L A I V
UniRef90_Q9UYC8	V G P A A L N T N Y F S Q A L R N G K R A V G R G G T G S V L R A H N V V A I A
UniRef90_A8MAS5	V G E A A L K T Y N G A L F I D V D P R T A A R G G P G T V M A G H N L V A I V
UniRef90_X0WFP3	
UniRef90_F0QWW3	V G P A A L G T Y N G A L V S I D D F A A R G G P G T A L V M G H N V V G I V
UniRef90_F0LKH4	V G P A S L N T N F F S Q T L K N G K R V E G R G G P G S V L R A H N V V A I I
UniRef90_X0Y5H8	
UniRef90_L0AC53	V G P S A F K T R F A G I F S Y V S D S A S R G G G G T V L A K H N V V G I V
UniRef90_E1QS58	V G P A A L S T Y N G A L V S I D V N D F A A R G G P G T A L A G H N V V G I V
UniRef90_X1T0Y1	
UniRef90_F4HMZ9	V G P A S L N T N Y F S Q A L R N G K R V G R G G T G S V L R A H N V V G V V
UniRef90_R6SM84	R G P A S D H Y Y P I S S L F V T Y P Y S C P R S S T G A G L A K I G I R A I V
UniRef90_C4XL98	A L A G S T L A G L W A D G L H P V G P G G A A L L T A K N C F A V A
UniRef90_Q5JHJ4	V G P A A L N S N Y F S Q T L R K G K R V E G R G G S G S V L R A H N V V G I I
UniRef90_A4WHD7	V G P A S W T T Y N G A I V S V D I D D F A A R G G P G T A L A G H N V V A I V
UniRef90_E8T4T7	V G P A S L T T D Y G A I F S Q T L R N G T A R G R G G G S V L R A H N I A A V I
UniRef90_G0EHF6	V G P A S L T T R A G A I V A V H Y D D V A G R G G P G T V M A A H G I V G I V
UniRef90_G7VCM8	V G P A A F T T Y N G A V V S I D D D F A A R G G P G T A L A G H N V V A V A
UniRef90_G7Q9Z5	
UniRef90_Q8ZXY6	V G P A A Y T T Y N G A V V S V D V D D F A A R G G P G T A L A G H N V V A I V
UniRef90_X1U4X4	I G P A G E N R S R I L A A I I T D A G N A F G Q G G F G G I I W G A K K L K A I S
UniRef90_E0SQV4	V G P A A L K T V Y G A I V S I D D F F A A R G G G A G S V L A A H N V V A I I
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UniRef90_K6FM34	
UniRef90_X0XGP8	
UniRef90_F8C5K6	V G P G A W Q T R F G S L V I I G S E D F A A R G R G G A G S I L A A H N V A G I
UniRef90_A1RTV9	V G P A A Y T T Y N G A V I S I D I D D F A A R G G P G T A L A G H N V V A I V
UniRef90_K1YME7	Y G T G A E N D E L S S N I L F D D L T S A G R G G V G L V W K A K N I K Y I S
UniRef90_F2L1R3	V G P A A W R T Y N G A L A S I D I L E D F A A R G G P G A A A Q G H N L A A L I
UniRef90_A3DPV6	V G P A S K Y T S L G A L V S I T K G R Y A A R G G P G S V L R A H G V V A A I V
UniRef90_X1FB18	C G I I A A E M L G T A S G V C F N D S R Y A G R G G L G A V M A S K G L K F V V
UniRef90_E1R7E9	I G K A A R E G N P S A A L V H E G R T L P A G G G T G L F L G S L K L T A I T
UniRef90_X1D5F5	T G P A A K N T N W G L L T D H
UniRef90_D5VUC3	V G E A S K K T S I F S Q T I R N G E R V E G R G G G G S V L R A H N I L G I V
UniRef90_Q703Y3	V G P A S W T T Y N G A L A S I D I S D F A A R G G P G T V A A G H N L A A I I
UniRef90_N6V357	V G E A S K R T N M G A L L F S Q G L K N K A A R G R G G G S V L R A H N I A G I V
UniRef90_A3MTX3	V G P A A Y T T Y N G A I V S V D I E A K S G R G G P G T A L A G H N V V A A V V
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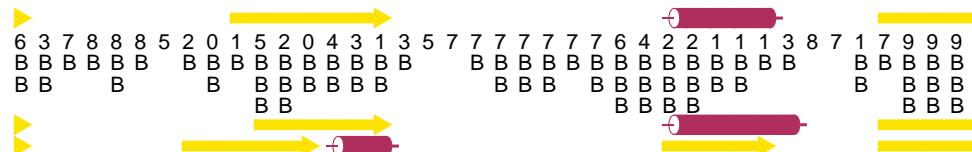
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