

1 Q S S S E I K | V R D E Y G M P H | 10 Y A N D T W H | 20 L F Y G Y G Y | 30 V V A Q D R | 40 L F

UniRef90_P07941
UniRef90_E5WMT5
UniRef90_UP10004298F42
UniRef90_C3BLV3
UniRef90_Q67TD9
UniRef90_UP1000454874
UniRef90_I010A4
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UniRef90_UP10002880B9C
UniRef90_UP10003FFDE0D
UniRef90_UP10003B3E56E
UniRef90_F2F6C0
UniRef90_UP10001E899AF
UniRef90_W9BAA1
UniRef90_F5SCC7
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UniRef90_UP1000225B871
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UniRef90_L5N5Z1
UniRef90_UP10004710441
UniRef90_A9WBX4
UniRef90_A0A024PGF7
UniRef90_K2FLA6
UniRef90_K9RPD0
UniRef90_UP100035C0A3B
UniRef90_N6YV20
UniRef90_UP1000476B29B
UniRef90_UP100037D3727
UniRef90_K8WQE5
UniRef90_K9PIT3
UniRef90_J8Q8W1
UniRef90_UP10003FA3240
UniRef90_UP10003A49BE1
UniRef90_Q3EK40
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UniRef90_X0SR08
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UniRef90_UP1000365B2D4
UniRef90_A8GGK2
UniRef90_S3ZNM6
UniRef90_UP10002EC88A8
UniRef90_A5V4S1
UniRef90_M3D431
UniRef90_A9B492
UniRef90_B4V9Z6
UniRef90_S9ULK2
UniRef90_X5DM42
UniRef90_M3C5E0
UniRef90_D3FUM4
UniRef90_L0A361
UniRef90_F2NKM4
UniRef90_U5QHE1
UniRef90_B8G5J9
UniRef90_Q72G76
UniRef90_H8GGU0
UniRef90_A0A010ZRN7
UniRef90_N0CVX8
UniRef90_F3A6D5
UniRef90_UP100035E898A
UniRef90_F8JX84
UniRef90_UP10003F7FBCD
UniRef90_I2MZX5
UniRef90_A4U1F5
UniRef90_UP100038001DF
UniRef90_UP1000378C865
UniRef90_U3QR93
UniRef90_D7AVX7
UniRef90_Q1AU0
UniRef90_A3JP2
UniRef90_F9DSY5
UniRef90_C7QI7
UniRef90_H1Y561
UniRef90_I3TL14
UniRef90_W9GY98
UniRef90_I0AH13
UniRef90_UP10004764718
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UniRef90_Q47PE0
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UniRef90_S9QFU8
UniRef90_UP10003472924
UniRef90_Q47OH7
UniRef90_G8ANM2
UniRef90_UP10003B5A18B
UniRef90_UP1000475D3D8
UniRef90_UP100046E9131
UniRef90_D3NUA2

1 Q S S S E I K | V R D E Y G M P H | 10 Y A N D T W H | 20 L F Y G Y G Y | 30 V V A Q D R | 40 L F

S A D V R V N R D G N G V P P H | L A D N E R D L F I A Q G Y V Q A Q D R | L F

G S V S V L R D S S G V P P H | T A Q N E H D L Y F S Q G Y V Q A Q D R | L F

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

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

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

A P V E I V R D A D G V P P H | F A T T D A D A F Y A L G Y V H A Q D R | L F

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

E N V K V V R D D K G V P P H | L T A K T D A D L Y R A Q G F V Q A Q D R | L F

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

D V L V R T D D N G V P P H | Q A A N E H D L Y M A Q G Y V V A Q H R | L F

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

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

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

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

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

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

Q D V T V T R D E K G V P P H | F A K T D A D L Y R A Q G Y V V Q A Q D R | L F

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

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

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

G K V T I R R D A H G M P H | V Y A D T V Y G I F Y G Y G Y A V A Q D R | L F

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

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

S G P V T V R D R D G V A H | T G T T D A D A V F G L G F V H A Q E R | L F

A Q V N V T R D E Q G V P P H | Q A E N E L D L F R A Q G Y V V Q A Q D R | L F

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

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

L T D P V D V V R D R D G N G V P P H | Y A D T D E D L F R A Q G Y V V Q A Q D R | R F W

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

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

G E V E V R R D N Y G I P P Q | Y A D S D E D L F R A Q G F V V Q A Q D R | R F W

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

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

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

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

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

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

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

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

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

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

A A D V T I K R D T Y G T P H | V Y A N D V Y G L F Y G Y G Y A I A Q D R | L Y

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

S P V D V K R D E H G V P P H | V Y A D S A D D L F L A Q G Y V V Q A Q D R | R F W

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

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

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

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

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

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

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

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

E P V E V A R D A Y G V V H | Q A R N L H D L F F A Q G G V V H A Q D R | L F

T A T V T I S R D A D P V V H | K A A T A A D L F F A Q G G V V H A Q D R | L F

S G S V T I V R D Q N G V A H | T G T T E T D A I F G L G F V H A Q E R | L F

Q P V E V V Y R D R F D V P H | V Y A Q S A D D A Y F A L G Y L H A R E R | L F

A D V Q V Y R D A Q G I P P Q | V Y A Q N A D D L F R A E G Y L H A V D R | F W

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

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

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

L T A P V Q V K R D D H G I P P Q | V Y A D D A A D L F R A Q G Y V V Q A Q D R | R F W

G A V V V Q Y D L N R V P H | F A S S N Y D L Y F A Q G Y V T A K D R | L F

G R V E V K R D D Y G V P P Q | V Y A D S D A D L F R A Q G F V V Q A Q D R | R F W

Y S A S I T R D D A G I P P H | T A R S G H D A Y F A M G W I H A Q D R | L F

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

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

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

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

P A E V V R E P S G V V H | V Y A A D E H D L F F A L G V H A Q D R | L F

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

N S V L V V R D E Q G V P P H | V E A R N E H D L Y F A Q G G Y V V Q A Q D R | L F

A S V E V D R D A Q G V P P Q | V Y A S S S H D L F F A Q G G Y V V Q A Q D R | R F W

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

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

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

S D I E I Y R D S F A I P Y | I A D T D E D V A F A L G Y L H A E E R | L F

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

L A Q P V S V Q R D A L G I P H | T A E T S D D L F F A Q G F V H A Q D R | R F W

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

A P V E I I V R D N A D V P H | F G E T D E D V V F F A L G G W A H A Q D R | L W

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

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

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

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

Q P V Q V R F D D K R V P H | F A Q N D H D L Y Y T Q G Y L T A Q D R | L W

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

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

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

QUERY	50	60	70	80
UniRef90_P07941	Q M E M A R R S T Q G T V A E V L G K D F	V K F D K D I R N Y W P D A I R A Q		
UniRef90_E5WMT5	Q M E M A R R S T Q G T V S E V L G K A F	V S F D K D I R Q N Y W P D S I R A Q		
UniRef90_UPI0004298F42	Q M D L S R R Q A S G R L S E V I G E G A	V E N D K Y F R T L G L R R A A E A S S		
UniRef90_C3BLV3	Q M D L S R R Q A S G T L S E V I W P S Q L	V D R D K Y F R T L G L R R A A E A S S		
UniRef90_Q67TD9	Q M D L T R R A A A G R L L A E V I W P S Q L	E T D K F F R A L N L R R A A E A S S		
UniRef90_UPI0004054874	Q M S M A R R Q A S G T L L S E V I G E Q A	V E Q D K Y F R T L G L R R A A E E R S		
UniRef90_I010A4	Q M E M N R R L G A G R L L S E I L G E A	T L S I D K F Q R T L G Y Y R A A Q A D S		
UniRef90_W4EQN1	Q M D L A R R Q A S G R L L S E V I V G E S	A V D T D K F F R T F S L R S A A E E K S		
UniRef90_UPI0002880B9C	Q M D L S R R Q A S G E L L S E V I G A S	L V E Q D K Y F R T L G L R R A A E M M S		
UniRef90_UPI0003FFDE0D	Q M E M S R R Q A S G T L L S E V A G E S	A I D H D K Y F R T L G L R R A A E T K S		
UniRef90_UPI0003B3E56E	Q M D M S M R R L A S G Q L L S E V V G K	G A V L V D K D K F F R T L G L R R A A E E R S		
UniRef90_F2F6C0	Q M D L A R R Q A S G T L L S E V V G E S	A L V N T D K F F R T F S L R H A A E E Q S		
UniRef90_UPI0001E899AF	Q M D L S R R Q A S G M L L S E V V G K Q A	L V D R D K F F R T L G L R R A A E E K S		
UniRef90_W9BAA1	Q M E M S R R Q A S G T L L S E I V G S A A	V D N D K Y F R T L G L R R A A E E A S		
UniRef90_F5SCC7	Q M E M S R R L A S G R L L S E V V G E K	T L D Q D R F F R T L G L R R A A E E A S		
UniRef90_X1N2C9	Q M E L T R R A G L G K L L S E I F G R K	A L E R D R F F L R T L D L K E A A R K D S		
UniRef90_D7WXP8	Q M D L A R R Q A S G R L L S E I I G E A	T I N T D K H F R T F S L R R N A A E E Q S		
UniRef90_UPI000225B871	Q M E L S R R Q A S G T L L S E V V G E S T	I I V D Q D K Y F R T L G L R R A A E E K S		
UniRef90_I8UFS9	Q M D L S R R Q A S G E L L S E V I V G K	K K T I L D K D R Y F R T L G L R R A A E Q A S		
UniRef90_UPI00038136F7	Q M E M N R R G H G R V V A E V L G E A	G L F D K S I R G N F S P E R I Q R Q		
UniRef90_R4XU23	Q M E M A R R S T Q G R V V A E V L G A S	M V A F D K S I R G N F S P E R I Q R Q		
UniRef90_L5N5Z1	Q M E L A R R Q A S G R L L S E V V G E A	T I V D Q D R Y F R T L G L R R A A E E K S		
UniRef90_UPI0004710441	Q M E M N R R I G A G R L L S E V L G P S	A I G K D K F L R T V G F Y H A A A S T		
UniRef90_A9WBX4	Q M E V Q R R Q H A R L L S E I V L G A	T T A G T L Q T D K F L R T L G V A R A A A R S A		
UniRef90_A0A024PGF7	Q M E L A R R Q A S G R I I S E V V G E V	T V T V D Q D R Y F R T L G L R R A A E E K S		
UniRef90_K2FLA6	Q M E L S R R Q A S G E L L S E I I G S S	T T V E Q D K F F R A L L G L R R A A E E A S S		
UniRef90_K9RPD0	Q M D F W R H G A G R L L S E M F G E S	S Q L D K D K F L R T L M G W K K L A E Q E		
UniRef90_UPI00035C0A3B	E M D V R R H M T A G R L L S E M F G K G	Q Q I K T D E F L R T L G W H E V A Q K E E		
UniRef90_N6YV20	Q M E M A R R S T Q G T V V A E V L G D K	F L I A F D K A T R A N Y W P A S I H G Q		
UniRef90_UPI000476B29B	E M D F R R H V T A G R V V S E L L F G E	S Q V V K T D T Y L R T T M G W R R V I S E Q E E		
UniRef90_UPI00037D3727	E M D V R R H M T S G R L L S E M F G S G	Q V V E T D A F L R T L G W R R V A Q Q E E		
UniRef90_K8WQE5	Q M E M A R R S T Q G T V V S E V L G K D	Y I S F D K E I R N N Y W P D S I H Q Q		
UniRef90_K9PIT3	Q M D F W R H G S G R L L A E M F G A S	Q V V E T D K Y L R T M G W A R V A Q Q E E		
UniRef90_J8Q8W1	Q M D L S R R Q A S G T L L S E V I I G E A	S I E N D K Y F R T L G L R R A A E D S S		
UniRef90_UPI0003A3240	Q M D L V R R H V T A G R L L S E M F G A	G Q V V E T D A F L R T L G W H R V A Q Q E E		
UniRef90_UPI0003A49BE1	E M D V R R H V T A G R L L S E M F G A G	Q Q V V E T D A F L R T L G W H R V A Q Q E E		
UniRef90_Q3EK40	Q M D L S R R Q A S G M L L S E V V G E A	A A V D R D K L F R T L G L R R A A E A S Q		
UniRef90_D7BAM9	Q M E L I A R R T A A G R L L A E I L G R	S A L L E E Q D K F L R T W G F Y R A A Q A Q		
UniRef90_X0SR08	Q M E I T R R A G F G K L L S E I F G K R	S S L E E K D K F L M R N L G L K E A A L K N		
UniRef90_D7BBE1	Q M E F Q R R V G A G R L L S E V L G K A	T A T E Q D K F L R T W G F Y R S A E R A		
UniRef90_A0A022G613	Q M E M A K R S T Q G T V V A E V L G E K	F A K V D E R D S Y F R T L G L R R A A E E Q Q		
UniRef90_UPI000365B2D4	E M D V R R H M T A G R L L S E M F G S G	Q Q V V E N D K F L R T L G W R K V A E Q E		
UniRef90_A8GGK2	Q L E M S R R R S T E G R V V A E V L G K	D Y I V E T D A F L R T L G V Y R A A E S A		
UniRef90_S3ZNM6	E M D V R R H M T S G R L L S E M F G K S	Q V V E T D A F L R T L G W H R I A E K E E		
UniRef90_UPI0002EC88A8	E M D V R R H T T S G R L L S E L F G E E	Q V V E T D A F L R T L G W R Q V A Q A E		
UniRef90_A5V4S1	Q M E M L R R T A E E G S V V A E I L G A	K Y V E H D V R V R Q G W T P S S I A A A Q		
UniRef90_M3D431	E M D V R R H M T A G R L L S E M F G S G	Q Q V V E T D A F L R T L G W H R I A E E E		
UniRef90_A9B492	Q M E F Q R R R I A R G T L L S E A L G E	T T V E T D R F L R T L G V Y R A A E S A		
UniRef90_B4V9Z6	E M D V R R H M T S G R L L S E M F G S G	Q V V E T D A F L R T L G W R Q V A Q A E		
UniRef90_S9ULK2	Q M D L S R R Q A S G Q L L S E V V G A K	A I I D R D K F F R A F S L R R A A E V S		
UniRef90_X5DM42	Q M D L L R R H V T Q G R L L S E L G K D	Q L D E T D L M M R A I R I Q E K S E K		
UniRef90_M3C5E0	E M D V R R H L T A G R L L S E M F G S G	Q Q V V E T D A F V R T L M G W R R T A Q K E		
UniRef90_D3FUM4	Q M D L S R R Q A S G M L L S E V V G E A	A A V V E T D A F V R T L M G W R R T A Q K E		
UniRef90_L0A361	Q M E F Q R R R I A Q G R L L S E V L G S	A A L L D D T D K F F R S G L R R A A E A S		
UniRef90_F2NKM4	Q M E F F Q R R R V G A G R L L A E V L G E	A A L L E E Q D K F L R T W G F Y R A A Q A A		
UniRef90_U5QHE1	Q M E F F Q R R R I G C H A R L L S E I I L	G E A T T L K T D R F L R T V G L C R A A A Q T A		
UniRef90_B8G5J9	Q M E V R R R I I G H A R L L S E I I L G E	A T L L Q T D K F L R T L G V A R A A A Q H A		
UniRef90_Q72G76	Q M E F Q R R R V G Q G R L L S E I I L G E	A T L L P Q D R F L R T W G F Y R A A R A A		
UniRef90_H8GGU0	Q M E L S R R R A G S G R L L A E L F G P	S Q V V E T D A F L R T L G W R R R V A E Q E		
UniRef90_A0A010ZRN7	E M D F R R H V T S G R L L S E M F G S G	Q V V V E T D S D S F L R T L G W R K V A Q Q E		
UniRef90_N0CVX8	E M D V R R H M T A G R L L S E M F G S G	Q V V V E T D S D S F L R T L G W R K V A Q Q E		
UniRef90_F3A6D5	Q M D L A R R Q A S G R L L S E V V G K A	A I I E T D K K Y L V F S L R K A A E K S		
UniRef90_UPI00035E898A	E M D V R R H M T S G R L L S E M F G K E	Q V V V E T D K K Y L V F S L R K A A E K S		
UniRef90_F8JX84	E M D V R R H L T A G R L L S E M F G S G	Q V V V E T D A F L R T L G W R Q V A Q Q E		
UniRef90_UPI0003F7FBCD	Q M E F Q T H A A A G R I L L S E V L G K	C A I V E N D A F I R R T L G M V Y G A Q Q S		
UniRef90_I2MZX5	E M D V R R H M T A G R L L S E M F G S G	Q V V V E T D A F L R T L G W R K V A Q Q E		
UniRef90_A4U1F5	Q M E L Q R R R I G A G R L L A E I V G E	A G L L K S D R F M R T L G L Y R L A Q G S		
UniRef90_UPI00038001DF	Q M D L Q T R A A A G R L L S E I I L G P	A T L L A M D Q S R R L G M G Y G A E A N E		
UniRef90_UPI000378C865	E M D F R R H V T S G R L L S E L F G E	S Q V V G E S Q V V K T D A F L R T L G W H E I A E Q E		
UniRef90_U3QR93	Q M Q M N K R V V A G R L L A E I I L G P	S A L L D N D R F L R T L G W H E I A E Q E		
UniRef90_D7AVX7	E M D F R R H V T A G R T A E L F G P D	Q V V V D T D V Y L L R T T M G W R H V A E Q E		
UniRef90_Q1AU0	Q M E F Q R R R V G A G R L L S E V L G R	A A I L E E Q D R F L R T T F G F Y R A A R S A		
UniRef90_A3JPJ2	Q M V T M R R T A Q G Q R L L S E V L G F	E R T L K I D E L M R R Y D L Y G I Q A S S		
UniRef90_F9DSY5	Q M D L L K R R Q C S G R L L S E I I F G	K S T F H T D Q F F R T I G L C R A A A E K S		
UniRef90_C7QI7	Q M D V Y R R H V T A G R L L S E M F G S	S Q V V D T D K F I R T L M G W R D V A E Q E		
UniRef90_H1Y561	Q M D I Q T R S A S G R L L A E I V G A K	A L L D V D R Y H R R T M G M V Y G A E N T		
UniRef90_J3TL14	Q M E F Q R R R V G S G R L L S E F A G	K S T L L S I D R F I R T I G V V Y G H A E R A		
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UniRef90_G8ANM2	Q M E T M R R R A G A G R L L A E I I L F G	D W A L L R L D R S M R T L G V Y R R A E E A		
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UniRef90_UPI00046E9131	Q M E L A R R R S V S G T L L A E I V P Q D	R N T I G F R R M A D Q L		
UniRef90_D3NUA2	Q M E T M R R R A G A G R L L A E I I G D	F A L L R T D R L L M R T L G I Q R R A A E A M		

90 100 110 120

QUERY	I A A L S P E D M S I L Q G Y A D G M N A W I D K V N T N P E T L L P K Q F N T		
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UniRef90_UPI0003FFDE0D	Y D V Y S T E A K Q V L D A F A A G V N A Y I L T E A I E T N S L L P I E F T L		
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UniRef90_F5SCC7	L S Y S G E A L T A K T Y A R G V N A Y I R Q A T E N G E L P V E F T L		
UniRef90_X1N2C9	F E K L S S K M K S L L L S Y S M G V N S W I N S R R L N W P P E F L L		
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UniRef90_UPI000225B871	Y Q I Y S D E S K Q I L Q W F A D G V N T Y I N Q A K E S N S L P I E F T L		
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UniRef90_UPI000476B29B	W A L L A P E T T K S V L E A Y A A E G V N A W L A E F P E G N S L E E Y T L		
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UniRef90_UPI0003FA3240	Y S K Y D K N G Q N V L W N W Y A E G V N A Y I K Y A I K E N K L P V E F K I		
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UniRef90_D7BAM9	F E K L S P K M K N L I L S Y S D G V N S W M N S R K F D W P P E F I L		
UniRef90_X0SR08	Y A A L P P E S Q K F I L Q A Y S E G V N A Y I L K D H K G A D S F E Y A L		
UniRef90_D7BBE1	Y Q G I S P Q A K A A L D A Y V A G V N A Y I L A T N P P L P E F R L		
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UniRef90_A8GGK2	L A A L P Q S D R D I L L D G Y A A G Q I N A W L K I D A N P P Q L M P K Q F I D		
UniRef90_S3ZNM6	Y D K L S P R T K K Y I L Q A Y A K G V N A Y I L D G K D G K E I S V E Y A A		
UniRef90_UPI0002EC88A8	Y E Q L S S G K T K K Y I L R S Y A R G V N A Y I L K D H K A A S V E Y G M L E L T G		
UniRef90_A5V4S1	Y E A L L D R D D R A I F D G Y A A G Y N A R V K E V L A D R K R L M P R E F T E		
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UniRef90_A9B492	Y V A L L D P A A K T I V D A Y V S G I N A F L A E H S G G E L S P E F T L		
UniRef90_B4V9Z6	Y D K L S P E T K K Y I L Q S Y A D G V N A Y I L K G K S G K D L S V I E H A A		
UniRef90_S9ULK2	L G A Y S E E S R Q V L Q W Y A D G V N N Y I K H A K A A S S L P V E F S I A		
UniRef90_X5DM42	L A T S S P E I T A L I E A Y S D G I N Q Y I R K Y P L P P E F K V		
UniRef90_M3C5E0	Y D K L S P E T K K Y I L Q A Y S D G V N A Y I L A D H K G K S L S V E Y A A		
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UniRef90_F2NKM4	Y D N L S P E A K A A V D A Y V A G I N A Y I L A T N P P L P E F R I		
UniRef90_U5QHE1	W Q R Q R P Q M K R F I E A Y V A G I N A F L V G A H H G G E L P V E F T I		
UniRef90_B8G5J9	L A K L D D R E T I T L I E A Y A A G V N A F F L A I N P V L P P E F L I		
UniRef90_Q72G76	Y G K L Y P E E K E A V D A Y A A G V N A F F L A S G A P L P P E F R I		
UniRef90_H8GGU0	W A R L L D P A T Q A S L Q A Y A A K G V N A G I A R S R W L P I E F Y L I		
UniRef90_A0A010ZRN7	L P L L S A E S R R R W L Q A Y A A E G V N A W I G E H S G R S A G I S V E Y A V		
UniRef90_N0CVX8	Y D E L L D E D T K R W L N Q S Y A E G V N A Y I E E A K R D K K L S Y E F S L		
UniRef90_F3A6D5	Y D G Y S E S A K K I L N Y Y A E G V N A Y I E E A K R D K K L S Y E F S L		
UniRef90_UPI00035E898A	Y D K L S P Q T K K Y I L Q A Y A A G V N A Y I E E G K E G R D V S V E Y A A		
UniRef90_F8JX84	W D Q L S P T A K A Y I L R A Y S D G V N A Y I L S G H H G S A L S V E Y A V		
UniRef90_UPI0003F7FBCD	L A R A D P E T K E S V I E A F T A G V N A Y I L K K L T P A D Y P I E Y K L		
UniRef90_I2MZX5	F D E L S A D T K A Y I L T A Y A D G V N A Y I L K G K E G K E L S V E Y A A		
UniRef90_A4U1F5	L A Q L L D D P T R E A L L R A Y T E G V N A W I D D N R R H R L P P E F L L		
UniRef90_UPI00038001DF	L A M T D P K T R E A L L G Y T A G V N A F I R Q L A P K D Y P I E F K L		
UniRef90_UPI000378C865	V E A L S S D T E R G Y Y I D A Y A D G V N A Y I L A E H Q G A D S F E Y A V		
UniRef90_U3QR93	L A Q T P P E T R A A L Q A Y A D G V N A W I D H R K G P L P P E F L L		
UniRef90_D7AVX7	Y E L L A P E T Q A H L D S Y A A G V N A W L A E N D G T K A S L E Y G L		
UniRef90_Q1AU0	Y R S L S G P E G R A A V D A Y V A G V N A Y I R T D P G L P L E F R L		
UniRef90_A3JPJ2	V E A A Q D P E T R A A L I E A Y A A R G V N A W I A E V N A D A R G R G A P E F F L		
UniRef90_F9DSY5	L P L Y S A Q T K K I L H S F T Q G V N A Y I K D A L R R R K L P I E F I M		
UniRef90_C7QI7	Y A G L S P E T K A Y A N A Y S D G V N A Y I L K D H K G S K A S V E Y A V		
UniRef90_H1Y561	L K E C D P Q S K I L V L E A Y C A G V N E Y I H H L P S K Y Y P I E F K L		
UniRef90_I3TL14	Y E K L L D D Q T R R K L R D A Y V A G V N A Y I A S H D G A W P L E F V L		
UniRef90_W9GY98	I R A L A P E V Q A A L T A Y T A G V N A S I E N R S G P L P I E F Q I		
UniRef90_I0AH13	Y D N Y D P Q V K K I L E A Y S N G V N L Y I E Q N R G R Y P V E F D V		
UniRef90_UPI0004764718	L P L L S E D T R A Y L D A Y A K G V N A W L S A H P N A S D R S L E E Y S I V		
UniRef90_UPI00046830CC	V A Q L P P E T L A Y Y E A Y A A G V N A Y I L A E R S G A D L S L E E Y A V		
UniRef90_Q47PE0	Y D L L A E E T R Y R Y I L D A Y A E G V N A Y I E G K S A T E V S L E E Y A V		
UniRef90_UPI00037686A5	Y E D Q D P P G T Q A A L D A Y A A G V N A W L E E V N E G A R G R G A P E M W L		
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UniRef90_UPI0003472924	Y E L L E P P E T R A A L Q A Y A A G V N A Y I L D Q R K R D G G E L G E F S V		
UniRef90_Q47OH7	Y A Q L E P D T R A A L Q A Y A A G V N A Y I L D Q R K R D G G E L G E F S V		
UniRef90_G8ANM2	Y E E L S P E A R T A F D A Y A A G V N A W M E T R R E A L P I E F Q L		
UniRef90_UPI0003B5A18B	L D S A D P L V R G V L T S Y S D G V N A Y I N T L T P K T M P F E Y K L		
UniRef90_UPI000475D3D8	W Q A V Q G E T R R A I E A Y A A G I N A F V E Q H M D V R P P E F F L		
UniRef90_UPI00046E9131	V P K L L D E R T K E A L Q A Y A A G V N A F R E T G P L P I E Y T L		
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QUERY	130	140	150	160
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UniRef90_C3BLV3	L G Y E P P E E W T P V D S L T I G K Y M A F D L G G H W Q S Q A F N Q Y			
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UniRef90_UP10003FFDE0D	M G F K P K E K W T P I D S S L T I G K Y M A F D L G G H W E R Q A F N Y Y			
UniRef90_UP10003B3E56E	A G Y K P R T W T P V D S S L I G K Y M A Y D L G G K W K G Q A F R Y M L M			
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UniRef90_UP10001E899AF	M G Y E P P E E W T D L D S S I T I G K Y M A F D L G G H W E G Q A F R H H			
UniRef90_W9BAA1	M G S K P A E W T P L D S S L T I G K Y M A F D L G G H W E S Q A F N H Y			
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UniRef90_D7WXP8	L G Y E P P E E W T V V D S S L T I G K Y M A Y D L G G N W N T L A F R H W A L Q N			
UniRef90_UP1000225B871	I G S E P A E W T P I D S S L T I G K F M A F D L G G H W E R Q A F N Y Y			
UniRef90_I8UFS9	A G Y E P P S A W T P I D S S L T I G K Y M A F D L G G H W E G Q A F R Y Y			
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UniRef90_L5N5Z1	M G I E P P E P W T P L D S I T I G K Y M A F D L G G H W E R Q A F H A Y			
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UniRef90_K9RPD0	L E Y Y L P E P W Q P I H S I L W G K V M A Y D L S T N L G D E I E R T I I L L K S			
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UniRef90_UP1000476B29B	L G Y K I E P W H P T I D S L A W L K A M A W D L L R G N M E D E I I R R A S L L A H			
UniRef90_UP100037D3727	L D Y K P E P Q W T P V D S V A W L K A M A W D L L R G N M Q D E I I D R S L L T S R			
UniRef90_K8WQE5	Y D F L P S Q W T S F D V A M I M V G T M A N R F S D M N S E I I D N L A L L T A			
UniRef90_K9PIT3	L G Y K P E L W Q P L H S L T W G K V M A Y D L L G R N F Q S E I E R T I T I			
UniRef90_J8Q8W1	L G Y E P P E G W T I V D S L T I G K Y M A Y D L L G G H W E N Q A F R Q Y			
UniRef90_UP10003A3240	L K Y K P T K W T A I D S L V I G K Y M A F D L G G H W N E Q A F R Y Y A M			
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UniRef90_S3ZN6	L D Y K P Q K W T P V D S V A W L K A M A W D L L R G N M Q D E I I D R S L M T S R			
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UniRef90_A5V4S1	L G V D P V P W T P T D V L A G Y V H S M A L R F S D A N A E I I D N L A L L T K			
UniRef90_M3D431	L G Y R P E E W T P V D S V A W L K A M A W D L L R G N M Q D E I I D R A L M T S R			
UniRef90_A9B492	V G V E P E P W V G A D V L G W A K M M S W D L L G G N Y S T E L L T M E			
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UniRef90_D3NUA2	L R H T P E P W T I A D S L V W A K L M A Q L S A N Y R D E L F R S R			

170 180 190 200

QUERY	L K D K Y G V S Q G M A V F N Q L K W L V N P S A P T T I A V Q E S N Y P L K F	V K D K Y G N D E G M A V F N Q L K W L V N P S A P T T I A A R E S S Y P L K F		
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UniRef90_E5WMT5	L L Q H F P E D K A Y E L F P S Y P E E A P Y I I G K E E S F A N A I T P P E F	L L Q H F P E D K A Y E L F P S Y P E E A P Y I I G K E E S F A N A I T P P E F		
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UniRef90_N6YV20	L I D K H G E A K G K Q I F D Q L K W I V D P E T P T T I A P E E G E Y A V S L	L I D K H G E A K G K Q I F D Q L K W I V D P E T P T T I A P E E G E Y A V S L		
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UniRef90_X0SR08	L V K K L G V Q K A L Q I L E E G I A V P P S E T E D V F L S E W L P P L P F	L V K K L G V Q K A L Q I L E E G I A V P P S E T E D V F L S E W L P P L P F		
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UniRef90_UPI000365B2D4	L S D K L T V N Q I D E L Y P P Y P Y E V N K P I V R D G A I	L S D K L T V N Q I D E L Y P P Y P Y E V N K P I V R D G A I		
UniRef90_A8GGK2	L I K K D G E T Q G K A I F N L L S Q D N A G A P T T V P K G E W Q P S V R	L I K K D G E T Q G K A I F N L L S Q D N A G A P T T V P K G E W Q P S V R		
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L A A D V T V Q R D G H G I P T L T A T S T D D L L F R A Q G Y V H A Q D R F W	L A A D V T V Q R D G H G I P T L Y A D T D A D L M R A Q G F V A A Q D R F F
G H V E V I R D D H G I P P Q I L A E N D A D A F F G L G Y A H A Q D R L W	A A A A V E I V R D N S G V P H F A Q N D H D L Y T Q G Y L T A R D R L W
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S A P V E I V R D S A N V P H F G D R D E D V L Y G L G Y A H A Q D R L W	P T A P V E I V R D N A S G V P S F G S S D E D V F F G L G Y A H A Q D R L W
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L S A P V D V K R D G K G V P Q Y A D T N E D L F M A Q G F V Q A Q D R F W	A P V T V H R D E S G V P T V A E T R H D A Y F T M G W V H A Q D R M W
K T T I I T R D S V G I P T V A E T R H D A Y F T M G W V H A Q D R M W	D V E I I T R D N W G V P H V Y A G D V Y G L Y A G F G Y A V A T D R L F
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L S A P V E V V Y D E N L I P H F G E T D T D V F F G L G Y A H A Q D R L W	T A S V E I I V R N N N A N V P H F G E T D D E D V F F A L G G M A H A Q D R L W
S A P V E I I V R D N A N V P H F G E T D D E D V F F A L G G M A H A Q D R L W	R L T A E V E V I R D A N G I P H Y A D T P E D L F R A Q A Y V H A Q D R F W
L T A P V T V H R D D H G I P P Q V Y A T T A E D L F R A Q G Y L H A Q D R F W	L T A P V T V H R D D H G I P P Q Q A A N Y H D G L F G L G F V H A Q D R L W
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Q L Q E V T V L R D E R G V A H V Y S D N A E D L F V A Q G F T H A Q D R F W	E L S G P V T V L R D G Q G V A H V Y A Q S T E D A L F A L G F V H A Q D R F W
A P V E V V R D R D Y A V P H V Y A Q S T E D A L F A L G F V H A Q D R F W	K I E I V F D D R M I P H F A Q N D H D L Y L A Q G Y V T A M H R L W
L S A P V E V V H D A H G V P P H F A T E T D A Y R V L G W L H A R D R L A	L T K P V T V Y R D D A G V P P Q L S A S T A D D L F R A Q G Y V H A Q D R F W
L N D K V V V T R D E N A V P H V I A T T D H D A F F A M G Y V H A Q E R L W	L S A E V S I I A R D G N G V P P T K A A T R A D V A A G L G F G V H A Q D R L W
L S A P V E V V H D A H G V P P H F A R A S I E G A L F G L G F V H A Q D R L W	L D V R I E R D A H G I P T R A A S I E G A L F G L G F V H A Q D R L W
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P V H V Y R D H R G V P P H Y A D Q A H D L F M A Q G F T H A Q D R F W	S R V E V V R D E H G V T N Y A D Q A H D L F M A Q G F T H A Q D R F W
L A D P V V I T F D E A D I P H K A K S Q A D A L F A L G Y L H A S E R S W	L A D P V V I T F D E A D I P H K A K S Q A D A L F A L G Y L H A S E R S W
K T T I I T R D S V G I P P K V I A D T R H D A Y F A M G W V H A Q D R M W	E E V R I Q Y D E F L V P H T A A N N H D Y Y A Q G Y V V T A M H R L W
E E V R I Q Y D E F L V P H T A A N N H D Y Y A Q G Y V V T A M H R L W	T A D I E I V R D N N A V P H M A L S D R D A F F G L G Y V H A Q D R L W
L T S S V Q V I R D D R G V P T Y A D N A A D L F R A Q G Y V H A Q D R F F	L T S S V S V H R D A Q G V P T Y A D N A S D L F R A Q G F V S A Q D R F F
L S A P V T V A R D V H G V P P T V Q A Q N L D D L F F A Q G F V V A A Q D R L W	L S A P V T V A R D V H G V P P T V Q A Q N L D D L F F A Q G F V V A A Q D R L W
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N P V E I V R D N A N V P H F G E N D E D V F F G L G F A H A Q D R L W	N P V E I V R D N A N V P H F G E N D E D V F F G L G F A H A Q D R L W
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D I I I E R D P Y A T A Y R A E T D I D A F F A L L G Y L H A S E R S W	D I I I E R D P Y A T A Y R A E T D I D A F F A L L G Y L H A S E R S W
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 Q L E M S R R T S T Q G S V A E V L G Q E Y L K F D I G I R Q N Y S P K S I R L Q
 Q M T L S Q I A A E G R F A E F F G P E L V E L D K Y Q R T L G F W R T S Q K L
 Q M T M L R R T A Q G R L S S E I F G E R T L S I D S V I R R L D I Y N L A L Q S
 Q L E L I R R M S R G E L S S E V L G K S T L L G L D L F V R T L G L S Q A A D S A
 Q M E G M R R L G A G R M A E L L G P R A L P I D R F M R T L G L H A L I A E T
 Q L E L Q K R M A Q G R L S S E V L G R D A L G S D I W R S L G I Y G A A E Q A
 Q M E F Q I L A A A G K G I S S E I V G P Q A L E F D R L Q R R K G L A F G A E R F
 Q M D F Y T R V T S G R L S S E V M G P L A L D F D R Y N R R L Q L P E G A A K L

90 100 110 120

UniRef90_X5MNK9	L A V L S P E L R A A L D A Y A A G V N A Y M S E	S T R P Y P P E F Q V
UniRef90_D2QS41	V K E M D P R T R E A I E S Y T A G I N A Y I N Q L	S P S G Y P L E Y K L
UniRef90_A7NJ94	L E R L D A N T I A I L E A Y A A G V N A F L S T N P T	L P P E F L I
UniRef90_I0K4L7	V D F M D P R T K A C V E A Y T A G I N A Y I A Q L K	P A H Y P L E Y K L
UniRef90_UPI00036FF1C3	V D A L P E D A R G Y Y E A Y A A G V N A Y L E E	R S G G G L A L E Y T I
UniRef90_R7XS11	W A L L E T E T R D A L T A Y A Q G V N A Y L D Q L G T	S E I A V E Y T I
UniRef90_X6L090	V Q A Q D A R T A E A L R A Y A A G V N A R I T E I N T E S L G R G A P E L F L	S P K E Y P F E Y K F
UniRef90_W8ERK8	L R A M N D T T R L V L E S Y S A G V N A Y I S S L	S R S G A E L S L E Y A V
UniRef90_UPI00046971CE	V E A M D D V T R G Y Y E A Y A A D G V N A Y L S	S R S G A E L S L E Y A V
UniRef90_A3TXM4	V E V Q D A E T T M S K L R A Y A A G V N A R I L D E I N T S A L G R G A P E L F I	S P K E Y P F E Y K F
UniRef90_Q1GGX9	V S A Q S P E T L R A L Q A Y A A G V N A R I L Q E I I N E D A L G R G A P E M F L	S P K E Y P F E Y K F
UniRef90_S9Q3Z9	V E A A Q D G A T L D S L A A Y A A G V N A R I I E E V N D R S L G R G A P E F F L	S P K E Y P F E Y K F
UniRef90_D0D0Y1	V A S Q T P E T L A A L R A Y S A G V N A R I I T E I N E H S L G R G A P E F F L	S P K E Y P F E Y K F
UniRef90_UPI000377B58C	Y D K L S D E T K R Y L E A Y T K G V N A Y L S	G R S G S E L S L E Y A V
UniRef90_UPI0004705E84	V K K L D K T S G Y Y E A Y A A D G V N A Y L K D	K S P T E L S L E Y A V
UniRef90_M3AVG8	L G A L S E Q T R S A L Q S Y A D G V N A W M A Y	N I H R L P P E F T I
UniRef90_A0A021WY55	I E A L S K E E R D I L R G Y A A G Y N K R V A E V L A D R S R L L P K E F S D	I E A L S K E E R D I L R G Y A A G Y N K R V A E V L A D R S R L L P K E F S D
UniRef90_UPI000474959B	L A A L A P Q E L Q I L Q G Y A E G I N R H L G E I E Q R P D S V L P K Q F S H	L A A L A P Q E L Q I L Q G Y A E G I N R H L G E I E Q R P D S V L P K Q F S H
UniRef90_K2JLM6	V E Q A S P A L R E V L D A Y A E G V N T W L D T H K	G A L P P E F V L
UniRef90_E8U4P4	L P T L N A R T R A L V S A Y T A G V N A A I A Q	D R V P L E F R L
UniRef90_A4E4M85	V D A Q T D E A N A Y L E A Y A S S G V N A W L N E V N N G A L G R G A P E M W L	V D A Q T D E A N A Y L E A Y A S S G V N A W L N E V N N G A L G R G A P E M W L
UniRef90_UPI00042937A1	L Q E K D P E T L A L V E A Y A A D G V N Q Y I A Q L N N A R L P V E Y K I	L Q E K D P E T L A L V E A Y A A D G V N Q Y I A Q L N N A R L P V E Y K I
UniRef90_B6AX21	V A S Q D A R T S D A L S A Y A A G V N M R I T E I I N N R S L G R G A P E M F L	V A S Q D A R T S D A L S A Y A A G V N M R I T E I I N N R S L G R G A P E M F L
UniRef90_M9RNP2	V Q A L D G Q T Q A A L E A Y S D G V N A W I G Q V N A G A R G R G A P E M W L	V Q A L D G Q T Q A A L E A Y S D G V N A W I G Q V N A G A R G R G A P E M W L
UniRef90_UPI000479491E	L P L I S P E S R R Y F D A Y A A D G V N A W D G H D G G E L G L A Y T L	L P L I S P E S R R Y F D A Y A A D G V N A W D G H D G G E L G L A Y T L
UniRef90_A8LVE5	W D I L A A D T K R Y L Q V Y A D G V N A W L D E H D G G R A S L E Y A V	W D I L A A D T K R Y L Q V Y A D G V N A W L D E H D G G R A S L E Y A V
UniRef90_A9AW93	W N A L D P A S Q Q A I Q A Y I L A G I N Q F I D E V G A D P A R L M P K Q F L D	W N A L D P A S Q Q A I Q A Y I L A G I N Q F I D E V G A D P A R L M P K Q F L D
UniRef90_W8H6G1	L A R L D P Q N E H D I F E G Y A E G F N K R I D E V G A D P A R L M P K Q F L D	L A R L D P Q N E H D I F E G Y A E G F N K R I D E V G A D P A R L M P K Q F L D
UniRef90_C0GKT7	V E K F D A E A S I M V E S Y A A G V N A Y I E E A F A A G R Q P V E F R I	V E K F D A E A S I M V E S Y A A G V N A Y I E E A F A A G R Q P V E F R I
UniRef90_UPI0004780A1A	Y D L L E E D T Q R Y L D A Y A A G V N A W I D D N Q G L S A S L E Y G L	Y D L L E E D T Q R Y L D A Y A A G V N A W I D D N Q G L S A S L E Y G L
UniRef90_D7CYD7	L P N L S A Q A R G A L L G A Y T E G V N A F L T T R R G A L P P E F L I	L P N L S A Q A R G A L L G A Y T E G V N A F L T T R R G A L P P E F L I
UniRef90_UPI00046873AA	L K G M D P K A K E M I L A Y T E G I N A Y I K T L S H A N Y P L E Y K I	L K G M D P K A K E M I L A Y T E G I N A Y I K T L S H A N Y P L E Y K I
UniRef90_B6IMU7	Y E T L P P V R A A V D A Y T E G V N A W L E R P T G P L P V E F W L	Y E T L P P V R A A V D A Y T E G V N A W L E R P T G P L P V E F W L
UniRef90_UPI0004764366	V K L L D P T S L R Y Y Q D Y A D G V N A Y L K Q R S G A G L S L E Y A I	V K L L D P T S L R Y Y Q D Y A D G V N A Y L K Q R S G A G L S L E Y A I
UniRef90_UPI00036D2C80	U E N L D E E S L R V L R T Y A K G V N A W I Q E G N V L P A A E F Y I	U E N L D E E S L R V L R T Y A K G V N A W I Q E G N V L P A A E F Y I
UniRef90_A9D6T7	L A V M D E D T M A M M E G Y A R G I N A W M T R N P Q A F S S R L P P E Y V I	L A V M D E D T M A M M E G Y A R G I N A W M T R N P Q A F S S R L P P E Y V I
UniRef90_B1Y0R7	W E Q T R G E A R Q A L E A Y A A G I N A Y L S K H L R A R P P E F L I	W E Q T R G E A R Q A L E A Y A A G I N A Y L S K H L R A R P P E F L I
UniRef90_C3DAI2	I S L Y S E E T L E W M Q S Y C D G V N T Y I E H A K K L N R L P V E F T I	I S L Y S E E T L E W M Q S Y C D G V N T Y I E H A K K L N R L P V E F T I
UniRef90_M8DDR1	L T Q C S P A T R K I L L D S F S Q G V N A Y L R Q A V I E N T L P L E C N L	L T Q C S P A T R K I L L D S F S Q G V N A Y L R Q A V I E N T L P L E C N L
UniRef90_UPI0004779952	Y E L L D E D T R A H L D S Y A D G V N A W L E Q N Q G D A S A S L E H S L L T V	Y E L L D E D T R A H L D S Y A D G V N A W L E Q N Q G D A S A S L E H S L L T V
UniRef90_A4SY02	Y D H Y P L T I K R D L Q A Y A D G V N A G N A N L G W A L P I E Y F L	Y D H Y P L T I K R D L Q A Y A D G V N A G N A N L G W A L P I E Y F L
UniRef90_Q2W445	L G A L P E P T R S A L Q S Y A D G I N A W L S Y N T H R L P P E F D L	L G A L P E P T R S A L Q S Y A D G I N A W L S Y N T H R L P P E F D L
UniRef90_UPI000476E6F4	L R E Q D P E V K E A L A A Y S R G I N D Y I R Q L D F A E L P F E F F L	L R E Q D P E V K E A L A A Y S R G I N D Y I R Q L D F A E L P F E F F L
UniRef90_A3K6E3	V A H Q D P R T L D A L E A Y A A G V N A R I S E I N A E A L G R G A P E F F L	V A H Q D P R T L D A L E A Y A A G V N A R I S E I N A E A L G R G A P E F F L
UniRef90_W9G5X2	L P K L A P E T R T Q Y L Q A Y A D G V N A Y I K R A G S P E K M S L E Y T F	L P K L A P E T R T Q Y L Q A Y A D G V N A Y I K R A G S P E K M S L E Y T F
UniRef90_UPI0003644B0F	L P K L A P E T R T Q Y L Q A Y A D G V N A Y I K K A E T P E K M S L E Y T F	L P K L A P E T R T Q Y L Q A Y A D G V N A Y I K K A E T P E K M S L E Y T F
UniRef90_Q1IL79	V A V L S T R D R Q Y L E D Y A K G V N A Y I I A Q H Q K T L P L E E F R L	V A V L S T R D R Q Y L E D Y A K G V N A Y I I A Q H Q K T L P L E E F R L
UniRef90_E2SDJ0	L P L V D D D T R R L L E A Y A S G V N A Y I I E G K S G S D L S L E Y A V	L P L V D D D T R R L L E A Y A S G V N A Y I I E G K S G S D L S L E Y A V
UniRef90_UPI0003B6CCC9	L P A L S D R S R R L L I R A Y A A G V N A R I L D Q I I N S D A L G R G A P E M F L	L P A L S D R S R R L L I R A Y A A G V N A R I L D Q I I N S D A L G R G A P E M F L
UniRef90_UPI00046897DB	F E A L D T P T R N A L I R A Y A A G V N A R I L D Q I I N S D A L G R G A P E M F L	F E A L D T P T R N A L I R A Y A A G V N A R I L D Q I I N S D A L G R G A P E M F L
UniRef90_UPI0003B61CF8	L T A M D P I V K N M V L A Y T D G I N A Y I H S L A P K N Y P I E F K L	L T A M D P I V K N M V L A Y T D G I N A Y I H S L A P K N Y P I E F K L
UniRef90_UPI0003B69C51	V S T L P P A E Q L H F E A Y S R G V N A S I A G Q H D H L P L E E F R I	V S T L P P A E Q L H F E A Y S R G V N A S I A G Q H D H L P L E E F R I
UniRef90_UPI00046A8CC	V E A L A P E T R A A L E A Y S A G V N A R I L A Q I N T E A L G R G A P E M F L	V E A L A P E T R A A L E A Y S A G V N A R I L A Q I N T E A L G R G A P E M F L
UniRef90_A0A059II5	F S V Q D Q Q T K T A L T A Y A R G V N A W I D L V N R D A L G R G A P E F F L	F S V Q D Q Q T K T A L T A Y A R G V N A W I D L V N R D A L G R G A P E F F L
UniRef90_UPI00037584CD	V I A Q D T K T R K A L E S Y A A G V N A R F L E I N R E S L G R G A P E E L L L	V I A Q D T K T R K A L E S Y A A G V N A R F L E I N R E S L G R G A P E E L L L
UniRef90_A3W368	V A A Q D A E T L A A L K A Y S D G V N A R I I S E I N R E A L G R G A P E Q F L	V A A Q D A E T L A A L K A Y S D G V N A R I I S E I N R E A L G R G A P E Q F L
UniRef90_B3QRW7	W Q A L S E E S R F V L Q A F S E G V N A Y L K Q V Q D G D V N L A L E F D A	W Q A L S E E S R F V L Q A F S E G V N A Y L K Q V Q D G D V N L A L E F D A
UniRef90_UPI0002890BB3	V A R L D P Q S P A W L Q A Y I L D G I N Q Y Q A S H A R P I I E F D L	V A R L D P Q S P A W L Q A Y I L D G I N Q Y Q A S H A R P I I E F D L
UniRef90_A9WG9	V S L L D D E T A T L M T A Y L R G V N A C I D Q T T H R L P L E E F T I	V S L L D D E T A T L M T A Y L R G V N A C I D Q T T H R L P L E E F T I
UniRef90_D5AU9	V A A Q D P A T T S A L E A Y A R G V N A W I E E V N R A A L G R G A P E F F L	V A A Q D P A T T S A L E A Y A R G V N A W I E E V N R A A L G R G A P E F F L
UniRef90_A3V660	V V A Q D A S T L A A L T A Y A D G V N T W L D E V N K G A L L G R G A P E M W L	V V A Q D A S T L A A L T A Y A D G V N T W L D E V N K G A L L G R G A P E M W L
UniRef90_UPI000365782D	L P L L S Q R T R D Y L Q A Y A D G V N A Y L A E H S G T G L S L E Y T V	L P L L S Q R T R D Y L Q A Y A D G V N A Y L A E H S G T G L S L E Y T V
UniRef90_B8G6W7	V A L L D D E T A T L M S A Y I I R G V N A C I D Q T T H R L P L E E F T I	V A L L D D E T A T L M S A Y I I R G V N A C I D Q T T H R L P L E E F T I
UniRef90_U2RPF4	V K L L D P T A L R Y Y Q D Y A D G V N A Y I L A H A G A E L S V E E Y A V	V K L L D P T A L R Y Y Q D Y A D G V N A Y I L A H A G A E L S V E E Y A V
UniRef90_G2PME7	I A A L D M Q S E A I V Q A Y I L D G I N E F I I K N G P T L P I E F Y L	I A A L D M Q S E A I V Q A Y I L D G I N E F I I K N G P T L P I E F Y L
UniRef90_A9E439	A E Q L L D P E T D A A L E A Y A A G I N A R I I D Q I I N T E A L G R G A P E M W L	A E Q L L D P E T D A A L E A Y A A G I N A R I I D Q I I N T E A L G R G A P E M W L
UniRef90_B8FNQ8	M D S L P P R T A Q A I L D Y T R G V N A Y I I E T V E Y L P R E Y E Y L F	M D S L P P R T A Q A I L D Y T R G V N A Y I I E T V E Y L P R E Y E Y L F
UniRef90_V2JB06	F A A S T P E T R A A L Q A Y A D G V N A G I A S H K G P L P P E F A I	F A A S T P E T R A A L Q A Y A D G V N A G I A S H K G P L P P E F A I
UniRef90_J3DFH9	M A A L S A D D K A I F D G Y A A G F N A R I I N E V L K A Q A T L L P K Q F N D	M A A L S A D D K A I F D G Y A A G F N A R I I N E V L K A Q A T L L P K Q F N D
UniRef90_UPI000475B4A2	Y E L L E P E T R A Y F D F A Y A E G V N A Y I L A Q R E T G E L G L E F S V	Y E L L E P E T R A Y F D F A Y A E G V N A Y I L A Q R E T G E L G L E F S V
UniRef90_A0A023X3N0	Y R T L P P E S R A A V I D A Y V E G V N A Y I L E T E P G L P V E F R L	Y R T L P P E S R A A V I D A Y V E G V N A Y I L E T E P G L P V E F R L
UniRef90_B9NQT8	V E V Q D E Y T K A A L R A Y S A G I N A R I L A E I N E Q A L G R G A P E M F L	V E V Q D E Y T K A A L R A Y S A G I N A R I L A E I N E Q A L G R G A P E M F L
UniRef90_L8JQS9	Y E A M E P E I N E Y L D A Y A A G V N Q Y I I S S L P Y A N L P I E Y K L	Y E A M E P E I N E Y L D A Y A A G V N Q Y I I S S L P Y A N L P I E Y K L
UniRef90_J0B187	L A T L S N E D R A M F E G Y A A G F T Q R V R E V K A Q P D T L M P K E F L D	L A T L S N E D R A M F E G Y A A G F T Q R V R E V K A Q P D T L M P K E F L D
UniRef90_C6CCI7	W H Q L G A R E K A I L Q A Y I V D G V N I Q W M T T A P L L P S E F F L T	W H Q L G A R E K A I L Q A Y I V D G V N I Q W M T T A P L L P S E F F L T
UniRef90_M1SUD9	F D R Y P I A S K R L L Q A Y A D G V N A G N A H L G W A L P V E Y F L	F D R Y P I A S K R L L Q A Y A D G V N A G N A H L G W A L P V E Y F L
UniRef90_I6ZSL0	Y K R I D T T R K I L I A Y S N G V N K F I I D E A G G K Y P V I E F G L	Y K R I D T T R K I L I A Y S N G V N K F I I D E A G G K Y P V I E F G L
UniRef90_UPI00045E8FA6	L R H Y H P R G V E I V D A F V A G I N T Y I E E A N S N P E S L P I E F Q M	L R H Y H P R G V E I V D A F V A G I N T Y I E E A N S N P E S L P I E F Q M
UniRef90_UPI000471DAC8	V A M S D K R S R E A L L G Y T A G V N A Y I I D Q L K P K D Y P V I E Y K L	V A M S D K R S R E A L L G Y T A G V N A Y I I D Q L K P K D Y P V I E Y K L
UniRef90_F4L7J0	M A H Y H P R G K S I I T A F V A G V N A W I K Q T Q L K P E L L P L E E F K S	M A H Y H P R G K S I I T A F V A G V N A W I K Q T Q L K P E L L P L E E F K S
UniRef90_I2EV26	Y E K A N K T F N E V L I D A Y S A G V N A Y I I K Q L K F K N L P V I E Y K I	Y E K A N K T F N E V L I D A Y S A G V N A Y I I K Q L K F K N L P V I E Y K I
UniRef90_C0BK13	L N H Y H P E G K E I I E S Y V Q G V N S Y I K E I L K T P E Q L P L P F K M	L N H Y H P E G K E I I E S Y V Q G V N S Y I K E I L K T P E Q L P L P F K M
UniRef90_UPI00030D5363	V E V Q S P E A L A A L K S Y A D G V N A R I I L E I N E D A L G R G A P E M F L	V E V Q S P E A L A A L K S Y A D G V N A R I I L E I N E D A L G R G A P E M F L
UniRef90_UPI0004666D23	V D A L D A D T L E V L R A Y S A G I N A R I L S E I I N E R A L L G R G A P E M F L	V D A L D A D T L E V L R A Y S A G I N A R I L S E I I N E R A L L G R G A P E M F L
UniRef90_S6AF4J	V D A L D A D T L E V L R A Y S A G I N A R I L S E I I N E R A L L G R G A P E M F L	V D A L D A D T L E V L R A Y S A G I N A R I L S E I I N E R A L L G R G A P E M F L
UniRef90_UPI000373A433	L A K L P K T D L D I L D G Y A A G I N G W I I D E L H R N P A Q L M P K Q F I D	L A K L P K T D L D I L D G Y A A G I N G W I I D E L H R N P A Q L M P K Q F I D
UniRef90_C7D5J7	R E E L N E K E L L S V L E A Y S A G V N A W I D Q L V P F S K L P I E Y K I	R E E L N E K E L L S V L E A Y S A G V N A W I D Q L V P F S K L P I E Y K I
UniRef90_C5BN82	V D V Q D D R T K E A L V A Y S A G V N A W I A E I N K G A L L G R G A P E M F L	V D V Q D D R T K E A L V A Y S A G V N A W I A E I N K G A L L G R G A P E M F L
UniRef90_G2TAE7	W Q S L N E D S K K A L I K Y T E G I N A W Q E Q V T H L P I E F R L	W Q S L N E D S K K A L I K Y T E G I N A W Q E Q V T H L P I E F R L
UniRef90_UPI000299DF54	Y R R M P A D E R A V M E A Y C A G V N Q I G A K W T I P P P E F F L M	Y R R M P A D E R A V M E A Y C A G V N Q I G A K W T I P P P E F F L M
UniRef90_R7ZNX4	W Q N L S P E A K K S V T A Y V A G I N Y W I A Q Q T V Y P A E F T L	W Q N L S P E A K K S V T A Y V A G I N Y W I A Q Q T V Y P A E F T L
UniRef90_F8EC78	A E A Q D P V S K M V A E S Y S A G I N A Y I T Q V D Y K D L A I E F K I	A E A Q D P V S K M V A E S Y S A G I N A Y I T Q V D Y K D L A I E F K I

130 140 150 160

UniRef90_X5MNK9	L M H T P E P W Q P A D S V G M V K L L A A G L S G N A F S E V L R T R L M D V
UniRef90_D2QS41	L G Y A P E P W Q P I K C A Y F L K Y M S G V L A L G A D D L N M S N
UniRef90_A7N94	L G V Q P E P W Q P V D S L V W A K K M M A W D L G G N W N D E V M R A L L I A Q
UniRef90_I0K4L7	L G Y A P E P W Q P I K C A Y F L K Y M S G V L A L G A D D V A M T N
UniRef90_UP100036FF1C3	L G Y E P Q P W T P A D S V A W L K A M A W D L R T N I E D E T A R A L
UniRef90_R7XS11	L G Y E P E P W E P A D S L A W L K A M A W D L R G N M D D E I A R V M A S
UniRef90_X6L090	L F D A P M A P W Q P A D S I A I L K L M A Q L S A H M S E E V L R A R T S W L
UniRef90_W8ERK8	L D Y V P E P W Q P I K C A L L K L M A W D L S G R S D D L R L S N
UniRef90_UP100046971CE	L G Y E P E P W E P A D S V A W L K A M A W D L R T N V E D E T E R A L L A G Q
UniRef90_A3TXM4	F N A P V A P W T P A D S V A M V K L M A L Q L S G H L P N E V M R A R T S L A
UniRef90_Q1GGX9	F N M P I A P W Q P A D S I A I M K L M A V Q L S S N M Q E E I L R A Q T S I A R
UniRef90_S9Q3Z9	F N A P L A P W Q P A D S I A I V K L M S L Q L S G Q F R D E I L R A R T S L R
UniRef90_D0D0Y1	F D A P I A P W Q P A D S I S V K L M A Q L S G Q F R D E I L R A R T S L L
UniRef90_UP1000377B58C	L G Y R P E R W T P V D S V A W L K A M A W D L R R N M Q D E I D R S L M T T R
UniRef90_UP10004705E84	L G T E V E K W T P V D S V A W L K A M A W D L R S N L E D E I D R S L S S E R
UniRef90_M3AVG8	L G L R P E P W T P A D S M V W Q K I M A M T L T G N W H D D I L R A Q L A R R
UniRef90_A0A021WY55	F G I L E P T T W S D F D V A M I Y V V T M A G R F S H Y S T E L D N A K V L A K
UniRef90_UP1000474959B	Y Q F Q P R P W T A F D V A M V Y V G S M I N R F G D Y N T E L D N Q N L L A G
UniRef90_K2JLM6	L R Q Q P E P W R P A D S L V W G K L M A M Q L T G N W H A E L K R A Q I L S P Y
UniRef90_E8U4P4	L R F R P E P W T D V S I A W Q K L M A Y D L G G N W D Q E L L G R E
UniRef90_A4EM85	F N H A I A P W Q P A D S I A L L K L M A D L T S S L E D E V L R A R T S L L
UniRef90_UP100042937A1	L N Y R P E P W S A F K S L L L K Y M S D M L V G D R D L E F T N
UniRef90_B6AX21	F G A P I S P W R P A D S L A V T K L M A L Q L S G H L Q D E V L R A R T S L V
UniRef90_M9RNP2	F N H A I A P W Q P A D S V S I K L M A L Q L S N H L E T E V L R A R T S L V
UniRef90_UP1000479491E	L G L T P D P W T P V D S S W L K A M A W D L R G N M Q D E A T R A L
UniRef90_A8LVE5	L G Y E I E A W H P V D S L A W L K A M A W D L R G N M R D E I T R A A L
UniRef90_A9AW93	G F S P R L W Q P I D V L L T G K L Q A W S L G A N W S A E V L Y S Q
UniRef90_W8H6G1	A D F R P E H W T G Y D V A M V W V Q T M A N R F S Q S S S E L A N L Q V L K S
UniRef90_C0GKT7	L G Y D P D P W T A E D S V I V A K Y M G Y T L S G D H R N E L M N Y R V A R A
UniRef90_UP10004780A1A	L G Y T V E P W T P A D S L A W L K A M A W D L L G G N L Q A E T E R A Q L L A K
UniRef90_D7CYD7	L G Y E P E P W A P A D S L V W M K K M M A W D L G G N W D D E L L R A R
UniRef90_UP100046873AA	L D F K P E D W T P V K C A L L L K Q M S A V L A M G S D E F Y M T N
UniRef90_B6IMU7	L W H R P E P W R P A D S T L V Y G K L M S L L G G S W R N D I R R A A L L
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UniRef90_UP100036D2C80	F D T K P E L W K P E D S I L M F K L M A L T L G P N H E A E L G F D M
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UniRef90_B1Y0R7	L G V Q P E P Q W Q P V D S L A W S I M M A W D L G G N W T T E L L R L R
UniRef90_C3DAI2	L D Y E P E P W S I L D M L S I G R L L S Y S L S H N F T N E I F R F E I L Q K K
UniRef90_M8DDR1	L G Y Q P E F W T P L D T L L I G K K L L A A S L S E N M K A E V Y R H L R N Q
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UniRef90_A4SY02	T G S K P G H W S P T D S V A W M L M M S Y D L G G N W S K E L L R F E L S Q Y
UniRef90_Q2W445	L R L K P E P W T P A D S M V W Q K I M A M T L L A G N W H D D V L R A Q L A R T
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UniRef90_W9G5X2	L D Y R V E P W T P V D S L A W L K A M A W D L R G D Y N D E L A R A R L S R R
UniRef90_UP10003644B0F	L G Y R V E P W T P V D S L S W L K A M A W D L R G D Y N D E L A R A R L S R T
UniRef90_Q1IL79	L T Y F P R A W T P E D S M L V G L G M Y Q Y L N G Y E A E T K L L R E K
UniRef90_E2SDJ0	L S Y R P E P W T P V D S I A W V K A M A W D L R S N M D D E G R V L A G T S
UniRef90_UP10003B6CCC9	L G Y T P D A W S D V D S V W S K L M A F D L G G N Y D E E L L G R R
UniRef90_UP100046897DB	F N A P M A P W R P A D S I A I V K L M G L Q L S G H L D A E V I R A R T S L A
UniRef90_UP10003B61CF8	L N Y A P E D W K P I N C A F L L K L M S E T L A G G S N E F A M T N
UniRef90_UP10003B69C51	L R Y D P A P W T S R D S L L V G L V M F Q D L T N S F P T K L S R E A
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UniRef90_A3W368	F N A P I A P W Q P A D S I A I L K L M A V Q L L S S H L E N E V L F A R T S L A
UniRef90_B3QRW7	L G Y T P E P W Q P E D C L A I I R R M M G W E L N I A W H I D V A L A E
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UniRef90_A9WGJ9	L G I Q P P R F T A E D T I S A G Y M S Y S F A A A F R T E P L L T Y
UniRef90_D5AU9	F E A E I A Y W T P A D S I A L L K L L A V Q N A T Q I D T E V L R A Q Q
UniRef90_A3V660	F N H P I A R W Q P A D S I A I L K L M Q L T S S E V L R A R R
UniRef90_UP1000365782D	L G Y T P A P W T P A D S V A W L K A M A W D L N G T V T D Q A R H A M L A A
UniRef90_B8G6W7	L G F Q P Q P W E L A D L L V W P K M M A L N L S T N W M Q E L L Q A Q Q
UniRef90_U2RPF4	L G Y K P E K W T P V D S I A W L K A M A W D L R S N L V E E V D R A L L A T
UniRef90_G2PME7	T G I E K E P F T I E D V Y N A V G Y M A F S F A M A H K T D P L L T S
UniRef90_A9E439	F N A P M A P W R P A D S V A I A K L M G L Q M S G H L E A E V L R A R V S L A
UniRef90_B8FNQ8	L G A R P Q E W T P E D S V V I T L L M S Y S L T R S K K I D L V L H Q
UniRef90_V2JB06	L R T V P E R W E P A D T L A W Q T T M M A W D L L S A N W S R E V L R M R L A Q T
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UniRef90_L8JQS9	L G Y E P E E W T P V K S A L I L E Y M I D N L T G Y D D D L E N T N
UniRef90_J0B187	K G F E P T E W Q P E D I A M V W V G L I L N R F F A G T A E V A N L N L E T
UniRef90_C6CCI7	F H Y Q P E P W T A I D S L S W M Q L M A W N L G R N V N D E L L R Q K
UniRef90_M1SUD9	T G S K P G H W S P S D S V A W M L M M A D L G G N W H K E L Q R L E
UniRef90_I6ZSL0	L G Y E P Y K W P E H S L I I A K M M A W E L N L S W W S D V A F A H
UniRef90_UP100045E8FA6	L G I K P Q P W T W E V V I S R H Q G L L E N V V D E D I S R V V S Q
UniRef90_UP1000471DAC8	L G Y A P D H W K P I Y T M Y M L E Q M T L T L A G R S D D V K M S H
UniRef90_F4L7J0	L G I K P G L W T P D V V I S R H Q G L L E N V T D E E W N N A K A L L A
UniRef90_I2EV26	I G Y Q P E E W S P Y K T L L M M M N M R N V L N G G S D D F R M S N
UniRef90_C0BK13	L G I S P Q L W T P E V V I S R H Q G L L G N I G Q E L Q I G R A V A L
UniRef90_UP100030D5363	F Q M P L A P W Q P A D S I A I M K L M A L Q L S G H M R E E I L R A R T S L A
UniRef90_UP10004666D23	F N P S V S P W Q P S D S I A I L M K L L A L Q V T G H L E T E V R R A R V S L V
UniRef90_S6AF4J	N G F E P E K W T A F D V A M V F I G S M I N R F G D Y N T E L D N Q Q L Q D G
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UniRef90_C7D5J7	F N H A V A P W Q P A D S I A L T K L M A L Q L S S H L D A E V L R A R S S L A
UniRef90_C5BN82	L G M K P T P W Q P K D A L C W M K M F G L G L A G N F Q K D I R R F A V T Q S
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UniRef90_R7ZNX4	L G Y R P S P W D A G K T V L L L K Y M A D M L V G D F D I E Y T N L R L M
UniRef90_F8EC78	L G Y K P E A W S P L K T A L V E M L M R K D M N A R S D D Y R M S N

170 180 190 200

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UniRef90_A7N94	I G P E D A D F L M P A Y T T D G P L I L P D A A L V R P A A A S T P P D A A		
UniRef90_I0K4L7	I L A K Y G P E V T N D L F P N Y P S H E D P I I P A G L P V Y Y L K S P L N P		
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UniRef90_R7XS11	L D H T E E E I A E L L Y P A Y D P E A H P P I V V G T G G V V D E V F		
UniRef90_X6L090	L D D P D R L A D D L P D M P G P G V A A L P S Y A S L L P A P L		
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UniRef90_A3TXM4	L P D P D R L S D I M P D A P G Q G I A A L P E Y S A L F P G L P R Y A		
UniRef90_Q1GGX9	L D D P K R L E D D I L P D A P G S G T A T L P E Y T E L F P G L P G F R G		
UniRef90_S9Q3Z9	L P E A E R L E D D I L P E I P G A G T A A L P E Y A Q L F P G A K G Q Q F		
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UniRef90_UPI0004705E84	L T D E Q M S D L Y P D Y P Y A T R P T		
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UniRef90_A0A021WY55	L E K Q H G K E K A A E L F D Q M F W L E D P L A P T T V P K G		
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UniRef90_E8U4P4	V L E K L G P D R L N Q V L P P Y P		
UniRef90_A4E4M85	L D N D R L R D I L P D D P T G G I A A L P E Y A S L V P G V A P Y T P		
UniRef90_UPI00042937A1	L K A I L G E S K L N K L F P E F P K D N D P V I E A S		
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UniRef90_UPI000479491E	L A A E L P V E R V E Q L Y P P A A P G T P P I V		
UniRef90_A8LVE5	L A E G L T R Q Q V E D L Y P A Y P F D R N T P I V T E G D I V A G V F D Q E A		
UniRef90_A9AW93	L I A Q V G P E R A A F L L P A A S P D D P L I L P D A T Y S A G S A P T M		
UniRef90_W8H6G1	L Q A K N G D E K G R Q L F D Q L I W E E D P G A P T T V P R D E S A S P D D E		
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UniRef90_UPI0004780A1A	G L D R E M I E E L F P A Y P T H A P I T D T D G H H N G A E V E A D L G R A P E		
UniRef90_D7CYD7	L L R L L P P E R V A E L W P P Y P G D A P V A L P		
UniRef90_UPI00046873AA	I L K K F G P E V T K N L F P D Y P F R E D P I I P V G T K W N F S P L T I P K		
UniRef90_B6IMU7	E K L G P E R L A D D L P D D P P D A P A T L A A A D G V D		
UniRef90_UPI0004764366	L K L E Q V A E L H P G Y P Y T G H P T		
UniRef90_UPI00036D2C80	L V K E V G L A K A N E I Q P N L N P N N P A A A		
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UniRef90_Q2W445	L D S K R M Q E I F P A Y P A D A P V T L A T E G G K A L L D L S T E A L R P		
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UniRef90_UPI0003B6CCC9	V V D R L G E A G L N E V F P P Y P E G A P T N L S A D E		
UniRef90_UPI00046897DB	L P D Q D R L R D I L P D A P G A G V A A L P E Y A S L		
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UniRef90_A3W368	L E D P D R L A D I M P L A P G S G I A A L P D Y A A L F		
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UniRef90_B8G6W7	I V A V V G A E R A V T L R P R Y P E D G P L T V P A E A H		
UniRef90_U2RPF4	K L T P E Q I A D D L H P G Y D Y A A H P T I T S D G G G D P A R T		
UniRef90_G2PME7	M R N K L G E E Y I N D L		
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UniRef90_UP10002FBB134	V T E L D Q Q S P A F L Q A Y L D G I N Q Y Q A T H A K	P V I E F D L	
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UniRef90_UP100038225E5	V N H Q S E Q T K S I L R A Y S N G I N A R V K E I N E K A L G R G A P E M F L I		
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UniRef90_UP100047DEC17	L E K M S P E S F K L V E A Y R D G I N S Y I N Q L T D A D	L P V E Y K L	
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UniRef90_UP10003FA7C45	V K E N H P E M M P L I D A F A D G V N Q Y V E S L	D D A R L P V I E Y K I I	
UniRef90_UP100036D3DCE	T A S L S P Q D R R F F E D Y A R G V N A Y I N E A D A	L P S E F F R L	
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UniRef90_A2TZM3	I I A A L D K E P Y R L T Q A Y L L N G I N Q F I N E G K T	P L E F S L	
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UniRef90_UP1000464FDD7	Y A N L D A P T R V L L Q R Y S D D G I N A Y I I E L A P A A L P I E F S L		
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UniRef90_K9H086	Y R A L G D E A R A A D Y A A G V V N A W L R R R D S W L P P P L T L		
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UniRef90_UP1000360CA9C	L N T L A E K D L E V L Q A Y A D G F N Y R V T E V L R Q T Q E L L P A E F V H		
UniRef90_K7RN56	L S T L L D D K A L Q S L E F Y A K G I N H W L R Q E T E L L P A E F N L		
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UniRef90_UP10002DCBB1C	I T D L L D K E S Y K L L T V A Y I E G V V N Q Y M N E G V T P I E F Q L		
UniRef90_UP1000225EFDC	L Q A Q D P E V T E V L R A Y S D G V V N A W I Q Q I N L G A R G R G A P E F F L		
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UniRef90_U1XM94	W K A Y G A H A E E I C S A F A N G I N A Y I D A C D A G S I P L P P E F T L		
UniRef90_L9PCD7	L K S M P A A D R A L L D R Y V E G V V N A G L D K L G A K P F E Y T L		
UniRef90_G0AJ99	W Q S Y G P H A Q Q V A N T F V A G I N A Y V D Y V N A H P E K L P F E F R R		

130 140 150 160

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UniRef90_A0A058T377	L G I P R R R F T A E D T L S I G Y L A Y S F A A F R T E P L L T Y
UniRef90_W0SHV4	L G L Q P E P W T P L D S L L A W G I M M A W D L G G N W T N E L L R M R L A L S
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UniRef90_UP1000474A24A	L G T Q P E P W D P L D S L T W L K A M A W D L R G N Y D E E L A R A E S Y A T
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UniRef90_J9HU38	L G H E I Q P W K P V D S L T I I K L L N F H L S W N W G Q D L M R D M L S Q S
UniRef90_V4IW34	F N V P V P T W T V D D V A A S F I A Q N A M L S W V G S D E P E H A Q A L F Y
UniRef90_UP10003B31BD6	L G A D I E P W E P V D S L A W L K A M A W D L I G N F S D E L T R A A V Y G R
UniRef90_UP100034949AB	L G Y T P A K W K P E D V V R I R S H A L A N N F
UniRef90_A3JTN7	F S S S L S P W Q P A D S I A I G K L M A L Q M S S H L E R E V T R A Q A S L V
UniRef90_A1SES8	L D Y R P E D W T P V D S L A W L K A M A W D L A G N P T E E L D R A L A L A
UniRef90_UP10002FBB134	L G I T P R P F T A E D T I S V A G Y M A Y S F A A A F R T E P L L T Y
UniRef90_F8A6M4	L G L Q P E P W D A V D S L A W L K A M A W D L R G N Y D D E L G R A R A F A S
UniRef90_UP1000401C703	L G L E K Q N F T L K D I Y N V F G Y M S F S F A M A Q K S D P L M T D
UniRef90_C1CXM0	L R Y S P E P W T E V D S L S W S K L M A Y D L G G N Q A D E V L G T R V V S K
UniRef90_UP100038225E5	Y P N N F S F W Q P A D S I A I L K L L S L K M S G Q I D A E I T Y A K A L L A
UniRef90_V3T0K8	L G V E P E N W T P I D S L A W V K M F A L D L G G N M F K E I I Q Y D V A T E S
UniRef90_M7NHA2	L G Y D P E A W T P L K S A L L L M Y M A E D L A G Y D V D L E N T N Q
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UniRef90_UP100047CCF6D	T G I D K D S F T L K D M Y N T M G Y M A F S F A M A H K T D P F L T N K
UniRef90_X0WV87	L R Y R P E P W S I M D S L I K E L M A L L L C G D Y A S E F M R A K
UniRef90_A2SGU2	L G L Q P E A W S P V D S L A W S T T M M A W D L G G N W S T E L L R M R L A L T
UniRef90_J2VUN2	L Q H F P E Q W T A A D V I V T L K L M S V T L L A A N D D E V L R L K F A R L
UniRef90_F9Y549	F N H A I A P W Q P A D S L G V M K L M A L Q L Q A Q I P A E V L R A Q
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UniRef90_G0A7Q9	L G Y Q P E P W R P E D S L L V V L G M F E N L T A W A E R G E R M L S V
UniRef90_E3HEP8	T G T E P G G Y W S P E T S L I R I Y G L T R N L S E E V R M A Q R V A A L G L N
UniRef90_S7VXZ2	L D Y K P E A W T P K K T A L L L M Y M T K M L A G G D D M E N T N
UniRef90_M4K636	L G I A K R P F T A E D S V S V A G Y M A Y S F A A A F R T E P L L T Y
UniRef90_K6XAK1	L G I T K R P F T P K D S V S V A G Y M A Y S F A A A F R T E P V L T Y
UniRef90_UP10003FA7C45	L N Y R P E K W S A Y K S L L L K Y M S D M L L M G D R D L Q Y S N T
UniRef90_UP100036D3DCE	U N Y Q P R R W Q P V D S V I L V L S M V Q T L D E Q W P T K L T R E
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UniRef90_E6X989	T G I E K T P F V V K D V Y N T I G Y M A F S F A M A H K T D P L L T N
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UniRef90_F4KRB5	L G F K P E P W T S L R S V F F K A M Q E D L C A R N E D L A A S N
UniRef90_K0K8K7	L G Y K P K R W T P E D V V R I R L H G L S Y N L I P S E V I R A R F A C V A D V
UniRef90_W4MDN4	L G V E P E R W Q P W D A L A V F K V G F I M M G T F E G K L W R A K V M H
UniRef90_G0IW5F	L D Y Y P E P W S P Y K T L L F L M N M A E T L S G D S D L A N T N
UniRef90_P15558	L G A E P E P W E P W H S I A V M R R L G L L M G S V W F K L W R M L A L
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UniRef90_W0EYP4	L N F A P E E W T N L R T A L L L K M M A K M L A S G T E K D M A L T R
UniRef90_UP1000237854E	L G V E P G G W E P E D S V G W A L M M A L E M G G N W G H E F T R L S V A S T
UniRef90_UP10002EAE952	U N I F O P T P W E P A D V L A Y L K L Q P W F M S S N N W D S E L A R L R V L L A
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UniRef90_G8P1C6	L G Y Q P E H W S A M D S L L V E F A M T Q D L S T V Y P S K L D R E A V L L A
UniRef90_C7PN41	L H Y T P A Q W Q P R D T L L V S L A M F Q D L S T E F P T K M Q R E A L A A H
UniRef90_C1F7A2	L N Y K P E K W T P L N S A L L L K M M A A D L L A G G V N D L V Y T N
UniRef90_D5UK03	L M Y K P E P W T S V D S I L I L G L S M V Q M L D E H W P D K L A R Q Q
UniRef90_E6QIN5	L G L R E R W D P V D S L A W L K A M A W D L R A N Y D R E L S R A Q T F R F
UniRef90_UP1000375CC0D	M H Y R P K P W R G E D T V L I G M N M V Q M L D T H W D V K L A R E K I A E D
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L	S R P T D I L I D K W G V P H I V	F A Q N E H D A F F V Q G F N A A R D R R L M F			
P	I E V Y R D R W G I P H I V	K A D N E N D L F F A Q G F V T A Q D R R L L W			
L	A A P V Q V R W D E R G V P H I V	Q A K N E T D L Y R A L Q G F G W N A A R D R R L L F			
N	D V A I I N V D Q W G V P H I V	R A E N L H D L F F A Q G F G W N A A R D R R L L F			
L	S S Q A S V K S D T F G V P E E I	E A T Q R E D A Y R V L G Y L H A R D R R L L F			
P	V D L V V D E W G V P H I L	Y A Q D T A D L F L A Q G F N I A R D R R L L F			
L	S D T V E L D Y D L W G I P H I L	Y A H S M D D L F F G N G Y A H A A D R R L L W			
A	P V S A R Y D A R G V P P H I L	Q A Q N E Q D L Y R A L Q G Y V H A Q D R R L L F			
Q	P V E I L R L D K H G V P H I L	Y A Q T E A D L Y R A L Q G Y V H A Q D R R F W			
P	V R V T V D V W G V P H I L	F A D N V G D L F Q A Q G F N V A R E R L L F			
A	P V S V R Y D A R G V P P H I L	Q A R N E Q D L Y R A L Q G Y V H A Q D R R L L F			
L	S G P V T V E R D E N G V P T L L	T G P D R V S L M Y G L F L H A Q E R Y F			
E	T N A S I L V T R D E A G I P T I L	Y A R N A G D L F L A Q G F T A A R D R R L L F			
N	A P V Q V N R D G S D V T H I L	L A Q S P R D A W M A L G Y V V H A Q E R G W			
A	P V D V E F D R H G I P P R I L	E A P T A D D G A F G L L G Y V V H A Q D R R L F			
S	P V R I V V V D K W D V P H I L	R A A T R E D A F R L G F V T A Q E R L L F			
A	S V T V D Y D E R G V P P H I L	R A E N E A D M Y R A L G F V V H A Q D R R L F			
L	S A P V S I Q R D A Q G I P P F I L	R A E D R A D S A F A L L G F L H A Q E R F F			
T	L Q T A E V L F D S Y G T P H I L	R A E S D E D A F R L G F V V H A Q D R R L L F			
Q	G E A T L R F D A D G V P H I L	L A Q N E D A L F F A Q G F N V A R E R L L F			
H	S E N V T V H F D E N G V P P H I L	N A E T Q K D A Y T A L G Y V V H A Q D R R L W			
N	D V K I F R D K F G I P H I L	K A R D Q F D L S Y G L G Y L H A Q D R R F F			
V	A A M Q V E R D A A G V P P T I L	T V V I K R D S H G V P P H I V	Y A K D T Y G L F H G F G Y A V A E D R R L Y		
S	P V E I K R D S H G V P P H I L	Y A R D D G D L F Q A Q G L N A A R D R R L F			
K	S Q I E V Y Y D E V G V P H I L	N A F N Q K D A Y V A L G Y V V H A Q D R R L W			
G	H G N A T V R Y D D Y G T P H I L	D A E N E D A L Y F A V G Y T Q A R D R R A F			
N	N D V K I F R D K F G I P H I L	H A K S L K E G Y Y G L G F V V H A Q D R R L W			
D	A G S A S I R R N S L G M P L I L	E T S S F H D A L F S M G Y V V H A T D R R L S			
V	T Q P V K V A R D T L G Q A V I L	V T V I K R T E Y G V P H I L	Y A D G P E P V F Y G Y G Y A T A R D R R L Y		
A	E I I R R D L R G V P W V I L	T A A T R H E A A Y G L G Y Y A H G Q D R R F F			
Q	A E I I R R D L R G V P W V I L	R A R D E G D L Y F A A G F Q A Q A Q D R R L F			
R	P R E D V T I T R D A H G I P H I L	R P R E D V T I T R D A H G I P H I L	H G D T R E G T M Y G A G Y A A A E D R R L F		
P	E V R V L R D S A G I N H I L	F A E T E A D L F F S Q G Y L A A K D R R L F			
D	G D V S V T R D A L G V P L I L	S G G N R L D V A Y A S G F V V Q A Q E R Y F			
V	D V T I Y F D A L G V P H I L	N A Q N Q K D A Y V A L G Y V V H A Q D R R L W			
S	P G S S I D K W G V P H I L	Y A Q T L Y D A F Y L Q G F N A A R D R R L F			
T	G T V E T R R D D R G V W F I L	T G S D S H T V F K A M G Y A V A T D R R L W			
G	S A P V E V R T T E D D V P H I L	F G K T D R D V F F A L G L A H A Q D R R L F			
V	P Y G E A S V R H D E F G V P T V I L	A A D D E A A A Y F T V G Y A Q A F D R R L F			
S	L A Q N V S V R R N A M G M P L I L	E S S T F H D A L F L G Y V H A S D R R L T			
V	G K I Q I N L D S Y G I P H I L	F A K N D I D A F Y G L G Y M H A K D R F W			
N	L S E P V E I I L K D Q W G I S H I L	F A Q N E K D L F F A Q G F N V A R D R R L F			
D	S N D I T I A R D R L G T A V I L	T A D S R Q D A A Y G L G Y A H G Q D R R F F			
I	L T A P V Q V Q R D A L G V A R I L	S A Q N R T D L A Y A L G F V H G Q E R F F			
T	E V E I I G R D V L G Q A V I L	Q A D N R Q D A A Y G L G Y A H G Q D R R Y F			
S	L S E A V S I E R D A L G S A V I L	V I A R N R V D A A Y A L G F A H G Q D R R F F			
R	S R P V T V T R D D S G I A Y I L	H A E N I E D L F F A Q G F V T A Q D Q L F			
A	E S A S V R R N A L G M P L I L	E S G T F H D A L F T L G Y V H A G D R R L S			
E	K V T L E R D S L G T A I V H I L	H A S D R Q D A A Y G L G Y A H G Q D R R F F			
Q	L A Q N V S V R R N A Q G M P L I L	E S N T F H D A L F T L G Y V H A S D R R L T			
V	A P V Q V R Y D E R G V P P H I L	Q A Q N E A D L Y R A L G F V V H A Q D R R L F			
Y	P Y G D A T V R Y D G Y G V P T I L	E A D D E A A A Y F A V G Y V V Q A F D R A F			
M	L A A P V E I R V D R W G V P H I L	L A A P V E I R V D R W G V P H I L	H G D T R E G T M Y G A G Y A A A E D R R L F		
G	L A K P V S V I R D S Y G V P H I L	Q S E D S S S A Y F A L G Y V V S A S D R R L F			
W	L L A E K V T V Q R D N M G I P P M I L	D A A S L E D L V F A M G Y V V S A Y D R F T			
S	L S Q E V K V Y F D Q Y G Y G I P H I L	Y A Q S E K D A Y F A L G Y I H A Q E R L A			
C	P A S V L V D R W G V P H I L	Y A G T L Y D A F F V Q G F M A A R D R R L W			
A	A P A E L I V D H W G I P P H I L	Y T A N Q H D A F F M Q G Y N A A R D R R L W			
P	K Y G K V E I S R D Q Y A I P H I L	Y T A N Q H D A F F M Q G Y N A A R D R R L W			
Q	Q I T I K R D K F G T P H I V	K A K N D I Y G A S F G Q G Y V H A Q D R R L F			
K	P A E V L V D Q W G V P P H I V	E S N T F H D A L F T L G Y V H A S D R R L T			
T	T S P A E I I L R D A H G I P H I V	Q A Q N E A D L Y R A L G F V V H A Q D R R R W			
S	L S S K T T V A F D E K G I P V I L	S A K S R E D A F H A L G F L T A R D R R L F			
C	L S A A A M V R I L D E D G V P R I L	S A Q N E T D M Y R A L G F Y V V Q A Q D R R L F			
V	P N T K I N I R R D V N G I I Y V I L	R A A D L F D A A T A L G Y L H A R D R R M F			
R	P V R I V R D S V G V S H I L	V A Q S A Q D A W F A M G Y V V H A Q E R T W			
F	P E V Q V Y Y D A Y G V P H I L	Y A R N T H D L F F A Q G Y N A A R D R R L W			
Y	P Y G P A T V R V D E H G V P H I L	E A D T E Q A A Y F A I G H C Q A A D R L F			
W	P V S M T V D T W G V P H I L	S A S S T G D L F Q A Q G F S A A R D R R L F			
Z	P V V I Q R D A Q G V V M I L	E A Q N E A D L Y R A L G F V V Q A Q D R R L F			
Y	E P V V I L I E D R Y G V P H I L	Y A R N E D D V F L A Q G F N A A R E R L F			
Q	P A S I L I D R R W G V P H I L	D G E K E L D M I F G Q G F A T A Q E R L F			
A	E P V V I Q R D A Q G V V M I L	I K A T S E K D L F F V Q G F N A A R D R R L W			
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50 60 70 80

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UniRef90_V5AB02	Q I D L W R K R G L G E M A K D F G P G A Y V D G D R M A R A V L F R G D M D K E
UniRef90_S3ZYM2	Q M D T W R R S G L G E L S A V L G P K L V E Q D R A A R L F L Y R G D M Y R E
UniRef90_F6A9G0	Q M E L M R R L A R G E L A E V L G K L L P T D R L F R T L Q I R R L R R A R A D Q Q
UniRef90_UPI00037ACC6A	Q M D L L R R N S A G E L S E L L G Q Q A A L K K D K K V R R H Q F R K R A E R N
UniRef90_UPI0003641E90	Q I D L W R R R G L G L A E V L G P D Y V Q Q D R A T R L F L Y R G D M D T E
UniRef90_V2GVT1	Q I D L W R K R G L G E M A K D F G P G A Y V D G D R M A R A V L F L Y R G D M Y R E
UniRef90_W6W6Z5	Q L D L W R K R G L G L L A A D F G P G P Y L A Q D H A A R F H L Y R G D M A P E
UniRef90_M0N696	Q L D L Q R R Q M R G E L S A V V G E Q T L D S D E F R T K M D F A S A Q V T

90 100 110 120

UniRef90_Q67TD8	L A D C P D E V R A C L E A Y A D G	V N A F I R A G K	L P P E F A L
UniRef90_D8N1N3	W N H Y S P D A Q R I A T R F V A G I	V N A Y V D W L A Q H P D	R L P P F E F R K
UniRef90_G4SYPO	L P K L P V H R Q Y L Q A Y A E G	V N S Y L Q Q N T A	L P P F E F K V
UniRef90_UPI000255A7FB	V A A L N P K V K A L A Q A Y L D G	V N T Y I N N G S T	P I E F T L
UniRef90_D4ZHK8	V A K M D P K Q K L L Q T Y A N G	G V N A A V A E Q N	L S S F E Y L L
UniRef90_Q01WS0	Y G R L P D A D R A A F A A Y T R G	V N Q F I A T H L N N	L P V E F T L
UniRef90_UPI000367C3C7	L A D L P A E T R A A L A A Y A R G	V N A W I E Q R G M R A	A P E Y L L
UniRef90_L9VN57	W E S L A E T A G E L V E A Y A D G	V N A M I A	D G Q L P L E F E L
UniRef90_X1CJY4	H A N G T L E F F S S F E R Y V D G	I N F Y I E S H N D	F I P L E Y H L
UniRef90_H5SQL0	A K N L T D D I R A E L E A Y A A G	V N A Y I I Q K I N E T	P P E Y K E
UniRef90_C7MWQ6	W A S Y G D D A R R I A E A Y T S G	I N A Y I I E L T K N E D	P W E F A F
UniRef90_K5CEZ2	K E H I Y P E A W K Q L D W F L D G	V N H F L S E D N	L P I E Y T I
UniRef90_W4NYG7	W Q R Y G P D A K P V A T R F A A G	V N A Y I I D W L A A H P E	R L P Y E F R Q
UniRef90_UPI0003741D31	Y E I I A S S E A K V M V D A Y T A G	V N A Y I I D T V Q A	P I E Y T I
UniRef90_F3KRJ3	V Q S I N P R H P S W L Q A Y L D G	I N E F Q E T	R P L P L E F E I
UniRef90_UPI000464A3EC	W K A Y G A D S E E I C T A F A K G	I N A Y V D A C N S G	E R A L P P E F T L
UniRef90_UPI000397C6D	V T D L P P A Q R I L A L Q A Y V D G	V N Q F I D H A R	V L P P E F L A
UniRef90_UPI0003788EF9	W A S Y G P E A R L A A S R F A E G	I N A Y I I D Y L G R N P D A	L P V E F R K
UniRef90_N8FPF1	Y A A L S P E T Q R M C E R Y A Q G	V N A W I D S	G Q L P A A E Y R L
UniRef90_Q113A4	V Q R L D H Q S P A W L Q A Y L D G	V N Q W Q A T H P K	P M E F D V
UniRef90_I015D8	E A A L D A E T H Q L I A W Y V E G	V N A Y I I L A A	R P G R V S A E H N L
UniRef90_UPI0004760314	W A S Y G P E A R E A A T R F V A G	I N G Y I I D W L G D H P D A	L P A E F Q K Q
UniRef90_U5VPT3	A R R Q D A P A W Q A L Q A Y L D G	V N A W Q S S H P K	P M E F D L
UniRef90_G1XZ44	V E R S S P E Q R A M L A A Y T A G	V N A G L D G L K A A	P F E Y A L
UniRef90_UPI00047DFAE3	W A A Y G P E A K L A V T R F T E G	I N Q A V D W L E R H P E N	L P P E F R E
UniRef90_A0A024II8	L A T L P P E A K A A V E A Y S A G	V N A F F A S	S E Q A L T P E F L V
UniRef90_H0S412	Y R Q L S A P V Q G M I R S Y A D G	V N A Y A M S G	P R A L S P E Y Y A
UniRef90_UPI00047B8442	V A R L P D D Q K A V L N A Y V G G	I N Q A I D K T	A V L P F E F L A
UniRef90_H8GEP2	W E S Y G S E G K L A A S R F A E G	V N A Y V D R L A E K P E E	L P A E F R K
UniRef90_F4DPW0	A A R L D P D S P Q A L L H Y L E G	I N Q Y Q A S	R P L P L E F D L
UniRef90_UPI000255B791	V A A M P A Q Q K E I I L A Q Y T A G	V N F G L A E L G A A	P P W E Y T L
UniRef90_L8JXL9	V E A L K K R G G K M L E A Y L Q G	V N Q F Q K D G P T	P I E C T M
UniRef90_L9XN25	W E H V A E T A G R L V E A Y A D G	V N R V I E T	E Q L P L E F E L
UniRef90_UPI0003A3A7C9	I T K I D S E A Y K L T I A Y L D G	V N Q F V E E G A T	P I E Y N L
UniRef90_E8ZAA0	F T H L P A A D Q R L L Q R Y A K G	V N D G L R G L S A R	P F E Y A V
UniRef90_D8D5K6	L D A L G A D D R A M F E G Y A A G	V N A R I R D V L A D R G K L L	P R Q F I D
UniRef90_UPI000349EFAF	W A A Y G P G T R R A A R F T A G	V N A Y I I D W L E E N P A Y L	P P E F Q E
UniRef90_UPI00046436EE	I L N L D K D S D A Y V K A Y L K G	I N Q F I E E G R T	P L E F Y L
UniRef90_M0MPJ5	V A L L D T E A G A L G E T Y A E G	V N A V L T D D P S	A I E F S L
UniRef90_A0BIP0	V E K L S E E A R A H L Q S Y A D G	I N D G V K S L	Q I L P I E F K I
UniRef90_A0A023WUB7	Y R E S S P R M K K F E V Y A R G	V N A Y I I Y R H R D K	L P M D L A E
UniRef90_L9VTQ7	I T E Q L D P E H R A V L R A Y A D G	I N R H I E D V R S G E S E R D G F H F V E	P L E F E L
UniRef90_G7FJJ0	L K T L P E A D K Q L L K S Y A Q G	V N E G L A Q V R	G Y P S F E Y L L
UniRef90_UPI00028916B5	U R L L E P R H R A A L D A F S A G	V N A A V H R M R R R G G L P V I E F T L	P L E F T L
UniRef90_A1SB16	L S R L P A K D R A V L E A Y S L G	V N Q A L S Q	Q T L P S F E Y L L
UniRef90_UPI0003497535	V D R V G E Q A L D D V E S Y L E G	I N A Y I I E E A D D D R D F P G E Y V L	P L E F T L
UniRef90_M7YD67	L N H Y H P R G E Q I I E S F V R G	V N A Y I I A E A R A N P A L L	P P F E F K L
UniRef90_UPI000475EE34	V A L A L P A E Q R R F L E R Y V G G	V N D G L A A L S T R	P L E F T L
UniRef90_H6RHT2	M R N L D K K T Y S M A M A Y L D G	I N Q Y I E K G K T	P L E F T L
UniRef90_V8QSZ1	W L A Y G S D S K R V A Q A F T D G	I N E Y V K M T Q A N P D	L L P V I E F K K
UniRef90_UPI0003B78C06	V E N L D K E T S K V I K G Y V A G	I N K R I E E I K A D P S	S L L P V I E F H T
UniRef90_UPI0003755FF9	L Q A Q D A G T R D A L Q A Y A D G	V N A W I G Q V N L E A R G R G A P E F F L	P L E F T L
UniRef90_M0AQZ1	W E H V S E T A G P L I E A Y A D G	V N A V I D E Q L P L E F E L	P L E F T L
UniRef90_J3IHF5	Y K K A A S P R L K R F F E V Y A R G	V N A Y I I F R Y R D K	L P A D L V A
UniRef90_G8DB27	W K H F N I K T K K I I N G Y T A G	V N A Y I I K S G K R	P I E L R I
UniRef90_X0U903	M N H Y H P R G E E V I P S F V R G	I N A Y I I D T N K N P G L P L E F P L	P L E F T L
UniRef90_B8CQC4	V A T L S K D H L G L L K S Y A Q G	V N D A V D A Q A I S S F E Y L V	P L E F T L
UniRef90_T1D118	V A Q L P A N Q R G L L D A Y A R G	V N A G L A A L D V	V R P W E Y L L
UniRef90_L8D4V1	V L K L P R E H Q A T L E A Y A Q G	V N E G R K Q V G	G F P S F E Y L L
UniRef90_A4CF93	L A T L P E R E Q K I L I N A Y S E G	V N V E A Q A Q S Y P S F E Y I L L	P L E F T L
UniRef90_UPI000361C3E	A H I L N P V L R K Q F Q H Y V D G	I N T F I R K C P D D L A L E F R L	P L E F T L
UniRef90_A4XS63	Y A D A S P R L K R F F E V Y A R G	V N A Y M F R Y R D R A Q T F S S F E Y I V	P L E F T L
UniRef90_B0TPB7	V A K L D A D H L A V L T T Y A Q G	V N D A L A	P P D L A Q
UniRef90_E2XMW2	Y N A S S P R L K R F F E V Y A R G	V N A Y I I F R Y R D K	P L E F T L
UniRef90_3UAT13	V Q N L D R N S P K A L Q A Y L D G	I N Q F Q A S R P L P L E F D L	P L E F T L
UniRef90_M0LDH7	W E R V D T P A G P L V E A Y A E G	V T A A M E T E Q L P L E F E L	P L E F T L
UniRef90_L8EQS6	W A A Y G P R T E R I T S A F V R G	V N A Y V A L C R A D P A H L P P E F A L	P L E F T L
UniRef90_V618K8	L T E A S P Q I L K E L D S F L E G	I N F F L K T E S L P I E F T I	P L E F T L
UniRef90_A8ZXX4	Y E S A S P E L L H M L K R Y S E G	V N A Y M D Q A P R P M T L K L	P L E F T L
UniRef90_A12PV6	A K I L R E R R F T R T M L E A Y L A G	V N T F V D T G K P P L E F E L	P L E F T L
UniRef90_F8GMB7	W L A Y G S D A K R V A E A F V A G	V N A Y V A L T E Q R P E L L P P E F R K	P L E F T L
UniRef90_I4YWL8	W A S Y G P N A K T Y T E A F V E G	V N A F V V Q E V R D G N R P A P A E F K I	P L E F T L
UniRef90_I7LUS3	I T K L E K E E D V I Q A Y C D G F	N F Y Y H S L S V K P P L E F V I	P L E F T L
UniRef90_W3R3E7	L A A L S P E D R A I F E G Y A A G	V N K R V K E V L A D P A L M P K E F T D	P L E F T L
UniRef90_UPI000395A303	W L A Y G S D S K R V A E A F V A G	V N A F V A Q T K A D P S L L P E E F K L	P L E F T L
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UniRef90_UPI000466F9F7	Y A G L P A H A R E A L Q V Y S Q G I	H A F H K N L P Q A L P P E F H V	P L E F T L
UniRef90_UPI00016A9B2C	Y A S Y H P E A K Q I L Q A F A D G	I N E Y V R E A K A D P A K M P A E F R L	P L E F T L
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UniRef90_H0A4M2	F N A Y S P D A R E I C T A F V A G	I N A Y V D L C E R E P D R L P P E F I S	P L E F T L
UniRef90_C0BN69	V A Q L D T S S Y K L S L A Y L E G	V N K F V T D G A T P V E F Y L	P L E F T L
UniRef90_V5AB02	W D R I K Q P A G A A V I E A F A D G	V N A Y I I D Q W R L P I E F S L	P L E F T L
UniRef90_S3ZYM2	W A S Y G P R A K E V A T R F A A G	V N A Y V D W L E K N P D S M P E E F R K	P L E F T L
UniRef90_F6A9G0	A R E L D P E S P K A L A A Y L D G	I N Q Y Q N S R P A P L E F D L	P L E F T L
UniRef90_UPI00037ACC6A	I A V M P S D Q R E L L D H Y V Q G	V N F G L T Q L G A K P W E Y L L	P L E F T L
UniRef90_UPI0003641E90	W A R Y S S D A K K I A T R F V A G	I N A Y I I D Q D H P D R I P D E F G L	P L E F T L
UniRef90_V2GVT1	W L A Y G S D S D A K R V A E A F V S G	V N A Y V A L T E A Q P E L L P R E F K Q	P L E F T L
UniRef90_W6W6Z5	W T S Y A P D T Q A I C T A F V A G	I N A Y V T L C E L E P A R L S P E F D L	P L E F T L
UniRef90_M0N696	W D S L D S R T G A L T E A Y A A G	V N I M A N D P S A L E F S L	P L E F T L

130 140 150 160

UniRef90_Q67TD8	A R L R P E P W R A V D S L A V A K [L] L A F E L	A P P V A D V V V R A R	
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UniRef90_G4SYP0	L G Y R P G P W Q A A D S L L I V F G M F D N L T A W A E R G E R M L S V		
UniRef90_UPI000255A7FB	L G I E K E N Y Q I K D M Y Y V A A Y M S F S F A H A F K T D P L L S F	F K T D P L L S F	
UniRef90_D4ZHK8	T G T S P Q K W Q P A D S L L V I F S M Y L D L Q G N T P K R D M A L T Q	K R D M A L T Q	
UniRef90_Q01WS0	L R Y Q P P R P W S T V D C L L L C L H M Y R N L T T T W K D E I I K N N	E I I K N N	
UniRef90_UPI000367C3C7	L A N R P E P W R E T D S L L W G K A M A F L T G N M R T E L A R L R	R T E L A R L R	
UniRef90_L9VN57	L G Y E P R E W T P V D S M L M E K Q I S W D L T G N F G E L R R A L	L R R A L	
UniRef90_X1CJY4	M D F K P T K W T T V D T L C L V Q E M A R Q M S W N N H D L E R Y V T L Q S	H D L E R Y V T L Q S	
UniRef90_H5SQL0	I E I K V I A P W T V L D T L A M G K L L T F D L S F D I D A S N V L T Y	I D A S N V L T Y	
UniRef90_C7MWQ6	L R Y E P A P L W E P E D V V R L R T H A I S G N L S S	L R Y E P A P L W E P E D V V R L R T H A I S G N L S S	
UniRef90_K5CEZ2	L G I K P K P F D R V D A I S F L F Y M G F S F A E G [K] K S D S L Y T I	[K] K S D S L Y T I	
UniRef90_W4NYG7	V G Y W P A K W S A D D V V R I R S H G L T R N L T S E V A R A K V A C K S T L	V G Y W P A K W S A D D V V R I R S H G L T R N L T S E V A R A K V A C K S T L	
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UniRef90_F3KRJ3	L G I R P L P Y S P E D T L A V T G Y L A Y S F A A A [L] R T E P V L T Y	[L] R T E P V L T Y	
UniRef90_UPI000464A3EC	L G H K P D R W V A E D V V R V R T H S L T R N A S S E L L R S K I M A I L G A	L G H K P D R W V A E D V V R V R T H S L T R N A S S E L L R S K I M A I L G A	
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UniRef90_Q113A4	L G I P K R P F T A E D T L S A G Y M A Y S F A A A F R T D P A L T Y	A F R T D P A L T Y	
UniRef90_I015D8	L L R V P V E P W R V V D T L A A A K V L A W S M S G N W Q S E L T R L L L H Q R	L L R V P V E P W R V V D T L A A A K V L A W S M S G N W Q S E L T R L L L H Q R	
UniRef90_U5VPT3	L L G I T P R P F T A E D T L S I A G Y L A Y S F A A A F R T E P A L T Y	L L G I T P R P F T A E D T L S I A G Y L A Y S F A A A F R T E P A L T Y	
UniRef90_G1XZ44	L L R Q H P Q P W S L E D T L L V V D A M Y F D L Q S S D G W D E R R L E L A M	L L R Q H P Q P W S L E D T L L V V D A M Y F D L Q S S D G W D E R R L E L A M	
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UniRef90_H0S412	L L N V G F E H W R P E D C L L W A K L I D E L T G N F R D E L L H A Q	L L N V G F E H W R P E D C L L W A K L I D E L T G N F R D E L L H A Q	
UniRef90_UPI00047B8442	L L G Y R P E L L W R A E D S L L A V L C M F E T L T W R L G E K E R M T T V	L L G Y R P E L L W R A E D S L L A V L C M F E T L T W R L G E K E R M T T V	
UniRef90_H8GEP2	F S Y E P A R W T A E D V V R I R A H G L S Q N L Y S E V D R A R I A C V G G V	F S Y E P A R W T A E D V V R I R A H G L S Q N L Y S E V D R A R I A C V G G V	
UniRef90_F4DPW0	L L G I E P R P F T I A D T L S V A G Y M A Y S F A A A L R T E P V M T H	A L R T E P V M T H	
UniRef90_UPI000255B791	L L R Q Q P R D W S P A D S L L A I F S M Y M T L Q S H T G K F E L L R D N A L A E	L L R Q Q P R D W S P A D S L L A I F S M Y M T L Q S H T G K F E L L R D N A L A E	
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UniRef90_L9XN25	L L D Y E P R E W T P V D S M L M E K Q I S W D L T G N F G E L R T A L	E L R T A L	
UniRef90_UPI0003A3A7C9	L L I G L K K T K F T V N D V Y N V F G Y M S F S F A I A Q K T D P L L Q E	K T D P L L Q E	
UniRef90_E8ZAA0	L L G A Q P E E W R P E D S L L V I W A M Y F Q L Q G T L P S R Q I A R E W	R Q I A R E W	
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UniRef90_UPI000349EFAF	L L G H R P A R W S P E D V V R I R T H A L S G N L V S E V Q R A R V A C A S D T	L L G H R P A R W S P E D V V R I R T H A L S G N L V S E V Q R A R V A C A S D T	
UniRef90_UPI00046436EE	L L G I E K E K Y T M K D I Y N V F G Y M A F S F A A A H K T D P L L T E	H K T D P L L T E	
UniRef90_M0MPJ5	L L D Y Q P D P W K P V D T M L L Q K Q I A W T L T G S F R T L R K A L V	S K	
UniRef90_A0B1P0	V G A Q F Q D D W Q I F D T V A F I K L M S L L N V N D M F H E F M R	V G A Q F Q D D W Q I F D T V A F I K L M S L L N V N D M F H E F M R	
UniRef90_A0A023WUB7	S G Y K P E Y W K P E D S V L F C L L N F G L S Q N L Q E E V A A L L	E V A A L L	
UniRef90_L9VTQ7	N G F E P D H W D P A D V A G I F V A T M A F F S G V N L E T L N A A V L A G	N G F E P D H W D P A D V A G I F V A T M A F F S G V N L E T L N A A V L A G	
UniRef90_G7FJJ0	T T G A E E Q Q P W Q S E D S L L V I F S M Y L D L Q T A T F E R D Q A L I Q	T T G A E E Q Q P W Q S E D S L L V I F S M Y L D L Q T A T F E R D Q A L I Q	
UniRef90_UPI00028916B5	L L R Y R P E P W T P L D S V L I V K H L G F D L A V N I K N E T F R A R I L A A E	L L R Y R P E P W T P L D S V L I V K H L G F D L A V N I K N E T F R A R I L A A E	
UniRef90_A1SB16	S S G E E T P W Q P E D S L L T I F S M Y L D L Q G N T V E R E L V L E R	T V E R E L V L E R	
UniRef90_UPI0003497535	T G H K I E P F T P T D I V V G I A A M V G G I F G G G G G E V R S A L A R A G	T G H K I E P F T P T D I V V G I A A M V G G I F G G G G G E V R S A L A R A G	
UniRef90_M7YD67	L L N I L P E P W T W E V V I S R H Q G L L E N V K D E L S F S R	E N V K D E L S F S R	
UniRef90_UPI000475EE34	I I G V K P R P W T A A D S L L V V W A M Y F D L Q G G L E P R E L A R G W	R E L A R G W	
UniRef90_H6RHT2	I I G L E K E K Y T L K D I Y N V F G Y M A F S F A V A H K T D P M L N E	H K T D P M L N E	
UniRef90_V8QSZ1	I I G Y Q P S Q W N P E D V V R I R H H G L T L N A K N E L D R A Q V F C K	I I G Y Q P S Q W N P E D V V R I R H H G L T L N A K N E L D R A Q V F C K	
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UniRef90_J3IHF5	T T G Y K P E Y W K P E D S A L I F C L L N F S Q S A N L P E E I A S L V	T T G Y K P E Y W K P E D S A L I F C L L N F S Q S A N L P E E I A S L V	
UniRef90_G8DB27	L L T F Y K P K Y W K N I D S F I W S K I I A W Q L Q Y H T W Q D K L N N S L I M E	L L T F Y K P K Y W K N I D S F I W S K I I A W Q L Q Y H T W Q D K L N N S L I M E	
UniRef90_X0U903	L L G L K P G H W T P E V V V S R H N G L F R N A G Y E I A F A Q	N G L F R N A G Y E I A F A Q	
UniRef90_B8CQC4	T G A K P R P W E P A D S L L V I Y S M Y L D L Q G N T I K R D L T L T Y	T G A K P R P W E P A D S L L V I Y S M Y L D L Q G N T I K R D L T L T Y	
UniRef90_T1D118	L L T Q A P I A P W Q P E D S I L V I F S M Y L D L Q A G T F E R D K A L I V	T F E R D K A L I V	
UniRef90_L8D4V1	T T G A E E R K P W Q A A D S L L V I Y T M Y L D L Q A G N F E R D L V L T Q	F E R D L V L T Q	
UniRef90_A4CF93	T T G A E E R K P W Q A A D S L L V I Y T M Y L D L Q A G N F E R D L V L T Q	F E R D L V L T Q	
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UniRef90_A4XS63	A G Y R P E Y W K P E D S V L F C L L N F G L S V N L Q E E V A A L T	E V A A L T	
UniRef90_B0TPB7	T G A K P K P W Q P A D S L L V I Y S M Y L D L Q G N T I K R D L A L T Q	T I K R D L A L T Q	
UniRef90_E2XMW2	S S Y K P E Y W K P E D S A L I F C L L N F S S E S A N L Q E E L A S L V	E L A S L V	
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UniRef90_A8ZXX4	A G Y T P E P W T A L D S V R F V V V L T L G L A Q N L H E E I N M L N	L H E E I N M L N	
UniRef90_A1ZPV6	M G V K K E K E F T L E D I Y A V T G F L S F Q L A L G F R S E M V I H Q	R S E M V I H Q	
UniRef90_F8GMB7	L L N Y K P A R W Q A E D I V R I R H H G L T L N F T G E V E R A Q L Y C Q A	E V E R A Q L Y C Q A	
UniRef90_I4YWL8	A G T Q P D L W K P E D D V V R I R S H G L T R N V V S E V R R A Q V A C A A G L	A G T Q P D L W K P E D D V V R I R S H G L T R N V V S E V R R A Q V A C A A G L	
UniRef90_I7LUS3	S G I T F Q D F T P A D V I N E R I M F L L L G Y E Y I W E P I R T N	E P I R T N	
UniRef90_W3R3E7	H D F K P S T W Q P E D I A M V W V R L N F L L F S K F G S N K F R	H D F K P S T W Q P E D I A M V W V R L N F L L F S K F G S N K F R	
UniRef90_UPI000395A303	L L G Y Q P A Q W A A E D T V R I R H H G L T L N F T G E V I D R A Q A F C	C	
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UniRef90_D2VNF6	L L G Y D E P W S I F V R I R S H S L T R N A L S E V L R A I V L S R	L T R N A L S E V L R A I V L S R	
UniRef90_H0A4M2	T T G M E K T L F E L K D I Y N T L G Y M S F S F A V A Q R T D P L L S N	R T D P L L S N	
UniRef90_C0BN69	T T G E Y P E P S R W S P V D T M L M E K Q I A W N L T G D F R P V R R A R A A	L E Y E P E P S R W S P V D T M L M E K Q I A W N L T G D F R P V R R A R A A	
UniRef90_V5AB02	L L G Y K P A H W K P Q D L V R I R A H G L V S N L T K E V T R A K L M C	L G Y K P A H W K P Q D L V R I R A H G L V S N L T K E V T R A K L M C	
UniRef90_S3ZYM2	L L G I E K R P F T A A D T L S I A G Y L A Y S F A A A L R S E P P L L T R	L G I E K R P F T A A D T L S I A G Y L A Y S F A A A L R S E P P L L T R	
UniRef90_F6A9G0	L L G Q E P R P W N A A D S L L L A T Y S M Y L T L Q S E E G N F E R R D T A	T A	
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UniRef90_UPI0003641E90	L L G Y K P S R W R A A E D V V R I R H H G L T L N F T G E V D R A R T Q A R E Q A A	L L G Y K P S R W R A A E D V V R I R H H G L T L N F T G E V D R A R T Q A R E Q A A	
UniRef90_V2GVT1	F G T R P P S R W E P S D V V R I R S H G L T R N R G I S E I L R A N I M A L A D A	F G T R P P S R W E P S D V V R I R S H G L T R N R G I S E I L R A N I M A L A D A	
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170 180 190 200

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UniRef90_G4SYP0	M E R T L P A D V V A F F T P D S D R F T D A		
UniRef90_UPI000255A7FB	V Q K K Y G S V Y L K D L I K R L Y G E Q M L A F V T Q N S P Y Q A A L D S S I L P I E D I L T P E L		
UniRef90_D4ZHK8	M L A Q G D R A K V E F L F P		
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UniRef90_X1CJY4			
UniRef90_H5SQL0			
UniRef90_C7MWQ6			
UniRef90_K5CEZ2	M E S E L K G R S A S E L F P R Y D F E T N A T I		
UniRef90_W4NYG7	D A D S I R F G L Q P Q W Q P H M P E G L D P C L P D D V		
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UniRef90_UPI0003788EF9	L A G P E G S R V F R G L H P D H T A Q V P P G L P C A I P D D		
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UniRef90_I015D8	L D A Y S A A N L E P D Y P A E A P		
UniRef90_UPI0004760314	G G N K		
UniRef90_U5VPT3	I R D Q L G P Q Y L T L F D L D W K P Q G D L N A P L A A A D W T S L E T L A R		
UniRef90_G1XZ44	D Q L G P L M A N F L Y P K G T E L D A P L D G S T L P E P P M P A S Y		
UniRef90_UPI00047DFAE3	G A G T F S R A L Q P A H T P A V P D G L D P C S V P A D V L E P A		
UniRef90_A0A024II8	L L T P A L W E L F P P Y P G E A P A A		
UniRef90_H0S412	L L R K L P P A D L D V L F P A Y P		
UniRef90_UPI00047B8442	M E A A L G P E I L A F F T P D S D R Y A D S V A A G S I A R R P P Q P		
UniRef90_H8GEP2	D A D Q F R I R L T P E H A M V P E G F D P		
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UniRef90_UPI000255B791	L P G D L Y G F F V P D G G V W D A P L I G D P R P P L A L		
UniRef90_L8JXL9	M G Y D Y		
UniRef90_L9NX25	V A D R L L D E G V A E D L Y P E R M D H D V P I L R E E V L E S A E R L D G G G		
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UniRef90_E8ZAA0	L Q A A R G D A A Q G A L Y E Q M R W L		
UniRef90_D8D5K6	A T D R L L R I R L R P E H T P R V P E G L D P C A I P P G V L D T Y L A A V R A		
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UniRef90_M0MPJ5	M A Q K V G S D K L A W L L P I Y P D E A L P F D E V G K L E G L K L		
UniRef90_A0B1P0	L I E A E Y D D E T A W D L F E D L Q W G D D P D A P T S G N V P N P G F T P P T		
UniRef90_A0A023WUB7	I Q Q Q Y G A K M V E F L R P E Y V G A		
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UniRef90_UPI0003755FF9	D P A R G Q E L I A E P G E P P M P S Y A G L F P G A R F T G P E R G		
UniRef90_M0AQZ1	L A D R L G E T A A E L Y P E R L R D H D V P I L R D A V E G E R L D A D E R G		
UniRef90_J3IHFS	L A Q T V T S D K L P W L T P S A P D E K L P L G E S E K L Q G K L		
UniRef90_G8DB27	K S S D I N I E D I R I Q Y P E N A P T T L N I E E		
UniRef90_X0U903	S V N V L G A Q K L K N L L N L H P		
UniRef90_B8CQC4	I K S I F G A Q M L D F D I I Q P S R Y Q A A L D G S L I S L K Q P V I P L M S		
UniRef90_T1D118	L P R P L V D F L L A P D P R W E A P L Q G T V S T P V P L P D A S F D L R S		
UniRef90_L8D4V1	L E Q Q F G V E M R E F L		
UniRef90_A4CF93	I E Q Q F G K E M L A F V T Q P S R Y Q A A L D G S E I A K G E A A I P Q L A		
UniRef90_UPI000361C3E	L L D T L G Y K K T A M L L P L N I N V D D P D D K G V I T M P P K G L A L P F		
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UniRef90_B0TPB7	I Q V L F G E A M L D F L I I Q P S Q Y Q A P L D G S R F A L E A		
UniRef90_E2XMW2	L A Q K V G V D K L A W L T P S A P D E P I P L A E A D K L K G V N F		
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UniRef90_A8ZXX4	L E K R L P N R N V G E V F P R H D T E D P F S I Q E N Q P S F S P K		
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UniRef90_I4YWL8	K Q D A P R A D W L R E L D P Q I E P R L S P I D P C T V P A A E L R R A Y E L		
UniRef90_I7LUS3	D A D R L R T K F E P D W Q T S I P A G L D P		
UniRef90_W3R3E7	L A N Q F T E D V A I K M F		
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UniRef90_W9DDW3	T G S D A L R F W A F E G S E H D P T V P P		
UniRef90_UPI00035F1FAC	L P V R D T L G A D Y L K		
UniRef90_A0A024HQK8	L A E Q L P Q Q K I D E L W P Q H A M R L D P A L V G T L L A E L P D F P L P Y		
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UniRef90_M2U8S8		A A R V T V R D D W G A H V H G K T D A D A V F G M I Y A Q A E E D D F P				
UniRef90_G8NXG0		E N A P D L E I R D P H G P H V R A A S A E G A L F G H L G V T D R A W				
UniRef90_M0QQH2		R V F R D Q W G V P H L R A A D P D E L A F A Q G R V T A Y D R A W				
UniRef90_A4X800		Q Q A R R I T V K D T W G V P H V Y T K T D A D A V F G M M Y V Q C E E F F E				
UniRef90_F8EB86		Q H A R Q T E I R D Q W G V P H V M G K T D A D A V F G M I Y A Q C E D D F N				
UniRef90_R7ZRD9		P R S D V R V R D K G A V P H T G S T R A G T M Y G A G Y A M A R D R L L F				
UniRef90_F4FG10		A A R V T T R D D W G V P H R G R S D A D A V F G M I Y A Q A E E D D F A				
UniRef90_A0A031HZR7		Q V T K S T E L W D T Y G V P H Y G K D V P S A F Q A F G W A Q M Q S H G N				
UniRef90_B2J0X8		Q A E R V E I R D D F G V P H Y G K S D A D A V F G L L Y A Q C E D D F R				
UniRef90_UPI00042A62A5		K T E L W D S W G I V P H V W A N N S E N L F K A F G W A Q T Q S H G N				
UniRef90_E0U7K1		Q A Q G I S T R D K W D V P H V S G K T D A D A V F G M L Y V Q C E D D F G				
UniRef90_F4KTE4		Q A K Q V T V R D K Y G V P H V Y G K T D A D A V F G L L M Y T Q C E E N F E				
UniRef90_UPI00047DA5EF		G N V V N Y V D D N N G I A H V Y A D N L H D L L A E G Y Y E A S Q R L F				
UniRef90_UPI00041C26CC		L S A P V S R R D A L G V V T D A A N E A D A M R A L G Y V H Q Q E R Y F				
UniRef90_F9ZH23		L S S P V F D R D A L G S V T F R G K N R D L A L A M G Y V H A Q E R F				
UniRef90_UPI0004748711		T T E L W D T Y G V P H Y Y A K D A A A N A F K A F G W A Q M Q S H G N				
UniRef90_UPI0003B3C98A		K H K A A V T T R D D F G V P H K G K T D A D A V F G M I Y A Q A E E D D F N				
UniRef90_S4XJC2		S D R T E L W D T W G V P H Y G K S D G E L F H A F G W A Q M H S H G D				
UniRef90_K9WIR6		S T E L W D T Y G V P H Y A K D T T A S A F R A F G W A Q M Q S H G N				
UniRef90_K9V2H2		P R E D V T T R D K K G V P H K G T T R Y G T E F G A G Y A A G Q D R L W				
UniRef90_M9T109		A Q A V T T R D D W G L A H V H G K T D A G A V F G M A Y A Q A E E D D F H				
UniRef90_UPI000374DC20		A S R V D A R G M S V T A E D E A T G Y G G L L C Y A M A R D R L F				
UniRef90_T0KCV5		P R S D V T V R D K L G V P H T G T R A G V M Y G A G Y A G Q D R L F				
UniRef90_UPI0003700519		R G T S Q T E I L W D S W G V P H Y G R D S A S L F K A F G W A Q T Q S H G N				
UniRef90_K9T3X4		A T V T I R R D D Y G V P H Y A D S R A P V F Y G F G Y A T A A D R L Y				
UniRef90_Q5UWE5		Q K V E V L F D N H G P H S C E V N S F L F A Q G Y Y H G K D R L M				
UniRef90_A1ZPV5						
UniRef90_T0CE75						
UniRef90_S7V7E3		A K Q V T I R D D Y G I P H Y A K T D A D A V F G M L Y A Q C E D D F R				
UniRef90_UPI00029B09CE		K V T V H R D K W G V P H V Y A E T A S E G A Y G L G Y Y A Q A E D R L L H				
UniRef90_I0L7B6		P R A D V T V R D A T G V P H V T G T R A G T M F G A G Y A G A Q D R L W				
UniRef90_UPI0002630A28		A P V S I Q R D A L G T V T V E A A D E A D A M R A L G Y V H A Q E R F				
UniRef90_W7FWM1		L A T Q V T V E R D A L G V V T T A G N K T D A L R A L G R V H A Q E R Y F				
UniRef90_I3TMH5		P V T L R W S D E Q V P F V E A E T D R D L A Y T L G L V H A H L R L A				
UniRef90_U6LSK3		S S V R G R D E N G L P Y Y V S A S S R E D L C F Q G Q Y L H A E R P V				
UniRef90_UPI0004752EFD		S H Q H T E L W D T W G V P H V F A P D L E Q V L T G F G Y A Q M H S H G N				
UniRef90_UPI0003B73700		Q A V E L R W N D H Q V P Y V E A R N D H D L A F T L G L V H A H L R G A				
UniRef90_UPI0003C7EF12		T V T R D A H G V P H V R G A S S L A E M A R E Q G R T V J A R D R G W				
UniRef90_K9U2W9		S S A P T E L W D T Y G P H V Y G S N A Q G A F K A G F W A Q T Q S H A N				
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UniRef90_K9T2L1		E L L W D T Y G P H V Y A A N H P E L F Y A F G W A Q M Q S H G N				
UniRef90_K9QF99		S T E L W D T Y G P H V Y G N N T P D A F Q A F G W A Q M Q S H G N				
UniRef90_B5GZY0		E V T V T R D K S G P H V K G T R Y G T E F G A G Y A A G Q D R L W				
UniRef90_UPI00037B3D01		F R D P W G V P H R A D G M R E L A R L Q G L V T A D R D R G W				
UniRef90_UPI0003B715E9		A P I T R W D E H M P F V R A E S E A D L V A V G L G V H A H L R L A				
UniRef90_V7EBR7		E Q Q A T A E R R T S F G V P H R A N D E R G L G F G I G Y A Y A Q D N L L C				
UniRef90_B4VHJ5		Q T E L W D T W G V P H V Y G N N T E N L F Q A F G W A Q A S H G N				
UniRef90_F9ZKY5		A E V E F W D E H Q P Q V Y A Q N D G D L A L A I G L V Q C H R E T				
UniRef90_K9PG2		T Q L W D T Y G P H V Y G E N S K S L F Y A F G W A Q M Q S H G N				
UniRef90_T0ZLJ0		N S V N I Q D S N G V Y H V Y A Q S A A D L Y Y A L G F I Q A K N R L F				
UniRef90_J2MKP2		S A D I R R T A F G V P H V I R A Q D E R G L G F G I G Y A Y A Q D N L L C				
UniRef90_F8ED88		Q A E L W D T W G V P H V Y A K N D E S L F F A Y G W A Q T Q N H G N				
UniRef90_AOZ672		E A T E R D I W G V P H V K G A T T D A D A Y G L G Y A M A E D T W K				
UniRef90_I4WAX4						
UniRef90_Q3KD51		A D I R R T G F G V P H V R A E N E R G G F G I G Y A Y A Q D N L L C				
UniRef90_K9HT53		A P A A I H H W N Q H M V P F V D A A D E P D L A V A L G V V H G H L R L A				
UniRef90_Q9H183		S A T V L Y R Q A D G F I G V A S N S T R A V Y Y E Q G Y L E A E Y R L A				
UniRef90_UPI000382B95D		E Q L E I Y K D D Y G I P H V F S K D I R X L G F G F G Y V Q A Q D H W E				
UniRef90_T0LJU5		L T G K V T V I Q D S S G V F H V F Y A A N L E S L Y F A L G L F V Q A K E R L E				
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UniRef90_I0DPE5						
UniRef90_UPI00047BDB34		R L A K D V T Y R D T Y G V P H V V G E T E E A A F F G Y G Y A Q A E D H L E				
UniRef90_12GT35		A K K T E L W D N Y G V P H V Y G R T V E E M Y Y A F G Y A Q M H N H A N				
UniRef90_D9VCJ8		S D V T I A R D S L G V P H V K G T T R E G A T F G S G Y A T A Q D R L F				
UniRef90_S4Y7V3		S A V D V V Q D R D G R P H V Y A E N L V D A M R V V E G Y Y L T A R D R A L				
UniRef90_A0DY0		N D V K I F R D K Y C P H V H A K F L K E G Y Y Q L G F V H A Q D R F W				
UniRef90_A0A017TD65		A Q V D T V D D R G M P H V Y G A S L H D V A M V E G Y L M A R D R F P				
UniRef90_UPI000362CE5B		K Q A K G I E I V K D T Y G V P H V V Y A K T D A D A V F G M E Y I Q C E E F F				
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UniRef90_C1DIN6		A E I R R W T A F G V P H V I R A E N E A A G L G Y G I G Y A Y A Q D N L L C				
UniRef90_J3IGT9		A T A E R R T S F G V P H V V A R A E N E R G G Y G I G Y A Y A Q D N L L C				
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UniRef90_UPI0003F8536D		N Q I D I R D K W G V P H V F G K T D A S V A Y G L L A W A H A E E D D F A				
UniRef90_C7QDT5		E A F R D Q H G P H V A R A A S V E G A F R A Q G H A A A L L D R G L				
UniRef90_J3ARD3		A G R G E L W D S Y G V P H V V Y G K D E A A V F Y G F G W A Q A H S Y G N				
UniRef90_UPI0003B38DAD		Q P V T V V R D A R W V P H V Y A A S D R D A I L T G L Y L I A R D R L L F				
UniRef90_UPI000373733A		A K T E L W D T W G V P H V F A E N N S G L F K A F G W A Q M H S H G D				
UniRef90_T1DYA3		Q L W D T F G V P H V Y G K D E A G T F Y G F G W A Q A H S Y G N				
UniRef90_UPI0003H2MC8		R K Y T A K E T D C Y G V P H V V Y G K D E A A V F Y G F G W A Q A H S Y G N				

	50	60	70	80
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UniRef90_XOMWA6	L M D L F R H I G R G E L T S F A G G A G L E Q Q F W P S A P Y T E A D L Q A Q			
UniRef90_A0A017T3Y8	H M E A F R R R A L G R S A E V F G E G A I N G D I S A R A F G F G R L G E A D			
UniRef90_E2SE65	L M D A L R H L G A G R G A E F V G P G N I A M D R A Q V R Y Y T P Q E A A D Q			
UniRef90_D6B0R1	Q L H V E Q H R V L G T S A A F L G P D A A D W D G L A R R T R L A D T A R R C			
UniRef90_M2U8S8	R I E R N Y L V A L G R L S E A E G E A A L W Q D R Q R L F L D H D A L R R A A			
UniRef90_G8NXG0	R V E T N Y L T S L G R T A E A Q G E D A I W Q D R Q R L F L D P E E L R R H D			
UniRef90_M0QQH2	Q I E F R L R G E R T A E V F G L A G V G W D A F A R R A Q I D R A A R R I C			
UniRef90_A4X800	Q V E V E R H R S L G T S A A F L G P E A V P W D Q F T R Q A R L A D T A R R C			
UniRef90_F8EB86	K V E N T L I T R L G R Q A E V E G E R E V Y Q D L W A R T F I D S T R A Q Q L			
UniRef90_R7ZRD9	R V E M N Y I T A M G R T A E V M G K Q D I F A D L R M K F Y L D P T L K K E			
UniRef90_F4FG01	T M D L L R H V G R G T L T S F A G G A A L E Q S V W R T S P Y T E A D L A A Q			
UniRef90_A0A031HZR7	R I E A N Y L T A L G R T A E A E G E S A V W S D R Q R L F V D P A A L Q A Q Q			
UniRef90_B2J0X8	L L R L Y G Q A R G R A A E Y W G E K Y L E S D R W V Q T M G V P E R R A R S W			
UniRef90UPI00042A62A5	R V E R N Y I W A T R G R L A E L E G E E A L Y S D R A R N L Y M T E A E A K A A W			
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UniRef90_F4KTE4	R V E D N Y I T S I G R M A E V E G E A Y L Y Q D L R A R L F L D T N Q V K D I			
UniRef90UPI00047DA5EF	R I E R N Y L E M L G R R A E M E G E K L I Y N D L L M R R L I A D S N D A K K D			
UniRef90_M1IEQ0	Q M E F F G L L A M G M N L S S W V G S R G L S S D I A M H I G I P Q N A N N Y			
UniRef90UPI00041C26CC	E M D L M R R V A A G E L S E L F G M R A F P L D A K H R Q D R L R A R V T A N			
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UniRef90UPI0003B3C98A	R V E T N F I N A Q G R R L A E T E G E S A I W R D R M K F I D P A E L K A Q			
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UniRef90_K9V2H2	L L R L Y G Q A R G R A A E Y W G E K Y L I D S D R W V L T M G V P E R R A R S W			
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UniRef90UPI000374DC20	R V E T N Y L L S L G R M A E A K G E S S I W L D L R Q K L F I D P V K L K Q L			
UniRef90_S4XJC2	Q M D V L R R S A K G R R L A E I Y G P S I L D Q D L R A R L Y M D P A K L K T A			
UniRef90_T0KCV5	R I E A N Y L T A L G R T A E A E G E G A I W Q D L R A R L Y M D P A K L K T A			
UniRef90UPI0003700519	L M D L M R R H V A R G N L T T F A G G A A L E Q S V W R N S P Y T E A D L Q A Q			
UniRef90_K9T3X4	L I L R L Y G Q A R G R A A E Y W G E E Y L E S D R W V L T V G V P E R R A V A V			
UniRef90_Q5UWE5	Q L E L Y R R Y Y H G T V A A V L G S D W V Q F D I E A R T A G E P S L D E Q A			
UniRef90_A1ZPV5	Q F E L F R R L G T G T L G E V L G A F G A S F D V P T T V G I V E N A K K S			
UniRef90_T0CE75	Q M E M R L I A Q G R R L C E C I K D S T F A I D K Y M R E L L G I N H F A K E E			
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UniRef90_W7FWM1	E M D L M R R S A A G E L S A L F G A K A I E A D K R M R V H R L R A R T E A H			
UniRef90_I3TMH5	Q I S L M R K V S Q G R L S E M G G P V A N D I D H A L R L G F G R G S A A T			
UniRef90_U6LSK3	Q I E E L R L I A T G K S A A V L G A S M T D T D M I R T V I S E A M L H K			
UniRef90UPI0004752EFD	L I L R L Y G Q S R G R A A E Y W G E D Y L P S D R Y V H Q M G I P E R A Q Q W			
UniRef90UPI0003B73700	Q L S L L R H V S S G R L S E I A G P P A T E I D H A L R L D F G H A T G E I			
UniRef90UPI0003C7EF12	Q I E E L R L R G E G R T A E L L G E A G V A W D V F A R A M L E E V A K H A			
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UniRef90UPI0004170C2B	R I E A N Y L T N L G R T A E A E G E K A I W R D R R A R L Y V S D D R L K E E			
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UniRef90_K9QF99	L L R L Y G Q A R G R G K A A Q Y W G E D Y L E S D K W V L T M S V P K R A S A W			
UniRef90_B5GZY0	M M D L F R H L G K G D L T P F A G G A L N Q G L E Q Q F W S Q A P Y T E A D C			
UniRef90UPI00037B3D01	Q I E V E R H R A Q G T S A S F L G A G E L S W D V L V R R A R V A D T A R R C			
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UniRef90_B4VHJ5	L I L R L Y G Q A R G R K A A E Y W G E Y G Q D Y L D S D K Y V R T M G I P A R A R E W			
UniRef90_F9ZKY5	Q L Y Y L R Y L A E G R L G E L L P L L T P V D E L I R C L D P G R A A P E L			
UniRef90_K9VPG2	L I L R L Y G Q A R G R Q A A E F W G E D Y L E S D R W V Q T M G I P N R A N A W			
UniRef90_T0ZLJ0	Q I E V F G E G M G Q M S T F F G S S Y Q N Y D R F Q T M T G P L T A M S D			
UniRef90_J2MKP2	L L L A N E I V T V N G Q R S Y F G P D Q T S D V F T W L N T P E A V K A F			
UniRef90_F8ED88	L L L R L Q L Y G Q A R G R G K A A E Y W G E T Y L E G D R W I H T M G V P R R A Q D W			
UniRef90_A0Z672	V I E A M P Y Y R G N A G S F F G P D A A K Q D Y V V H W G L W D D L E L R			
UniRef90_I4WAX4	E M D L M R R A A G E L S A L V G P A A L K L D L N H R R H R R A V A E A A F			
UniRef90_Q3KD51	L L L A N E I V T V N G E R S R Y F G P E Q L T S D V F F Q W L N T P Q A V N A F			
UniRef90_K9HT53	Q L E A M R L S Q G R L A E V L G P A A V D A D H V L R V L D L G R A T P A M			
UniRef90_Q9HI83	Q L D F L K R T A L G N L S A I A G P S T L Q T D I F M R E L Q L Y N T A I M E			
UniRef90UPI000382B95D	S M L L S Y R L A N G R L S E V L G E G E E A S D R F S I Q A G H R Y Y G I L A			
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UniRef90_S4Y7V3	Q L E I L R R T A E G R L A E L F D P T T Q D I A L R H V G L G R I A T A Q			
UniRef90_A0DYL0	Q L H L R R M T S Q G R M T F Y W D K Y I R N G Y L E S C K R I			
UniRef90_A0A017TD65	M M E F V R R N V T G R R L A E F L G P D A L E A D I A A R V I G Y Q R V A N R I			
UniRef90UPI000362CE5B	K V E T T S L I G R L G R S A E L E G E S A I Y R D L W T R M F I D S V Q A V Q L I			
UniRef90_I2NBK5	Q I D V E R H R S Q G T S A S F L G A A A A G W D A F R A R S L I D D T A R R C			
UniRef90_C1DIN6	L L L A E E I V T V N G E R S R Y F G P D Q L I A S D L F F N W L N D D S S V A T L			
UniRef90_J3IGT9	L L L A E E I V T V N G E R S R Y F G P D Q L I A S D L F F N W L N T P Q A V G A F			
UniRef90UPI00036C36EA	T M A D S F L T Y R G R E R S R H L G G S A I D S D F F H R H V I S D E A V D R T			
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UniRef90UPI00026CC4A9	T L Q E A V A M A R G R L G A L Q G A D G A K V D Y T L R L G A R E T A Q R D			
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UniRef90_N9UUR1	T L Q E V I A M T R G R T G A L L G A D G A K I D Y V A E L L D I R K T A A R D			
UniRef90_W11Q14	T M A D S F L T Y R G R E R S R Y F G G Q A L D S D F Y H R H I L S E D M L E R M			
UniRef90UPI0003F8536D	T I Q Q S L M A G K G M L A Q Y K G K E G A Q V D Y I V R L R P E L V E D R			
UniRef90_C7QDT5	Q M E Y V R R K A L G T W S E V V G S R A V T D D T F S R R V G L A A A A R L S			
UniRef90_J3ARD3	I V I R L Y G E A R G R A A E Y W G E S Q A D A R W I L A N D V P R R A A S W			
UniRef90UPI0003B38DAD	Q L D F I P R V A A G R L A A A L G P S A V R T D R F L R S T G M D W G A R R N			
UniRef90UPI000373733A	L I L R L Y G Q A R G R K A A E Y W G E Y I E S D R Q I L T L G P D R A A V W			
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UniRef90_H8MSR9	T L A D Q I L K V R G R E R A R F L G Q G A V G S D I A Y R A M D L M G R A E A A			

90 100 110 120

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UniRef90_E2SE65	L Q V I A D E N G A E G E R L L R G A D A Y L A G I N A A Q G P T C P A E Y L A		
UniRef90_D6B0R1	Y E R L D A D T A A W V A A Y A E G V T D A L L A D G A H E R A P E F A R		
UniRef90_M2U8S8	Y R D S P A W L K A L M D A W A G L N H Y L L A T H P D T Q P		
UniRef90_G8NXG0	Y A T S P E W L K Q L M D A W A D G I N F Y L S Q H P D K K P K V L		
UniRef90_M0QQH2	H D A S S E R T R R L L R A Y A D G V N H S H T D A S A E L T E		
UniRef90_A4X800	H A R L D P T T A S W V G R Y V D G I N A G L A A G A A R D P R F T T		
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UniRef90_R7ZRD9	F D E S E A W L K T L M V A W A D G I N C F L S E N P M I K P K L L		
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UniRef90_UP100047DA5EF	Y L Q S P V W L K K L L N A H A D A I N Y F L Y K H P E V R P V V L		
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UniRef90_UP10004748711	Y K A Q T P T F R S Y L D A F A A G V N A Y A K E H P D E V K A V L P V		
UniRef90_UP10003B3C98A	Y V A S P A W L K S L C T A W A D A L N A Y L A S H H S A V K P R V I		
UniRef90_K9WIR6	Y Q E Q N P A M R G D L D A F A A G M N A Y A Q E H P D Q I N N E L K S V L P V		
UniRef90_K9V2H2	Y Q A Q N S S F R S Y L D A F A E G I N T Y V K E N P Q G I D D A V E I V L		
UniRef90_M9T109	V A E R G R Q A M A D A Q A Y I D G L N A Y R V K A K K S R T F P G E Y V L		
UniRef90_UP1000374DC20	Y A Q S P G W L R Q L L M D A W A D G L N Y Y L A T H P D V H P E V I		
UniRef90_S4XJC2	Y A A A A S R T K R A L Q G C A G V N Q Y I A D A R A S K T G L P L E F Q A		
UniRef90_T0KCV5	Y A A S P A W L R E L L M D A W A D G L N Y Y L A T H P A V K P R V I		
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UniRef90_K9T3X4	Y E A Q D K E M R R Y L D A F A A G I N D Y A Q K H P		
UniRef90_Q5UWE5	A E Q L T A D Q R A V L Q A F T D G I I N R Y I T E V R E S E E L E F H Q A F Q E		
UniRef90_A1ZPV5	A K A L G P N T K K S M N S Y L A G V N A Y L A G L T T R P K D L L P		
UniRef90_T0CE75	I Q N I D E E T N I I L L T H Y V D G I N K A I I S E G H P F E F K I		
UniRef90_S7V7E3	Y E A A P R W L Q L L C K G F A D G V N Y Y L Y S H H P E V K P K V L		
UniRef90_UP100029B09CE	L K T M P A N I R T L V E N F T A G I Q A Y Y V D E H P E A V P E F A V		
UniRef90_I0L7B6	V D A L G Q Q L Y T D V V D Y I A G I N A Y I D R S I A D D D N Y P G E Y V L		
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UniRef90_W7FWM1	L Q D A L G S D P A A V R A Y V V D G V V N Q G L G S L A V R P W A Y L L		
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UniRef90_U6LSK3	L R K L P P Q G V N W V T E A L R S L P V R P V E F V L		
UniRef90_UP10004752EFD	Y R S Q T P Q M R R Y L D A F A G G G M N R Y G Q E H P Q L L A D S L K V V F P L		
UniRef90_UP10003B73700	E A K L P P A E T R N W V Q A F V D G L N H Y Q A Q R R E D P P E Y G L		
UniRef90_UP10003C7EF12	Y R N L D P V S R E L L V D S F V D G V V N G G L L T S P V P I E L E R		
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UniRef90_K9QF99	Y K A Q N P A F R N Y L K A F A N G I N T Y V K K H P D L I D D E V K V V L		
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UniRef90_UP10003B715E9	L A A L P D S A R Q W M D G F A A G I N H V V D G V Q G Q R R Q W P E E M Q I		
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UniRef90_B4VHJ5	Y E A Q D L T M R R Y L D S F A A G I I N R Y A S E H D D Q I D D K V K V V L P V		
UniRef90_F9ZKY5	L A L L P D R T R H W S F S V T V G L N A Y A A A Q D R R P P E F R W		
UniRef90_K9VPG2	Y E S Q N P I F R N Y L D A F V G G M N A Y A K E H P E A L T A E L K V A L		
UniRef90_T0ZLJ0	W N S T D A T T A T A L L S Y A Q G V V N S Y I N Y S E S H H N T L P L L F K L		
UniRef90_J2MKP2	W Q A Q P A Q V R D L V E G Y A G Y N R Y L A E R R R R P Q G L P Q Q C Q		
UniRef90_F8ED88	Y A L L Q K P A M R K N L D A F A L G V N K Y Y A K K Y P D K L S A E A K		
UniRef90_A0Z672	Y E S L K P E T R E Y V E A Y A A G I I N R Y A E E H P A V S L D V L P V		
UniRef90_I4WAX4	Y A R L L S P A S R H T E L Y S E G V V N A G L A A M R E R P W E Y L L		
UniRef90_Q3KD51	W Q A Q P A E V R D L V E G Y A G Y N R Y L A E R R P W E Y L L		
UniRef90_K9HT53	E A M L P P D A T R A W L E G F A D G L N H V I A H V N R A R R Y R P E E L A L		
UniRef90_Q9HI83	R Q N L S A D T Y I Y L K S F V L G I N A Y I G N T Y S K L P L L F K I		
UniRef90_UP1000382B95D	Y N N C D P T T R E L C E G F A E G V V N S W I L E N R D K L P		
UniRef90_T0LJU5	W N S V V S N S T E E A M T A Y S A G I N S Y I N Y S T F N H L T P V L F K L		
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UniRef90_UP100047BDB34	R S K I A P E V Y K L D A F A R G V V N S Y I A E H R		
UniRef90_I2GT35	Y G Q Q D P E Y R K C L D S F V K G V N A Y A K A H P E		
UniRef90_D9VCJ8	L D R L A A Q V V V K D L E S Y V G G I N A Y I K K E A S K S A E V P V E Y T L		
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UniRef90_I2NBK5	Y L S L D E A T A A W V G H Y V D G V N A G M A E G A R R D P R F A E		
UniRef90_C1DIN6	W Q A Q P E P V R Q L L E G Y A G F N R Y L R D T P E E R R P V A C A G R E W		
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UniRef90_UP100036C36EA	M A A Q P A K L L Q M V E G F A A G Y N R Y V R E A K A G G S A H A A C R		
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UniRef90_W1Q14	Q A Q P E K V R Q L V S G F T A Y A A G L I N H Y A D K H P D E V R L S G L F P V		
UniRef90_UP10003F8536D	F E T L S P D F K K V L Q G Y C E G L I N A Y A E K H K Q E V L L K N L F		
UniRef90_C7QDT5	Y E E A L A Q E T K A V F V A Y A E G V V N A A L P E S L A D C D L P P E P		
UniRef90_J3ARD3	Y R A E T A Q F R A N L D A F A E G I I N A Y A K A H H P D K I D P A V A V V L P V		
UniRef90_UP10003B38DAD	L Q R L G G R A W D V L Q W Y S A G V V N A H L K A L P P D D L P F M F R L		
UniRef90_UP1000373733A	Y E E Q S P E M R E A L D G F A E G M N D Y A D N N P D R I D D R V K P V L P I		
UniRef90_T1DYA3	Y A A Q E P S F R K D L D A F A Q G I I N D Y A T K H P D D V K A V L P V		
UniRef90_H8MSR9	F P T L S Q E M Q D M V T G Y V A G Y N K Y L E D V P A D A R P A E C A		

130 140 150 160

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UniRef90_E2SE65	L Q K K P T K W T R A D L T Y V A S L V G G I F G K G G G A E F A N A T Y Y A Q		
UniRef90_D6B0R1	T G S S P A P W E P W T P L G V W L S T H L L F A G F P A K L W R G E L T R R		
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UniRef90_M0QQH2	F N H R P S A W N A W T P I T I F I V Q H L M F G R F A T K L W R L H A C Q V		
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UniRef90_R7ZRD9	T R F E P W M A L A F S E G S I G G D I E S I S P A		
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UniRef90UPI0003B3C98A	T R F E P W M A L S F S E G S I G		
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UniRef90_A1ZPV5	L G H K P S E W R I S D T I L T I K A M S F L G L A Q G		
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UniRef90_U6LSK3	T G V D V L A H L Q R V I H F Q F V N W L V Y F S		
UniRef90UPI0004752EFD	A G L E S E P W T I R D V L R I G R L A G T D L F A T F P S K W W R E R I L A A V		
UniRef90UPI0003B73700	L G A R P G T W Q S W T P L A V F L V Q N V L F A T F P S K W W R E R I L A A V		
UniRef90UPI0003C7EF12	V P K P E D V L S H L Q R L L L F T F		
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UniRef90_A4ADI9	UniRef90_ASAQI	A S A Q I I R R T T Y G V P H I V A K D E R G L G Y G I G Y A Y A Q D N L C	
UniRef90_Q88IU8	UniRef90_EPDGMAE	A S A Q I I R R T T Y G V P H I V A K D E R G L G Y G I G Y A Y A Q D N L C	
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UniRef90_U1KVN0	UniRef90_TTRI	S A D I I R R T T F G V P H I L A A D E R G L G Y G I G Y A Y A Q D N L C	
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	50	60	70	80
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UniRef90_K6YW16	I L I A D Q I I K Y N S E R S K Y F G P D H L I S D F A Y K A L K V R V L A E Q N			
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A P A

T

G P

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The figure displays a sequence alignment of UniRef90 proteins, focusing on the N-terminal region. The alignment shows conservation of specific amino acids across different species. Key residues highlighted in yellow include C, P, H, S, and G. Other residues are shown in black. The alignment spans from position 130 to 160.

Conservation Pattern:

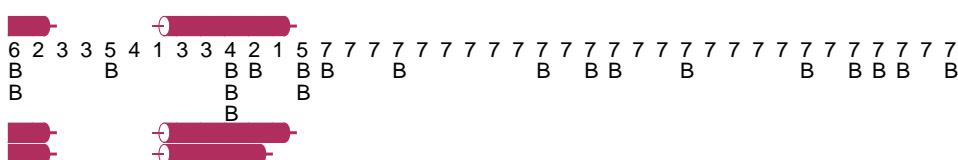
- Column 130:** C, P, H, S, G
- Column 140:** L, A, R, V, W
- Column 150:** T, A, S, Q, D, L, L, Y, Q, L, D, L, A, G, M, A, S, A, R, S, F, P, A, I, A, A, A
- Column 160:** Q, P, W, E, P, A, D, L, I, A, Y, Y, R, I, I, G, Q, Y, A, S, G
- Column 170:** A, R, W, R, P, V, T, S, D, D, I, T, Q, M, G, F, L, F, S, Q, F, G, G, H, E, F, Q, R, A, I, A
- Column 180:** Q, C, A, G, Q, P, W, T, P, I, D, L, V, T, Y, A, Q, G, V, A, L, L
- Column 190:** T, T, A, P, Y, T, R, T, D, I, Y, A, L, N, A, V, K, S, Q, F, L, G, E, G, G, G, N, E, T, A, Q, A, L, F, L, N, Q
- Column 200:** G, E, W, L, R, P, I, T, S, R, D, L, V, K, L, T, R, R, L, L, A, E, G, G, V, G, Q, F, V, E, A, V, V, A, A
- Column 210:** K, G, W, V, R, P, I, T, L, D, M, L, R, L, N, E, K, Q, M, L, L, A, S, S
- Column 220:** P, V, T, E, K, D, I, L, K, V, Y, L, L, S, F, A, A, L, S, G
- Column 230:** A, D, E, R, I, A, A, W, R, P, V, D, S, L, R, L, A, Q, A, F, L, N, D, L
- Column 240:** P, I, T, E, L, D, V, Y, R, H, S, H, A, V, G, M, I, F, G, Q, G, G, V, A, D, S, I, T, A, S, L, P, G, A
- Column 250:** K, P, V, T, A, L, D, V, A
- Column 260:** A, D, E, R, I, D, A, W, T, P, G, D, S, L, R, I, A, R
- Column 270:** A, C, R, G, A, D, W, R, P, I, D, L, D, V, Y, R, H, F, Y, A, I, A, T, V, S, G, Q, G, A, L, A, D, G, T, V, T, A, A
- Column 280:** R, P, V, T, P, L, D, V, A, A, R, F, Y, A, I, A, V, L, G, G, Q, G, G
- Column 290:** C, R, G, A, D, W, R, P, I, T, E, L, D, F, Y, R, H, F, Y, A, L, A, S, V, G, G, Q, G, M, L, A, S, D, L, A, R, T, Q
- Column 300:** F, G, E, W, P, N, A, F, T, P, E, I, A, V, A, I, A, V, L, Q, I, R, Q, F, G, S, A, S, F, D, E, P, S, R, L, T, E, L, N, S
- Column 310:** G, K, P, K, P, I, T, N, D, D, M, L, R, L, T, E, K, Q, M, L, L, A, S, A
- Column 320:** A, A, C, R, N, E, A, W, R, P, V, S, A, T, D, I, Y, R, R, M, Y, A, T, N, L, A, A, G, Y, S, N, F
- Column 330:** Q, V, L, P, I, T, P, L, D, V, I, E, H, T, Q, H, F, N, F, E, F, V, A, G, R, A, L, M, E, P, R, N, A, T, R, T, A
- Column 340:** Q, P, I, T, A, V, D, V, L, A, N, I, A, A, A, G, S, G, A, S, L, G, Q, F, A, T, A, I, L, Q, A
- Column 350:** V, D, A, P, W, V, P, E, D, I, Y, R, R, M, L, A, A, G, L, A, G, G, Y, T, Q, F
- Column 360:** A, G, Y, L, R, P, D, V, T, A, L, D, L, W, Y, G, V, Y, L, A, N, L, L, A, S, S, G, V, F, V, K
- Column 370:** F, K, P, E, I, E, P, W, S, P, V, D, S, L, A, I, L, K, L, M, A, I, K, S, S
- Column 380:** P, A, T, G, E, D, I, V, A, G, F, I, L, R, S, P, F, F, G
- Column 390:** L, G, L, T, I, P, T, L, N, P, G, V, L, L, S, S, L, M, V, S, G, F, L, G, L, A, Q, S, Q, E, R, M, E, R, A, L, V
- Column 400:** T, G, K, P, I, P, G, S, P
- Column 410:** L, I, D, Q, P, P, E, P, W, Q, P, R, D, S, I, A, A, M, R, Q, I, G, L, A, M, G, S
- Column 420:** L, I, D, W, E, P, S, D, W, T, P, K, E, V, I, Q, I, S, L, A, F, S, L, F, L, N, R, G, L, T, I, D, F, C, R, V, L, L, K, K, E
- Column 430:** I, N, V, V, P, F, E, T, A, S, D, I, V, G, M, C, K, V, M, C, V, V, I, T, F, E, O, V, K, N, E, I, N, P, V, N

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