

QUERY	1	10	20	30	40
UniRef90_I2JK25	G S P	Q I R V L V T T G A A Q I	G F T L L Y S I I	G D G S V F G K N Q	P I L V N S M
UniRef90_P40925	S E E	P V R V L V T T G A G Q I	A Y A L L L Y F R I	A S G S V F G K D Q	P V I L V L L L
UniRef90_UPI0003B5F752	E E	P V R V A I V T G A G Q I	A Y A L L L Y F R I	A S G A M L G P D Q	P V I L V L L L
UniRef90_Q3S892	P	P V R V L V T T G A G Q I	A Y A L L L Y F R I	A K G D V F G P N Q	P V I L V L L L
UniRef90_C6WLQ8	P	P V R V L V T T G A G Q I	A Y A L L L Y F R I	A S G H L L G P D Q	P V R L R L L L
UniRef90_D3PQL0	P	P V R V A V T T G A G Q I	G Y S L L L F R I	A A G E M L G K D Q	P V I L Q L L L
UniRef90_U5T573	P	P V R V A V T T G A G Q I	G Y S L L L F R I	A S G D M L G P D Q	P V I L Q L L L
UniRef90_D7CWD4	P	P V R V A V T T G A G Q I	G Y A L L L F R I	A A G D M L G P D Q	P V I L Q L L L
UniRef90_K0C734	G K A	P V H A V T T G A G Q I	S Y S L L L F R I	A A G D F L G P D Q	P V I L C L H L L L
UniRef90_I0YTX9	P	P I K V L I T T G A G Q I	G Y A L A P R V	A S G S M L G A D Q	P V I L H L L L
UniRef90_UPI0003C7DF30	P	P V K V L I T T G A G Q I	G Y S L L L F R I	A G G S L F G P D T	P V Q L R L L L
UniRef90_A9UV42	P	P V R V C V T T G A G Q I	A Y S L L L F S I	G R G D I F G E D Q	P V S L R L L L
UniRef90_Q5DM86	P	P I R V L I T T G A G Q I	G Y A L A G M V	A R G D M F G H H K	V I L H L F
UniRef90_F3LEC4	P	P V R V T I T T G A G Q I	S Y S L L L F R I	A A G E M L G A D Q	P V I L Q M L L
UniRef90_W6LY07	P	P V R V V I T T G A G N I	G Y A M A F R I	A S G S M L G P D Q	P V I L Q L L L
UniRef90_F4GX93	P A	M R V A V T T G A G Q I	G Y A L L F R I	A S G E M L G K D Q	P V I L Q L L L
UniRef90_D3TLF0	E P	I R V V V T T G A G Q I	A Y S L L L Y M I	A R G E V F G K D Q	P V I L H L L L
UniRef90_Q0K8F5	P	M R V A V T T G A G Q I	G Y S L L L F R I	A N G D M L G K D Q	P V I L Q L L L
UniRef90_B2UKY5	P	I T V T V T T G A G Q I	A Y S L L L F R I	A S G S M L G P D Q	P I N L R L L L
UniRef90_D5PG87	P	L K V A V T T G A G Q I	G Y S L L L F R I	A S G S L L G P N R	P I E L R L L L
UniRef90_H2TUL9	E	P I R V L V T T G A G Q I	A Y S L L L F S I	A K G D V F G K D Q	P I I L L L L L
UniRef90_F8GE84	P	P I R I A V T T G A G Q I	C Y S L L L F R I	A A G D M F G K D Q	P V I L Q L H L
UniRef90_F5SSZ0	P	P V R V A V T T G A G N I	S Y A M L F R I	A S G E M L G K D Q	P V I L Q L L L
UniRef90_D7GCF6	T T	P V K V A V T T G A G Q I	C Y S L L L F R I	A S G S L L G D T	P I E L R L L L
UniRef90_E6SE27	E	M K V A V T T G A G Q I	G Y S L L L F R I	A S G A L L G P D T	P V E L R L L L
UniRef90_L7MCL9	P	P V R V L V T T G A G Q I	A Y S L L V P I	A K G Q V F G C D Q	P V I L H L L L
UniRef90_UPI000374573C	P	P V R V A V T T G A G Q I	G Y S L L L F R I	A A G E M L G K D Q	P V I L Q L L L
UniRef90_R4Z1M3	P	P V R V A V T T G A G Q I	G Y S L L L F R I	A S G A M L G T D Q	P V A L Q M L L
UniRef90_M4CF15	E P	I R V L V T T G A G N I	G Y A I A P M I	A R G M M L G Q D Q	P M I L H L L L
UniRef90_A7IFX5	P	A V R V A V T T G A G Q I	C Y S L L L F R I	A N G D M Y G K D Q	P V I L Q L L L
UniRef90_Q8H0P9	P	V H V M I T T G A G Q I	G Y A L A P M V	C R G A M L G P D V	P V V L H L L L
UniRef90_V7IFQ7	P	I R V A V T T G A G Q I	A Y S L L L F R I	A A G D M L G A D Q	P V I L Q L L L
UniRef90_V5DLA8	P	V H A V T T G A G N I	S Y S L L L F R L	A A G D L L G P D Q	P V I L H L L L
UniRef90_E4NCD5	P	V N V T V T T G A G Q I	G Y A L L L F R I	A S G H L L G A D V	P V N L R L L L
UniRef90_V5SI03	T E	P I R V V V T T G A G Q I	A Y S L L L Y M I	A K G D V F G R D Q	P L L L H L L L
UniRef90_UPI00035CDD51	P	I T V S V T T G A G Q I	G Y A L L T R I	A S G S M F G A D Q	P V N L R L I L
UniRef90_A3Y862	K	P V R I A V T T G A A G I	S S S L L L F R V	A A G E M F G T D Q	P V I L Q L I L
UniRef90_A0A059LI16	P	K R V L I T T G A G Q I	G Y A L A P M V	A R G A A L G A D Q	P V I L H L L L
UniRef90_I0HNH8	K	P V R V A V T T G A G Q I	G Y A L L F R I	A S G E M L G K D Q	P V I L Q L L L
UniRef90_G7H0Y9	T K	P A T L T L S G A G Q I	G Y S L L L F R V	A A G E M F G P N T	P V R L R M L L
UniRef90_H8GPW3	P	V H I A V S G A G Q I	S Y S L L L F R L	V A G D L F G P E Q	P I I L H L L L
UniRef90_L0GSY7	P	V R V A V T T G A G Q I	G Y A L L F R I	V S G E M L G R D Q	P V I L Q L L L
UniRef90_D3BR71	G K A	P L R V A I T T G A G Q I	G Y Q L L L F R I	A S G D M L G K D Q	P V I L Q C L L
UniRef90_L1JY01	P	M R V C V T T G A G Q I	G Y A L L P H I	C S G R T F G P S T	K I I L H L L L
UniRef90_C7RQY8	P	M R V A V T T G A G Q I	G Y S L L L F R I	A S G E M L G R D Q	P V I L Q L L L
UniRef90_UPI0004054BA9	P	V N I T V T T G A G N I	G Y A L L L F R I	A S G A L L G P D Q	R V N L R L L L
UniRef90_U3GY81	T S	P K K V A V T T G A G Q I	A Y S L L L W R I	A N G D V V F G K D T	P V E L N L L L
UniRef90_H2ZMX1	L	K V L V T T G A G Q I	A Y S L L L Y S I	A N G D V V F G K D T	S V T L V M L L
UniRef90_E0DGP9	P	V R I A V T T G A G Q I	A Y S L L L W R I	A N G D V Y G K D T	P I E L Q L L L
UniRef90_Q2BGW0	P	I R I A V T T G A A G I	S Y S L L L F K I	A A G E M M G K D Q	P V I L Q L I L
UniRef90_A8PPH4	K	P I K I A I T T G A G Q I	G Y A L L F R I	A S G Q M F G A D Q	P V I L H L L L
UniRef90_C1B155	P	A V V T V T T G A G S I	G Y A A L F R I	A A G A M L G P D T	P I R L R L L L
UniRef90_B9GPA5	P	V R I L V T T G A G Q I	G Y A L A P M I	A R G I M L G P D Q	P V I L H L L L
UniRef90_UPI0003750AD1	P	V D I A V T T G A G Q I	S Y S L L F H I	A S G E L L G L D Q	P I V L R L L L
UniRef90_Q23CW4	S	P I N V C V T T G A G Q I	G Y A F L P L L	L T G Q C F G D K K	I N L R L L L
UniRef90_L7KV59	P	P A V V T V T T G A G S I	G Y A S V F R I	A A G A M L G H D Q	P I A L R L L L
UniRef90_W8AAV0	P	P V T V T V T T G A G Q I	A Y G L L F R I	A S G A L L G A D T	P V R L R L L L
UniRef90_R8B4R0	P	V R I A I T T G A G S V	C Y S L L L F K I	A T G E M I D Q D Q	P V I L Q L I L
UniRef90_R4LVF1	T S	P V N V T V T T G A G Q I	G Y A L L F R I	A S G Q L L G D A	P V R L R L L L
UniRef90_C6M116	P	P V R I A V T T G A G Q I	A Y A T L F R I	A A G I M L G R D Q	P V I L Q L L L
UniRef90_UPI00047CDF59	G K N	P V T V T V T T G A G Q I	A Y A A L F R I	A A G D M L G P D Q	P V A L K L L L
UniRef90_F2DZ74	K	P I R V A V T T G A G Q I	C Y S L L L F R I	A H G D M L G Y D Q	P V I L H L L L
UniRef90_E2MYA7	P	V K V A V T T G A G Q I	A Y S L L L F R I	A S G S V F G P E T	P V E L N L L L
UniRef90_M1MZR2	P	K I A V T T G A G Q I	A Y S L L L W R L	A A G D V Y G P D T	P I E L S L L L
UniRef90_UPI00037E2BBA	K	P K K V V V T T G A G Q I	A Y Q L L F R I	A D G D V F G K D T	P V K L S L L L
UniRef90_A3Y861	K	P V C I A V T T G A G G I	S S S L L L F R L	A A G E M L G R D Q	P L I L Q L V L
UniRef90_C1MSW4	P	I V V A V S G A G Q I	S N H L L F K I	A S G E V Y G A D Q	P I I L N L L L
UniRef90_Q6AQI3	P	P V R V A I T T G A A G V	S Y S L L F R I	A A G H M L G K D Q	P V I L Q L L L
UniRef90_A2DH14	E	P V H V L I T T G A G Q I	G Y V L T F R I	A A G D L F G D R K	V V L H L L L
UniRef90_I6WSS7	P	R I A I T T G A G Q I	G Y A L V Y R L	A S G D L L G D E	P V E L R L L L
UniRef90_UPI000362CD90	S Q	A V K I A V T T G A G N I	A Y S L L L W R I	A S G E V Y G P D T	P V A L R L V L
UniRef90_UPI0003FA46FF	P	K T V T V T T G A A G I	G Y A L L F R I	A S G Q L L G P D E	K I A L K L L L
UniRef90_R5EG60	K	P V K V V V T T G A G Q I	G Y S L L L F R I	A A G D M L G T D Q	P I D L M M L L
UniRef90_UPI000378987C	P	I T V T L T T G A G Q I	G Y A A L F R I	A A G D M L G A D Q	P V S L R L L L
UniRef90_UPI00046A91D3	P	I T I T T T G A G Q I	G Y A L L F R I	A A G D M L G P D E	K V R L R L L L
UniRef90_F2LR14	P	V K R V A V T T G A G Q I	A Y S L L L F R I	A N G D L L G K Q Q	P V I L Q L L L
UniRef90_D6ZIN9	P	V N V T V T T G A G N I	G Y S L L V F R I	A S G E M L G P D Q	P V R I K M L L
UniRef90_V5WKJ1	K	R V R V A V T T G A G Q I	G Y A L L L F R I	A S G Q M F G E D T	Q V D L Q L L L
UniRef90_F1Q1R1	T T	P V R V A V T T G A G Q I	A Y S L L F R I	A A G D V F G P E T	P I E L S L I L
UniRef90_C7M1P4	P	V R V A V T T G A G Q I	A Y S L L F R I	A A G D V F G P E T	P I E L S L I L
UniRef90_M0SY74	T T	P V R V A V T T G A G Q I	A Y S L L F R I	A A G D V F G P E T	P I E L S L I L
UniRef90_Q9FNS5	K T	V K V A V T T G A G N I	A N H L L F M L	A S G E V Y G K D Q	P V I L H L L L
UniRef90_K2B930	S K R	I K V A I T T G A G Q I	G Y A L L F R I	A S G Q M F G A D T	E V E L N L L L
UniRef90_Q5X2T6	R	V R V A V T T G A G Q I	G Y A L L F R I	A S G Q M F G A D T	E V E L N L L L
UniRef90_A4RY91	P	V T V L I T T G A G Q I	G Y A L A P M V	C A G A T G P G K	P I A L K L L L
UniRef90_W5XUX1	E	P V K I A V T T G A G N I	A Y S L L L W R I	A A G E V Y G P N Q	P V Q L N L L L
UniRef90_K1Q0R2	P	V T I T T G A G Q I	G Y A M L F R I	A S G E V F G E N V	P I D L K L L L
UniRef90_L1PHI3	E	P R I V T V T T G A G N I	G Y A L L F R I	A S G A V F G P D T	P V K L N L L L
UniRef90_W9B5T4	P	I T V T V T T G A G Q I	G Y A A L F R I	A A G A L L G R D V	P I T L R L L L
UniRef90_W5WNF9	T E	P I T V S V T T G A G Q I	G Y S L L F R I	A Q G E V F G D R	P I N L K L I L
UniRef90_X5DVU4	P	V T V T V T T G A G Q I	A Y S L L F R I	A A G D A F G D R	P V A F R L L L

QUERY	D	Q	R	P	K	A	G	A	N	K	G	V	Q	M	E	L	Q	N	C	60	A	A	L	P	N	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	80
UniRef90_I2JK25	D	I	T	P	A	M	D	A	L	G	Q	V	R	M	E	L	E	D	C	60	A	A	L	P	N	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_P40925	D	I	T	P	A	M	M	G	V	L	D	G	V	R	M	E	L	N	D	C	60	A	A	L	P	N	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N
UniRef90_UPI0003B5F752	D	I	T	P	A	L	G	V	L	E	G	V	C	M	E	L	N	D	C	60	A	A	L	P	N	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_Q3S892	D	I	Q	P	A	M	L	G	V	L	E	G	V	M	E	L	M	D	C	60	A	A	L	P	N	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_C6WLQ8	E	I	T	P	A	V	K	A	A	E	G	T	A	M	E	L	D	D	C	60	A	A	L	P	N	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_D3PQL0	E	I	T	P	A	L	K	A	L	E	G	V	I	M	E	L	L	D	C	60	A	A	L	P	N	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_U5T573	E	V	P	A	P	A	M	D	A	V	Q	G	V	M	E	L	I	D	C	60	A	A	L	P	N	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_D7CWD4	E	I	T	P	A	A	M	K	A	L	E	G	V	V	M	E	L	H	D	60	G	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_K0C734	E	I	T	P	A	L	G	A	L	E	G	A	V	M	E	L	N	D	C	60	C	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_I0YTX9	D	I	E	P	A	A	Q	S	L	D	G	V	K	M	E	L	I	D	C	60	S	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_UPI0003C7DF30	E	I	E	P	A	L	A	S	L	E	G	V	V	M	E	L	N	D	C	60	S	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_A9UV42	D	I	E	P	M	L	G	V	L	E	G	V	V	M	E	L	N	D	C	60	S	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_Q5DM86	D	I	E	P	M	L	T	S	L	G	G	L	R	M	E	L	N	D	C	60	S	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_F3LEC4	E	I	T	P	A	L	N	A	L	K	G	V	V	M	E	L	N	D	C	60	S	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_W6LY07	E	I	T	P	A	L	Q	A	L	K	G	V	V	M	E	L	N	D	C	60	S	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_F4GX93	E	I	P	D	E	K	A	Q	L	K	G	V	M	E	L	N	D	C	60	S	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N		
UniRef90_D3TLF0	D	I	P	P	M	V	D	V	L	E	G	V	I	M	E	L	N	D	C	60	S	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_Q0K8F5	D	L	P	Q	A	Q	N	A	V	K	G	V	V	M	E	L	N	D	C	60	S	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_B2UKY5	E	I	P	P	A	M	N	A	L	E	G	V	V	M	E	L	R	D	C	60	A	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_D5PG87	E	I	E	P	A	L	K	A	L	E	G	V	V	M	E	L	N	D	C	60	A	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_H2TUL9	D	I	T	A	M	L	P	V	L	E	G	V	V	M	E	L	Q	D	C	60	A	A	L	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_F8GE84	D	I	T	D	A	Q	P	F	F	E	A	I	V	M	E	L	Y	D	C	60	A	A	L	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_F5SSZ0	E	I	T	P	A	L	D	A	L	K	G	V	V	M	E	L	N	D	C	60	A	A	L	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_D7GCF6	E	I	T	P	A	L	P	R	L	E	G	V	V	M	E	L	N	D	C	60	A	A	L	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_E6SE27	E	I	T	P	A	L	K	A	L	E	G	V	V	M	E	L	N	D	C	60	A	A	L	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_L7MCL9	D	I	E	P	M	M	G	V	L	N	G	V	V	M	E	L	N	D	C	60	A	A	L	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_UPI000374573C	E	I	P	Q	A	L	R	A	L	E	G	V	I	M	E	L	N	D	C	60	A	A	L	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_R4Z1M3	E	I	T	P	A	L	G	A	L	K	G	V	A	M	E	L	N	D	C	60	A	A	L	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_M4CF15	D	I	E	P	A	S	K	S	L	E	A	V	K	M	E	L	Q	D	C	60	S	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_A7IFX5	D	L	P	Q	A	Q	A	A	V	K	G	V	V	M	E	L	N	D	C	60	S	A	F	P	N	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_Q8H0P9	D	I	P	P	A	E	T	A	L	K	G	V	A	M	E	L	V	D	C	60	A	A	Y	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_V7IFQ7	D	L	P	Q	A	Q	Q	A	V	K	G	V	V	M	E	L	H	D	C	60	A	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_V5DLA8	E	I	P	P	A	M	K	A	L	E	G	V	V	M	E	L	S	D	C	60	A	A	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N		
UniRef90_E4NCD5	E	I	P	Q	G	L	K	A	A	E	G	V	A	M	E	L	N	D	C	60	A	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_V5SI03	D	I	E	P	M	M	G	V	L	E	G	V	V	M	E	L	N	D	C	60	A	A	L	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_UPI00035CDD51	E	I	E	P	A	M	G	A	L	E	G	T	V	M	E	L	N	D	C	60	A	A	F	S	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_A3Y862	E	V	Q	A	M	E	Q	L	R	G	L	A	M	E	L	N	D	C	60	A	A	L	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N		
UniRef90_A0A059LI16	D	I	A	A	E	E	S	L	K	G	V	R	M	E	L	N	D	C	60	A	A	L	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N		
UniRef90_I0HNNH8	E	L	K	A	Q	E	A	L	K	R	G	V	M	E	L	N	D	C	60	A	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N		
UniRef90_G7H0Y9	E	A	Q	A	V	R	A	A	A	G	V	A	M	E	L	Q	D	C	60	A	A	S	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N		
UniRef90_H8GPW3	E	V	S	Q	A	M	H	V	L	D	G	V	M	E	L	N	D	C	60	A	A	S	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N		
UniRef90_L0GSY7	E	L	P	R	A	Q	R	A	L	K	G	V	V	M	E	L	N	D	C	60	A	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_D3BR71	E	L	P	G	A	M	N	A	L	K	G	V	S	M	E	L	N	D	C	60	A	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_L1JY01	D	I	P	R	A	Q	Q	A	L	M	G	V	K	M	E	L	N	D	C	60	G	F	D	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N		
UniRef90_C7RQY8	D	L	P	Q	A	Q	K	A	C	K	G	V	V	M	E	L	N	D	C	60	A	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_UPI0004054BA9	E	I	P	Q	A	V	Q	A	A	E	G	T	A	M	E	L	F	D	C	60	A	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_U3GY81	E	I	T	P	A	L	G	A	T	E	G	V	A	M	E	L	N	D	C	60	S	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_H2ZMX1	D	I	A	P	A	M	A	G	V	L	E	G	V	V	M	E	L	Q	D	60	C	A	L	P	S	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_E0DGP9	E	I	P	V	A	L	G	G	A	E	G	V	A	M	E	L	N	D	C	60	S	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_Q2BGW0	E	L	P	H	A	M	D	S	L	R	G	V	A	M	E	L	N	D	C	60	A	A	Y	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_A8PPH4	E	L	E	K	S	L	P	M	L	N	G	V	A	M	E	L	N	D	C	60	A	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_C1B155	E	I	P	P	A	V	S	A	A	E	G	T	A	M	E	L	N	D	C	60	S	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_B9GPA5	D	I	E	P	P	V	A	E	S	L	K	G	V	R	M	E	L	N	D	C	60	A	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N
UniRef90_UPI0003750AD1	E	I	P	P	A	M	K	Q	L	K	G	V	V	M	E	L	N	D	C	60	A	A	F	P	L	L	K	S	Q	G	T	K	S	T	G	N	G	Y	K	N	
UniRef90_Q23CW4	D	V	Q	A	E	S	L	Q	G	V	E	L	E	L</																											

QUERY	90										100										110										120																
UniRef90_I2JK25	N	N	I	G	V	L	V	A	G	E	A	A	A	A	A	T	A	N	A	V	K	K	F	K	K	K	G	A	A	K	A	K	K	A	K	V											
UniRef90_P40925	A	D	Y	A	I	L	L	V	G	A	R	P	R	R	E	G	M	E	R	K	D	L	L	L	K	E	I	F	F	K	S	Q	G	K	A	I	V										
UniRef90_UPI0003B5F752	A	D	Y	A	I	L	L	V	G	A	M	P	R	R	K	E	G	M	E	R	K	D	L	L	L	K	E	I	F	F	K	S	Q	G	K	A	D	V									
UniRef90_Q3S892	V	D	V	A	M	L	V	G	A	M	P	R	R	K	E	G	M	E	R	K	D	L	L	L	Q	I	F	F	K	S	M	G	N	A	I	D	N	D	V								
UniRef90_C6WLQ8	V	N	V	A	L	L	V	G	A	M	P	R	R	T	K	E	G	M	E	R	K	D	L	L	L	K	E	I	F	F	K	S	M	G	E	A	I	D	T	Q	A	K	K	D	N	V	
UniRef90_D3PQL0	A	D	Y	A	I	L	L	V	G	A	M	P	R	R	K	Q	G	M	E	R	A	D	L	L	L	Q	E	I	F	F	T	A	Q	Q	G	R	A	L	S	E	N	A	A	R	K	H	V
UniRef90_U5T573	A	D	Y	I	L	L	V	G	A	K	P	R	G	P	G	M	E	R	K	D	L	L	L	L	E	I	F	F	S	A	Q	Q	G	Q	A	M	N	E	V	A	S	R	D	V			
UniRef90_D7CWD4	A	D	Y	A	I	L	L	V	G	S	R	P	R	G	P	G	M	E	R	R	D	L	L	L	L	H	I	F	F	T	E	Q	Q	G	R	A	L	N	E	V	A	S	R	D	V		
UniRef90_K0C734	I	D	F	A	F	L	V	G	A	R	P	R	G	P	G	M	E	R	K	D	L	L	L	E	I	F	F	S	V	Q	Q	G	K	A	L	N	K	V	A	K	R	D	V				
UniRef90_I0YTX9	V	D	I	A	V	M	V	G	G	F	P	R	R	K	A	G	M	E	R	K	D	N	V	S	E	I	Y	K	S	Q	A	S	A	L	L	E	K	N	A	K	P	G	V				
UniRef90_UPI0003C7DF30	V	N	L	A	L	L	V	G	A	R	P	R	R	S	K	E	G	M	E	R	K	D	L	L	L	E	I	F	F	T	E	Q	Q	G	K	A	L	N	E	K	V	A	A	D	D	V	
UniRef90_A9UV42	C	D	A	A	I	L	V	G	A	V	P	R	R	E	K	E	G	M	E	R	K	D	L	L	L	K	E	I	F	F	K	M	Q	G	Q	D	L	D	R	Q	F	A	K	K	S	T	V
UniRef90_Q5DM86	I	D	V	A	I	L	L	V	G	A	M	P	R	R	K	E	G	M	E	R	K	D	L	L	L	K	E	I	F	F	K	E	Q	G	K	A	L	N	D	Q	F	A	K	K	T	V	
UniRef90_F3LEC4	A	D	Y	A	I	L	L	V	G	A	R	P	R	G	P	G	M	E	R	K	D	L	L	L	E	I	F	F	S	A	Q	Q	G	K	A	M	N	E	T	A	S	R	D	V			
UniRef90_W6LY07	A	H	F	A	M	L	V	G	A	R	P	R	G	P	G	M	E	R	K	D	L	L	L	E	I	F	F	G	P	Q	Q	G	R	A	L	N	D	T	H	A	A	R	N	V			
UniRef90_F4GX93	V	D	V	A	L	L	V	G	A	R	P	R	G	P	G	M	E	R	K	D	L	L	L	Q	I	F	F	T	A	Q	Q	G	K	A	L	N	D	T	V	A	S	R	N	V			
UniRef90_D3TLF0	V	A	A	A	F	L	V	G	A	M	P	R	R	S	E	K	E	G	M	E	R	K	D	L	L	L	K	E	I	F	K	I	Q	Q	G	K	A	L	D	K	Y	A	N	K	D	V	
UniRef90_Q0K8F5	A	D	V	A	L	L	V	G	A	R	P	R	S	K	A	G	M	E	R	K	D	L	L	L	E	I	F	F	T	V	Q	Q	G	K	A	L	D	E	V	A	S	R	N	V			
UniRef90_B2UKY5	A	N	W	C	L	L	V	G	S	V	P	R	R	K	A	G	M	E	R	K	D	L	L	L	D	I	F	I	G	Q	Q	G	Q	A	I	A	R	S	A	A	K	D	V				
UniRef90_D5PG87	A	N	L	A	L	L	V	G	A	R	P	R	R	K	E	G	M	E	R	S	D	L	L	L	E	I	F	F	T	A	Q	Q	G	K	A	L	N	S	V	A	A	K	D	T	V		
UniRef90_H2TUL9	L	D	A	A	I	L	V	G	S	M	P	R	R	K	E	G	M	E	R	K	D	L	L	L	K	E	I	F	F	K	S	Q	S	G	A	L	E	K	F	S	K	K	T	V			
UniRef90_F8GE84	V	D	I	A	L	L	V	G	A	R	P	R	G	E	N	M	E	R	K	D	L	L	L	A	I	F	I	A	Q	Q	G	R	A	L	N	V	A	A	K	R	N	V					
UniRef90_F5SSZ0	V	D	Y	A	L	L	V	G	A	R	P	R	G	P	G	M	E	R	K	D	L	L	L	E	I	F	F	S	A	Q	Q	G	K	A	L	N	E	V	A	S	R	D	V				
UniRef90_D7GCF6	A	N	L	A	M	L	V	G	A	M	P	R	R	K	E	G	M	D	R	S	D	L	L	L	K	E	I	F	F	T	G	Q	Q	G	K	A	L	N	K	V	A	A	D	D	V		
UniRef90_E6SE27	T	N	L	A	M	L	V	G	A	M	P	R	K	E	G	M	D	R	A	D	L	L	L	K	E	I	F	F	T	G	Q	Q	G	K	A	L	G	D	N	A	A	D	D	V			
UniRef90_L7MCL9	I	D	V	A	F	L	V	G	S	M	P	R	R	K	E	G	M	E	R	K	D	L	L	L	K	E	I	F	F	K	S	Q	G	N	A	L	D	Q	Y	A	K	K	T	V			
UniRef90_UPI000374573C	A	D	Y	A	L	L	V	G	A	A	P	R	K	A	G	M	E	R	R	D	L	L	L	E	I	F	F	T	E	Q	Q	G	R	A	L	N	S	E	V	A	K	R	S	V			
UniRef90_R4Z1M3	A	D	V	A	L	L	V	G	A	M	P	R	R	K	A	G	M	E	R	G	D	L	L	L	A	I	F	F	G	P	Q	G	N	A	I	G	R	S	A	K	A	D	V				
UniRef90_M4CF15	V	N	L	A	I	M	L	G	G	F	A	R	K	E	K	E	G	M	E	R	R	D	N	A	V	I	F	F	K	A	Q	A	S	A	L	E	R	Y	A	S	K	D	D	C			
UniRef90_A7IFX5	I	D	A	A	V	L	V	G	A	R	P	R	S	K	E	G	M	E	R	A	D	L	L	L	E	I	F	F	K	V	Q	G	K	A	L	N	E	V	A	A	K	R	D	V			
UniRef90_Q8H0P9	V	D	V	A	V	M	V	G	G	F	P	R	G	P	G	M	E	R	K	E	N	V	A	I	Y	K	G	Q	A	S	A	L	L	E	E	H	A	N	P	G	C						
UniRef90_V7IFQ7	A	E	I	A	I	L	V	G	A	R	P	R	S	K	E	G	M	E	R	A	D	L	L	L	H	I	F	F	T	A	Q	Q	G	A	L	N	K	V	A	S	R	N	V				
UniRef90_V5DLA8	A	D	Y	A	F	L	V	G	A	R	P	R	G	A	G	M	E	R	K	D	L	L	L	E	I	F	F	S	V	Q	Q	G	K	A	L	N	E	V	A	A	R	N	V				
UniRef90_E4NCD5	A	N	V	A	L	L	V	G	A	R	P	R	T	A	G	M	E	R	G	D	L	L	L	S	I	F	F	G	P	Q	Q	G	K	A	L	N	A	N	A	A	D	D	I				
UniRef90_V5SI03	V	S	A	A	F	L	V	G	A	M	P	R	K	E	N	M	E	R	K	D	L	L	L	K	E	I	F	F	K	V	Q	Q	G	E	A	L	N	A	Y	A	A	K	S	D	V		
UniRef90_UPI00035CDD51	T	D	W	A	L	L	V	G	S	V	P	R	S	A	G	M	E	R	N	D	L	L	L	K	E	I	F	F	T	G	Q	Q	G	K	A	L	A	A	N	A	A	K	S	G	V		
UniRef90_A3Y862	A	H	Y	A	I	L	L	V	G	A	R	P	R	S	A	G	M	E	R	N	D	L	L	L	E	I	F	F	E	R	Q	Q	G	K	A	L	N	E	T	A	A	R	D	V			
UniRef90_A0A059LI16	V	D	V	A	I	L	V	G	G	F	P	R	K	E	G	M	E	R	K	D	N	V	S	I	Y	Q	A	Q	A	A	A	L	L	E	K	H	G	S	K	T	A						
UniRef90_I0HNNH8	T	D	Y	A	L	L	V	G	A	R	P	R	G	P	G	M	E	R	A	D	L	L	L	Q	I	F	F	T	A	Q	Q	G	K	A	L	N	A	V	A	S	R	D	V				
UniRef90_G7H0Y9	A	N	H	A	I	L	V	G	A	R	P	R	T	A	G	M	E	R	S	D	L	L	L	E	I	F	F	G	P	Q	Q	G	E	A	L	N	D	V	A	A	D	D	I				
UniRef90_H8GPW3	A	D	Y	V	F	L	V	G	A	R	P	R	G	P	G	M	E	R	K	D	L	L	L	E	I	F	F	S	V	Q	Q	G	K	A	L	N	E	V	A	S	R	K	V				
UniRef90_L0GSY7	A	D	Y	A	L	L	V	G	A	R	P	R	S	R	G	K	E	M	E	R	S	D	L	L	L	Q	I	F	F	I	E	Q	Q	G													

QUERY	A	V	I	K	K	G	K	A	A	K	K	K	K	K	A	S	A	G	K	K	A	K	A	K	R	K	V	V	V	R	K	D	K	K	R	A	K					
UniRef90_I2JK25	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	Q	R	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_P40925	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	Q	S	K	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_UPI0003B5F752	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	Q	Q	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_Q3S892	K	V	V	V	V	G	N	P	A	N	T	N	A	L	I	A	Q	K	Y	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_C6WLQ8	R	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	Q	Q	H	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_D3PQL0	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	T	Y	K	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_U5T573	R	V	L	A	V	G	N	P	A	N	T	N	A	L	I	A	R	H	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_D7CWD4	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	M	R	S	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_K0C734	R	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	M	R	S	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_I0YTX9	K	V	L	V	V	A	N	P	A	N	T	N	A	L	I	L	K	E	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_UPI0003C7DF30	R	I	G	V	T	G	N	P	A	N	T	N	A	L	I	A	M	S	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_A9UV42	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	Q	Y	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_Q5DM86	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	M	M	S	A	K	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M
UniRef90_F3LEC4	K	V	L	V	V	G	N	P	A	N	T	N	S	L	I	A	Q	R	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_W6LY07	R	V	L	V	V	G	N	P	A	N	T	N	S	L	I	A	A	A	S	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_F4GX93	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	M	K	S	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_D3TLF0	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	Y	Y	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_Q0K8F5	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	M	K	S	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_B2UKY5	R	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	M	K	S	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_D5PG87	R	V	L	I	T	G	N	P	A	N	T	N	A	L	I	A	A	M	S	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_H2TUL9	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	K	S	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_F8GE84	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	T	L	K	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_F5SSZ0	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	Q	R	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_D7GCF6	R	I	L	V	T	G	N	P	A	N	T	N	A	L	I	A	A	K	D	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_E6SE27	K	V	L	V	T	G	N	P	A	N	T	N	A	L	I	A	A	M	S	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_L7MCL9	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	C	S	K	Y	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_UPI000374573C	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	Y	K	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_R4Z1M3	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	Q	S	A	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_M4CF15	K	V	L	V	V	A	N	P	A	N	T	N	A	L	I	L	K	E	F	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_A7IFX5	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	T	A	K	S	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_Q8H0P9	K	V	L	V	V	A	N	P	A	N	T	N	A	L	I	L	S	N	Y	A	P	K	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_V7IFQ7	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	M	K	S	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_V5DLA8	K	V	L	V	T	G	N	P	A	N	T	N	A	L	I	A	L	R	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_E4NCD5	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	Q	R	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_V5SI03	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	C	S	H	Y	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_UPI00035CDD51	R	T	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	M	N	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_A3Y862	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	S	R	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_A0A059LI16	K	V	L	V	V	A	N	P	A	N	T	N	A	L	I	L	S	E	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_I0HNNH8	K	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	M	K	S	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_G7H0Y9	R	V	L	V	I	G	N	P	A	N	T	N	A	L	I	A	A	A	H	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_H8GPW3	K	V	L	V	T	G	N	P	A	N	T	N	A	L	I	A	L	K	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_L0GSY7	R	V	I	V	V	G	N	P	A	N	T	N	A	L	I	A	A	M	K	S	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M	
UniRef90_D3BR71	R	V	L	V	V	G	N	P	A	N	T	N	A	L	I	A	A	R	N	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_L1JY01	K	V	V	V	V	G	N	P	A	N	T	N	A	L	V	A	Q	Q	C	A	P	S	I	A	K	R	N	F	T	A	M	T	R	L	D	H	N	R	A	M		
UniRef90_C7RQY8	R	V	L	V	V	G																																				



QUERY		170	180	190	200
UniRef90_I2JK25	A	L	I	V	K
UniRef90_P40925	T	Q	I	V	K
UniRef90_UPI0003B5F752	A	Q	I	V	K
UniRef90_Q3S892	S	Q	L	V	K
UniRef90_C6WLQ8	S	Q	L	V	K
UniRef90_D3PQL0	S	Q	L	V	K
UniRef90_U5T573	A	Q	L	V	K
UniRef90_D7CWD4	A	Q	L	V	K
UniRef90_K0C734	S	L	L	V	K
UniRef90_I0YTX9	G	Q	V	V	K
UniRef90_UPI0003C7DF30	S	Q	L	V	K
UniRef90_A9UV42	G	F	V	V	K
UniRef90_Q5DM86	S	Q	I	V	K
UniRef90_F3LEC4	T	Q	L	V	K
UniRef90_W6LY07	S	Q	L	V	K
UniRef90_F4GX93	S	Q	L	V	K
UniRef90_D3TLF0	A	Q	I	V	K
UniRef90_Q0K8F5	S	Q	I	V	K
UniRef90_B2UKY5	S	Q	L	V	K
UniRef90_D5PG87	S	Q	L	V	K
UniRef90_H2TUL9	S	Q	V	V	K
UniRef90_F8GE84	S	Q	A	V	K
UniRef90_F5SSZ0	A	Q	L	V	K
UniRef90_D7GCF6	S	M	L	V	K
UniRef90_E6SE27	T	Q	L	V	K
UniRef90_L7MCL9	G	Q	I	V	K
UniRef90_UPI000374573C	A	Q	L	V	K
UniRef90_R4Z1M3	A	Q	L	V	K
UniRef90_M4CF15	A	R	L	V	K
UniRef90_A7IFX5	S	Q	F	V	K
UniRef90_Q8H0P9	G	Q	V	V	K
UniRef90_V7IFQ7	N	Q	I	V	K
UniRef90_V5DLA8	S	Q	L	V	K
UniRef90_E4NCD5	A	Q	L	V	K
UniRef90_V5SI03	A	H	I	V	K
UniRef90_UPI00035CDD51	S	Q	L	V	K
UniRef90_A3Y862	G	M	V	V	K
UniRef90_A0A059LIi6	G	Q	L	V	K
UniRef90_I0HNH8	S	Q	I	V	K
UniRef90_G7H0Y9	A	Q	L	V	K
UniRef90_H8GPW3	S	L	L	V	K
UniRef90_L0GSY7	S	M	L	V	K
UniRef90_D3BR71	A	Q	L	V	K
UniRef90_L1JY01	S	Q	I	V	K
UniRef90_C7RQY8	S	Q	L	V	K
UniRef90_UPI0004054BA9	A	Q	L	V	K
UniRef90_U3GY81	S	Q	L	V	K
UniRef90_H2ZMX1	S	Q	I	V	K
UniRef90_E0DGP9	S	Q	L	V	K
UniRef90_Q2BGW0	G	L	L	V	K
UniRef90_A8PPH4	A	Q	L	V	K
UniRef90_C1B155	A	Q	L	V	K
UniRef90_B9GPA5	S	H	I	V	K
UniRef90_UPI0003750AD1	S	Q	V	V	K
UniRef90_Q23CW4	S	Q	I	V	K
UniRef90_L7KV59	A	Q	L	V	K
UniRef90_W8AAV0	A	Q	V	V	K
UniRef90_R8B4R0	G	L	L	V	K
UniRef90_R4LVF1	A	Q	L	V	K
UniRef90_C6M116	S	Q	V	V	K
UniRef90_UPI00047CDF59	G	L	L	V	K
UniRef90_F2DZ74	W	Q	L	V	K
UniRef90_E2MYA7	S	Q	L	V	K
UniRef90_M1MZR2	S	Q	L	V	K
UniRef90_UPI00037E2BBA	S	Q	L	V	K
UniRef90_A3Y861	G	L	V	V	K
UniRef90_C1MSW4	C	Q	L	V	K
UniRef90_Q6AQI3	F	Q	V	V	K
UniRef90_A2DH14	G	E	L	V	K
UniRef90_I6WSS7	A	Q	L	V	K
UniRef90_UPI000362CD90	A	Q	L	V	K
UniRef90_UPI0003FA46FF	G	Q	L	V	K
UniRef90_R5EG60	T	Q	V	V	K
UniRef90_UPI000378987C	G	L	L	V	K
UniRef90_UPI00046A91D3	A	Q	L	V	K
UniRef90_F2LR14	S	Q	L	V	K
UniRef90_D6ZIN9	S	Q	L	V	K
UniRef90_V5WKJ1	T	Q	L	V	K
UniRef90_F1Q1R1	A	Q	I	V	K
UniRef90_C7M1P4	T	Q	L	V	K
UniRef90_M0SY74	G	Q	I	V	K
UniRef90_Q9FNS5	C	Q	L	V	K
UniRef90_K2B930	S	Q	L	V	K
UniRef90_Q5X2T6	T	Q	L	V	K
UniRef90_A4RY91	A	Q	L	V	K
UniRef90_W5XUX1	S	Q	L	V	K
UniRef90_K1Q0R2	S	Q	L	V	K
UniRef90_L1PHI3	S	Q	L	V	K
UniRef90_W9B5T4	A	A	L	V	K
UniRef90_W5WNF9	A	A	L	V	K
UniRef90_X5DVU4	A	Q	L	V	K

[illegible]

QUERY	K	A	V	C	K	H	I	K	K	I	F	K	A	A	V	H	A	A	K	A	K	K	A	K	A	A	A	A	K	W	K	A	K	A	A	F	K	K							
UniRef90_I2JK25	N	A	A	I	G	H	V	R	S	W	A	L	G	T	E	G	D	D	W	V	S	M	G	V	Y	S	D	G	S	Y	G	V	I	A	E	G	L	I	Y	S	F				
UniRef90_P40925	K	A	I	C	D	H	V	R	D	W	F	G	T	P	E	G	E	F	V	S	M	G	V	I	S	D	D	G	S	Y	G	V	I	P	E	D	D	L	I	Y	S	F			
UniRef90_UPI0003B5F752	S	A	A	I	D	H	M	R	D	W	A	L	G	T	P	D	G	E	W	V	S	M	A	V	I	P	S	D	D	G	S	Y	G	V	I	P	E	D	D	L	I	Y	S	F	
UniRef90_Q3S892	K	A	I	V	D	H	V	R	D	W	W	N	G	T	V	P	D	G	T	Y	V	S	M	A	V	I	P	S	D	D	G	S	Y	G	V	I	E	E	G	L	I	Y	S	F	
UniRef90_C6WLQ8	N	A	A	L	N	H	I	H	D	W	V	N	G	T	A	E	G	D	W	V	S	M	A	I	I	P	S	D	D	G	S	Y	G	V	I	P	E	E	G	L	I	Y	S	F	
UniRef90_D3PQL0	S	A	A	I	D	H	M	R	D	W	A	L	G	T	P	A	G	D	W	V	S	M	A	I	I	P	S	D	D	G	S	Y	G	V	I	P	E	E	G	L	I	Y	S	F	
UniRef90_U5T573	S	A	A	I	D	H	M	R	D	W	T	L	G	T	S	G	D	D	W	V	S	M	A	I	I	P	S	D	D	G	S	Y	G	V	I	T	E	E	G	L	I	Y	S	F	
UniRef90_D7CWD4	S	A	A	I	D	H	M	R	D	W	V	L	G	T	P	E	G	D	W	T	S	M	A	I	I	P	S	D	D	G	S	Y	G	V	I	T	E	E	G	L	I	Y	S	F	
UniRef90_K0C734	S	S	A	L	D	H	M	R	T	W	V	L	G	T	A	D	G	D	W	V	S	M	G	I	I	P	S	D	D	G	S	Y	G	V	I	E	E	G	L	I	Y	S	F		
UniRef90_I0YTX9	S	S	A	C	D	H	I	R	D	W	I	K	G	T	P	S	G	T	W	V	S	M	G	V	I	F	S	D	D	G	S	Y	G	V	I	P	K	D	V	V	F	S	F		
UniRef90_UPI0003C7DF30	S	A	T	I	D	A	A	H	D	W	L	L	G	T	P	S	D	D	W	V	S	M	A	V	I	S	D	D	G	S	Y	D	T	T	E	E	G	L	I	Y	S	F			
UniRef90_A9UV42	K	A	I	S	D	H	M	T	W	W	F	G	T	P	D	G	E	F	T	S	M	G	V	I	S	D	D	G	S	Y	G	V	I	P	E	E	G	L	I	Y	S	F			
UniRef90_Q5DM86	K	A	I	V	D	H	M	H	D	W	W	F	G	T	K	P	G	E	W	V	T	M	S	V	I	S	D	D	G	S	Y	G	V	I	P	L	D	I	M	F	S	F			
UniRef90_F3LEC4	A	N	A	I	F	H	M	R	D	W	A	L	G	T	P	E	G	D	W	T	S	M	G	V	I	S	D	D	G	S	Y	G	V	I	Q	E	E	G	L	I	Y	S	F		
UniRef90_W6LY07	S	S	A	I	D	H	M	R	D	W	A	L	G	T	A	E	G	D	W	V	S	M	S	V	I	P	S	D	D	G	S	Y	G	V	I	P	E	E	G	L	I	Y	S	F	
UniRef90_F4GX93	N	A	A	I	D	H	V	H	D	W	V	L	G	T	N	G	K	W	V	T	M	G	I	I	P	S	D	D	G	S	Y	G	V	I	P	E	E	G	L	I	Y	S	F		
UniRef90_D3TLF0	K	A	A	C	D	H	M	H	D	W	W	F	L	G	T	P	A	G	K	F	V	S	M	G	V	I	M	S	D	D	G	S	Y	D	T	P	K	D	V	V	F	S	F		
UniRef90_Q0K8F5	N	A	A	I	D	H	M	R	D	W	V	L	G	T	N	G	K	W	V	T	M	G	I	I	P	S	D	D	G	S	Y	G	V	I	P	A	D	T	M	F	G	Y			
UniRef90_B2UKY5	S	A	A	V	D	T	V	R	S	L	A	T	Q	T	P	E	G	D	W	Y	S	V	A	V	C	I	S	D	D	G	S	Y	G	V	I	E	K	G	L	I	C	S	F		
UniRef90_D5PG87	S	A	T	V	D	A	A	R	D	W	L	L	G	T	P	D	G	D	W	V	S	M	S	V	I	S	D	D	G	S	Y	G	V	I	P	E	E	G	L	I	Y	S	F		
UniRef90_H2TUL9	K	A	I	C	D	H	M	R	D	W	T	G	T	P	E	G	E	F	I	S	M	G	V	I	S	T	D	D	G	S	Y	G	V	I	P	E	D	D	L	I	Y	S	F		
UniRef90_F8GE84	N	A	I	I	N	H	M	Q	S	W	I	F	G	T	P	E	D	D	W	V	S	M	G	V	I	P	S	N	G	C	Y	D	I	P	R	G	V	I	F	S	Y				
UniRef90_F5SSZ0	N	A	A	I	A	H	M	R	T	W	A	L	G	T	P	D	E	N	D	W	V	S	M	G	V	I	S	Q	G	E	Y	G	I	A	K	G	L	I	Y	S	Y				
UniRef90_D7GCF6	N	A	T	V	E	A	H	M	D	W	A	V	G	T	P	A	N	D	W	V	S	M	S	V	I	S	D	D	G	S	Y	G	V	I	P	E	E	G	L	I	Y	S	F		
UniRef90_E6SE27	N	A	T	I	D	H	M	R	D	W	V	K	G	T	E	D	W	V	S	M	S	V	I	P	S	D	D	G	S	Y	G	V	I	T	E	E	G	L	I	Y	S	F			
UniRef90_L7MCL9	K	A	A	A	D	H	V	H	D	W	W	H	G	T	A	E	G	E	W	V	S	M	A	V	I	M	S	D	D	A	S	Y	G	S	P	E	S	D	V	I	F	S	Y		
UniRef90_UPI000374573C	N	A	A	I	E	H	I	R	D	W	A	L	G	T	P	E	G	D	W	V	S	M	A	I	I	P	S	D	D	G	S	Y	G	V	I	P	E	E	G	L	I	Y	S	F	
UniRef90_R4Z1M3	N	A	A	I	D	H	I	R	T	W	T	V	L	G	T	D	E	G	N	W	T	S	M	A	V	I	P	S	D	D	G	S	Y	G	V	I	D	E	E	G	L	I	Y	S	F
UniRef90_M4CF15	S	A	A	C	D	H	I	H	D	W	F	L	G	T	P	K	G	S	W	V	S	M	G	V	C	I	S	D	D	G	S	Y	G	V	I	A	P	E	G	L	I	Y	S	F	
UniRef90_A7IFX5	N	A	A	V	D	H	M	H	D	W	I	H	G	T	D	G	K	W	V	S	M	G	V	I	A	S	D	D	G	S	Y	G	V	I	P	E	E	G	L	I	V	F	G	V	
UniRef90_Q8H0P9	S	S	V	C	D	H	I	R	D	W	V	N	G	T	P	P	G	T	W	V	S	M	G	V	V	I	P	G	G	Y	G	V	I	E	E	G	L	M	Y	S	F				
UniRef90_V7IFQ7	N	A	A	I	E	H	I	R	D	W	V	L	G	T	N	G	H	W	V	T	M	G	V	I	P	S	D	D	G	S	Y	G	V	I	P	E	E	G	L	I	F	G	L		
UniRef90_V5DLA8	N	A	A	V	D	Q	M	R	D	W	A	L	G	T	P	E	D	N	W	V	S	M	G	I	I	P	S	D	D	G	S	Y	G	V	I	P	E	Q	G	L	I	Y	S	F	
UniRef90_E4NCD5	N	A	A	I	D	H	V	Y	T	W	V	N	G	T	P	A	G	D	W	T	S	M	G	I	I	V	S	D	D	G	S	Y	G	V	I	P	E	E	G	L	I	Y	S	F	
UniRef90_V5SI03	K	A	A	I	D	H	M	H	D	W	W	N	G	T	P	E	A	G	K	W	V	S	M	G	V	C	I	S	D	D	G	S	Y	G	V	I	P	K	D	I	V	F	S	F	
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UniRef90_A3Y862	Q	A	I	I	D	H	M	R	D	W	A	L	G	T	A	E	D	E	L	V	S	M	A	I	V	I	S	D	D	G	S	Y	G	V	I	E	K	G	I	F	Y	S	F		
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UniRef90_C1B155	N	A	A																																										



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

[illegible]



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UniRef90_UPI00016C5284	C	N	Y	A	L	L	V	G	A	A	P	R	G	P	G	E	Q	R	A	S	D	L	L	L	E	I	F	V	G	Q	Q	K	A	L	D	V	A	S	K	N	V		
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UniRef90_X8CRB7	V	N	L	A	L	L	V	G	A	R	P	R	G	P	G	M	E	R	A	S	D	L	L	L	E	I	F	F	T	A	Q	Q	K	A	L	D	V	A	S	K	N	V	
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UniRef90_B8BHG9	V	N	V	A	V	M	V	G	G	F	P	R	K	G	P	N	M	E	R	A	S	D	L	L	L	E	I	F	Y	N	P	K	L	L	S	R	L	M	Q	P	L	T	A
UniRef90_Q84381	I	D	A	A	F	L	I	G	S	V	P	R	K	G	P	N	M	E	R	A	S	D	L	L	L	E	I	F	F	A	T	Q	G	K	A	L	D	V	A	S	K	N	V
UniRef90_A0CVC4	A	D	V	A	L	F	L	G	A	M	P	R	K	K	P	G	M	E	R	A	S	D	L	L	L	E	I	F	I	Q	Q	K	Q	I	L	N	E	Q	A	K	T		

UniRef90_Q8H0K0	K	V	L	V	V	G	N	P	C	N	T	N	A	L	C	L	K	N	A	P	S	I	L	P	A	K	N	F	H	A	L	T	R	L	D	E	N	R	A	K					
UniRef90_S5RPG2	K	V	L	V	V	G	N	P	V	N	T	N	T	A	Y	I	T	M	K	N	A	P	D	V	L	P	A	K	N	F	T	A	M	L	R	L	D	H	N	R	A	L			
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UniRef90_A2DMN2	K	V	L	V	V	G	N	P	A	N	T	N	A	L	C	L	I	A	Q	A	S	A	P	K	L	P	A	K	N	F	T	A	M	T	R	L	D	H	N	R	M	V			
UniRef90_UPI0003B450A4	R	V	L	V	V	G	N	P	A	N	T	N	A	L	C	L	I	A	S	A	N	A	P	D	V	L	P	A	K	N	F	T	A	M	T	R	L	D	H	N	R	A	T		
UniRef90_R7KKP7	R	V	L	V	V	G	N	P	C	N	T	N	A	Y	I	C	I	A	M	R	N	A	P	D	L	K	S	R	E	C	F	T	A	M	M	R	L	D	Q	N	R	A	M		
UniRef90_M3HFE2	R	I	L	V	V	G	N	P	C	N	T	N	A	L	C	L	I	A	M	N	N	A	K	G	I	P	S	Q	D	R	F	W	F	A	M	T	K	L	D	E	N	R	A	K	
UniRef90_U2XMD0	R	V	L	V	V	G	N	P	A	N	T	N	A	L	C	L	I	A	S	A	A	E	G	V	L	P	A	E	R	R	F	S	A	M	T	R	L	D	H	E	R	A	V		
UniRef90_Q822E9	K	I	F	V	V	G	N	P	V	N	T	N	C	W	I	A	M	N	K	A	P	K	L	N	P	A	R	R	N	F	H	S	M	L	R	L	D	Q	N	R	M	H			
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UniRef90_Q21VT3	K	V	L	V	V	G	N	P	C	N	T	N	A	L	C	L	I	A	M	K	A	S	R	I	L	P	A	R	N	F	A	A	L	L	R	L	D	H	N	R	A	L			
UniRef90_X8CRB7	R	I	G	V	T	G	N	P	A	N	T	N	A	L	C	L	I	A	L	S	N	A	P	D	I	L	P	A	K	E	R	F	S	A	L	L	T	R	L	D	H	N	R	A	I
UniRef90_K0YUS9	R	V	L	V	V	G	N	P	A	N	T	N	A	Y	I	C	I	A	A	S	A	P	D	V	L	P	A	E	R	F	T	A	M	M	R	L	D	H	N	R	A	I			
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UniRef90_A0DLG4	K	V	V	V	V	G	N	P	C	N	T	N	A	L	C	L	I	L	A	N	Q	I	K	D	I	G	P	K	E	N	F	T	A	M	T	R	L	D	H	N	R	A	Q		
UniRef90_B8BHG9	K	V	L	V	V	A	N	P	A	N	T	N	A	L	C	L	I	L	K	E	F	A	P	S	I	L	P	E	K	N	F	T	A	M	T	R	L	D	H	N	R	A	Q		
UniRef90_Q84381	K	I	F	V	V	G	N	P	V	N	T	N	C	W	I	A	M	N	H	A	P	R	L	L	P	E	K	N	F	T	A	M	T	R	L	D	Q	N	R	M	H				
UniRef90_A0CVC4	K	V	L	V	V	A	N	P	S	N	T	N	C	A	T	L	A	M	N	Q	C	T	K																						

UniRef90_Q8H0K0	C	Q	L	A	L	K	A	G	N	V	F	Y	D	S	K	V	S	N	V	T	I	W	G	N	H	S	T	T	Q	V	P	D	F	L	N	A	K	V	I	D	G	K	P						
UniRef90_S5RPG2	A	K	L	A	S	T	R	K	L	V	G	P	V	V	G	S	D	I	K	G	V	V	V	W	G	N	H	H	S	L	S	M	Y	P	D	V	Y	R	A	T	V	I	R	G	V	L			
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UniRef90_R7KKP7	A	R	V	A	E	K	L	Q	A	V	P	V	V	S	G	V	E	Q	V	F	I	V	W	G	N	H	H	S	A	N	T	Q	Q	V	P	D	I	S	R	F	L	R	Y						
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UniRef90_U2XMD0	A	Q	L	A	A	R	L	E	V	P	V	V	H	D	I	E	T	E	G	V	V	I	W	G	N	H	H	S	A	N	T	Q	Q	V	P	D	F	I	N	S	A	T	K	V	S	A	G	R	P
UniRef90_Q822E9	T	M	L	A	H	R	A	E	V	T	P	V	V	S	G	V	E	T	N	V	V	V	W	G	N	H	H	S	A	N	T	Q	Q	V	P	D	F	T	S	Q	A	L	I	A	S	G	R	P	
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UniRef90_Q21VT3	A	Q	L	A	I	L	K	T	G	R	P	V	V	G	I	V	K	R	L	T	A	V	W	G	N	H	H	S	P	T	V	I	Y	A	D	D	R	F	T	T	A	I	G	D	G	S			
UniRef90_X8CRB7	S	Q	L	A	R	K	T	G	A	K	V	V	T	D	I	K	K	M	T	I	V	W	G	N	H	H	S	A	N	T	Q	Q	V	P	D	I	I	F	H	A	E	I	V	G	K	N	A		
UniRef90_K0YUS9	S	Q	L	A	E	K	T	G	A	A	V	V	T	D	I	K	K	V	V	V	V	W	G	N	H	H	S	A	N	T	Q	Q	V	P	D	I	I	S	F	A	T	V	E	G	D	K	A	E	
UniRef90_Q9GSY6	G	A	I	A	S	K	L	G	V	T	P	E	V	S	G	V	E	K	V	T	I	F	W	G	N	H	H	S	A	N	T	Q	Q	V	P	D	I	C	S	F	A	T	V	E	L	P	E		
UniRef90_A0DLG4	H	Q	L	A	S	D	K	L	G	V	T	H	T	S	D	I	R	K	V	I	A	I	F	W	G	N	H	H	S	P	T	M	V	P	Y	I	D	Q	M	T	A	K	T	P	S	P			
UniRef90_B8BHG9	G	Q	I	S	E	K	L	N	V	S	Q	V	T	D	V	K	N	A	I	I	V	W	G	N	H	H	S	A	N	T	Q	Q	V	P	D	I	V	N	H	A	T	V	K	T	P	S	P		
UniRef90_O8438																																																	



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UniRef90_S5RPG2	S	A	A	I	D	H	L	K	D	W	I	F	G	T	E	N	G	E	S	W	T	I	A	V	P	S	D	Q	G	S	Y	N	V	P	K	D	I	V	T	F	G	F
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UniRef90\_R5P3A8 MK V T V V G A G N V G A T C A N C I A E K D I V N E V I L L

UniRef90\_UPI000415E03D K I A L I G S G M I G G T L A H I A A R E E L G D I V L F

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UniRef90\_C0BMG1 MK I T V V G A G A V G A S C A E Y I A I K D F A S E V V L V

UniRef90\_UPI000476D6EB M MK V T V V G A G N V G A T C A N V I A L K N F A S E V V L L

UniRef90\_H1Y6F1 MK I T V I G A G A V G A T C A D N I A R R E L A E E I L L L

UniRef90\_T0LI72 K V S I I G A G N V G S L A A Y L A Q K N I C D I V L L

UniRef90\_O67655 V A V I G A G N V G E H L L K N L A N V K M F D L P R K T E E K V F

UniRef90\_D4KE67 MK I S V I G A G N V G A T C A N V L A L K N F A T E V V L L

UniRef90\_UPI0002E13971 S S P I R V S I I G A G R V G S T L A Q R I V E K N L A D A H E V V L I

UniRef90\_A1BHN9 MK I S V I G A G N V G A T A A H R L A E K Q L A H E V V L I

UniRef90\_M4ZST4 MK V T I I G A G N V G A S C A S L L A Q R N L V R K I V L L

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UniRef90\_UPI0003827A8F P S S Q V T V V G A G N V G S T L A Q R L L E H N L A N A K E V V L I

UniRef90\_E0MSG5 K I A L I G S G M I G G T L A H I L A G M K E L G D V V L F

UniRef90\_Q8T773 S K P L H V C V I N A A S P A Y H V L P S L V N G K I L R E E E I A L H L H

UniRef90\_I0KER4 MK I T V V G A G A V G A T C A D N I I R R E L A E E V V L L

UniRef90\_X5HMV3 K I S I I G A G N I G G T L A H L I A L K G L A S E V E L I

UniRef90\_U6B8C4 K I A L I G S G M I G G T M A H L A S L K E L G D L V L L

UniRef90\_C6HU27 K V S I I G A G N V G A T A Q K I V E N G L A D V V L L

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UniRef90\_UPI00039FFD7C K I A L I G G G V G G N I A L L S A Q K E L G D I V I I

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UniRef90\_K8GHC2 K V T V V G A G H V G E V T A F K I T E K E L A D V V L L

UniRef90\_UPI0003624FF0 K I A I V G T G F V G S T T A Y T L M L S G L I S E L V L I

UniRef90\_S0FJ08 V S I V G A G N V G E H V A N L I A I K E L A N V R L F D L P K K L

UniRef90\_C1DU32 K I S I I G A G Q I G S T I A L L L G Q K N L G D I F L F

UniRef90\_B6AHM2 G V S G F K V A I L G A G G I G Q P L A M L M K M N P L V S L L H L Y

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UniRef90\_F6RFW3 P L R V W I T S A S T T S C S L I P F L L S G D V F G R H T V M S L T L F

UniRef90\_UPI0003341538 S K K T R I V V I G T G A V G S T T A Y T L L L R G R M D E L V L I

UniRef90\_F8FFJ1 V S I V G A G N V G E H V A S L I A I K G F A D V R L F D I P R K V

UniRef90\_A8UUM7 MS K V T V V G A G N V G A T C A N V I A T R E L A D E V V L L

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UniRef90\_L5NES4 MK V S I I G A G N V G A T T A Q R L A E L D I A D V M M L D V V

UniRef90\_K4MR99 K V A V M G A G G I G Q P L S L L L K Q S P L V S Q L N L Y

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UniRef90\_A8LAV3 K V V V A G A G I G Q P L A L L L K Q N P L V T R L A L Y

UniRef90\_H9JU51 P L Q V W I T S A S P A C Y N L I P I L T S G E V F G M H T E I S L N L F

UniRef90\_F1PG11 K A A I I G C G F V G A S T A F S L V H K G L F S E L V I I

UniRef90\_UPI000464FA09 K V L I G A G V G S S F A Y A L T I D N S L L K D L A D E L A M V

UniRef90\_Q0SP77 P R N K V T I V G V G V G M A C A I S I L L K D L A D E L A M V

UniRef90\_H3AJ84 K P T K L A I V G A G A V G S T L A F A A A E R G V A R E I V L E

UniRef90\_UPI0003B3170E R V L V G T G A V G S S Y A F A L I N Q G V T E E L V L V

UniRef90\_UPI000318C586 K V A L I G T G F V G S S Y A F A L L N Q G A R E L V L I

UniRef90\_A6CLY3 V S V V G A G N V G E H T A A L L A L R G L V D V R M F D L P K K

UniRef90\_W0DG07 R V V L V G T G A V G C S Y A Y C M I N Q A V A E E F V L V

UniRef90\_Q81RW4 K V V I V G T G F V G T S I A Y A M I N Q G I S N E L V L I

UniRef90\_H8LE45 P S R V V I I G T G A V G A T T A Y T L F L R E R V S E L V L I

UniRef90\_D3EK15 K V T V C G A G G I G Q P L S L L L K Q N P L V T D L A L Y

UniRef90\_Q9VEB1 R V V L I G T G F V G S S Y A F A M L N Q G V A D E L V L V

UniRef90\_UPI0003F7230B M N R V A L I G T G F V G A S Y A F A L M N Q G I A D E L V L I

UniRef90\_C5D5V2 K P L Q V W V A S A G N V C Y H L I P L L L S G E V F G M H T E I S L T L F

UniRef90\_UPI00035944AF K V S I V G A G N V G S L V G Y S L A M Q G L A H E I V L V

UniRef90\_A6DC36 K V L L V G D G A V G S T F A N D L L Q N T T I D E L V I C

UniRef90\_UPI000469F9F3 P L Q V W I A S A G A V C Y H I I P L L A S G E V F G M D T K I S L T L F

UniRef90\_UPI00042AB978 R T V L I G A G F V G S S Y A F T L I N Q G I T D E L V I I

UniRef90\_M5NY39 K I V V V G A G N V G E A I A Y T L M V R V Q A N D I V L I

UniRef90\_R6RY43 K V S I I G A G N V G A T V C Y W L A M R K S C R E I V M I

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UniRef90\_Q0PQF8

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UniRef90_C7M7P0	S	D	V	V	A	I	V	T	S	G	I	P	R	K	P	G	M	T	R	E	E	L	I	N	I	N	K	S	V	V	E	Q	V	L	V	K	Y	S	P	N	A	
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UniRef90_T0NKU6	S	K	V	A	V	I	T	S	G	I	P	R	K	P	G	M	T	R	E	E	L	L	G	I	N	A	G	V	V	K	E	V	A	Q	N	I	S	P	N	A		
UniRef90_C1F8G6	S	D	I	V	V	I	T	A	G	I	P	R	K	P	G	M	S	R	E	D	D	L	L	A	T	N	A	K	I	M	S	D	V	V	V	A	I	S	P	N	A	
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UniRef90_UPI00035DAB4F	A	E	V	V	I	V	T	A	G	V	P	R	K	P	G	M	S	R	E	E	L	L	G	I	N	A	K	V	M	E	Q	I	A	K	Y	A	P	N	A			
UniRef90_U5Q298	S	D	V	I	V	I	T	S	G	I	P	R	K	P	G	M	T	R	E	E	L	L	G	I	N	A	K	V	V	N	E	V	T	N	Y	S	P	N	A			
UniRef90_A0A059FMB7	A	D	V	C	I	V	T	A	G	V	A	R	K	P	G	M	S	R	E	D	D	L	L	G	I	N	L	K	V	M	K	A	V	G	E	G	L	K	A	N	C	
UniRef90_UPI0003623D13	S	D	L	V	I	I	T	A	G	I	A	R	K	P	G	M	S	R	E	D	D	L	L	S	I	N	A	E	V	T	H	K	I	V	E	H	S	P	Q	R	N	C
UniRef90_Q8LK54																																										
UniRef90_Q8PVJ7	S	D	L	V	I	I	T	A	G	I	A	R	K	P	G	M	S	R	E	D	D	L	L	K	T	N	S	K	I	I	G	N	I	A	K	Y	A	P	N	S		
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UniRef90_L7VQR7	S	D	L	V	I	I	T	A	G	L	P	R	K	P	G	M	S	R	E	D	D	L	L	V	N	T	N	A	G	I	V	K	S	V	T	E	Q	V	S	P	D	A
UniRef90_C8WRU3	S	E	V	V	V	I	T	A	G	L	P	R	K	P	G	M	S	R	E	D	D	L	L	S	T	N	A	G	I	V	K	S	V	T	E	Q	V	S	P	N	A	
UniRef90_R5P3A8	A	D	V	C	I	V	T	A	G	F	P	R	K	P	G	M	S	R	E	D	D	L	L	G	I	N	L	K	V	M	E	Q	V	I	K	Q	H	A	P	K	N	A
UniRef90_UPI000415E03D	S	H	L	A	I	V	T	S	G	I	P	R	K	P	G	M	T	R	E	E	L	L	G	I	N	A	G	V	V	K	T	V	A	Q	S	I	S	P	E	V		
UniRef90_Q33525	S	K	V	V	V	I	T	S	G	I	P	R	K	P	G	M	T	R	E	E	L	L	G	I	N	A	K	I	V	K	S	V	T	E	N	D	E	A	S	P	D	A

	130													140													150													160												
UniRef90_D7JG67	I	L	I	I	V	S	N	P	M	D	T	M	A	Y	L	V	L	G	L	P	R	E	R	V	I	G	M	G	G	A	L	D	S	S	R	F	K															
UniRef90_C7M7P0	L	V	I	V	V	T	N	P	L	M	D	T	M	A	Y	L	V	H	K	A	T	K	L	P	A	K	N	H	I	V	G	M	G	A	L	D	S	S	R	F	K											
UniRef90_D8JWR7	F	V	I	C	I	T	N	P	L	D	A	M	V	W	A	L	Q	K	F	S	G	L	P	A	K	N	R	I	V	V	G	M	G	A	L	D	S	S	R	F	K											
UniRef90_T0NKU6	I	I	I	V	V	S	N	P	L	M	D	T	M	A	Y	L	V	H	K	V	T	G	L	P	A	K	N	R	I	V	G	M	G	A	L	D	S	S	R	F	K											
UniRef90_C1F8G6	I	I	I	V	V	S	N	P	L	D	A	M	A	Q	A	F	R	Q	A	K	F	P	P	R	N	R	V	I	G	M	G	A	L	D	S	S	R	F	K													
UniRef90_K0NJ8	I	V	I	V	V	S	N	P	L	D	I	I	A	M	V	T	L	Q	A	S	G	F	A	L	K	K	V	I	G	M	A	G	V	L	D	S	T	R	F	R												
UniRef90_UPI00035DAB4F	F	V	I	C	I	T	N	P	L	D	A	M	V	W	A	L	Q	Q	A	S	G	L	P	P	E	K	V	V	G	M	A	G	V	L	D	S	S	R	F	R												
UniRef90_U5Q298	I	I	V	I	I	S	N	P	M	D	T	M	T	Y	L	T	L	K	S	S	G	L	P	P	K	N	K	V	I	G	M	G	M	L	D	S	S	R	F	K												
UniRef90_A0A059FMB7	F	V	I	C	I	T	N	P	L	D	A	M	V	W	A	L	Q	Q	F	S	G	F	K	T	N	K	V	V	G	M	A	G	V	L	D	S	S	R	F	A												
UniRef90_UPI0003623D13	I	I	L	V	V	T	N	P	L	D	A	M	V	Y	T	A	L	R	V	S	G	F	P	K	Q	R	V	I	G	M	A	G	V	L	D	S	A	R	M	R												
UniRef90_Q8LK54	K	V	I	V	V	G	N	P	C	C	T	N	A	L	I	A	M	E	N	A	P	N	L	P	R	K	N	F	N	A	L	T	R	L	D	E	N	R	A	K												
UniRef90_Q8PVJ7	I	V	I	N	V	T	N	P	L	D	I	I	T	Y	V	L	A	M	K	A	T	G	F	D	P	E	K	V	F	G	M	S	G	V	L	D	A	G	R	F	A											
UniRef90_UPI0002DC1C10	I	Y	I	V	V	T	N	P	L	D	V	M	T	Y	L	A	W	Q	A	T	G	L	P	C	D	R	I	M	G	M	A	G	V	L	D	S	A	R	L	E												
UniRef90_L7VQR7																																																				
UniRef90_C8WRU3	C	L	I	V	L	S	N	P	V	D	A	M	T	Y	V	A	Y	K	T	S	G	F	P	K	Q	R	V	I	G	Q	A	G	V	L	D	T	A	R	F	N												
UniRef90_R5P3A8	K	I	I	I	V	S	N	P	L	D	V	M	C	Y	C	A	Y	L	A	K	I	D	Q	S	R	K	V	V	F	G	M	A	G	V	L	D	T	A	R	Y	K											
UniRef90_UPI000415E03D	F	V	I	C	I	T	N	P	L	D	A	M	V	W	A	L	Q	K	F	S	G	L	P	A	K	N	R	V	V	G	M	A	G	V	L	D	S	A	R	F	R											
UniRef90_Q33525	F	V	I	C	I	T	N	P	L	D	A	M	V	W	A	L	Q	K	F	S	G	L	P	A	K	N	R	V	V	G	M	A	G	V	L	D	S	S	R	F	R											
UniRef90_C0BMG1	T	I	M	V																																																

UniRef90_D7JG67	Y	F	L	S	Q	A	L	G	C	N	A	N	E	V	E	G	L	V	I	G	H	G	D	T	T	M	L	P	L	A	R	L	A	S	T	Y	K	G	I	P			
UniRef90_C7M7P0	Y	R	L	A	E	A	A	L	G	S	P	I	E	D	V	D	R	A	L	T	A	G	H	S	D	T	G	M	V	P	L	T	R	L	A	S	T	Y	K	G	I	P	
UniRef90_D8JWR7	C	F	L	A	E	A	A	L	G	S	P	I	E	D	V	D	R	A	L	T	A	G	H	S	D	T	G	M	V	P	L	T	R	L	A	S	T	Y	K	G	I	P	
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UniRef90_A0A059FMB7	Y	F	L	S	E	K	T	G	V	S	V	A	D	V	I	H	A	W	T	L	A	G	H	S	D	T	G	M	V	P	L	T	R	L	A	S	T	Y	K	G	I	P	
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UniRef90_C8WRU3	T	F	V	A	M	E	L	G	V	S	V	E	D	V	I	H	G	F	V	L	L	G	H	S	D	T	G	M	V	P	L	T	R	L	A	S	T	Y	K	G	I	P	
UniRef90_R5P3A8	S	F	L	A	E	A	A	L	G	S	P	I	E	D	V	H	G	A	L	L	L	L	G	H	S	D	T	G	M	V	P	L	T	R	L	A	S	T	Y	K	G	I	P
UniRef90_UPI000415E03D	Y	F	L	A	D	E	F	K	C	S	V	E	D	V	I	H	A	S	L	L	L	L	G	H	S	D	T	G	M	V	P	L	T	R	L	A	S	T	Y	K	G	I	P
UniRef90_Q33525	L	F	L	A	K	E	F	N	V	S	V	Q	D	V	I	T	A	F	V	I	L	G	H	S	D	T	G																



UniRef90_D7JG67	V	S	K	L	S	E	D	K			L	N	E	V	V	K	S	T	M	V	G	G	A	T	L	T	G	L	L	G	T	S	A	W	M	A	P						
UniRef90_C7M7P0	V	T	E	F	L	S	A	D	R	L	N	Q	V	A	E	D			T	K	V	G	G	A	T	L	T	K	L	L	G	T	S	A	W	Y	A	P					
UniRef90_D8JWR7	L	P	D	C	H	V	K	L	G	F	S	Q	E	Q	L	D	K	R	T	R	G	G	G	A	T	L	T	A	L	L	G	T	S	A	F	Y	A	P					
UniRef90_T0NKU6	V	T	A	F	L	N	E	E	K	I	Q	Y	V	T	E	E				T	K	V	G	G	A	T	L	T	K	L	L	G	T	S	A	W	Y	A	P				
UniRef90_C1F8G6	I	T	E	L	M	P	A	E	R	I	E	A	L	V	Q			R	T	R	D	G	G	A	E	I	V	K	H	L	K	T	G	S	A	Y	Y	A	P				
UniRef90_K0NJD8	V	S	E	L	M	P	D	Q	A	T	I	E	A	L	I	D			R	T	R	D	G	G	A	E	I	V	K	L	K	K	G	S	A	F	Y	A	P				
UniRef90_UPI00035DAB4F	L	P	D	A	M	G	W	T	Q	E	R	L	D	E	I	Q	R	T	R	D	G	G	A	E	I	V	G	L	L	L	K	T	G	S	A	F	Y	A	P				
UniRef90_A5Q298	V	S	E	L	T	T	K	E	V	L	D	Q	I	T	E	D				T	M	K	G	G	A	T	L	T	K	L	L	G	T	S	A	W	Y	A	P				
UniRef90_U0A059FMB7	L	P	E	K	Q	G	W	M	T	Q	A	D	L	D	G	I	V	D	R	T	R	K	G	G	A	E	I	V	A	L	L	K	T	G	S	A	Y	Y	A	P			
UniRef90_UPI0003623D13	I	T	E	L	M	D	A	R	V	E	A	L	C					E	R	T	A	N	G	G	A	E	I	V	S	F	L	K	T	G	S	A	F	Y	A	P			
UniRef90_Q8LK54	L	P	A	M	N	V	I	R	D	N	Q	W	F	K	E	E	F	T			K	V	A	N	G	G	A	L	I	K	K	W	G	R	S	A	A	S	T	A	P		
UniRef90_Q8PVJ7	L	T	E	L	L	P	E	K	T	I	D	R	L	V				V	E	R	T	V	N	G	G	A	E	I	V	E	L	L	K	Q	G	S	A	F	Y	A	P		
UniRef90_UPI0002DC1C10	I	T	E	L	L	D	V	P	T	I	E	R	L	V	Q					T	R	N	G	G	A	E	I	V	Q	L	L	M	Q	T	G	S	A	F	F	A	P		
UniRef90_L7VQR7	A	Y	E			L	V	G	D	H	A	W	V	D	G	T	Y	I	P	T	V	A	K	R	G	A	A	I	L	A	R	G	A	S	S	A	S	A	A	P			
UniRef90_C8WRU3	L	E	K	L	L	P	K	E	R	I	D							A	I	V	E	R	T	R	N	G	G	A	E	I	V	S	L	M	G	N	A	S	A	Y	Y	A	P
UniRef90_R5P3A8	V	T	E	L	L	D	M	E	Q	L	K							A	I	I	E	R	T	K	V	G	G	A	E	I	V	K	L	M	G	T	S	A	W	Y	A	P	
UniRef90_UPI000415E03D	L	P	D	K	M	K	W	T	Q	E	R	V	D	A	I			A	I	V	E	R	T	K	V	G	G	A	E	I	V	G	L	L	G	N	G	S	A	F	Y	A	P
UniRef90_Q33525	L	T	D	T	M	G	W	V	T	K	E	R	L	D	E	I	I	Q	R	T	R	D	G	G	A	E	I	V	G	L	L	L	K	T	G	S	A	Y	Y	A	P		
UniRef90_C0BMG1	S	V	P	V	S	N	F	V	S	G	A	R	L	D	V	V	E	D			T	K																					



	250	260	270	280
UniRef90_D7JG67	G A A A S F V A E S I V K D Q K K M L T S S V Y L L	N G E Y G M K D L N I G V		
UniRef90_C7M7P0	G A A V S A L V Q A I C A D Q K K R M L F P C S A A H L L	E G E Y Y G G Q K D V Y V G V S		
UniRef90_D8JWR7	A A S A I S M A E S Y L R D K K R M L F P C S A A H L L	E G E Y Y G G Q K D V Y V G V S		
UniRef90_T0NKU6	G A A V S V M V Q S I L R N D Q K K M L F P C S A A H L L	E G E Y Y G G Q K D V Y V G V S		
UniRef90_C1F8G6	S A A A V E M V E A I V L K D K K R V L P C A V Y L E G E	Y G Y Y G V D G Y F L G V G V		
UniRef90_K0NJDB	G A S V A K M V E A I V L K D E K R V L P C A S A Y L R G E	Y G Y Y G V D G Y F L G V G V		
UniRef90_UPI00035DAB4F	A A S A I A M A E S Y L K D K K R V L P C A A F L E G E	Y G Y Y G V D G Y F L G V G V		
UniRef90_U5Q298	G A N A A A L V R A I V H D E K K V Y P C C V S L E G E	Y Y Y Q N D V Y C I G V G V		
UniRef90_A0A059FMB7	A E S A I S M A K A Y L N D Q K R V L P V A A W C Q G E	Y G L D G M Y V L G V G V		
UniRef90_UPI0003623D13	G A S V V Q M A E A I L K D K K R L P C A A F L E G E	Y G V D G G Y Y L G V G V		
UniRef90_Q8LK54	V S V A D S I R S L I T P T P G D C F S S G V L E G E	Y G I Q E G L N F S F		
UniRef90_Q8PVJ7	S A A I V R M A E A V I K D S R R V L P A S A Y L E G	Q Y Y G Q K G I Y F G V G V		
UniRef90_UPI0002DC1C10	A A S T C V M V S I L L N Q S R L L P V A A Y L Q G E	Y G L N D I F G V G V		
UniRef90_L7VQR7	N A A I D H L R S W A L G T A D G D W V S M A V P S D G S	Y G V P E G L I S S F		
UniRef90_C8WRU3	A A S L L Q M A E S I L K D K R R V L P A I A Y L E G E	Y G Y R N D L T L G V G V		
UniRef90_R5P3A8	A A A A Q M V I E A I L C N S R R V F P V C A A L L N G E	Y G M E N I Y L G V G V		
UniRef90_UPI000415E03D	A E S A I E M A T S Y L R N D K K R I L P C A V R L S G Q	I A G V R G L Y V G A		
UniRef90_Q33525	A A S A I E M A E S Y L K D K K R V L P C A A H L S G	Q Y Y G V K D M Y V G V G V		
UniRef90_C0BMG1	A A V S A M A Q A I V C D Q K K M F P C C S T L L	E G E Y G L S D I C I G V G V		
UniRef90_UPI000476D6EB	A A G A A L A E A I L V T D S K K M I P C C C V Y L	D G E Y G E K D I C I G V G V		
UniRef90_H1Y6F1	G A G T A A M V E A I V R D E K K L I S C G V A L D G E	Y G Q K D I S L V V G V		
UniRef90_T0L72	A A A T E M V E S V L L D I K R I L P V S A C V T	G E Y G L K D L Y I G V G V		
UniRef90_Q67655	A A I V D M I E A L V Q N S K R I L P C S V Y L G E A G E	Y G Y G V Q G F C V G V G V		
UniRef90_D4KE67	G T T A A T M A E A I A K D S G L T I S S I C Y L D G E	Y G E H D V C A G V G V		
UniRef90_UPI0002E13971	A A S T C M M I E T I L R N H S R M L P V S A L L Q G E	Y G L N D L F F G V G V		
UniRef90_A1BHN9	A A S A V E M I E A I V K D R K R I L A C T T L L E G E	Y G I N N V F C G V G V		
UniRef90_M4ZST4	S A S V V K I V E T I L K D S K R I L F P C S V F L K G E	Q Y G L K D I Y L G V G V		
UniRef90_K9X958	A A S T Y L M V E A I L H N Q S R L V P V A A Y L Q G E	Y G L H D I F I G V G V		
UniRef90_B4S9F1	A A S A V E M I D A L V L D R K R I L P C S T L V T G	Q Y G M D N V F I G V G V		
UniRef90_V9TW88	C A S A S Q M V E S Y L K D K K R L M P C T V Y V N G P	Y G L D G L Y I G V G V		
UniRef90_UPI0003827A8F	A A S A C V M V E A M L R H Q R I L P L A A H L T G	Q Y G L D D L Y L G V G V		
UniRef90_E0MSG5	A A S A I T M A E A Y L R D Q K R V L P C A A V N L K G	E Y G I Q D M Y V G V G V		
UniRef90_Q8T773	A A I S S T L S Y W W N G S P E G Q L F S L A V C S E	G F Y N I P E G V V F S F		
UniRef90_I0KER4	A A V A E L V E S I V R D Q K H I F P C C V A L	N G E Y G Q S D I C L G V G V		
UniRef90_X5HMV3	A A S A L E M A E S Y I E D Q K K T L I C S V I M K	G R Y L V E D D F S G I		
UniRef90_U6B8C4	A S S A I A M A E S Y L K N K R N V L P C A A R L S G	Q Y G V D G F Y V G V G V		
UniRef90_C6HU27	A A A I Y S M I E S I L H D R H R I L P S S V L L E G E	Y G I R G A F I G V G V		
UniRef90_UPI000346BF30	S S S V A Q M V E A L L R D R H R T L P A A I P L L Q G E	Y G I D D L C M G I P		
UniRef90_UPI00039FFD7C	A Q S A V E M I E S F V K D K K R V I P C A S L C E G E	F N V D G Y F I G V G V		
UniRef90_UPI00046EC3DA	M S L C R I T K A I L N N E S V L P V S A L L E G Q Y G	Y G H E N V Y V G V G V		
UniRef90_U6KZN5	A A A G V L M A E A Y L K D K K R V I P C A A Y L T G	G Q Y G V Q D L Y V G V G V		
UniRef90_D2HEN9	H S I A T T L K Y W Y H G S P P G E I V S L G V L S T E	G Q F G I P E G I V F S M		
UniRef90_UPI0003768D30	G A S L A Q M A D A I I R D K K R L I P C A A H L T G	Q F G I N D L Y I G V G V		
UniRef90_UPI0004628BF6	H T I A T M L R Y W Y Q G S P P G E M V S L G V I T E	G Q F G L P E G I V Y S M		
UniRef90_Q5CI9	A A S A V A M A Q A Y L K D S K S V L V C S T Y L T	G Q Y N V N N L F V G V G V		
UniRef90_T0N509	G I S I T A M V E S I I K D K H R V I P C A A Y L E G E	D H Y G A S G I F I G V G V		
UniRef90_UPI000346BE24	A S S A Y Y M I E S V L L N Q S R L L P A A A Y L Q G E	Y G L T D F L G V G V		
UniRef90_I0JW74	S A A I L E M V E S I V K D Q K R L L P C S A W C E	G Q Y G I T G Q Y V G V G V		
UniRef90_F1SHD0	H S I A T T L K Y W F H G S P P G E I V S L G V L S E	G Q F G V P E G I V F S M		
UniRef90_K8GHC2	A S A V C V M V E A I L Y N Q P R I L P V A A Y L Q G	H Y K L D D I F G V G V		
UniRef90_UPI0003624FF0	A L A I T E M V E S I L K D K K K I L P C A A Y L E G E	Y G I S N I Y F G V G V		
UniRef90_S0FJ08	L A V R R I V E A I V R N E S I L T V S S L L E G E	Y		

		290	300	310	320
UniRef90_D7JG67	P	V	V	I	G
UniRef90_C7M7P0	P	V	I	I	K
UniRef90_D8JWR7	A	I	G	A	G
UniRef90_T0NKU6	P	C	I	I	K
UniRef90_C1F8G6	P	C	K	L	G
UniRef90_K0NJD8	P	V	L	R	N
UniRef90_UPI00035DAB4F	P	V	V	I	G
UniRef90_U5Q298	P	C	V	I	G
UniRef90_A0A059FMB7	P	A	V	L	G
UniRef90_UPI0003623D13	P	C	K	L	G
UniRef90_Q8LK54	P	C	R	S	K
UniRef90_Q8PVJ7	P	V	K	L	G
UniRef90_UPI0002DC1C10	P	C	R	L	G
UniRef90_L7VQR7	P	C	V	C	K
UniRef90_C8WURU3	P	T	V	L	G
UniRef90_R5P3A8	P	V	I	L	K
UniRef90_UPI000415E03D	P	A	M	I	G
UniRef90_O33525	P	T	V	I	G
UniRef90_C0BMG1	P	V	I	L	G
UniRef90_UPI000476D6EB	P	V	V	L	G
UniRef90_H1Y6F1	P	V	V	L	G
UniRef90_T0LI72	P	V	Q	L	G
UniRef90_O67655	P	V	K	L	G
UniRef90_D4KE67	P	A	V	L	G
UniRef90_UPI0002E13971	P	C	R	L	G
UniRef90_A1BHN9	P	V	K	I	G
UniRef90_M4ZST4	P	V	V	L	G
UniRef90_K9X958	P	T	L	L	G
UniRef90_B4S9F1	P	V	K	I	G
UniRef90_V9TW88	P	I	L	L	G
UniRef90_UPI0003827A8F	P	C	R	L	G
UniRef90_E0MSG5	P	V	I	L	G
UniRef90_Q8T773	P	V	M	F	H
UniRef90_I0KER4	P	V	V	I	G
UniRef90_X5HMV3	P	V	V	I	G
UniRef90_U6B8C4	P	V	V	I	G
UniRef90_C6HU27	P	V	R	L	G
UniRef90_UPI000346BF30	V	R	L	G	R
UniRef90_UPI00039FFD7C	P	T	V	I	G
UniRef90_UPI00046EC3DA	P	A	V	I	G
UniRef90_U6KZN5	P	C	V	V	G
UniRef90_D2HEN9	P	V	K	F	E
UniRef90_UPI0003768D30	P	I	K	L	G
UniRef90_UPI0004628BF6	P	V	R	F	E
UniRef90_Q5CII9	P	V	V	I	G
UniRef90_T0N509	P	I	S	I	G
UniRef90_UPI000346BE24	P	C	R	L	G
UniRef90_I0JW74	P	V	V	L	G
UniRef90_F1SHD0	P	V	K	F	E
UniRef90_K8GHC2	P	C	R	L	G
UniRef90_UPI0003624FF0	P	V	K	L	G
UniRef90_S0FJ08	P	S	Q	V	N
UniRef90_C1DU32	P	V	K	V	G
UniRef90_B6AHM2	P	V	I	L	G
UniRef90_P37228	V	R	L	G	R
UniRef90_H8MGM5	P	A	Q	I	G
UniRef90_C0KKG7	P	C	V	I	G
UniRef90_Q06BU8	P	C	V	L	G
UniRef90_F6RFW3	P	V	K	F	E
UniRef90_UPI0003341538	P	V	K	F	E
UniRef90_F8FFJ1	P	C	V	V	D
UniRef90_A8UUM7	P	V	K	L	G
UniRef90_G5H864	P	A	V	I	G
UniRef90_L5NES4	P	A	V	V	N
UniRef90_K4MR99	P	V	K	I	K
UniRef90_E9HGX0	P	I	L	L	G
UniRef90_A8LAV3	P	A	Q	I	G
UniRef90_H9JU51	P	V	V	L	G
UniRef90_F1PG11	P	V	K	F	E
UniRef90_UPI000464FA09	P	T	I	V	S
UniRef90_Q0SP77	P	A	I	V	C
UniRef90_H3AJ84	P	C	V	L	N
UniRef90_UPI0003B3170E	P	T	L	L	N
UniRef90_UPI000318C586	P	A	V	V	R
UniRef90_A6CLY3	P	A	I	L	N
UniRef90_W0DG07	P	V	K	L	G
UniRef90_Q81RW4	P	A	V	L	N
UniRef90_H8LE45	P	S	I	V	D
UniRef90_D3EK15	P	C	V	V	D
UniRef90_Q9VEB1	P	L	V	L	G
UniRef90_UPI0003F7230B	P	A	V	V	H
UniRef90_C5D5V2	P	A	I	L	N
UniRef90_UPI00035944AF	P	V	K	F	E
UniRef90_A6DC36	P	V	M	L	G
UniRef90_UPI000469F9F3	P	A	V	I	D
UniRef90_UPI00042AB978	P	V	K	F	E
UniRef90_M5NY39	P	A	V	V	G
UniRef90_R6RY43	P	C	R	I	G
UniRef90_UPI0004697C1E	P	V	I	L	G
UniRef90_W1Q169	A	I	L	G	R
UniRef90_L7EN55	P	S	I	V	G
UniRef90_Q0PQF8	P	C	I	C	E

UniRef90_D7JG67	
UniRef90_C7M7P0	A L A
UniRef90_D8JWR7	K L S P A
UniRef90_T0NKU6	
UniRef90_C1F8G6	A V K
UniRef90_K0NJD8	T L R S
UniRef90_UPI00035DAB4F	Q I A
UniRef90_U5Q298	E L K
UniRef90_A0A059FMB7	
UniRef90_UPI0003623D13	T V D A
UniRef90_Q8LK54	H L
UniRef90_Q8PVJ7	
UniRef90_UPI0002DC1C10	E I
UniRef90_L7VQR7	E L
UniRef90_C8WRU3	
UniRef90_R5P3A8	
UniRef90_UPI000415E03D	
UniRef90_O33525	
UniRef90_C0BMG1	
UniRef90_UPI000476D6EB	
UniRef90_H1Y6F1	
UniRef90_T0LI72	
UniRef90_O67655	G I L S A
UniRef90_D4KE67	K L A E A
UniRef90_UPI0002E13971	D I
UniRef90_A1BHN9	A L L A
UniRef90_M4ZST4	
UniRef90_K9X958	S L L A
UniRef90_B4S9F1	
UniRef90_V9TW88	
UniRef90_UPI0003827A8F	A L
UniRef90_E0MSG5	E I A
UniRef90_Q8T773	
UniRef90_I0KER4	
UniRef90_X5HMV3	
UniRef90_U6B8C4	
UniRef90_C6HU27	
UniRef90_UPI000346BF30	
UniRef90_UPI00039FFD7C	E
UniRef90_UPI00046EC3DA	
UniRef90_U6KZN5	A L
UniRef90_D2HEN9	
UniRef90_UPI0003768D30	
UniRef90_UPI0004628BF6	
UniRef90_Q5CII9	D L K S
UniRef90_T0N509	D F
UniRef90_UPI000346BE24	
UniRef90_I0JW74	H V A S
UniRef90_F1SHD0	
UniRef90_K8GHC2	T L
UniRef90_UPI0003624FF0	
UniRef90_S0FJ08	
UniRef90_C1DU32	E L K
UniRef90_B6AHM2	S L
UniRef90_P37228	
UniRef90_H8MGM5	
UniRef90_C0KKG7	A L D A
UniRef90_Q06BU8	
UniRef90_F6RFW3	
UniRef90_UPI0003341538	
UniRef90_F8FFJ1	
UniRef90_A8UUM7	
UniRef90_G5H864	V L K
UniRef90_L5NES4	H F K A A
UniRef90_K4MR99	D V R
UniRef90_E9HGX0	E F
UniRef90_A8LAV3	A V R A
UniRef90_H9JU51	D F A
UniRef90_F1PG11	
UniRef90_UPI000464FA09	
UniRef90_Q0SP77	F
UniRef90_H3AJ84	D L
UniRef90_UPI0003B3170E	
UniRef90_UPI000318C586	
UniRef90_A6CLY3	
UniRef90_W0DG07	E L
UniRef90_Q81RW4	
UniRef90_H8LE45	
UniRef90_D3EK15	
UniRef90_Q9VEB1	D F A N A
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UniRef90_A0YLW3						K	P	R	K	G	V	I	I	G	A	G	Q	V	G	M	A	C	A	Y	S				M	L	I	Q	D	C	F	D	E	L	L	Q														
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UniRef90_T0DNV8						K	P	R	R	I	A	V	V	G	A	G	A	V	G	S	T	T	A	Y	T	L												F	L	R	E	R	A	T	E	I	V	L	V					
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UniRef90_F8T0S6	T	S	R	C	K	I	T	V	V	G	V	G	N	V	G	M	A	C	A	I	S	I																																
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UniRef90_E0W2E5						V	N	V	Q	V	S	G	A	G	G	I	G	Q	P	L	S	L	L	L	K	Q	S	P	L																									
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UniRef90_UPI00036AE82A											K	I	S	I	I	G	S	G	R	L																																		
UniRef90_Q5WE04											R	V	V	V	I	G	T	G	H	V	G	S	S	Y	A	F	A	L	M	N	Q	G	V																					
UniRef90_UPI00036BD304																																																						
UniRef90_W4QZY6																																																						
UniRef90_Q27797																																																						
UniRef90_P93106	S	R	R	K	K	I	A	M	I	G	S	G	M	I	G	G	T	M	G	Y	L	C	V	L	R	E	L	A	D																									
UniRef90_P93106	E	A	R	K	V	A	L	L	G	A	G	G																																										



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UniRef90\_R6JXQ9 D A D T D R A E G E A M D L S H G L P Y T A S M D I Y A G D Y K D V A D

UniRef90_UPI0003F0E7A5	A	H	V	I	I	L	D	E	E	V	L	S	L	E	D	C	I	R	S	N	V	P	L	C	R	Q	Y	A	R	L	E	K	N	A	H	E	S	N	V					
UniRef90_B6YUQ6	S	D	V	I	V	V	T	S	G	I	V	P	R	G	K	P	G	M	T	R	D	D	L	L	F	K	T	N	A	N	G	I	V	K	S	V	C	S	G	V	A	P	N	A
UniRef90_A9NXT5	S	M	D	L	V	I	V	T	A	G	I	V	P	R	K	P	G	M	T	R	D	D	L	L	F	K	T	N	A	N	G	I	V	K	S	V	C	S	G	V	A	P	N	A
UniRef90_E6WZVW8	T	D	V	I	F	V	V	T	A	G	F	V	P	R	K	P	G	M	S	R	D	D	L	L	F	K	T	N	A	N	G	I	V	K	S	V	C	S	G	V	A	P	N	A
UniRef90_P00337	S	K	I	V	V	V	T	A	G	V	R	Q	K	E	P	G	E	S	R	Q	R	N	V	N	V	F	K	I	V	I	V	Q	I	P	Q	I	V	K	Y	S	P	N	C	S
UniRef90_W9S9W9	A	D	V	V	I	I	P	A	G	V	P	R	K	P	G	M	T	R	D	D	L	L	F	N	I	N	A	N	A	G	I	V	K	S	V	C	S	G	V	A	P	N	A	
UniRef90_UPI0002B45551	V	D	V	V	V	V	P	A	G	V	P	R	K	P	G	M	T	R	D	D	L	L	F	N	I	N	A	N	A	G	I	V	K	S	V	C	S	G	V	A	P	N	A	
UniRef90_A6Q388	S	K	V	V	V	I	T	A	G	F	V	P	R	K	P	G	M	S	R	D	D	L	L	F	A	N	A	N	A	D	I	V	K	S	V	E	V	E	N	V	A	P	D	S
UniRef90_R7F756	A	N	I	V	V	I	T	A	G	L	S	Q	K	E	P	G	Q	T	R	L	D	L	L	A	S	A	N	A	K	I	M	K	E	I	T	E	S	V	G	F	K	G		
UniRef90_UPI00042CEE72	A	H	V	I	I	L	D	G	H	V	D	K	E	I	Y	S	L	E	D	C	I	R	S	N	V	P	L	C	R	Q	Y	A	R	L	E	K	N	A	H	E	S	N	V	
UniRef90_Q6L0C3	S	D	V	I	V	V	T	A	G	L	A	R	K	P	G	Y	M	S	R	E	D	D	L	L	R	G	R	C	Q	L	Y	G	E	A	I	E	K	K	Y	S	P	E	S	
UniRef90_A0YLW3	A	D	I	V	I	V	T	A	G	A	S	Q	R	E	P	G	E	S	T	R	L	D	L	L	H	R	N	V	K	I	V	F	R	S	I	G	D	V	A	K	H	D	A	
UniRef90_W5FEH1	M	D	L	V	I	I	P	A	G	L	P	R	K	P	G	M	T	R	D	D	L	L	F	N	K	N	A	N	A	G	I	V	R	S	I	C	E	G	V	A	K	S	C	
UniRef90_I1BQ07	S	D	V	V	I	V	T	A	G	V	P	R	K	P	G	M	T	R	D	D	L	L	F	K	I	N	A	N	A	G	I	V	R	D	L	A	T	A	A	A	K	Y	A	
UniRef90_UPI00036C466C	S	E	I	V	V	I	A	S	G	M	A	R	L	P	G	M	S	R	D	D	L	L	L	E	R	N	A	N	A	G	I	A	S	S	V	A	D	A	Q	V	A	P	Q	A
UniRef90_R7AK09	C	F	L	I	I	I	T	A	G	A	G	Q	K	P	G	E	T	R	R	K	N	V	E	I	F	R	D	M	I	P	Q	I	V	T	A	V	T	A	V	T	A	V	T	
UniRef90_S0JBM1	A	D	I	V	V	I	T	A	G	A	P	Q	K	P	G	E	T	R	L	D	N	V	E	I	F	R	D	M	I	P	Q	I	V	T	A	V	T	A	V	T	A	V	T	
UniRef90_D4LKL1	S	D	I	V	I	I	T	S	G	I	A</																																	

	130	140	150	160																																								
UniRef90_UPI0003F0E7A5	R	V	V	V	G	K	T	V	N	L	K	T	S	L	L	R	S	P	S	I	A	H	N	I	A	V	A	L	G	V	E	S	Q	A	R									
UniRef90_B6YUQ6	V	F	V	I	I	S	N	P	V	D	N	T	M	T	V	I	A	A	E	V	A	G	V	L	N	K	P	K	V	L	M	G	V	T	T	L	D	V	A	S	R	R	A	N
UniRef90_A9NXT5	F	V	N	I	I	S	N	P	L	D	V	M	T	Y	V	A	L	K	E	S	G	F	P	K	K	R	V	V	G	M	G	A	G	I	L	D	S	A	R	M	A			
UniRef90_E6WZVW8	I	I	L	M	V	S	N	P	V	D	V	M	T	Y	V	A	L	K	E	S	G	F	P	K	K	R	V	V	G	M	G	A	G	I	L	D	S	A	R	M	A			
UniRef90_P00337	T	L	L	V	V	S	N	P	V	D	L	T	Y	V	V	A	L	K	E	S	G	F	P	K	K	R	V	V	G	M	G	A	G	I	L	D	S	A	R	M	A			
UniRef90_W9S9W9	P	H	N	M	I	S	N	P	V	N	S	T	V	P	I	A	S	K	K	A	G	T	Y	D	E	K	R	L	F	G	V	T	T	L	D	V	V	R	A	K				
UniRef90_UPI0002B45551	F	I	H	I	V	I	S	N	P	V	N	S	T	V	P	I	A	A	K	Q	K	G	V	Y	D	P	K	K	L	F	G	V	T	T	L	D	V	V	R	A	N			
UniRef90_A6Q388	I	I	L	V	V	S	N	P	L	D	T	M	T	Y	V	A	L	K	E	S	G	F	P	K	N	R	V	I	G	M	A	G	I	L	D	G	A	R	M	T				
UniRef90_R7F756	I	F	L	I	A	S	N	P	V	D	L	M	T	Y	V	V	R	E	V	S	G	F	D	S	S	K	V	I	G	S	G	T	V	L	D	T	A	R	L	R				
UniRef90_UPI00042CEE72	K	I	I	V	G	K	T	P	V	N	L	K	T	A	L	M	K	Y	A	P	T	S	F	A	R	N	I	I	A	V	A	L	G	V	E	G	Q	A	K					
UniRef90_Q6L0C3	K	I	V	V	T	N	P	A	D	I	M	A	Y	A	I	Y	K	A	S	G	I	S	P	E	R	I	I	A	G	L	G	G	L	D	S	T	R	F	R					
UniRef90_A0YLW3	I	L	L	I	V	A	N	P	V	D	I	M	T	Y	V	S	L	K	L	S	G	F	P	S	S	R	V	L	G	S	G	T	V	L	D	T	A	R	F	R				
UniRef90_W5FEH1	P	N	A	I	V	S	N	P	V	N	S	T	V	P	I	A	E	V	A	G	T	Y	D	P	K	R	L	I	G	V	T	T	L	D	V	A	R	A	N					
UniRef90_I1BQ07	F	M	C	I	I	S	N	P	V	N	S	T	V	P	I	V	T	E	V	F	K	V	Y	D	P	K	R	L	I	G	V	T	T	L	D	I	V	R	A	S				
UniRef90_UPI00036C466C	M	V	I	V	V	T	N	P	V	D	A	L	T	H	L	V	A	V	K	V	G	T	P	K	A	R	I	F	G	M	G	G	I	L	D	S	A	R	F	R				
UniRef90_R7AK09	R	L	L	I	V	S	N	P	V	D	V	M	T	Y	A	A	W	K	L	S	G	Y	P	K	E	R	H	I	G	S	G	T	V	L	D	S	A	R	L	K				
UniRef90_S0JBM1	I	F	L	I	A	A	N	P	V	D	I	L	T	Y	S	T	W	K	F	S	G	F	P	K	E	R	V	I	G	S	G	T	S	L	D	S	A	R	F	R				
UniRef90_D4LKL1	L	Y	I	I	V	S	N	P	C	D	I	M	T	Y	A	F	A	K	L	S	G	L	P	K	E	N	Q	I	L	G	S	G	T	A	L	D	T	A	R	L	R			
UniRef90_C8NI81	I	F	L																																									



UniRef90_UPI0003F0E7A5	A	M	L	R	A	R	K	M	K	T	P	S	E	I	K	N	V	I	I	W	G	N	I	S	G	N	N	Y	V	D	L	R	K	T	V	V	H	I	A	
UniRef90_B6YQU6	Y	Y	L	R	E	A	L	K	A	N	P	S	Q	I	E	G	M	V	I	V	G	G	H	A	G	D	T	T	M	I	P	L	L	K	R	L	A	T	Y	P
UniRef90_A9NXT5	T	F	V	A	E	V	L	G	V	D	N	P	K	A	N	I	P	V	I	I	G	G	H	A	G	V	T	T	I	L	P	L	L	K	R	Q	A	T	P	S
UniRef90_E6WZW8	H	F	I	Y	E	K	I	L	R	Y	G	A	Q	I	R	A	S	V	I	V	M	G	G	H	A	G	D	D	M	V	P	L	L	P	K	F	S	T	V	A
UniRef90_P00337	Y	L	M	A	E	R	L	K	G	I	H	P	T	S	C	H	G	W	I	I	L	G	G	H	A	G	D	S	S	V	A	V	L	F	S	G	A	T	V	A
UniRef90_W9S9W9	T	F	V	A	E	K	A	K	A	P	V	A	E	N	V	P	V	V	V	I	L	G	G	H	A	G	I	T	T	I	L	P	L	L	F	S	G	A	T	P
UniRef90_UPI0002B45551	T	F	V	A	E	K	K	N	L	K	L	I	D	V	D	V	P	V	V	I	L	G	G	H	A	G	I	T	T	I	L	P	L	L	S	K	T	R	P	S
UniRef90_A6Q388	H	F	I	Y	E	K	L	G	F	G	A	Q	I	R	A	T	I	I	I	L	G	G	H	A	G	D	Y	M	V	P	L	L	P	R	Y	S	T	V	A	G
UniRef90_R7F756	Y	L	I	G	K	Y	L	K	G	V	S	K	N	I	H	A	Y	I	I	I	M	G	E	H	G	D	S	S	F	V	P	L	L	W	N	H	A	N	V	
UniRef90_UPI00042CEE72	A	A	L	A	R	K	L	K	I	T	S	F	S	C	I	K	D	V	I	I	W	G	N	I	S	G	N	N	Y	V	D	L	R	K	A	K	V	P	H	
UniRef90_Q6L0C3	T	F	L	A	R	Q	E	L	N	D	I	D	P	R	E	D	V	H	A	Y	I	I	G	E	H	G	D	S	E	V	P	L	L	F	I	R	Y	S	G	
UniRef90_A0YLW3	A	L	L	A	N	R	L	D	I	D	P	R	E	D	V	H	A	Y	I	I	I	G	E	H	G	D	S	E	V	P	L	L	W	S	K	A	N	V		
UniRef90_W5FEH1	T	F	V	A	E	V	L	G	V	D	P	R	E	N	V	P	V	V	I	L	G	G	H	A	G	V	T	T	I	L	P	L	L	S	Q	V	P	P	C	
UniRef90_I1BQ07	T	F	V	S	E	L	I	G	G	E	P	N	S	L	R	V	P	V	I	I	L	G	G	H	S	G	V	T	T	I	L	P	L	L	S	Q	V	P	G	
UniRef90_UPI00036C466C	H	F	L	A	S	E	L	G	V	A	Q	A	D	V	D	A	M	V	I	L	G	G	H	S	G	D	D	M	V	P	L	L	P	R	F	A	T	V	N	
UniRef90_R7AK09	Y	L	L	G	A	H	L	G	V	D	A	R	S	V	H	A	F	I	I	I	L	G	E	H	G	D	S	E	F	L	L	A	V	W	S	S	A	N		
UniRef90_S0JBM1	Q	A	L	A	Q	L	L	D	V	D	A	R	N	V	H	A	Y	I	I	I	L	G	E	H	G	D	S	E	F	L	L	W	S	S	A	N	V	A	G	
UniRef90_D4LKL1	C	R	L	S	Q	H	Y	G	V	D	S	E	K	N	I	H	A	Y	I	I	I	F	G	E	H	G	D	T	S	F	V	P	L	L	W	S	R	A		
UniRef90_C8N181	Q	T	I	A	E	L	V	F	G	V	D	A	R	N	V	H	G	Y	I	I	M	G	E	H	G	D	T	E	F	V										



UniRef90\_UPI0003F0E7A5 R P V L L H V I F D S E W I N K E F V I T T L K N L S A T G K Q F G G I L A A 210 220 230 240  
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UniRef90\_A9NXT5 T K Q E V E Y L T N R I Q N G G T E V V I E A K A G A G S A T L S M A Y A A V  
UniRef90\_E6WZW8 L T D L L S E E I L G D V V E R T K H G G A E I V G Y L K T G S A Y Y A P  
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UniRef90\_W9S9W9 S A E D I T A L T K R T Q D G G T E V V E A K A G A G S A T L S M A Y A A G A  
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UniRef90\_Q6L0C3 I E D L L L P R E K I D E I V K R T R F G G G E I V N L Y K T G S A F Y A P  
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UniRef90\_W5FEH1 T P D E I S Y L T N R I Q N G G T E V V E A K A G A G S A T L S M A F A A  
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UniRef90\_MOUNQ9 T D E E T E E L T K R I Q N A G T E V V E A K A G A G S A T L S M A Y A A A  
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UniRef90\_R5TX92 Q G E G G M E V I C G D E L K R I E E D V R G A A Y Q I I E A K S A T Y Y G I G  
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UniRef90\_UPI000273C4CB L K N L N Q P T D E D S E N W K V V H R Q V V E S A Y E V I I K K K G Y T S W A I G  
UniRef90\_UPI0002C631C1 L K D L N R D I G T D K D P E Q W E S V H K A S A Y K I I E A K N A T Y Y G I G  
UniRef90\_R6Z0F9 I R E L V K E S H G S I C E Q D L E K E V R T A A Y K I I E A K N A T Y Y G I G  
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UniRef90\_Q838C9 I L E I V D T T E R L T S D D L P I I S D K V K A Y E I I D R K Q A T Y Y G I G  
UniRef90\_F8T0S6 L K S L N P E D S D K E Q W K K V H K Q V V E S G Y E V L R L K G Y T S W A I G  
UniRef90\_UPI000380CC76 V D E Y Y E K E V D V L D K D E M L T Y V Q K S G G K V I A N K G A T F Y A V S  
UniRef90\_E5WIK5 I D D W I G K E E N F R K D D L N S I F L N V R D A A I I E R K K A T Y Y G I A  
UniRef90\_E0W2E5 P E D K V S A L T H R I Q E A G T E V V K A K A G T G S A T L S M A Y A G A  
UniRef90\_UPI0004222736 I V D V I M E Q I T F N D L D K I Y N M V K N A A Y E I I K R K N A T Y Y G I G  
UniRef90\_C5DNS8 L R D Y C E Q S Q Q A Y D H E L F H Q N M F E K A A Y D I I E R K K A T Y Y G I A  
UniRef90\_UPI00036AE82A V S D L L S L E K I K E A E E A T R K I A A E V I A L K G A T V F A P V  
UniRef90\_Q5WE04 L S Q Y L L R N R A Y K K A D L D D I F T N V R A Y E I I H K K G A T Y Y G I A  
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UniRef90\_Q27797 L R E F I L K K G K M A K L A E I V E R T K K A G G E I V R L L G Q G S A Y A P  
UniRef90\_P93106 T E A E K K A M T D K I A N A G T V V V E A K A G K G S A T L S M A Y A A R M  
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UniRef90\_UPI0003F5A651 P L R L G P G V A E V L P Y G E V S A F E K A A I D G M L D T L Q

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UniRef90\_R5TX92 P C I I N K N G I F R V L P L D L S E E E K R R L G E S C D T L R A S F D E L E

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UniRef90\_S9V9C4 K V A I V G C G L V G S T T A F S L V T Q G V V D E V L M I

UniRef90\_R7BEX1 K V A I V G C G L V G S T T A F S L V T Q G V V D E V L M I

UniRef90\_UPI0004645B2D D T D R A K G K A L D M S Q A A S A V R S H S I L V R A A D S Y E D V V K G

UniRef90\_F4YRL3 D A I P N K L R G E M L D L Q H A A A F L S R T K I L L A S V D Y N S V T F K N G

UniRef90\_UPI00047B2294 D I A R E E F T E A M A L D I T Q A S L S S N N K T I V K A C N D Y N K E F A K N G

UniRef90\_A8MAC1 D V I K G L P Q G E A L D L N H A A A I L G K S V R Y K G S N D Y D K D M E G

UniRef90\_UPI000478FAE2 D L N K E K A E G D A M D L N H G M P F G A P M K I S W A G T Y E D C K E G

UniRef90\_D3QEZ3 D I A T D K V N A D V Q D L N H G T A H C P S P V N I S A G T Y S D C K E D

UniRef90\_W4YS38 D I A H T P G V A A D L S H I E T R A N V T G H M G P D Q L G E A L Q G G

UniRef90\_Q7MYW9 D I A P V T P G V A A D L S H I L P T E V K K G F A G E D A T P A L E L K G G

UniRef90\_E7GPI9 D V I N K E R A I G E A M D L N H G L A F S G S N M K I Y A G R Y D A D C S D

UniRef90\_S2K6R1 D I V N A H G V A A D L S H I D T S S K V T G H V G G P L E L E A I K D G

UniRef90\_H2FUY1 D I A P V T P G V A A D L S H I L P T A V N V V G F G G E D P T P A L T G D

UniRef90\_E6LEX9 D I D T K K T E G D A I D L S H A L A F T S P K K I Y S A T Y A D A H D

UniRef90\_W7QH75 D I A P V T P G V A K D L S H I P T D V I E V T G F A G E D C P A L E G

UniRef90\_UPI000472EF91 D A F P Q A A E G N A D L S D T M S H I L P F P A T T I K A G D Y A D C K D

UniRef90\_K3ZU36 D I A N V K G I T A D L S H C N T P A E V A G F T G K D E L P S S L A G

UniRef90\_Q7TNA8 D S N E G K M K G E T M D L Q H G S V F M K M P N I V C S K D F H V T A N

UniRef90\_UPI00004A4E11 D V L M E D K L K E E T M D L Q H S S L F F R T P K I V S G K D Y N V T A N

UniRef90\_U6LL56 D V V P N M P M G K A M D V T H N G S V V D T G I T V V G S N S Y E C L T G

UniRef90\_C3PK93 D E K K L E G N V M D L N H G V V W A P S R T R V T K G T Y E D C K D

UniRef90\_UPI000474DD7C D Y K R A D G E A R D L N H G M P F G S P M R I R A G E Y E C S D

UniRef90\_D7FYH6 D I E A C V G A L Q G F A M E I Q D C N S D L V T E V V A T S D P E V A F K G

UniRef90\_UPI0003457D10 D I A E E K L A G E V M D F S H G M P F L A T D L K A G T V A D V G Q N

UniRef90\_F4XCX7 D L A N R E K A E G E A M D L S H G L P Y T A S M R I Y A G D Y D D V A D

UniRef90\_K9W249 D N N Q E K L E G E V M D L V H G L P F V E P S I V K G G T L Q D G Q D

UniRef90\_G0S4Z3 D I N R G A P G V A A D V S H V N T K S T V K G Y E P T T G L A E A L K G

UniRef90\_UPI0002F24741 D I N Q E K L I G E V M D L E Q G M S F V Q P T V I K A G T M A D S A G

UniRef90\_UPI0003667B90 D I I D G K P A G L A L D L N Q S R P I E G F E T K V V G V T T Y E A I E G

UniRef90\_I3LB44 D I A H T P G V A A D L S H I E T R A T V K G L P E G Q L P D C L K G

UniRef90\_Q6F0L9 N T K A A E G N A I D I Q D T M A V L D K P F T I K A G T Y E D C K D

UniRef90\_R6G1S4 D I N Q E K A L G E V L D L I H G S S L C K P C K I S L G T L E D T A N

UniRef90\_C5XRJ7 D A L P D K L R G E M L D L Q H A A A F L P R T R L V S D T D M S V T R G

UniRef90\_UPI00040DDAC2 D A N K E K A E G E A L D I S H G L P F S K P M Q I Y A G D Y Q D I A D

UniRef90\_D8RCK2 D I V G T P G V A A D V S H V N S R A Q V A G F A G E E N L G K C L K D

UniRef90\_Q5HL31 D I A K D K V E A D V K D L N H G A L Y S S S P V T V K A G E Y E D C K D

UniRef90\_G3NKL43 D V I M E D K L K G E M M D L Q H G S L F L K T H K I V A N K D Y S V S A N

UniRef90\_L1QCV6 D I N Q E K A L G E V L D L M H G S S L C P P C N V T L G S V D D T K D

UniRef90\_H0EN93 D V N T P G V A A D L S H I S S P A K I T G Y L P K D D G A K A F K D

UniRef90\_C7F196 D I I A E G M P Q G K A L D L A Q T C P I E G V D F K V K G T N D Y R L E N

UniRef90\_W9EFD0 D I N K E R T E G D A L D L E D A T P Y T F P K N I Y A G D Y P D C K D

UniRef90\_V8C578 D A V M E K A E G E A M D I S H G L P F A H A M D I Y A G T Y A D I A D

UniRef90\_G4ELI8 D A F E N A A K G N A I D I S D A I P N L V G P P K Y V K A G T Y E D C A D

UniRef90\_A4HAB8 D I R G G T G V A A D L F H I P S P A E V T G F A S D E L E K A V K G

UniRef90\_R7A677 D V I N K E K A Y G E A L D M Q H A I F M N R N I T I H A G D Y E E C K D

UniRef90\_G4L4A6 D S N R T E G D A I D L S D A L A F N A P K K I Y A S A S Y E D A K D

UniRef90\_W1I7S5 D I V E G V A E G K A I D I G Q S N Y Y S S C A G T I V T S K T P A E M N D

UniRef90\_W7CN35 D I N V G K K T G D A L D L S H G L A Y T S P K K I Y V A S Y D A C L Q D

UniRef90\_A8Q8R4 D I K D T P G V A A D L S H I D T R A H V T G H T S P N E L D E A L Q D

UniRef90\_S6AYD9 D I F K E K T E G D A E D L S H A L A F T S P K K I Y S A E Y A D A H D

UniRef90\_J4KJ92 D V N K L R A E G E A M D I S H G L A F S G S H M R I Y W A G D Y S C T S

UniRef90\_I2HOJ8 D L K G A T G V A A D L S H I P T N S V V N G Y T P E N D G L S T A L K D

UniRef90\_UPI0004006816 D V A P V V P G V A V D L S H I P T A V K V E G F G A D A L G A A L T G

UniRef90\_D3IL02 D Y E P G L A G V T E E M R H C G F E D V N F T Y T D V K E A L K G

UniRef90\_R5YAA3 D A N K E R A L A E A M D I S H S T P F T F G A R V V A G D Y K D L K D

UniRef90\_R2S2X0 N H E K A L G E V R D L K N S I K Y L D R N V K V T A G E Y Q D C G D

UniRef90\_R5FKP2 D I N R D K A E G E V I D L R Q A A Y F T P N I K L T S G D Y S A A E G

UniRef90\_C5KT22 D I P Q A R T P A A G V A A D V S H I N T P A Q V K G Y A G M E E I E A A L K G

UniRef90\_B3L7M3 D V M Q G V P Q G K S L D L K H F S T I V G V N K K I V G T N N V I E D I K D

UniRef90\_R7C533 D V D K D R A E G E A M D I S H G A S F A G P M K I Y A G G Y E D V G D

UniRef90\_UPI00036A1ECF D V N A A K V R A E A L D L S H G I G F V P M A H V D G S D D V E V L S D

UniRef90\_B6GBH8 D R N R A E G E A L D I A H G V S F G S P M K I Y A G D Y S D V S D

UniRef90\_G9NKV8 D V N T P G V A A D L S H I S S P A K V T G Y L P A D G A K A F K D

UniRef90\_UPI000366E4E1 D V D H N K A V G D A L D M N H G M P F I G H T E V W A G T Y E D C K G

UniRef90\_E0RDM2 D R T Y D R A L A H A L D L S H C M D F T S T R T K V R A G T Y A D C D

UniRef90\_F8DNE8 D L K K E K A T G E S L D L Q D I T P L T S P V N I R A G T Y S D A A D

UniRef90\_R6ZIB9 D A D R N K A E G E A L D I S H G L P F A R P M Q I Y A G D Y D D I V D

UniRef90\_A6Q7S3 D I A E G V A K G K A I D I A Q S S H Y A P N S T I V T A A E S P A D V N D

UniRef90\_U4TKM1 D I A K K T Q G D A I D L S N A L P F V Q P K T I Y S A E Y S D A K D

UniRef90\_I2FKD1 D I A V G T P Q G K C L D L K H F S T I L G V N R K I L G T N N I E D I K D

UniRef90\_UPI00037CAD9D D V I N K E K A L G Q A L D M N H G L P F V G G V K V W A G D Y E D C A D

UniRef90\_UPI00024904E4 D V I K D R T K G D A L D L E D A Q A T A P K Q I Y S G E Y S D C A D

UniRef90\_T0LCC4 D I V E G L P Q G E A L D L N H T A A I L G K D V K I R G S N N Y E D I K G

UniRef90\_A0A023CV60 D I N K E R T Q G D V L D L Q D L I P L S D G A N I V R A G S Y D A V I G

UniRef90\_K7K4T0 D G K R A H A E A L D I A H G S M F A H E A N I I G G S E L E T L K D

UniRef90\_U7V8P0 D I K G G P G V A A D V G H I N T K S N V T G Y E P T P E G L A A C L K G

UniRef90\_N1Q0R5 D I N E E K A L G E V M D L N H C I E Y L N R N I R I V R G N Y E Q C G D

UniRef90\_A6M329 T R E K S L S K A K G E I Y D M Y D A L A A E D I D C K I L T P T S D Y K D M A G

UniRef90\_D3E3J4 D I K A T K V T A E V L D L S H G L E F V P R A D I I G S D D V S V C A G

UniRef90\_L7KUV7 D V A Q N K A K G E V M D L N H G Q M F L E K N I K I R F G S Y N D C S D

UniRef90\_S5YW4

	90	100	110	120
UniRef90_UPI0004645B2D	S K V V V V I	T A G F P R K P	G M S R E D L L L	K N A E I M K D V I K S V A P D A
UniRef90_F4YRL3	S D L L C I V I	T A G A R Q N K P	G M S R E D L L L	Q R F N A K I M N S P L A K H P P E T A
UniRef90_UPI00047B2294	C N D I I V I V	T A G I A R K P	P N M S R E D L L L	L F T N A K I M N S P L A K D D I N P N A
UniRef90_A8MAC1	S D I V I V I V	T A G L A R K P	P G M T R E E L L A	G K N A E I I S S P L A K K Y A P N S
UniRef90_UPI000478FAE2	A D I V V I V I	T A G A N Q Q G P	G E T R L D L I V I	E K N A A I I F K K I V M A S G F D G
UniRef90_D3QEZ3	A D L V V I V I	T A G A N Q Q K P	P G E T R L Q L V I	E K N A A I I M K D I V K S V M F D G
UniRef90_W4YS38	C D V V V I V I	P A G V P R K P	G M T R D D L F N I	N A S I V R N D L C K Q A A E T C
UniRef90_Q7MYW9	A N V V L I V I	S A G V A R K P	P G M D R S D L F N I	N A G I V R N D L V E Q V A A K T C
UniRef90_E7GPI9	A D I A V I V I	C A G V A Q K P	P G E S R L N L L K R	N T E V I F K S I I D P V I T F N G
UniRef90_S2K6R1	A D I V V I V I	S A G V P R K P	P G M S R D D L F K I	N A G I V R D L A V A A A N Y A
UniRef90_H2FUY1	A D I V V I V I	S A G V A R K P	P G M D R A D L F N V	N A G I V K N D L I E K A A A A C
UniRef90_E6LEX9	A D L V V I V I	T A G A A Q K P	P G E T R L D N L K I	N A R A V I T Q I V A S G F D G
UniRef90_W7QH75	A D V V V I V I	S A G V A R K P	P G M D R A D L F N I	N A G I I K S I L A Q K V A D V C
UniRef90_UPI000472EF91	A D I V V I V I	T A G R P Q K P	P G E T R L D M V A G	N A V I M K T I A E E I G F D G
UniRef90_K3ZU36	A D V V V I V I	P A G V P R K P	P G M T R D D L F S V	N A G I V K E I A E A V A E H A
UniRef90_Q7TNA8	S E V V V I V I	T A G A R Q Q E	K D E T R Q R N V I S I	F K I M F A N I V K Y S P R C
UniRef90_UPI00004A4E11	S K L A I I V I	T A G A C Q K E	G E S R Q R N L N I	S I F K I I P N I V K Y S P N C
UniRef90_U6LL56	A D V V I V I I	T A G I T K V A	G K S D K E N L K I	M R E I V G A S I A Q Y C P S A F
UniRef90_C3PK93	A S M V V I V I	C A G A A Q K P	P G E T R D K N V K I	M N S I V A D V I M K N D F D G
UniRef90_UPI000474DD7C	A D L V V I V I	T A G A N Q K P	P G E T R L D L A S	K N A K I M K G I V E Q A G F K G
UniRef90_D7FYH6	A D V A V L V I	L G G F P R L P	P G M E R R D L I A I	M A E H G R A L A K C A K D G V
UniRef90_UPI0003457D10	A D I V I V I I	T A G V A Q R D	G E T R L S L V E R N	I S V I Y K S I V V K Y C P D C
UniRef90_F4XCX7	C A M V I V I V	T A G A N Q K P	P G E T R L D L I G	K N V A I L K S I I T S R N F K G
UniRef90_K9W249	A D I V I V I I	T A G A K Q K Q	P G E S R L D N V E I	F K T I L P E I V K Y C P K A
UniRef90_G0SAZ3	A K V V V I V I	P A G V P R K P	G M T R D D L F N I	N A S I V R D L A K A C A P D A
UniRef90_UPI0002F24741	A D V V I V I I	T A G A A Q K D	G E T R L D L V Q K N	V E I L K K I L P E L V S H S
UniRef90_UPI0003667B90	S D V V V V V I	T A G L P R K P	P G M S R M D L L E I	V R Q V A E N I A K Y A P N A
UniRef90_I3LB44	C D V V V I V I	P A G V P R K P	G M T R D D L F N I	T N A T I V A T T A A C A Q H C
UniRef90_K6F0L9	A D L I V I V I	T A G R P Q R P	P G E T R L E L I A	D N S R I I M K G I T A E A I C F N G
UniRef90_R6G1S4	S D I I I I V I	T A G L A Q K P	P G E T R L D L V N I	I F K S F I P T L A K L I S P N S
UniRef90_C5XRJ7	S D L A I I V I	T A G A R Q Q I	P G E T R L N L L H	R F R K I I V P A L A E H S P D A
UniRef90_UPI00040DDAC2	A A V I I V I V	T A G A G Q K P	P G E T R L D L V K I	I F K S I I P Q I A E E V N K D A
UniRef90_D8RCK2	A D L V I V I I	P A G V P R K P	P G M D R D D L F N	V N A G I I V Q T L C T A V A K N C
UniRef90_Q5HL31	A D L V V I V I	T A G A A Q K P	P G E T R L Q L V E	K N T K I M K S I V T S V M F D G
UniRef90_G3NKL43	S R I V V V V I	T A G V R Q Q E	G E S R L N L V Q R N	V N I F K H I V P Q I S P D C
UniRef90_L1QCV6	S D I I I I V I	T A G S P Q K P	P G E T R L D L V D	K N Y K I F Q F I P K L A S P N S
UniRef90_H0EN93	A D I I V I V I	P A G I P R K P	G M T R D D L F N I	N A G I V K G I I E V V A P K A
UniRef90_C7FI96	S D V V I V I V	T A G V P R K P	P G M S R D D L L G I	N I K V I M Q A V G E G I H N C
UniRef90_W9EFD0	A D L V V I V I	T A G T P Q K P	P G E T R L D L V N	R N L K I L A S I V V K V A S F N G
UniRef90_V8C578	A S I L I I V I	T A G A N Q K E	G E T R L D L V Q K	N A G I M R S I I G N I A F D G
UniRef90_G4ELI8	A D I V V I V I	T A G V A Q K E	G E T R L E L I G	R N A K I I Q D I A T E V K F D G
UniRef90_A4HAB8	A D L V L V V I	A A G I P R K P	P G M T R D D L F N	T N A G I I V R D L V A R A A P K A
UniRef90_R7A677	A D I V I V I I	T A S A P M K S	D S N N R L E M L K	P S I I Q I M K S I V S S V M D S G
UniRef90_G4L4A6	A D L V V I V I	T A G A P Q K S	G E T R L D N L K I	N I H D V I T Q I V V D S G F N G
UniRef90_W1I7S5	C D I V V I V I	T A G V P R K G	D M T R E D L L M I	N A K I I K S V I T Q D I M K Y S
UniRef90_W7CN35	A D L V V I V I	T A G A A Q A P	P G E T R L D L I G	K N A K I T K A I V D S V M F D G
UniRef90_A8QCR4	A D I V V I V I	P A G L P R K P	G M T R D D L F N I	N A S I V R D L S E A A A K N C
UniRef90_S6AYD9	A D L V V L V I	T A G A P Q K P	P G E T R E K N L R	I N K D V V T K I V A S G F N G
UniRef90_J4K929	A D I V V I V I	C A G V A Q A P	G E S R R D L L K R	N M E V F K S I I D E S G F N G
UniRef90_I2H0J8	A E L V V I V I	P A G V P R K P	P G M S R D D L F S I	N A G I V R D L A T A A A N N C
UniRef90_UPI0004006816	A D I V I V I I	P A G M P R K P	P	

[illegible]



UniRef90_UPI0004645B2D	Y F I I	Y E K L	G Y G A	Q Q I V	R A S V	170	180	190	200
UniRef90_F4YRL3	F L I I	A D H L	D V I G	Q D V I	Q A Y I	G G H G	D F M V	P L P K	Y S T V
UniRef90_UPI00047B2294	Y Y I I	S K K I	N F Y Y	K K I I	D A I V	G E H S	G D S S	V A L L	W S S Q
UniRef90_A8MAC1	Y Y A S	Q I L I	G I A P	E S I I	I P V V	L G Q H	G E N M	P V P E	A S F V
UniRef90_UPI000478FAE2	F L L I	G Q Y F	N V D V	S R N V	H A Y I	M G E H	G D T E	L P V W	S H A D
UniRef90_D3QEZ3	Y L I I	S R E F	D V A P	A S N I	N A S I	G E H G	D S E L	P V W S	H A N I
UniRef90_W4YS38	T F V I	S Q I K	L G D V	S A T S	V P V I	G G H A	G V T I	L P L L	S Q A T
UniRef90_Q7MYW9	T F V I	A E L K	G K K P	Q E I I	E V P V	G G H S	G V T I	L P L L	S Q I I
UniRef90_E7GPI9	Y L L I	G E Y L	K V D P	R N I I	H A Y I	M G E H	G D T E	F V P W	S Q A M
UniRef90_S2K6R1	T F L I	A E L L	E A N P	Q V N V	P V V I	G G H S	G V T I	L P L L	S Q V I
UniRef90_D2FUY1	T F V I	A E A K	G L N V	A Q D V	K V P V	G G H S	G V T I	L P L L	S Q V E
UniRef90_E6LEX9	Q A L I	A E L V	D V D A	R N V I	H A Y I	L G E H	G D S E	F P V W	S H A N
UniRef90_W7QH75	T F I I	A E A K	G K S Q	D I K V	D V I I	G G H S	G V T I	L P L L	S Q V I
UniRef90_UPI000472EF91	R L I I	A D K L	N V G A	Q S Q I	D A Y I	L A G E	H G D S	A V A W	S H A V
UniRef90_K3ZU36	A F V I	A A R K	G L P L	A S D V	D V P V	L G E H	S G A T	I L P L	S K A R
UniRef90_Q7TNA8	Y M L I	G Q R L	L G I H	S E S C	H G W V	L G E H	G D S S	V P V W	S G V N
UniRef90_UPI00004A4E11	Y L I I	G E R L	G V S P	R D V I	Q A M V	L G E H	G D S S	V P V W	S G A N
UniRef90_U6LL56	Y M L I	S E M D	D V A P	T S V I	H A Y I	G E H G	D S E L	P V V S	S A N I
UniRef90_C3PK93	Y L L I	S E Y F	Q V D S	R N V I	H A Y I	G E H G	D S E L	P V W S	H V A V
UniRef90_UPI000474DD7C	A M L I	A E N L	C V S L	P Q V R	G V Y V	W G N H	S P T M	W P D V	S G A E
UniRef90_UPI0003457D10	A L L I	A Q E M	G I D A	R S V I	H A Y I	G E H G	D S E L	V A V W	S A N V
UniRef90_F4XCX7	Y L L I	S Q E L	L G V I	D S R N	V A I I	G E H G	D S E L	V A V W	S A N I
UniRef90_K9W249	Y L L I	A E K L	T I D P	R S L I	H A Y I	G E H G	D S E L	V A V W	S K V N
UniRef90_G0SAZ3	R F V I	S E I K	G T D P	A D E K	I T V V	G G H S	G V T I	V P L F	S Q S R
UniRef90_UPI0002F24741	Y L L I	S R R L	G I D A	R S L I	H A Y I	G E H G	D S E L	V P F W	S H A N
UniRef90_UPI0003667B90	N S I I	A E T L	A V I P	V K S V	K A L I	T L G S	H G D T	M V P V	P S R Q
UniRef90_I3LB44	A F V I	A E L K	G L D P	A R V I	S V P V	G G H I	G D S S	P L I I	Q C T P
UniRef90_K6F0L9	R L V I	A E K L	N V A P	K S V I	N A Y I	M G E H	G D S S	V A A Y	S K A T
UniRef90_R6G1S4	S L L I	G K Y F	E I D G	R N V I	E G Y V	L G E H	G D S S	E F V A	W S E L
UniRef90_C5XRJ7	F L L I	A G E H	L D V N	A Q D V	N A Y I	M V G E	H G D S	S V A V	W S T V
UniRef90_UPI00040DDAC2	Y L L I	L G Q H	L S V D	S R S V	H A F I	L G E H	G D S S	E I A A	W S S A
UniRef90_D8RCK2	T F L I	A S A K	K L N T	P S E V	D L P V	I G G H	A G A T	I L P L	L F S Q
UniRef90_Q5HL31	Y L I I	S K E L	L D T S	S S V I	H A S I	L G E H	G D S S	E L A V	W S Q A
UniRef90_G3NK43	F L M I	A D K L	L G I H	P S S F	N G W I	L G E H	G D T S	V P V W	S G T N
UniRef90_L1QCV6	S L L I	S K Y F	R I D G	R N V I	E G F V	L G E H	G D S S	E F V T	W S S L
UniRef90_H0EN93	T F V I	A E I T	G K N P	Q Q K L	T I P V	I G G H	S G E T	I V P L	F S Q A
UniRef90_C7F196	T F L I	A D E L	N V S V	Q Q K L	T I P V	I G G H	S G E T	I V P L	F S Q A
UniRef90_W9EFD0	V G V I	A K K L	L G L N	P A S V	D A Y I	L G E H	G D S S	E F A N	I D E A
UniRef90_V8C578	Y L I I	S E E L	E I D S	R N V I	H A F I	L G E H	G D S S	E L A V	W S C A
UniRef90_G4ELI8	R L I I	A E K Y	D V I S	P K S V	C A Y V	V G G H	G D T S	S V S V	F S K A
UniRef90_A4HAB8	T F V I	A E A L	G R S P	Y D I I	D V P V	V G G H	S G E T	I V P L	L L S G
UniRef90_R7A677	C S L I	A S M Y	D L D S	K S V I	H T F I	L G E H	G D S S	E M V A	W S S T
UniRef90_G4L4A6	Q A L I	A G L M	D V D A	R N V I	H A Y I	L G E H	G D S S	E F P V	W S H A
UniRef90_W1I7S5	Y Q I I	Y K K L	G Y G A	G Q T G	S L V I	L G D H	G Q N M	I P L P	H Q I I
UniRef90_W7CN35									

	210	220	230	240
UniRef90_UPI0004645B2D	L L S D	L L S Q K E T I D E V V E K T K K A G A E I V G Y L K T G S A Y F A P		
UniRef90_F4YRL3	F L E R Q Q I L A Y E K E T I D E K I H K E V V E S A Y E V I S L K G Y T S W A I G			
UniRef90_UPI00047B2294	D K R V I D I L N K E D D I Q E I L E N T K N G G A K I V E L L K G Y T S A Y F A P			
UniRef90_A8MAC1	L T E F	L T Q E Q Y N D I V K K T I Q A G A D I T N L R G K F G S S N W G P A		
UniRef90_UPI000478FAE2	I L S L L D D K A K S E A D D E I F I V N R D A A A Y E I I Q A K G S A T Y Y A I A			
UniRef90_D3QEZ3	V F E A L K E K T G S E A K A E E I I V N T R D A A A Y E I I Q A K G S A T Y Y A I A			
UniRef90_W4YS38	P Q A D L E A L T V R I Q N A G T E V V E A K A G A G	S A T	L S A T	M A Y A A A G
UniRef90_Q7MYW9	D G E L A A L T K R I Q N A G T E V V E A K A G G		G S A T	L S M G
UniRef90_E7GPI9	I T E L C E E S H G S I C A Q E L E Q E V R T A A Y K I I E A K		G S A T	Y Y G I G
UniRef90_S2K6R1	S E K Q L E D L T K R I Q F A G D E V V K A K N G A G	S A T	L S A T	M A Y A G A
UniRef90_H2FUY1	D E E I E K L T Y R I Q N A G T E V V E A K A G G		G S A T	L S M G
UniRef90_E6LEX9	I Y E W V K N N P E V D E A M V N L F F G V R A Y T I I E K K		G A T	Y Y G I A
UniRef90_W7QH75	D E E I A S L T T R I Q N A G T E V V E A K A G G		G S A T	L S M G
UniRef90_UPI000472EF91	I S K Y I K D K I T Q K E L D E I R D Q A A H M A S K I I E L K		R A T	F Y G I G
UniRef90_K3ZU36	T D E E V I E L T A R V Q N A G T E V V E A K A G A G S A T	L S A T	L S A T	Y A A A R F
UniRef90_Q7TNA8	L K E L N S A I G T N K D P Q E Q W G N V H K E S A Y K I I K M K		G Y T	S W A I G
UniRef90_UPI00004A4E11	L K N L H P D D A D K E Q W K E V Y K V V D S A Y E V I K L K		G Y T	S W A I G
UniRef90_U6LL56	L M E F R G W I K E E I E I V Q K T K T A G G D I V R L L K		G G S	A Y Y A P
UniRef90_C3PK93	L S H R S E K D P G Y N E R E K I F E D N R D A A Y I I D A K		G S T	S Y G I G
UniRef90_UPI000474DD7C	L N V Y G R I E N Y Y E D R D M Q E I F E N V R D A A I I E R K		G A T	Y Y G I G
UniRef90_D7FYH6	R W D G T A P D L D S A W H D W I S E T L V R G T K V I E A R G		K S S A L S A A	
UniRef90_UPI0003457D10	I V P D G W D N L A K A D E Q D E I Y F V N K N A A Y E I I Q R K		G Y T	S Y A I G
UniRef90_F4XCX7	L A Q F G G I Q D Q A A R D K I Y H E V R D S A Y E I I Q R K		G A T	Y Y G I A
UniRef90_K9W249	L V D D N L E N N Q I D P S L Q A V F E N V K N A A E I I Q R K		G A T	C Y A I G
UniRef90_G0SAZ3	S N A E L V K R V Q F G G D E V V K A K D G A G S A T	L S A T	M A M A G A R M	
UniRef90_UPI0002F24741	L Y Y D G M P D D E R E A M D E I F Q Q T K N A A Y E I I R K		G Y T	N Y A V G
UniRef90_UPI0003667B90	L S D L L P A E K I E E L V V R T R N G G A E V V A L L K		T G S A Y Y A P	
UniRef90_I3LB44	P Q D Q L S T L T G R I Q E A G T E V V K A K A G A G S A T	L S A T	M A Y A G A	
UniRef90_Q6F0L9	I S K Y L A E G K I T E A D L E C W T R A I R A Y E I I E R K		G A T	Y Y G I G
UniRef90_R6G1S4	V K N F S E Q F N I T E W D K E T V I A T D I K N A A E V I N R K		G A T	A F S V A
UniRef90_C5XRJ7	V L K S L Q E S H S F G E E A L E R A V V D S A Y E V I G L K		G Y T	S W A I G
UniRef90_UPI00040DDAC2	I H D F C E M R G H F E H M K E I A D N V K N S A Y E I I E K K		G A T	Y Y G I A
UniRef90_D8RCK2	S T K E L D A L T K R T Q D G G T E V V K A K A G K G S A T	L S A T	M A Y A G A L F	
UniRef90_Q5HL31	V Y D T L K E E T S D A K A N E I Y I N T R D A A Y D I I Q A K		G S T	Y Y G I A
UniRef90_G3NK43	L Q P D I L G T D C D E E N W T E T H K M V V D S A Y E V I K L		K G Y T	N W A I G
UniRef90_L1QCV6	V K S F S E Q N S I S W D K E T I A E D V K N C A Y E V I K R K		G A T	A F A V A
UniRef90_H0EN93	P D N K L I A L V K R V Q F G G D E V V A A K D G A G	S A T	L S A T	M A Y A G F
UniRef90_C7FI96	L E R L V A Q E G K I T Q E R L D A I R T R S G G E I V A L L K		T G S A Y Y A P	
UniRef90_W9EFD0	L V D F A A K R G T K E D L L Q I E D E T R N K A Y Q I I N M K		G A T	F Y G V G
UniRef90_V8C578	V E K F A E L R R Q K G F S E E M K S V R D S A Y E I I K R K		G A T	Y Y G I G
UniRef90_G4ELI8	L S K F G K K M T E S Q R K M H N E V M R M A Y K I I N L K		R A T	F Y G I G
UniRef90_A4HAB8	S K E Q V E Q L T Y R I Q F G G D E V V K A K A G K G S A T	L S A T	M A Y A A S W S	
UniRef90_R7A677	L T D V M S D N A D R T K N E T K E T Q T K A A G W E I F S R K		G A T	C Y G I A
UniRef90_G4L4A6	I Y E W V K N N P E I D E E A M V N L F S V R A Y T I I E K K		G A T	F Y G I A
UniRef90_W1I7S5	A I A V L S K K D M E E I I E R T K N G G A E I V K H L G		T S G Y Y A P	
UniRef90_W7CN35	I K E W R H P E I T D A V L D E L H K V R D A A Y E I I E H K		G S T	Y Y G I A
UniRef90_A8Q8R4	S N D E V K K L T E R I Q N A G T E V V K A K A G A G S A T	L S A T	M A L A A S K F	
UniRef90_S6AYD9	L E N Y L Q D V E N F N A A E L V D L F E G V R D A A I I I N K K		G A T	F Y G I A
UniRef90_J4K929	I T D L I A E S K G K L N I E E I E D V R T A A Y K I I E A K		R A T	Y Y G I G
UniRef90_I2H0J8	T P E Q R D A L V N R I Q F G G D E V V K A K N G A G S A T	L S A T	M A Y A G S R F	
UniRef90_UPI0004006816	D E E V A A L T P R I Q N A G T E V V N A K A G G		G S A T	L S M G
UniRef90_D3ILO2	L L D G T P K L S A E K W A E I K Q K T V Q G G S N I I K L R G		R S S F Q S P A	
UniRef90_R5YA03	V E R Q I G K D L D K V K G S I D N E V R N S A Y T I I I K K G K		G S T	Y F G I A

UniRef90\_UPI0004645B2D G K S T A I M V E A I L K D S K Q I F P C A V L L E S E Y N V N G V V N G V P  
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UniRef90\_UPI000478FAE2 M G L V R L T E A I F R N E N S I L T V S T L L N G Q Y G L D D I Y I G V  
UniRef90\_D3QE23 L A L M R I S K A I L N N E N V L N V S T Q L T G Q Y G G Y R D V Y V G V  
UniRef90\_W4YS38 R F C F S L L A A I E G K E G V I E C A Y V K S D L T E G S S Y F A N P I L L G  
UniRef90\_Q7MYVW9 Q A A A R L G L S L V R G L Q E S D V V E C A Y V E G D G K Y A R F F A Q  
UniRef90\_E7GPI9 M A L T R I T K A I L G N E H S V L T V S A M L R G E Y G Q S G I F T G V  
UniRef90\_S2K6R1 R F T L N L V E S V F N G V T R I E C A Y V N L A S D P E G A G E E M E Y F S V  
UniRef90\_H2FUY1 Q A A C R F A L S L V K A M Q E A N V V E C T Y V D G G S E H A Q F F A Q  
UniRef90\_E6LEX9 V A L A R I T R A I L D N E N A V L P L S V Y L E G Q Y G L D G I Y I G T P  
UniRef90\_W7QH75 Q A A A R F G L S L I K G L Q G E D V I E C A Y V Q G S G D N A P F F A Q  
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UniRef90\_Q7TNA8 L S V A D I A E S I L K N L R K T H P V S T K I K G L Y G I K E E V F L S V  
UniRef90\_UPI00044A4E11 L S V A D L A E S I L K N F R W V H P I S T M I K G L Y G I K D V F L S V  
UniRef90\_U6LL56 G A S A I E M A E A Y L K D R K R V L V C S C L L D G Q Y G V K G H Y F L G V  
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UniRef90\_UPI000474DD7C M G L A R I T K A L I V N E N S I L T V S T L F E G E Y G L D G V Y L G I  
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UniRef90\_F4XCX7 M A V S R I A E C V M K D E H A M L P V S V L L E G Q Y G L D G L C L S V  
UniRef90\_K9W249 L G V T Q L V Q A I L R N Q N R V F T V S T M I N G I H D I E D V L S L  
UniRef90\_G0S4Z3 A S I T R A A E G E K G V I E P T F V D S P L Y K D Q G I D F S S N V E L G P  
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UniRef90\_Q6F0L9 L A L V R I V E S F L R D E K S I L T V S T L L E D Y L G V S N A Y L S V  
UniRef90\_R6G1S4 Y S V A N L V E S F L R D E K R R I H P V S T L L V L A S G F H G I P D D V F L S V  
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UniRef90\_UPI00040DDAC2 A E A C L K G L N G V N N V I E C T Y V S S V V P G L S F F S S K  
UniRef90\_Q5HL31 L A L R I S K A L L N N E N S I L T V S S Q L N G Q Y G F N D V Y L G L  
UniRef90\_G3NK43 L S V A D L T E S L I R N M N R I H P V L V C C V Q G M Y G I S N E V Y L S L  
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UniRef90\_W9EFD0 T S L M R I S R A I L R D E N T V L P V G A P L T G Q Y G L N D I Y I G T  
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UniRef90\_W1I7S5 R A I A Y M V E A I L T D A D I M V S C S V L L N G E Y G Y R D V S V G V P  
UniRef90\_W7CN35 I S L A R I T K A I L F D D E N A I L P L S V Y L D G Q Y G H K D V Y I G S T  
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UniRef90\_B3L7M3 A A I V K M I K S Y L Y N E S Q L Y T C A V Y L N G L Y N C S N L Y V G S T  
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UniRef90\_B6GBH8 M S V R R I C T A I M R D E D T V L P V S S L M V G E Y G L N D I C L S V  
UniRef90\_G9NKV8 R F A E K V L R A A K G E K G L V E P S S Y V Y L P G G E A V A K A T F F S V  
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UniRef90\_E0RDM2 N A L A Y I T R S I L N D D G K I A I S A V L D G E Y G H T D V C T G V  
UniRef90\_F8DNE8 K Y L A Y I V K A I L E N R N I M L A I S A P L M G Q Y G I N D Y L G I  
UniRef90\_R6ZIB9 M S V K R I C E A I V R D E R S I L P V S G M M H G A Y G I N G I A L S M  
UniRef90\_A6Q7S3 R A I A H M V E A L L N D S R I V V S S V L L D G E Y G Y S D V T V G V P  
UniRef90\_U4TKM1 T A L A R I T R A I L D D E S A V L P L S V Y M D G Q Y G L H D I Y I G T P  
UniRef90\_I2FKD1 A A I V K M I K S Y L F N Q N Q L F T C A V Y L K G I Y N C D N L F V G T  
UniRef90\_UPI00037CAD9D L A L D R I V T A I L Q N E S S V L N V S T L L D N Y H G I S D V Y L G L  
UniRef90\_UPI00024904E4 T A L M R I S K A I L R D E N A V L P I G A S L E G E Y G L N D I F I G T  
UniRef90\_T0LCC4 S G L S V M V N A I V N D R K T A L E A S V L L E G E Y G V N G V F A E V  
UniRef90\_A0A023CV60 V C L M K I C K A L D T D E E I L P V S A P L T G E Y E Q N N I Y L G T  
UniRef90\_K7K4T0 A D A C L H A R G D A G I E C A Y V A S Q V A E L P F F A S K  
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UniRef90\_M2WEX3 M V K A V V I G C G F V G S A S A F A L M Q S G L F S E M V L I

UniRef90\_M2UXR7 K V A V L G A G G I G Q P L S L L L K A S P L V D E L A L Y

UniRef90\_Q6CIK3 K C A M V G C G F V G S A S V Y A L M Q S G L F S E I V L I

UniRef90\_A1Z9F8 M K K V L I V G A G A V G T S F A Y S L I H K G L I E E I V L Y

UniRef90\_UPI000365DBA5 K L A V V G A G A V G T S L A Y A A A L I R G S A D V I A L Y D I

UniRef90\_S0K124 M N K I T V I G A G S V G S T V A Y T L A V T G I A S E I V M I

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UniRef90\_UPI0003ACA4A9 K V V L I G A G D V G I A Y A L V N Q G L C D H L A

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UniRef90\_S8AW17 M K V A V L G A G G I G Q A L A L L L K L Q L P A G S T P N I C L Y

UniRef90\_UPI0003B34D57 K L T L I G A G M I G S N M A Q T A A M M R L T P N I C L Y

UniRef90\_B8DZQ2 K V A L L G A G G I G Q S L A L L L K L N L P A Q T E L A L Y

UniRef90\_UPI00047BB26A K L T V I G A G A V G S S V A Y M A C S M S I L L K N L A T D L T L I

UniRef90\_R7EPM5 P Q N K I T I V I G V G S V G M A C A V S I A S L I R G S A R H V A L Y D I

UniRef90\_C0W0F5 K V C V C G S G G I G Q P L S L L M K M G L T D E L A L V

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UniRef90\_D4INH6 K V A V L G A G G I G Q P L S L L L K I D P L V T S L S L Y

UniRef90\_Q65T37 K V V I I G A G G I G Q P L S L L L K Q N P H I T E L A L F

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

	90	100	110	120																																								
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UniRef90_V9H7P3	A	D	I	V	C	I	C	A	G	V	P	Q	K	V	G	E	T	R	I	D	L																							



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UniRef90_U1GPN5	Q	G	V	I	V	A	N	P	V	D	I	L	T	Y	T	A	V	L	K	S	G	L	P	E	N	R	V	I	F	G	S	G	T	V	L	D	T	A	R	L	K			
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UniRef90_K3WT76	M	L	L	I	I	A	N	P	V	N	S	T	V	P	I	T	V	A	E	T	F	K	K	H	D	P	K	R	L	F	G	V	T	T	L	D	V	V	R	A	N			
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UniRef90_C5KR72	S K L V I T	A G V P R K K	A G M T R E D L	L F S V N A G I A A G L A K N C A P D A
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UniRef90_H3B830	L	F	L	V	V	S	N	P	V	D	I	L	T	Y	V	A	W	K	L	S	G	F	P	S	H	R	V	I	G	S	G	T	N	L	D	S	A	R	F	R												
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UniRef90_A1HSK3	S	E	L	A	V	A	F	D	A	D	A	R	D	A	V	E	N	C	R	T	Y	G	G	H	G	E	Q	M	V	F	A	S	T	A	K	V	R	G	V	P	
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UniRef90_J5HW8	S	F	V	S	E	L	K	K	T	D	V	N	K	V	T	I	P	V	I	G	G	H	S	G	V	T	I	I	M	P	W	F	S	H	A	T	P	K	V	D	F
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D L R D E N E E E L Q R L R E E T Q S L A L S M L R R V T V H T D P Q Q A F R E  
D L R L A P A G L A A G L A L D M W H G A G L Y G F S T R L E G S S D D L V A L L A G  
D V V P G L A A G L A L D M W H G A G L Y G F S T R L E G S S D D L V A L L A G  
D V V P G L A A G L A L D M W H G A G L Y G F S T R L E G S S D D L V A L L A G  
D I N E K K V K A E A L D I A H G I Q F T P V I G S V I G S S G K D Y S V T A N  
D V A E D K L K G E T M D L Q H G S L F F H T S K I I S S G K D Y S V T A N  
D V M E D K L K G E M M D L Q P G S L F L K T P K I V S S A K D Y S V T A N  
D V V N V P G D L S H I S T D A K T D S F L P S S K E D K T A L I G N A L K G  
D I K P E K R D G Q V R D L S D A C Y A E D S S T R V R A G T Y K E A G E  
D I A N T P G R V A A D V S H I N S R A Q V A G Y A G E Q L V E A L D G  
D L N A Q A A A S Q A L D L N Q A A S A Q P F G T V V T S G G Y D A C G D  
D I N H D K T D G E A K D I R H G L P S M G T A D L Y A G D Y S D C V D  
D S N P D L A E A H R M D L H A T P F A H P V R L R A G R L P E L A G  
D V H Q A R I P V P G I A A D N S H I N T P A K V R G Y V D A E H L P E A V T G  
D V L E D K L K G E M M D L Q H G S L F L Q T P K I V A D K D Y S V T A N  
D L T A T K G F G Q D L S H I D R A C Q V K S F F G E D Q M K A L I K G  
D I N K D R A E G E V M D I F H G T S L V A P V E I K A G E V S D T K D  
D V N R A K V D A E V L D L N H G L Q F V P M A T L E G S D D I G V C A G  
D P K D K V A W G E G L D Q M H A A G L L S R K N I A V H I G D Y T D L A D  
D V A E D K L K G E M M D L Q H G S L F F A T S K I V G G K D C R V S A N  
D M R S L N A F A R A Q A E D I S H A V P F A H P C R V L A G E Y G A L E G  
D V N E D A I N G V V A D L S H I D T P V S I S N H S P K T G I E D C L K N  
D I V N T P G V A A D L S H I A T P A K V E G Y L E P D D G L K K A L T G  
D I A P V T P G V A V D L S H I P T A V S I K G F S G E D A T P A A L Q G  
D K N A K K A Q S E A F D L D M M A Y T H P V S I T T Q D Y A A L D D  
D I N R K K V E A E A L D I G H G I E F M P Q G T I E G S D D L E I C R G  
D A E A D R V R G K M L D L Q H A A T F L P R V R I V A G T D V L A L T R S  
D A A R A E G E A M D L M H G Q L L V G R T T V R A G D Y A D L A E  
D L D Q K R L K G E V M D L E H G L A F V Q P V E I R A G D Y S D C A D  
D R D R I E G E A L D H E H T F Q G L S G T H H T R I K V I G T Y E M L A D  
D I E K E K A A A Q A M D I D D S L R G S I C G H S T V I R S G T Y T D V I E D  
D I P D M E D K T V G Q A A D A N H G I A Y D S N T V V R Q G E Y A D T A G  
D C V K E K A V A Q A M D I D D C L S G A L C G Y S V S I A A G T Y Q D I E G  
D K N E K K C A A E W G D L R D T L P R N D H Y V K V N W S T W D D W S G L K D  
D K D K A V G Q A F D L D D A V T L G A A C G R D T V I R A G G Y E E L Y N  
D I D T N E S V A V G E A L D S L Q A T G A P H M A A I D V H S G G I E D Y K N  
D P Y A P G L E G V A E E L Y Q C G F E G L N L I T Y T N D I K E A L T G  
D V V A D K L K G E M M D L Q H G A L F L K N A K I V A D T D Y A V T A G  
D I A H T P G V A A D L S H I E T R A N V K G Y L G P E Q L P D C L K G  
D I D T N R A L G E A I D M S H A A H Y A Q A R V R V G D S Y D D C A G  
D H D A N K A S A E A E D I Q V G F F L G C P L V T G T S E I S T V K E S  
D K K P E K V A S E A L D F S D A A S L L D K H I D V H V I G D Y P D L A D  
D T F E K Y A E A Q A K D L N D A A S S M P N C G S T F K A G K Y E D L N D  
D R D H G K S L A E M A L D F A H T T A F T Y A K N P S L I A G D F A D S A D  
D V N E E L A K A E A E D I S H G A A F L G N P K I I G T K D Y S L A R D  
D L D D A R A A A E A D D L F H A V P F S H P L T L R A G N Y S D L A D  
D I A N V K G V A A D L S H C N S P A Q V L D F T G Q S E L A K C L K G  
D A L P D K L R G E A L D L Q H A A A F L P R V R I A S G T D A A V T K N  
D V V G A P G V A A D L S H I D S G V T V K Y A A G K I G V K R D A E L A K G  
D K N E K K V K A D A L D F E D A M A N L P Y H T N I F V N D Y S Q L D D  
D I D T A K V R A E V L D L N H G S Q F V P H C R I S G S D D I G V T A R S  
D Q N L E R A E G E V F D F R H T A A L T F K N T H I I P T K D Y L D L L A  
D P K K E V R D A Q I Q D L S D A T F H G N T S T R I R A G T H K D D A G Q  
D T D E E K A K S Q V L D L D D M G A C I P A K V V I R S G N Y D D L C D  
D V D K K V R D G Q A L D N H Q A T A V A P A M T T T T A A N Y D A C R S  
D K D E K I V T A Q Y K D L K D G Q V G L N S H L E I I K P S L Q E L K D  
D K N E K K V A A D A L D F Q D A A N L N Q H A N I Y T N D Y Q K L S D  
D V V P E L P E K F E H E R H A L A A L R V K T E L L S T N N I D D I S G  
E Y Q Q A V D A L K G L E D C A F I G S H A I G Q F S N L P D A L D S  
D Q A E E K V A S E A M E R D M L S A V Q R H T K I V A G G T D Y T L L A D  
D E V K N K N K L F E L R E V L E E A A L P K L S R V H I S D D V D E C L T H  
D T N E L K L N S D A T D F E D A A A N L P T H T T V V R N D Y E A L A D  
D I N Q D R V E G N R K D L A D A A A F M P G K M D I S V R D A S D C S D  
D V H E D K L K G E T M D L Q H G S P F V K I P R D L T H G R F F V G G W P A I T G G A D I T S I A D  
D V D A Q R V D A E I L L D L T H G R F F V G G W P A I T G G A D I T S I A D  
N K E L A Y G H A Q D L L D A A A Y R Q N M V K V S L R E S T D C A D  
D Q N T A K A Q A E M W D F A H T T S F I Y A K N P R L V A G G Y A D T V G  
D E X K L K G E T M D L Q H G S P F X K M P N I V C S K D Y X V T A N  
D V N M K V L N G V H A D L S H V N T N M K L S L H D N L R D S L V D  
D T N L N R A E G E A M D H R H F Q S Y S G T H T K I K A G N Y T D L A D  
L Y D I N K E V I D G L Y A D L S H I D T L S A H A A N D G K G G H A A L V D  
A I N R T R A K A E G D I E D L H H V T A L C G A Y G S T P R V I G D Y P D L A G  
D V D E G K X G E T V G L Q H G S P F M K M P N F V S S D X Y Y L V T A N  
D V K E Q K V I S E C Q D L R D S V S Y L P H R V I E V R G G T Y E D L K D  
D T N S A K V R A E V L D L N H G T Q F A P S C R I E G S D D I A V T A G  
D I I G A C G V G L E L S H V D T K C K V R A Y T G K E Q K D S L K N  
D I D K K K A F S Q A L D I F D S I V Y L P H R I V K D G D Y S D I D D  
D K N T A K S K A E A F D M L D A A S L L N S H T Q I T V I G D Y P D L S D  
D V M E D K L R G E A M D L Q H G S L F L K T A K I V A D T D Y A V T A G  
S G G I G Q P C T G Y P Q E D L E K A L E G

		90	100	110	120
UniRef90_B1I4V7	A	L	V	I	F
UniRef90_D8M622	A	D	V	V	L
UniRef90_H2LKU0	A	D	V	V	L
UniRef90_C5DI45	A	N	V	V	I
UniRef90_A2SNY0	A	E	Y	I	V
UniRef90_W7XD05	A	D	Y	I	V
UniRef90_K0YW34	A	D	V	V	V
UniRef90_UPI0003345024	S	K	L	V	I
UniRef90_F1M2L5	S	K	L	V	I
UniRef90_G8Y022	S	N	L	V	V
UniRef90_W4Y8A3	S	R	L	C	I
UniRef90_W9X6U1	C	D	I	V	V
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UniRef90_UPI00031C12DD	C	G	L	V	V
UniRef90_C5KJN9	S	N	V	I	V
UniRef90_L8IQ43	S	K	I	I	V
UniRef90_B5DLR9	A	D	I	V	M
UniRef90_U4KRV9	S	D	I	V	V
UniRef90_E3FMZ7	A	D	V	V	V
UniRef90_G4L486	A	D	I	V	V
UniRef90_V7HY64	A	D	L	V	V
UniRef90_UPI00046B7D32	S	K	L	I	V
UniRef90_I1B2W8	A	D	M	V	I
UniRef90_C8PNA7	S	D	I	V	V
UniRef90_G0VD84	C	S	L	V	V
UniRef90_P13490					
UniRef90_V2X433	A	E	V	V	I
UniRef90_Q8GQV2	A	N	V	V	L
UniRef90_W7D2P4	A	D	V	V	L
UniRef90_C5BWL8	A	D	V	V	V
UniRef90_T1MGB9	S	D	L	A	L
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UniRef90_X1MS01	A	N	L	I	V
UniRef90_E8SFF7	V	D	L	I	I
UniRef90_S6ETZ9	S	D	A	V	V
UniRef90_D3LTV8	A	Q	I	L	V
UniRef90_U1QNQ2	S	E	V	V	I
UniRef90_F9MQQ1	A	D	I	L	I
UniRef90_K0NJB2	V	D	V	I	I
UniRef90_E2Z9E0	A	D	I	L	V
UniRef90_D7GDR8	A	D	V	V	I
UniRef90_R5ALG2	A	K	Y	I	V
UniRef90_N6TP62	S	K	L	C	I
UniRef90_G3HA23	C	D	I	V	V
UniRef90_B2AAW4	A	T	A	V	I
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UniRef90_I7JC30	A	D	V	V	I
UniRef90_W6ED65	C	D	L	V	V
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UniRef90_UPI0000DB7268	A	T	V	C	I
UniRef90_UPI000258EE37	S	K	V	V	I
UniRef90_M5TVN7	S	H	V	V	I
UniRef90_M0T107	V	D	V	V	V
UniRef90_MOXT98	S	D	L	V	I
UniRef90_S9VMZ6	V	D	V	F	V
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UniRef90_D8SE66					
UniRef90_Q7MFP4	A	D	I	V	V
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UniRef90_R7BWx8	A	D	I	L	V
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UniRef90_G5KFB1	A	D	V	V	I
UniRef90_P11386	A	D	I	V	V
UniRef90_U6IBT1	A	S	L	I	V
UniRef90_W7C2B7	A	D	L	I	V
UniRef90_G4M189	A	K	Q	V	I
UniRef90_H3RRT9	A	D	V	V	V
UniRef90_K1YXH0					
UniRef90_H7F6C3	V	D	I	A	V
UniRef90_UPI0003443D33					
UniRef90_UPI0004758974	S	D	I	I	V
UniRef90_X2HA70	I	D	I	V	I
UniRef90_J6UAY0	S	D	V	V	V
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UniRef90_H2AS14	S	D	I	V	V
UniRef90_UPI000372F2A7	S	D	V	V	V
UniRef90_UPI0002C55AC9	S	N	I	V	I
UniRef90_R6QWX2	C	D	I	V	V
UniRef90_V9XBZ0	S	D	L	I	V
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UniRef90_E0VBN9	T	R	V	V	V
UniRef90_R5LM69	A	D	I	I	V
UniRef90_F9V738	A	E	V	I	V
UniRef90_S4RBZ2	S	K	L	C	I
UniRef90_M5E482	A	E	V	I	L

	130													140													150													160												
UniRef90_B114V7	V	L	L	M	V	T	N	P	V	D	V	L	T	Y	A	A	L	R	F	S	G	L	P	E	N	A	V	I	L	G	S	G	T	V	L	D	S	A	R	F	R											
UniRef90_D8M622	C	A	L	V	L	T	N	S	P	V	N	S	T	V	P	I	F	S	E	V	Y	K	K	M	D	S	P	R	K	V	L	G	V	T	I	L	D	S	A	R	F	R										
UniRef90_H2LKU0	K	V	I	V	S	G	N	P	V	N	S	L	R	C	S	I	L	V	E	G	A	H	K	S	I	K	P	H	Q	K	V	L	V	A	T	Q	L	E	N	E	A	R										
UniRef90_C5DI45	R	I	L	V	I	S	N	P	V	N	S	T	V	P	V	A	C	E	T	L	K	N	L	K	P	G	K	V	M	G	V	T	T	L	D	V	V	R	A	H												
UniRef90_A2SNY0	T	L	V	I	V	S	N	P	L	E	E	M	T	H	L	A	A	Q	Y	T	G	F	A	P	E	R	R	V	I	G	M	A	G	V	L	D	T	S	A	R	F	C										
UniRef90_W7XD05	T	V	V	V	V	T	N	P	L	E	E	M	T	H	L	A	A	R	Y	T	G	F	A	P	E	R	R	V	I	G	M	A	G	V	L	D	T	S	A	R	F	C										
UniRef90_K0YW34	V	Y	M	L	V	T	N	P	V	D	V	V	T	Y	A	S	L	K	I	S	G	L	P	E	R	N	Q	M	F	G	S	G	T	V	L	D	T	S	R	L	R											
UniRef90_UPI0003345024	K	I	L	V	V	S	N	P	V	D	I	L	I	Y	V	A	W	K	N	S	S	F	K	P	N	K	K	V	I	G	S	G	C	N	L	D	S	A	R	F	C											
UniRef90_F1M2L5	K	L	L	V	V	S	N	P	V	D	I	L	I	Y	V	A	W	K	N	S	S	F	K	P	N	K	K	V	I	G	S	G	C	N	L	D	S	A	R	F	C											
UniRef90_G8Y022	F	V	L	V	I	S	N	P	V	N	S	T	V	P	I	V	A	E	T	L	S	G	L	P	N	K	K	V	I	G	S	G	C	N	L	D	S	A	R	F	C											
UniRef90_W4Y8A3	V	L	L	V	V	S	N	P	V	N	S	T	V	P	I	V	A	E	T	L	S	G	L	P	N	K	K	V	I	G	S	G	C	N	L	D	S	A	R	F	C											
UniRef90_W9X6U1	I	M	I	V	V	S	H	P	V	D	I	L	T	T	L	A	Q	K	L	S	G	L	P	S	N	R	Q	V	I	G	S	G	T	F	L	D	T	V	R	L	R											
UniRef90_B9IJ80	P	N	N	M	I	S	N	P	V	N	S	T	V	P	I	A	A	K	N	A	G	T	F	D	R	E	R	V	I	G	S	G	T	F	L	D	V	V	R	A	K											
UniRef90_K7RNP5	I	F	V	V	I	T	N	P	V	D	V	V	T	D	R	V	A	R	L	S	G	F	P	R	E	R	V	I	G	T	G	T	A	L	D	S	L	R	I	R												
UniRef90_UPI00047965D7	T	I	L	V	I	S	N	P	V	D	I	L	T	Y	K	V	T	E	W	M	E	L	P	D	G	M	V	F	G	S	G	C	I	L	D	S	S	R	F	V												
UniRef90_UPI000031C12DD	T	I	L	V	A	S	N	P	L	D	I	L	I	M	T	H	L	A	T	A	L	S	G	L	P	S	R	V	I	G	S	G	T	M	L	D	T	A	R	F	R											
UniRef90_C5KJN9	M	M	C	I	V	S	N	P	E	T	S	L	V	P	L	I	Y	K	A	G	V	Y	D	P	R	K	K	V	I	G	S	G	C	N	L	D	S	A	R	F	R											
UniRef90_L8IQ43	I	I	I	V	V	S	N	P	V	D	I	L	T	Y	V	T	W	K	L	S	G	L	P	K	H	R	V	I	G</																							

UniRef90_B114V7	Y	L	L	S	R	H	C	R	V	D	G	R	N	V	H	A	Y	V	L	G	E	H	G	D	S	E	V	F	L	W	S	R	A	L	A	G	I	H			
UniRef90_D8M622	T	F	I	G	R	E	L	H	T	K	R	E	K	V	E	D	E	I	V	V	W	G	N	I	S	G	L	I	P	L	F	S	Q	R	A	P	N	A	M	T	P
UniRef90_H2LKUU	A	V	V	A	G	E	K	L	G	A	D	P	T	E	V	I	V	W	G	N	I	S	G	L	I	P	L	F	S	Q	R	A	K	V	N	A	F	F	P		
UniRef90_C5DI45	T	F	L	A	S	D	A	L	G	A	D	H	A	M	K	S	H	V	T	V	I	G	G	H	S	G	T	T	I	V	P	I	V	T	N	A	K	V	R	S	K
UniRef90_A2SNY0	A	L	V	G	A	L	T	G	K	A	R	P	Q	E	V	R	A	V	A	L	G	S	H	G	P	E	M	V	I	P	L	S	Q	A	F	V	G	D	R	P	
UniRef90_W7XD05	S	L	V	A	L	T	R	Q	A	K	P	Q	E	V	R	A	L	V	A	L	G	S	H	G	P	E	M	V	I	P	L	S	Q	A	F	V	G	D	R	P	
UniRef90_K0YW34	Y	L	V	S	Q	E	T	G	V	A	V	Q	N	I	H	A	Y	I	A	G	E	H	G	D	S	E	I	P	L	W	S	S	A	E	I	G	N	V	P		
UniRef90_UPI0003345024	Y	L	I	G	E	K	L	G	V	H	P	T	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	P	L	W	S	G	V	N	V	A	G	V	P		
UniRef90_F1M2L5	Y	E	R	L	G	V	H	P	T	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	P	L	W	S	G	V	N	V	A	G	V	P					
UniRef90_G8Y022	T	F	L	A	Q	L	F	E	A	K	P	T	D	F	N	V	R	V	I	G	E	H	S	G	E	T	I	V	P	L	Y	S	S	K	F	Y	E	K	L		
UniRef90_W4Y8A3	F	L	L	G	E	K	L	G	I	A	P	S	V	N	G	Y	V	I	L	G	E	H	G	D	S	S	V	A	V	W	S	T	T	V	A	G	V	S	L		
UniRef90_W9X6U1	R	M	L	A	D	R	F	E	V	A	T	P	S	V	S	A	Y	V	L	G	E	H	G	D	S	Q	F	V	A	W	S	L	A	S	V	D	G	V	P		
UniRef90_B9IJ80	T	F	Y	A	G	K	V	K	V	P	V	A	E	V	N	V	V	V	G	E	H	A	G	I	T	I	L	P	I	F	C	H									
UniRef90_K7RNP5	Q	L	L	S	Q	I	F	S	V	D	E	Q	S	I	Q	A	Y	A	M	G	E	H	G	D	T	Q	M	V	P	W	S	A	V	T	F	W	G	K	P		
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UniRef90_C5KJN9	T	F	Y	A	E	A	T	R	G	L	D	V	E	K	H	V	P	V	V	G	E	H	G	G	C	A	I	L	A	L	F	S	H	A	T	P	F	V	K	L	
UniRef90_L8IQ43	Y	L	M	A	E	K	L	G	I	H	P	S	S	C	H	G	W	I	L	G	E	H	G	D	S																
UniRef90_B5DLR9	K	F	I	G	D	H	M	S	I	P	D	S	G	K	V	R	I	P	V	I	G	E	H	A	G	T	T	I	V	P	I	F	S	Q	R	A	N</				



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

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

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

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

S R V A V D L A E A I F Y D E N R I L P I S T V H Q N V Y D Y T N V A F S L  
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N V N M I T A V F H D K L L W P C S V A L N G E Y G E K D V A A G V  
T G V A H T V E A I L E D T G E V L P C S V A V D G E F G H S D T A F G V  
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T C G V R L A N A V F S D A K M Y G P T S C F V E S V G T Y I G H  
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UniRef90\_G5JN47 A D V I V I A A S T T D T S I P D R K A N T V I I K E I T T R I G E V T T D A  
UniRef90\_B9E9Q1 S N L I I I A A G V P R K P G M T R D D L F N I N A G I I K N I A Q N S G N S S  
UniRef90\_G8C2B5 S K I V I E N A G V C Q Q E E S R L N L G Q R N V N V V K F I I T K Y S P N C  
UniRef90\_UPI0001DEAD01 A A L V V I A A G S N Q K P G E S R L N L L A R N A A S I V P Q V V A V A P D A  
UniRef90\_G9ZFT1 A G V V I L A A G V P Q K P G E S R L S L S R N A E V F A D V I A Q A A P E A  
UniRef90\_F1ZAR8 A D V V I S A L G H I D E P G G D R F T E L R A N T P E V Q Q V G Q A A R F N G  
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UniRef90\_D6S2Q1 V V L T I V S N L G N G D S Y L D V V Q S N V E L F R N I I P S V A H Y S Q N S  
UniRef90\_G1K890 A V V V I A V C E T K P G E E L N V K H N V E V F K K I I P I I A K V A Y K A  
UniRef90\_A0A026W785 C D V V V I P A R V P R K P G V V T R D N L F N T T A S I V A T L T A A G T G Y C  
UniRef90\_J9PAR1 C D V I V N I G D I K L C A S G N R D D E M H F T V P Q V A Y I P K V M A G Q F  
UniRef90\_G0VPY7 S D I I I I T N G Y N K P V I E E N E G S L R E N A K I T Y K Y G I K I A S I C P  
UniRef90\_E0VE20 C D V V V I A A G V K R R R A E T R V Q Q L E R T T A I L R H I I D G M K P F T  
UniRef90\_W9WGR8 S D I V V I S A G R P R R P G M S R R D L F A D N A K I I I N K E L P K R N  
UniRef90\_F4B5A8 A D V V V I A D D A K H D R F V E L K V T S K A A K E V G T K L R E V G F D G  
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UniRef90\_UPI00035D2DF5 A E V V V I A V I G P K T L L R E D R L E E L A E T R A A V S E V T P F N G  
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UniRef90\_UPI000443286D A D I C L F A A G S P R N P I K T R A D L L S A N L P V D A I R T L S R F D G  
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UniRef90\_G3I256 C R V V V V A A G A N Q Q P G E S R L D L L A I F R E V I P R V A E Q A P Q A  
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UniRef90\_S9V3Q2  
UniRef90\_F6SUB1  
UniRef90\_M5JCT4  
UniRef90\_A0A016QTU6  
UniRef90\_B2ADW1  
UniRef90\_G6EQ03

	130	140	150	160
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UniRef90_UPI00029D5873	I I I I S N G K V D I M T Y L A T Q I S G F P A S R I M G V G T L V D S A R F R			
UniRef90_C8PGF0	P I I V V T N P L D M M V Y A A L K A S G F A K E R V I F G M A G E L D S A R L K			
UniRef90_UPI0002627462	I I I L I T N P L D T M V Y A A L K A S G F A K E R V I F G M A G E L D S A R L K			
UniRef90_T0TSB7	P V Y L S I S N P C D V V S T E I Q Y L T G Q D P K K V I G S G T T L D S A R F R			
UniRef90_S2ZPW9	P V Y L S I S N P C D V V S T E I Q Y L T G Q D P K K V I G S G T T L D S A R F R			
UniRef90_A4YDY0	P V Y L S I S N P C D V V S T E I Q Y L T G Q D P K K V I G S G T T L D S A R F R			
UniRef90_UPI0004797F05	P V Y L S I S N P C D V V S T E I Q Y L T G Q D P K K V I G S G T T L D S A R F R			
UniRef90_O61084	C F C I V T N P V N S M V P I A Q Q T L R K I G V Y N K N G V S L L D G L R A T			
UniRef90_N9SRF7	I T I I A S N P V D I M A C V Y A Q Q T L R K I G V Y N K N G V S L L D G L R A T			
UniRef90_B9VZ24	T L I V I S N P V D V L T Y L A Q Q T L R K I G V Y N K N G V S L L D G L R A T			
UniRef90_P50933	V L L V T S N P V D L L T S L A Q Q T L R K I G V Y N K N G V S L L D G L R A T			
UniRef90_V7HTS6	K L I V I T S N P V D V L T Y L A Q Q T L R K I G V Y N K N G V S L L D G L R A T			
UniRef90_E0NH10	F D G I I T N P V D V I T S L Y Q E V T G L P K E H V I G T G T L L D S A R M Q			
UniRef90_B9DK48	V A I L I S N P V D A M T L A Q E A G Y P A H K H V I G T G T L L D S A R M Q			
UniRef90_C59RJ2	G I V V I T S N P V D V I T T M Y Q H Y T G F P K E R V I G T G T L L D T A R M H			
UniRef90_GSRU04	S G I V V S N P C D V I A Q Y F A R I T G L N A N K V V I G T G T A L D S A R L R M			
UniRef90_H21JC6	I L I V V T N P C D I V T F I V I A N T G F E A N K V V I G T G T A L D S A R L R M			
UniRef90_UPI0004440146	I I I V I T N P L D T I L Y I A E N E F D Y P E K K I F G T G T M L D S A R L R			
UniRef90_UPI0004002BD6	D N G F H G N P C D V I T S M Y Q K L T G L P K E H V I G T G T L L D S A R M R			
UniRef90_E2GA86	R V I I G S P S N Y N A T V L A S F A T K L H V R N I V A V T Q D L G R E T L			
UniRef90_E0VKC2	T Y V I A T N P C D I I T Y L F Y K L S G L P K N H V I G T G T A L D S M R L R			
UniRef90_V61UT4	I T A I V S N P C D I L T H G A W V I S G L P K E R V I A T G T H L D T A R F R			
UniRef90_A0A034WEH0	P T A I I S N P V N S T V P I A V A V E V L G V F D A R R V I F G V T T L D V V R A A			
UniRef90_H8GGI2	I L I I T N P V D V L T Y L A T Q I S G F P A S S I I G I G T L V D S A R F R			
UniRef90_B2LZ61	V L L V A S N P V D V L T H L A A S I A G E P S S R V V I G T G T L L D T A R F R			
UniRef90_R9VBB7	F N G I I T N P C D V I T Q Y L Q E L T G F P R E R V F G T G T S L D T G R M K			
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UniRef90_V5F9J0	I L L I V A N P V D L L T S L A L Q I S Q L P P S Q V I G T G T F L D S V R L R			
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UniRef90_UPI0003AEDEF1	M P N I V S S K V D I L T Y V A W K L S E F P Q N R I I I G S G C N L D T A R F R			
UniRef90_V6YYA8	Q S G V I S N P V D A V S A L Y A Q A L T G F P K N R V I G T G T L L D T A R M K			
UniRef90_G0UA51	C F C I V T N P V N S T V P I A Q A L K K L D K N K L L G V T L L D G L R A T			
UniRef90_UPI00021A7D19	M V A V V M N P I N P L A M E M Y K K A G I Y E Y N R L F G V I N Y N C L R A N			
UniRef90_W7BAR5	F N G I I T N P C D V I T Q I A K E S G L P K R Q V F G T G T S L D T M R M R			
UniRef90_G5JN47	L I V V I S N P C D A I T T V L Q R E L D Y P K N R I M G T G T L L D T S R M L K			
UniRef90_B9E9Q1	L L V I S S N P V D A M T Y I A S K Y Y P E S K V I G T G T L L E T S R F K			
UniRef90_G8C2B5	F I L I I S N P L N S L L P V L Q N S L N E N W I G K C F G I T E L D L V R A S			
UniRef90_UPI0001DEAD01	I I I I V P S A D I L T Y V T W K L T G L S E H H V M G S E C N L D S A R F R			
UniRef90_G9ZFT1	V V L I V S N P V D I M T S V T R A L H P T P E L V M G S G T I L D S A R F R			
UniRef90_F1ZAR8	L L V I A S N P V D I M T G V A Q R C S G L E A G R V I F G T G T Y L D T A R F R			
UniRef90_B1MWB3	V L I V I S N P V D V I T G I Y Q Q T V T G L P A N Q V I F G T G T Y L D T A R L K			
UniRef90_D6S2Q1	I I I N I A N P C D V I T T V L Q K T T D L P K Q K V F G I I G T M L D S V R L R			
UniRef90_K1G890	V F L V A S Q P V I E I M T Y I S W K M S G F P Q Y R V I G I G C N L D S S R F Q			
UniRef90_UPI00026W785	V L L V V T Q P I D V M S Y I T W K L S K F P S S R V L G T G T L L D S S R F Q			
UniRef90_J9PAR1	P L C V I S N P V N S T I P I A L E V F K K L H T Y D K I F G V T T L D I V R A N			
UniRef90_G0VPY7	K G I I T N P C D V I T D L I A K K S G L P K G H V F G T G T L L D S S R L V			
UniRef90_E0VE20	E V C I I T P P I N I M V P L F M R F C C A Y D P N K I F G V C S L M E M A R N			
UniRef90_W9WGR8	I L L I V S N P V D V L T T L A L K L T S L P S S Q V L G L G T Y L D T V R L R			
UniRef90_F4B5A8	P Y V M V T N P C D M M A S V F A K Y S K E Y V I S T G T Q V E S M R L R			
UniRef90_B2GB94	V L V S I S N P C D V V A A L E Q H Y T G L P R D Q V I G T G T L L D T S R M K			
UniRef90_N1ZJ81	V I I N I S N P C D			



	170	180	190	200																																					
UniRef90_UPI000363135A	R	L	A	D	H	Y	N	V	D	A	K	D	V	L	Q	G	Y	M	L	G	E	H	G	N	S	A	F	P	A	W	S	M	V	N	L	G	G	I	P		
UniRef90_UPI00045E91E6	S	L	L	S	L	E	Q	E	Q	I	H	P	S	D	D	L	R	A	Y	I	L	G	E	H	G	D	S	N	Q	F	P	L	F	S	A	S	A	G	S	E	H
UniRef90_UPI00029D5873	Y	L	I	G	K	E	K	L	G	I	H	P	S	D	D	L	R	A	Y	I	L	G	E	H	G	D	S	N	Q	F	P	L	F	S	A	S	A	G	S	E	H
UniRef90_C8PGF0	F	E	L	A	R	E	S	N	G	K	E	I	S	S	M	R	S	A	I	L	V	G	P	H	S	E	E	M	I	A	L	K	N								
UniRef90_UPI0002627462	H	V	V	A	S	N	Y	N	I	D	P	K	S	V	T	G	Y	M	M	G	E	H	G	D	S	N	Q	F	P	L	F	S	A	S	A	G	S	E	H		
UniRef90_T0TSB7	Q	A	L	A	E	K	L	D	V	D	A	R	S	V	T	H	A	Y	I	M	G	E	H	G	D	S	N	Q	F	P	L	F	S	A	S	A	G	S	E	H	
UniRef90_S2ZPW9	H	A	L	A	S	R	A	T	G	Y	P	A	S	C	I		N	A	W	M	L	G	E	H	G	D	S	N	Q	F	P	L	F	S	A	S	A	G	S	E	H
UniRef90_A4YDYO	S	F	I	A	K	K	L	K	I	P	V	T	S	V	D	G	F	V	G	G	E	H	G	D	S	N	Q	F	P	L	F	S	A	S	A	G	S	E	H		
UniRef90_UPI0004797F05	R	I	L	A	M	K	Y	L	V	D	T	K	N	V	H	G	Y	V	V	L	G	E	H	G	D	S	N	Q	F	P	L	F	S	A	S	A	G	S	E	H	
UniRef90_O61084	R	F	I	N	N	A		R	H	P	L	V	V	P	Y	V	V	V	V	G	G	H	S	D	I	T	I	V	P	L	F	S	A	S	A	G	S	E	H		
UniRef90_N9SRF7	K	F	L	S	E	K	I	N	V	K	A	S	S	I	T	G	F	V	I	L	G	E	H	G	D	S	N	Q	F	P	L	F	S	A	S	A	G	S	E	H	
UniRef90_B9VZ24	Y	L	M	A	E	R	L	G	I	K	A	S	S	F		N	G	W	V	L	G	E	H	G	D	S	N	Q	F	P	L	F	S	A	S	A	G	S	E	H	
UniRef90_P50933	H	L	M	A	Q	H	A	G	V	D	G	T	H	A	H	G	Y	V	L	G	E	H	G	D	S	N	Q	F	P	L	F	S	A	S	A	G	S	E	H		
UniRef90_V7HTS6	R	A	V	S	E	Q	L	N	I	D	P	R	S	V	S	G	Y	N		L	G	E	H	G	D	S	N	Q	F	P	L	F	S	A	S	A	G	S	E	H	
UniRef90_E0NH10	R	A	V	A	K	G	L	N	I	D	P	R	S	V	S	G	Y	N		L	G	E	H	G	D	S	N	Q	F	P	L	F	S	A	S	A	G	S	E	H	
UniRef90_B9DK48	T	L	I	A	D	H	Y	Q	V	D	P	K	N	V	E	A	F	V	L	G	E	H	G	D	S	N	Q	F	P	L	F	S	A	S	A	G	S	E	H		
UniRef90_C5R9J2	R	A	V	G	K	A	L	G	V	D	P	K	S	V	S	G	Y	N		L	G	E	H	G	D	S	N	Q	F	P	L	F	S	A	S	A	G	S	E	H	
UniRef90_G5RU04	R	R	L	A	A	M	L	G	V	S	P	H	S	V	C	A	Y	E	L	G	E	H	G	D	S	N	Q	F	P	L	F	S	A	S	A						

UniRef90\_UPI000363135A V D D S Y F E T K K P L D K D K L A A D V V Q T A Y D V L M S K G W T N T G I A 210 220 230 240  
UniRef90\_UPI00045E91E6 I D D N P A R R D I F N A V H S A G F D V Y K A K G Y T N Y A I A  
UniRef90\_UPI00029D5873 L K S L D P K D S D K D S W K N I H K E V V G S A Y E I I K L K G Y T S W G I G  
UniRef90\_C8PGF0 E L G F E I S D E I F G R A V Q N T K R A G A Q I G E L L G T S A Y L A P A  
UniRef90\_UPI0002627462 E K D T H F Q G K E T L D R K A F G Q K V V N A A Y D V L N G K G W T N A G V A  
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UniRef90\_S2ZPW9 D K E I E D R T G V K F D R A Q L E Q D A R M G G Y V T Y K G K H C T E Y S I A  
UniRef90\_A4YDY0 V D E F N I N K D E V S D Y V K K I P G E I I R V I G G T T W G P G  
UniRef90\_UPI0004797F05 Y S E F D K F L G S S D P T D A I L D E A K S T G L K L L E L K G Y T S S G I A  
UniRef90\_O61084 L P D E S T L K E I R K R V Q V A G T E V V K A K A G R G S A T L S M A E A G A  
UniRef90\_N9SRF7 L K D W L A N G M I T K E W L D N L N Q K V K E A F E I I S G K G I T N F G I G  
UniRef90\_B9V2Z4  
UniRef90\_P50933 V A D F M Q A Q N L P W N E Q V R A K I D E G A A A S I I E G K R A T Y Y G I G  
UniRef90\_V7HTS6 I T E L A Q G R G L D L D A L D H E A K V G G H T V F H G K K Y T N Y G V A  
UniRef90\_E0NH10 I K E I A N D R G L D L H E I S N E E A R I G A G D V M K G K H Y T N Y G V A  
UniRef90\_B9DK48 L P E F T I A T G S T P I D K K A V S K R I D E V A F E I I K K G W T N S A I S  
UniRef90\_C5R9J2 I T S Y D L P L S D L N D E V R I G G Y T V Y H G K K F T S Y G I A  
UniRef90\_G9RU04 L T D W M V E Q P D T R G Q A D L Y G A W V A A G W D I V Q G K G C T E F G I G  
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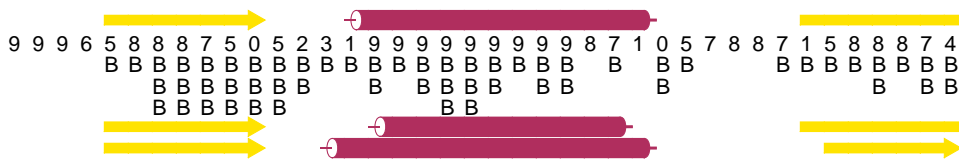
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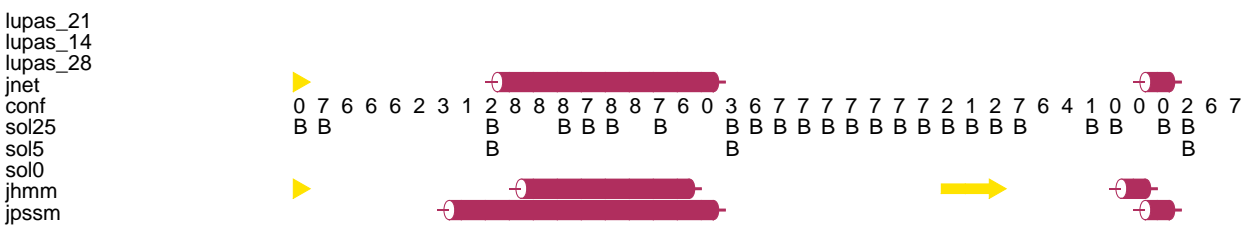
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UniRef90_B5X3I4	D	V	A	E	S	S	T	K	G	G	S	M	D	L	E	I	F	N	L	P	K	V	E	V												S	K	D	L	S	A	S	A	D
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UniRef90_W7D049	D	T	D	R	A	E	G	E	V	L	D	F	M	D	G	I	E	V	T	Q	T	A	T	Q	V	K	L	V	S	L	T	D	L	A	S	C	D	M	L					
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UniRef90_J9M9Z6	D	S	N	K	Y	G	D	L	I	R	I	K	H	E	I	C	D	A	E	F	N	I	R	G	C	S	S	I	T	V	V	N	G	E	E	E	G	L	L	N				
UniRef90_M3XXB0	D	K	P	Q	K	E				M	R	H	L	R	H	R	S	S	L	L	Q	T	P	P												A	D	K	D	S	V	T	A	N
UniRef90_G1S7V6																																												
UniRef90_D7V140	D	E	A	Y								R	P	A	V	S	D	Y	A	F	S	Q	Y	Y	H	S	R	A	I	I	Q	G	T	T			Y	A	T	H	S	K	V	
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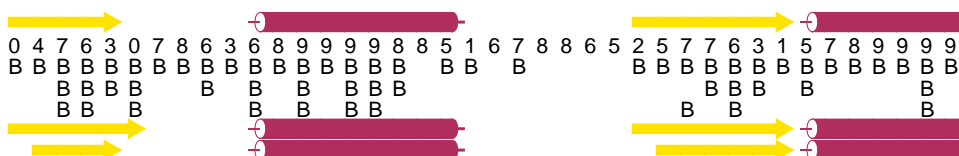


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UniRef90_B0M1B2				
UniRef90_UPI000469E448				
UniRef90_B5X3I4	V L L I A S Q P V D I M T H V A W R Q S G L P P S R V I G A G C N L D S E R			
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UniRef90_UPI0004446F2E	V L L V A S Q P V E I M T Y V T W K L S A F P P S R V I G I G C N L D S Q R L Q			
UniRef90_J9M9Z6	K V L L M G D L L C F N L S V L A E K A D K V Y L Y N I I G V T G H H G M V T L			
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UniRef90_G1S7V6	V L L V A S Q P V E I M T Y V T W K L S T F P A N R V I G I G C N L D S Q R L Q			
UniRef90_D7V140	K V I V A T K Y S N E A A S E I K R L S G L P A Q N I I A I G T L L L L T R F Q			
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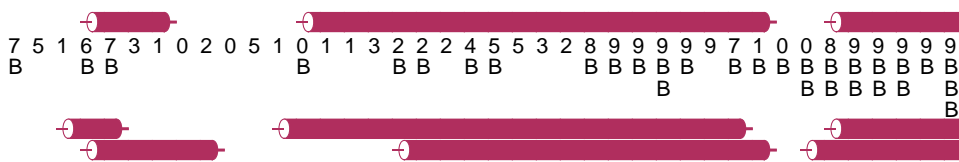
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UniRef90_G9MWM6	I D K C L S N E K T I N R A E L S N E C K N R S Q T I V R A K G A T P F G M G			
UniRef90_UPI00034F620D	R S Q V E C L T R L I R E A D D I I C K V K S N N G Q G H L S I G F S T A			
UniRef90_I7KHV6		E V E K L A T G T G W E I Y A A K H H T A F G I S		
UniRef90_W3XXV4	L N D F C E M R G H Y S H D E E E K N E V K N A Y E I I Q R K R A T Y F G V A			
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UniRef90_UPI0003ACD1E0	N S Q M Q L S N R A M E L L Q V K G Q R S W S V G			
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UniRef90_M3XXB0	L R N Q I R T E R D S D S E N C K E V P K C V D S A C G A I K P E			
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UniRef90_D7V140	L L T Y I A E Q N E L F S P G D L Q Q L E Q N L A D V T A L D Q L S F G M S A L			
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