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

QUERY	90	100	110	120
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UniRef90_A4IJG5	L V R Q E K G Y V L	V N V A D C C T I	I I A Q K P K M A P P F I	E E E M K K E V I A I A Q L L L
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UniRef90_D2RJ59	K L R A A G W Q V	N N V D V T I	V A E Q R P K L A N P Y E	P A M Q E N V I A I A Q L L L
UniRef90_UPI0004690A42	L A E R K G Y S L	G N V D A T I	I A Q R P K M A P P Y L	P S M L E E R I A S R I L M G D A
UniRef90_R5Y2J5	L I R N D K G Y E I	G N A D D C T I	C A E Q P K L M A P P H I	P A Q M Q R N I A S R I L M G D A
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UniRef90_L0E9M6	L A K E R D R G W Q I	G N V D D A T I	V A E R P K L A P P Y I	P Q Q M A S Q T R A E R V L L E A
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UniRef90_C9LI61	L V M Q D K G Y V V	G N V D D A T I	V I A Q Q P K L R P P Y I	E Q M R E E N V A K L L L G I
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UniRef90_R6QDE9	L L R A K Q G Y T I	G N I D D S T I	V C A E R P K L N P H I	P E M K E T C G I A E V L L G I
UniRef90_UPI0003788B15	L L V R A K G F E L	G N I D D A T I	V C A E R P K L N P H I	P E M K E T C G I A E V L L G I
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UniRef90_U9VK94	L V K E K G Y T I	G N V D D A T I	V I A Q Q P K M A P P Y I	N P M R Q R L A S C R L V E S
UniRef90_U1X7P0	Q V Q T K G Y Q I	S N I D D T I	I A Q A P K M R P H I	D N M R Q L A N D L L N C
UniRef90_Q47956	L L R D A G Y T L	G N I D D S T I	V A A Q P K L N P H I	P E M K R V M A D V L Q G V
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UniRef90_R5Q107	L V E K E C Y L	E N V D D A T I	V I A Q Q P K L A P P Y I	E E M R E K V I A E T L L G V I
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UniRef90_UPI00038112E1	M A K Q E G Y R L	V N C D C T V	I A Q Q P K L A P P Y I	P E M K E R I A K L L L E A
UniRef90_UPI00035EBF02	L L R A R G W Q V	G N A D V T I	L I C C E R P R V G P H A	R A M C T H L A Q V L L G G I
UniRef90_UPI00037UP85	L L R A R G G M I	A H A D V T I	L I C C E R P K I G P H R	R A M C T H L A Q V L L G G I
UniRef90_W9HC20	L I R K Q G Y E I	G N V D S V I	C M Q R P K L R P F I	E D M Q H T L A A V M Q V L
UniRef90_R5PGK6	M L D E E K M Y V I	S N I D D C T I	I C C Q A P K L R P P Y I	D Q M V T E N V A E A L L G S A
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UniRef90_UPI0003B7A332	M L R D K G Y R I	G N V D D C T I	L C L Q Q P K I K P Y I	A A M R E T I A E T L M G E I
UniRef90_UPI00031CB3CB	I V K E K G F V L	G N V D D C T I	I A Q Q P K M A P P H I	A E R M R E N I A N L L L G I
UniRef90_UPI00046F6B92	L I R E A G Y S I	E N I D A T I	V I A Q R P K M R P H I	D T M R R N I K E A L L G I
UniRef90_R5VJK2	E I M S F G F K V	G N V D V T I	V I A E A P K M R P P Y I	D A M R A N I A D D L S I
UniRef90_X7E3U1	M L E D K G Y R I	G N V D A T I	I A E A P K M A P P Y I	E Q M R E N I A E A M K V
UniRef90_UPI00047A9A3A	L V K E K G Y K L	V N A D D C T I	M A Q K P K M A P P Y I	E Q M R S R I A E L L L E A
UniRef90_UPI00036DCEE5	L L E E N G Y V I	G N I D A T I	I C Q P K L A P P Y R	E Q M V K N V A D V L N G I
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UniRef90_F3ZYH0	L L E Q A G W A V	N N V D V T V	A A Q R P K L A P H I	P Q M V K N V A A L L K V
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UniRef90_B0TBU2	W V K E A G F R V	V N V D A V V L	A E R P R L A P Y L	P A K A N F A R V L L G I
UniRef90_C9RBC7	L L R E R G W R V	G N T D V T I	V C E R P K V G P H A	L A M R E R I G S E T L Q N L
UniRef90_UPI000363A987	L V A E R G F Q L	S N I D T T I	V A Q Q P K I G P H I	E S M T I N I S E T L L G T
UniRef90_UPI00035E1F32	M A E D R G Y S M	G N L D A T I	L I A Q Q P K M A P Y I	P Q M V E V I A R T L L G T
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UniRef90_D5X1R2	S V L A Q G W A I	S N V D C T V	I A Q A P K L A P Y R	D A I R Q R I A A L L L E T
UniRef90_UPI00037F14E1	R V A Q A G W R A	V N L D A T V I	A A Q A P K M A P H I	A A M R A N I A A D L L G R A
UniRef90_UPI000371635A	M A K D A G Y G L	G N L D D C T I	I A Q Q P K M L P Y I	P Q M Q E R I A Q M L L E A
UniRef90_Q39ZL6	L A G Q K G Y V L	G N V D A T I	V A Q R P K L A P F I	P E M R A N L A E D L L A
UniRef90_D3ILL5	L M T A T K G Y R V	G N V D A T V	C A E Q P K L N P H I	P A M R Q N C M A K L M G V
UniRef90_UPI0003FC5B31	M M T E K G Y E I	G N I D V V V I	A E K P K L R E Y I	D T M R Q N I A D L L L T
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QUERY UniRef90_I0JH69 UniRef90_UPI00041D1C15 UniRef90_UPI000313A5CF UniRef90_A4IJG5 UniRef90_R5GC42 UniRef90_D2RJ59 UniRef90_UPI0004690A42 UniRef90_R5Y2J5 UniRef90_UPI00031528A2 UniRef90_A5P7M1 UniRef90_T1BYZ9 UniRef90_R6DN53 UniRef90_E2ZH10 UniRef90_UPI0003FC33BF UniRef90_UPI0002F2169D UniRef90_R5A4P8 UniRef90_L0E9M6 UniRef90_K9XDR3 UniRef90_C9L161 UniRef90_D4J297 UniRef90_Q0F0F1 UniRef90_R5U083 UniRef90_R6QDE9 UniRef90_UPI0003788B15 UniRef90_UPI0004182BB8 UniRef90_U9VK94 UniRef90_U1X7P0 UniRef90_Q47956 UniRef90_R5DLQ4 UniRef90_R7BFH1 UniRef90_UPI000403E28C UniRef90_UPI0002FA9791 UniRef90_UPI00037EF460 UniRef90_F5REF3 UniRef90_R6T6I9 UniRef90_UPI000404A70B UniRef90_R5Q107 UniRef90_B0MI73 UniRef90_UPI000378WYK4 UniRef90_B9P386 UniRef90_UPI0003725CEF UniRef90_UPI00038112E1 UniRef90_UPI00035EBF02 UniRef90_G7UP85 UniRef90_W9HC20 UniRef90_R5PGK6 UniRef90_I5ASP5 UniRef90_K6ZN71 UniRef90_UPI0003B7A332 UniRef90_UPI00031CB3CB UniRef90_UPI00046F6B92 UniRef90_R5VJK2 UniRef90_X7E3U1 UniRef90_UPI00047A9A3A UniRef90_UPI00036DCEE5 UniRef90_R6FTW4 UniRef90_F3ZYH0 UniRef90_UPI0003629884 UniRef90_K2FGW0 UniRef90_R0G1S0 UniRef90_R6QVI2 UniRef90_G5G9C9 UniRef90_B0TBU2 UniRef90_C9RBC7 UniRef90_B2FK91 UniRef90_UPI000363A987 UniRef90_UPI00035E1F32 UniRef90_G9XAJ1 UniRef90_E4T412 UniRef90_B2IB65 UniRef90_V3TK05 UniRef90_UPI000464C679 UniRef90_D5X1R2 UniRef90_UPI00037F14E1 UniRef90_UPI000371635A UniRef90_Q39ZL6 UniRef90_D3ILL5 UniRef90_UPI0003FC5B31 UniRef90_UPI000311EF0B UniRef90_D2U3T6 UniRef90_UPI00039FE8DF UniRef90_A6Q2K0 UniRef90_T0NBR7 UniRef90_Q1K1W1 UniRef90_UPI0001DD1086 UniRef90_R6NWS1 UniRef90_V1DBR6 UniRef90_UPI00046F2D13 UniRef90_UPI000471AB40 UniRef90_D5EXX6 UniRef90_G2J9T9

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

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UniRef90_UPI000362C505	MLL	GNV	VDST	MAQ	MLL
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UniRef90_S9QXT5	LAL	GNI	VDST	MAQ	MLL
UniRef90_UPI000365A45F	LIL	GNI	VDST	MAQ	MLL
UniRef90_I4D159	LIL	GNI	VDST	MAQ	MLL
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UniRef90_Q3AX10	LVL	GNI	VDST	MAQ	MLL
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UniRef90_W8T3R3	LIL	GNI	VDST	MAQ	MLL
UniRef90_R5M085	MLL	GNI	VDST	MAQ	MLL
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UniRef90_K0B1D6	LIL	GNI	VDST	MAQ	MLL
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UniRef90_UPI00047193FD	LAL	GNI	VDST	MAQ	MLL
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UniRef90_V4HQ54	QVQ	GNI	VDST	MAQ	MLL
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UniRef90_E4RU57	MIL	GNI	VDST	MAQ	MLL
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UniRef90_U2ZBW0	RMR	GNI	VDST	MAQ	MLL
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UniRef90_Q0VQD3	SLL	GNI	VDST	MAQ	MLL
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UniRef90_G5GEX0	MLL	GNI	VDST	MAQ	MLL
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UniRef90_I3ICH7	KLN	GNI	VDST	MAQ	MLL
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UniRef90_R5ECV2	MLD	GNI	VDST	MAQ	MLL
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UniRef90_P73426	LIL	GNI	VDST	MAQ	MLL
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UniRef90_G2IFT1	LML	GNI	VDST	MAQ	MLL
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UniRef90_J7IL87	LIL	GNI	VDST	MAQ	MLL
UniRef90_W9V9J5	SLL	GNI	VDST	MAQ	MLL
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UniRef90_Q8R7S8	LVL	GNI	VDST	MAQ	MLL
UniRef90_C7N7S7	VVR	GNI	VDST	MAQ	MLL
UniRef90_R5PYH3	LVL	GNI	VDST	MAQ	MLL
UniRef90_C7PNY5	LIL	GNI	VDST	MAQ	MLL
UniRef90_N9W9K5	RVA	GNI	VDST	MAQ	MLL
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UniRef90_F4DA66 D L N R V N V K A T T T T E K L G F T T G R R K E E G G I A A T E A V V L L V K Q
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V L T H A V M D A L L G A A A M G D I
V V L H A L A D A I Y G A L A D G D I
V A I H A L C C D A L L G A A A L L G D I
V V I H A V I D A L L G A A G L L G D I
V L I H A F C C D A L L G A A G L L G D I
A A W H A L T D A I L G A V A L L G D I
V L T H A V M D A L I G A L A L L G D I
V A I H A L C C D A L L G A C A L L G D I
V A I H A L C C D A L L G A M A L L G D I
A P L H A L T D A L L G A I G E G D I
V G M H A V T D A I Y G A L A A G D I
V L L H A I T D A L L G A A G F G D I
V L I H A L M D A L L G A A G L K D I
V A I H A I V D A L L G A L V E G D I
V L L H A I T D A I I G A L G L L G D I
V L I H S V I D A I L G A I A G A G D I
V L S H A I T D A I L G A I A E G D I
A L L H A I T D A I F G A A A L L G D I

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

70
80

	90	100	110	120
UniRef90_UPI0002EDB42E	R V Q E L G Y V L	G N I D D A T V I	M A Q A P K M A P H I Q S M R R E A I	A Q D L Q G T
UniRef90_R6D2D6	V I R G E G C E I	G N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI00047E5ABE	M V R K N A G Y T E I	S N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_H7EH06	E V R K N A G Y T E I	S N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI0002891EA4	L I L A S G Y K I	G N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_R6T051	L L R E Q H G W K V I	S N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_D6TJV4	L I A E R G Y K I	S N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_H1PWU0	L A K Q Q G Y V L	G N G D V T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_Q3IDQ5	L V Q K Q G F K L	G N A D D L T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_K0C5Q8	R L S E R G G R L A H	I D D A T V I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_A0NSU4	L I R E K K W E I	G N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_M7N126	L V A E K G Y T I	N N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI00047BE5C5	L I K S K G Y S I	G N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_B9DXE4	Q A A L K G F R E I	G N V D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI0003B2F07A	L I R K A G F E I	S N V D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_E4TGH8	R L R A A G Y A V	G N L D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_R6M0Z3	R I A R A G G F L A	A N A D L T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_Q0BTD5	M V R A K A G Y A V	V N I D A V T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_D7CJP8	L I R S E G W Y L	G N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_D3EP36	L L E N S Q Y K I	T N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_F9ZET0	L M R E N Q G Y A L	G N A D D V T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI00047BE5C5	I T E D K L Y V I	E N I D A V T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_V2Y870	L L E E K L Y V I	G N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_R7HX9	L L H A R G W R L	G N A D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI00036310CC	V I G A Q G W H I	V N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_R6I519	K V R A Q G W R L	V N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI0004655B8B	L L R E H Q Y E V	G N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI00034D233A	I I N T K G F Y I	V N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_E0NMU2	L K A N R K G F S I	T N A D D L T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_Q28Q60	M M K E K G Y K V	G N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI00036025D0	L L Q E K G W R I	E N L D A S L I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI000467E3DF	L I K E K G Y S I	V N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_E3HR0	L V Q E K G Y R V	G N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_E5BH5	L V Y A R G F K I	Q N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_M1E8B8	M V G E K G Y T L	G N L D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI00042651A6	L L A Q A G W R V	G N V D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_C7RSK7	R L R E K N F C V	N N C D D T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI0004789E56	M I A S K G Y K L	G N V D D I T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_Q1YSS4	I I K A G G R I A	N V D I T L I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_E6YHE3	L M E E K S Y K I	G N L D D T V I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_C7HWM7	M M R R E G Y R V	G N I D D S T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_E6MI04	R V R A E G Y E I	G N V D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI000421BG6	L L Q N Q G L T V	G N V D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_W6M063	I L L Q N Q G L T V	G N V D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_J5GPM3	L A G E R G F S I	V D C D C T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_G5F2K6	L L R S R G Y S I	P H Q V D I T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_C6I0F2	L I L D R G Y Q L	N N A D I T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI000413RQ31	L I A K E G Y G L	G N V D D V M V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_J9HDR0	L I K D K G W S I	G N L D S V I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_K9YZ85	L I K G Y G Y E V	V N A D D V T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI0004716FF3	Q V E E E G Y E L	G N L D D V T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_C7RAI9	L I G E Q W V I	A N V D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_D1C1M8	L I A K E G Y E L	N N A D D V T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_B1C8Q5	Q V L S A G Y V L	G N A D D V T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI000361AD88	R V A A R G G I T	H A D V T L I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_G9ZVQ5	L V G D R G H V I	C N D S V I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_B4WQC5	R V A A R G G R I	V H A D D V T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI000368C0C6	I L K T E G Y F L	G N I D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_K8ELX5	L V D G L G A R I	V H V D V T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_V6F1K5	E V N N K G Y A V	G N V D D V T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI00034AE1D4	L A K S K N F K I	G N V D C T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI00037C7351	L V R N Q A Y Q L	T N T D I T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI00036B45FB	L L A A A G W R A	G N V D D V T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_E1VNQ3	L L E Q E G Y K P	V N I D D T M L I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_B3QPS3	M V V E K G Y H I	V N A D D T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_U5QBD7	T L H L A G L R I	V N A D D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_W0TP79	L A T Q Q N A Y I	V N I D D L T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_J9A733	F I D E A G Y K I	G N I D S V I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_E3PUC6	M I R A E G W E V	G N V D D V T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_I0K6K2	L M D K E G Y E I	N N L D S I I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_R5Q929	L V R S D V G F E L	T N A D I T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_B9D0J9	L M T S K G F Q L	G N A D I T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_Q487E8	S V A E Q G Y R V	A N L D A T L I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_W1N4M3	L L K K E K Y S I	T N L D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_N1ZBP0	L V R K R G R L V	H M D A T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_G4R8Z7	K I V E N G Y S V	C N V D L T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI00047D22E9	A I D S L N F V I	V N L D V T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_I4C2L1	L I M S H H W R I	G N A D D T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_D0KYJ6	L A G A E G Y A V	S S C D I T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI00047B34EB	V V S E K G Y N I	V N I D A T V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_D1AKV1	L I Q K K G Y K L	A N L D L T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_K6YF82	L I R D H G Y M P	Y N M D I T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_R7IYJ6	R V A T R G G R I	V N V D D L T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_V5SFU1	M A R D Q G F T M T	H V D C T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_UPI0003E3F0M3	K I L T G G F T I	G N I D C T I V I	M A Q A P K K L A P P H I Q S M R R E A I	A Q D L Q G T
UniRef90_R2QJR1	L L K E R G L E A Y N I	D I M V I S E T P K K L A P P H I Q S M R R E A I	A Q D L Q G T	
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UniRef90_UPI0003668963	A L L H A A V T D A L L	G A A A L M G D I	G T D D S D R F K G S D S	R V L L R R E A F A
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UniRef90_A1VQC3	V L L H A V T I D A L L L	G A A G L G E D I	G S H F P R F K G A D S	V L L L R R E T G R
UniRef90_A0A023X5G3	V L L A H A V T S D A L L	G A A A L G E D I	G D T D P E Y K D I D S	L E L L R R V R R
UniRef90_Q3B2H9	V L L H A V T S D A L L	G A A A L G E D I	G L H F P R Y K D I D S	M I L L R R H V G R
UniRef90_UPI0003EA8DAF	V L L H C V V D A V L	G A L G L P D I	G D S D P R W K G A D S	S V F M R R E A V K
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UniRef90_UPI00047180E3	V L V H A V M D A L L	G A L A L G D I	G R Y F P R W R G A N S	L A L L R R E Q V G L
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UniRef90_R7IGH7	V L L H A I T D A I L	G A A G R G D I	G E R F P R W K D A D S	R R L L R R Q I V V G
UniRef90_J3HK45	V A I H A L T D A L L	A T R G A G D I	G T H F P R W K G A A S	H I F V R R H A V K
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UniRef90_W8X306	V L L H A I T D A V I	G A A G L G D I	G R H F P R W A G A D S	R L F L R R R E A A R
UniRef90_R5F7S6	V L L H A I T E A I L	M G A L G L G D I	G D T S D D Y L N I S S	S Y F L R R N K A K E
UniRef90_F3KDV3	V L I H A L C D A L L	G A A M G D I	G E H F P Q Y K D A D S	R V L L R R D V V A
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UniRef90_Q2GIK8	V A L H A L T D A L L	G C M G E G S I	G Q H F P Q W K N A S S	S Y F L R R L E A Q K
UniRef90_Q2W4Q8	V G L H A L T D A V L	G A I S A G D I	G H H F P R W K G A A S	D Q F L R R A H A G S
UniRef90_S3XQ31	V A I H A L S D A L L	G A C G M G D I	G D N D E K F K D A D S	V I L L R R K D L L K
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UniRef90_A0A023X5G3	V	V	G	E
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UniRef90_UPI0001744E30	L	I	A	A
UniRef90_C2FWT7	L	I	A	A
UniRef90_S0G250	N	L	A	Q
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UniRef90_C1DU19	I	I	D	D
UniRef90_B4D5H6	L	L	V	S
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UniRef90_B5YHA6	L	L	V	K
UniRef90_H8KM76	L	L	I	G
UniRef90_L2FAD4	L	L	L	Q
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UniRef90_B9Y611	L	L	M	E
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UniRef90_D3P8R8	M	V	V	E
UniRef90_R7PSX7	K	I	R	E
UniRef90_B9XIA9	Q	V	R	L
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UniRef90_I8IKP6	L	V	S	D
UniRef90_UPI0002F437DC	M	M	K	A
UniRef90_UPI00047097A0	M	L	S	D
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UniRef90_T0YDG2	M	V	R	Q
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UniRef90_B6BK7	K	I	Y	N
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UniRef90_UPI000366A15B	H	I	K	L
UniRef90_W8X306	L	A	R	A
UniRef90_R5FTS6	M	L	K	E
UniRef90_F3KDV3	S	L	E	Q
UniRef90_T2J9J7	L	L	K	A
UniRef90_Q2GIK8	K	A	A	K
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UniRef90_S3XQ31	K	L	K	S
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UniRef90_A4BS45	L	L	Q	T
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UniRef90_EORPY1	L	L	M	E
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UniRef90_B1GYT3	E	L	K	K
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UniRef90_D6SMF1	V L V H A L V D A I L	G C L G K G D I G	G D L F P P D T D N L S S	M V F L S E V L A
UniRef90_UPI00037C7D7B	C L I H A V V D A L L	G A A G E S D I G	G D T D A P K Y K N L S	R S T S L L S E V V Q
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UniRef90_UPI000367014D	V A S H A L C D A L L	S A A G L G D I G	G S V F P E W D G V S G	A M L T A E V R R
UniRef90_A5V2U9	V A L H A L T D A I L	G T I A A G D I G	G S H F P R Q Y K G A D	S A M F L A K H A R D
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UniRef90_G2LPR2	V L I H T V I D A L L	G A T A M G D I G	G T F F P M Y K N I D S	R I L L K N I W N
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UniRef90_UPI0003623FAB	A G L H A L T D A I F	G A L G L G D I G	G D H F P P T D D A D S	A E F L R S Y A I D
UniRef90_UPI0003B4FCFE	V L A H A I G H A L L	G A M G L G D I G	G E N F P D N K D I D S	S M E L L R R I T Q
UniRef90_R6GKZ1	V L T H A V M D A L L	S A I G M P D I G	G V L F P Q Q Y K N A N S	L E L L K D E V M R
UniRef90_S3KZ42	V L L H A L A D S L L	G A A C L G D I G	G E L F P Q W K N A D S	R M L L E T V W R
UniRef90_E0MK05	V G L H A L T D A L L	A T T A D G D I G	G S H F P K W K G A K S	D Q F L A H A I G
UniRef90_I0GKT2	A L I H A I T D A L L	G A L S W G D I G	G K W F P D N K N I R S	T V L L S R V K E
UniRef90_N6VWSF3	V L L H A I A D A L L	G A A A L G D I G	G H F F P Q W K G A D S	S R E L L R A V Y R
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UniRef90_E1R9M9	V L I H A L T D A L L	G A A S L G D I G	G S H F P R W K D A D S	G D L L R K S L R
UniRef90_I4BQ36	V A A H A L C D A L L	S A A G M G D I G	G T D R P E W H G A D S	G A D M L L H H V K S
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UniRef90_V9R5E9	V G L H A L T D A I L	G A A G C G S I G	G Q H F P N K W K N I K	S D Y F L I S E A Q K
UniRef90_I3IQP4	V V L H A V C D A L L	G A A A L G D I G	G E H F P K W K G V S	S K I L L T R V A D
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UniRef90_N1U591	I I L H A I S D A I L	G A L A L G D I G	G D T D P K L K N I D S	K I T L A K C L K
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UniRef90_UPI0003626813	V L L H A L A D A L L	G A A A L G D I G	G R H F P R Y A G A D S	G V L L A R V V R
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UniRef90_U1ZT57	C I A H A A A D I F	S A C G I G D I G	G T H F P E F A G A S	G V K L L G E A A R
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UniRef90_UPI0002EDF0EE	A V A H A I V D A L L	G A A G L G D I G	G E H F P E Y A G A H A	E V F L A R T R E
UniRef90_UPI0003762341	V A A H A L C D A L L	L E A A T G L G D I G	G T N F P E Y A N A S	G T R L L Q E T A K
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							130			140			150																								
UniRef90_UPI0003B436D3	P	V	A	V	T	A	T	T	D	G	L	G	F	T	G	R	G	E	G	L	A	A	I	A	T	A	L	L	T	R							
UniRef90_E8T604	L	P	S	Q	V	S	V	K	A	T	T	T	E	G	M	G	F	T	G	R	G	E	G	I	S	A	Q	A	V	V	L	I					
UniRef90_UPI000478E5DE	T	L	D	R	I	N	V	K	A	T	T	T	E	Q	L	G	F	T	G	R	K	E	G	L	A	S	A	V	V	L	L	G	R				
UniRef90_G2H3G3	D	A	M	A	V	N	V	K	A	T	T	E	E	K	L	G	F	T	G	E	K	K	G	L	K	A	V	A	T	V	T						
UniRef90_R5AHH0	D	A	D	A	V	N	V	A	L	S	A	T	T	T	E	G	M	N	D	E	G	R	G	L	C	M	S	A	R	A	V	A	S	V			
UniRef90_A1WR07	D	Q	G	Q	V	N	R	L	S	A	T	T	A	E	D	G	L	G	P	V	I	G	Q	N	L	A	I	E	A	R	A	V	A	L	I		
UniRef90_UPI00046CE61E	P	V	S	V	S	A	T	T	T	D	G	L	G	M	T	G	R	G	E	G	V	L	A	A	V	A	T	A	L	V	T						
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UniRef90_L8XPB3	D	A	S	L	V	N	V	K	A	T	T	T																									
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UniRef90_W5WWG2	P	V	S	V	T	G	T	T	T	D	G	L	G	L	T	G	R	G	E	G	L	A	A	I	A	T	A	L	L	V	P	E					
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UniRef90_E5XQZ7	P	V	S	V	S	G	T	T	T	D	G	L	G	L	T	G	R	G	E	G	L	A	A	I	A	T	A	L	L	V	R	E					
UniRef90_V6K111	P	V	N	V	K	F	K	S	G	N	T	L	G	F	E	G	E	G	R	G	I	S	A	Y	A	V	C	L	V	E	E	K					
UniRef90_A51JD9	P	V	S	V	S	A	T	T	T	D	R	L	G	L	T	G	R	G	E	G	V	A	A	I	A	V	A	M									
UniRef90_I6WQ47	P	V	S	V	S	A	T	T	T	D	R	L	G	A	L	G	R	T	E	G	V	A	A	V	A	T	A	L	I	V	R						
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UniRef90_R6YSG5	D	L	A	N	V	N	I	K	A	T	T	E	E	G	L	G	F	T	G	E	C	K	G	I	K	A	I	V	I	V	T	A	I	R			
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UniRef90_K6VJX0	S	P	S	Q	V	N	I	K	G	K	S	G	N	S	L	G	I	G	K	N	E	G	I	E	A	Y	C	V	V	L	I	E					
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UniRef90_UPI0003B332B4	P	V	T	L	S	A	T	T	T	D	H	L	G	F	T	G	R	G	E	G	L	A	G	I	A	V	A	L	V	Y							
UniRef90_F7YVG2	D	P	S	V	N	L	K	A	K	T	H	E	K	V	D	S	L	G	E	N	R	S	I	A	A	H	T	V	V	L	L	M	K	K			
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UniRef90_L7EZX3	P	N	P	K	R	I	S	I	K	G	K	T	S	E	S	L	G	F	I	G	R	Q	E	G	I	A	A	M	V								
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UniRef90_B2KDX1	P	V	S	V	S	G	T	T	T	D	G	L	G	L	A	G	R	G	E	G	V	A	A	I	A	T	A	L	I	V							
UniRef90_UPI000381688F	A	G	G	P	V	A	S	A	T	T	D	G	L	G	L	T	G	R	G	E	G	V	A	A	V	A	T	A	L	V							
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MRVGI GT DV HRFDP KEK LFL AGL KIK KS KLG T LG H S DGD
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TGWYGT DV HRYLGE GRE LVL GGVV P I E S GDR GA I A H S DGD
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