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QUERY

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

1                    10                    20                    30                    40

UniRef90_I4C2X2	T   N A M   V   A R K   I   P   S   G   Q   E   F   L   R   M   K   L   D   R   V   I   A   A   P   L   P   R   G   A   G   S   I   T	
UniRef90_B5Y833	K A R   L   R   T   A   V   F   S   G   V   E   E   W   I   P   V   R   L   E   E   L   W   A   E   P   V   F   S   K   S   G   M   V   S	
UniRef90_G7WER0	A K   V   R   A   R   L   A   I   K   V   F   S   K   K   V   F   S   G   S   E   E   F   V   R   V   K   V   E   R   W   V   A   A   P   L   S   R   G   A   G   V   T   M	
UniRef90_O29331	I   E   A   Q   I   T   R   K   V   T   S   G   D   D   D   Y   M   R   V   V   V   N   R   V   L   A   A   P   L   S   R   G   A   G   V   I   T	
UniRef90_E8NOR4	I   S   Q   R   F   H   S   G   R   L   E   F   A   L   V   S   I   E   N   N   K   A   V   P   I   L   K   D   S   G   A   I   A	
UniRef90_E3GXR7	R   L   T   A   K   V   S   S   K   I   V   G   Y   V   S   F   I   R   V   V   F   E   G   D   K   V   R   P   L   T   G   K   A   G   V   L   S	
UniRef90_Q46F65	K   L   K   V   K   L   G   R   R   I   V   S   G   A   E   E   D   F   V   R   M   N   I   Q   G   F   V   A   N   P   L   T   R   A   G   V   T   M	
UniRef90_V6T7D4	V   T   A   L   M   S   R   P   L   P   S   G   T   I   D   F   V   R   V   K   L   E   K   L   I   A   T   P   T   G   H   G   A   G   A   V   M	
UniRef90_D6Z3G0	K   R   L   A   A   K   I   S   S   K   I   V   G   Y   V   N   F   V   R   V   V   F   D   G   D   K   V   R   P   L   T   G   K   A   G   V   L   S	
UniRef90_M1Q1V0	K   Q   A   I   I   S   S   R   N   V   A   S   G   R   E   D   Y   V   R   V   S   V   G   N   T   I   A   T   P   V   L   G   K   S   G   L   L   K	
UniRef90_UPI00036C7F66	K   I   E   G   I   L   T   K   K   I   P   S   S   Y   R   E   L   V   R   V   N   T   N   K   I   A   T   P   I   A   R   G   A   G   I   T   T	
UniRef90_N9Y2I0	R   I   P   A   K   A   M   K   N   L   A   S   G   R   S   D   Y   L   R   V   K   L   G   E   L   W   A   D   P   V   F   G   K   S   G   L   L   F	
UniRef90_M1ZM68	A   R   V   M   A   K   V   P   V   R   I   A   S   G   R   T   E   F   V   M   V   S   L   V   G   L   I   A   Y   P   T   G   K   G   S   G   A   I   T	
UniRef90_F7QK28	K   L   E   V   T   L   G   R   R   L   V   S   G   S   E   D   F   V   R   L   N   I   G   K   Y   V   A   N   P   L   T   R   A   G   V   T   M	
UniRef90_F5LAI3	A   R   K   I   A   S   G   Q   E   E   F   L   R   V   K   I   G   K   L   I   S   S   Q   L   P   R   G   S   G   N   I   T	
UniRef90_K0NFJ5	T   L   R   A   E   L   T   R   N   I   N   S   G   R   M   D   V   V   R   V   K   I   A   G   Y   K   A   S   P   V   L   G   K   S   G   A   I   S	
UniRef90_V4L2Z9	R   V   R   A   R   L   A   I   R   A   A   K   G   R   A   L   Y   P   V   S   L   V   G   I   V   A   Y   P   L   P   A   E   S   G   A   I   S	
UniRef90_F0QYQ5	I   T   T   A   I   I   D   R   N   I   N   S   G   R   L   D   F   V   R   V   Q   L   Q   E   P   L   A   I   P   V   L   G   K   S   G   S   I   S	
UniRef90_G7VA19	R   T   V   K   R   R   C   L   G   K   V   A   S   G   R   T   E   Y   V   R   V   R   V   D   G   L   Q   A   T   P   E   L   G   P   S   G   L   L   R	
UniRef90_M1NE04	T   L   G   R   R   I   V   S   G   S   E   D   F   I   R   M   N   I   G   R   Y   I   A   N   P   L   N   R   G   A   G   V   T   M	
UniRef90_D9PYM6	V   A   A   K   L   S   A   G   V   P   S   G   R   S   E   L   V   P   V   R   L   E   Q   R   T   A   V   P   I   R   G   K   S   G   L   I   S	
UniRef90_T2GCL8	T   V   A   A   T   L   D   R   K   A   P   S   G   V   R   T   F   V   R   V   E   L   R   E   R   E   R   A   V   P   V   A   G   G   S   G   V   L   S	
UniRef90_UPI00047D9141	I   P   A   K   I   L   T   K   R   V   T   G   G   Y   D   T   F   I   R   V   N   V   D   E   L   C   A   E   P   V   L   R   G   S   G   L   I   S	
UniRef90_H9ZZM7	U   K   E   V   P   A   R   M   A   L   R   V   S   A   G   R   E   V   L   L   P   V   G   L   E   G   M   S   A   Y   P   V   E   K   G   S   G   A   V   S	
UniRef90_C7N227	T   V   K   A   V   L   L   A   R   S   L   G   S   G   R   E   E   Y   F   R   V   K   L   R   R   D   W   A   D   P   L   L   G   K   S   G   L   L   T	
UniRef90_F2L609	R   T   I   T   A   R   L   A   H   D   L   R   A   G   R   A   H   F   V   R   A   T   L   D   G   Y   M   A   S   S   T   T   Q   G   S   G   V   L   M	
UniRef90_V4XYU5	A   I   I   S   S   K   K   I   T   S   S   N   R   E   L   L   V   R   V   N   L   D   K   L   I   A   T   P   L   L   S   S   G   A   G   V   T   M	
UniRef90_D1Z2E9	T   E   A   V   L   L   K   K   E   I   H   S   G   R   T   T   Y   Q   P   V   V   I   D   G   E   Y   A   V   P   L   H   G   K   S   G   V   I   S	
UniRef90_K4LDI1	A   K   V   S   A   V   M   G   T   G   I   R   S   G   R   E   E   L   L   F   P   V   G   V   V   R   G   R   A   Y   P   A   D   K   T   S   G   A   I   T	
UniRef90_UPI000366C6E2	K   A   R   L   R   T   S   T   V   F   S   G   V   E   E   W   I   P   M   K   L   D   E   L   W   V   E   P   V   F   S   K   S   A   M   V   S	
UniRef90UPI000417A2A4	K   A   T   A   Y   I   S   R   K   L   L   S   G   E   D   F   V   P   V   T   L   G   R   L   I   A   T   P   L   L   G   K   S   G   L   I   S	
UniRef90_E3H9H5	K   P   R   A   K   L   G   A   N   L   T   S   S   G   R   E   D   Y   V   R   V   R   L   L   E   E   L   W   A   V   P   V   L   G   K   S   N   L   I   Y	
UniRef90_UPI00037A5711	K   I   Q   V   I   P   A   K   K   I   T   S   S   G   L   E   E   F   L   R   V   K   L   L   E   R   I   I   A   T   A   L   P   R   G   A   G   C   T   S	
UniRef90_10I365	T   A   T   L   L   Q   R   N   I   N   S   S   G   R   T   D   L   V   P   V   V   K   L   Q   D   L   V   A   E   P   M   I   R   G   S   G   V   L   S	
UniRef90_K4MC67	A   R   L   A   R   R   T   P   N   G   Y   R   S   Y   I   R   V   S   L   R   D   L   V   A   E   P   M   I   R   G   S   G   V   L   S	
UniRef90_UPI00036CE966	K   I   P   S   G   R   T   D   F   I   R   A   F   S   D   D   D   F   A   R   H   V   L   R   G   S   G   V   I   I   R	
UniRef90_B8G7B7	T   A   T   M   A   R   P   V   A   S   G   R   L   D   V   V   Q   V   V   S   V   R   D   G   V   A   T   P   L   F   G   K   S   G   L   I   S	
UniRef90_X0S0J5	I   V   K   R   E   S   M   L   K   P   S   G   T   R   E   F   L   R   V   K   L   L   G   E   V   V   F   I   H   L   K   R   G   A   G   A   I   T	
UniRef90_C7LQ73	T   I   P   A   V   L   P   I   R   L   T   R   N   M   R   S   G   R   E   E   V   V   R   V   R   L   D   R   W   L   A   H   P   V   L   G   K   S   G   L   I   S	
UniRef90_E1YC32	K   T   A   G   R   L   A   G   P   L   I   R   E   G   R   Q   M   L   A   V   G   V   S   G   D   L   V   Y   P   V   D   K   G   S   G   S   T	
UniRef90_D6Z3F9	T   T   A   A   R   L   G   A   R   K   I   T   S   S   G   R   E   D   Y   V   R   V   T   L   D   R   E   G   D   E   P   V   A   S   G   S   G   V   L   S	
UniRef90_E8R8U5	U   V   R   A   K   L   G   A   K   I   T   S   S   G   R   E   E   Y   F   R   V   R   V   K   W   T   D   P   R   V   H   P   V   T   G   G   A   G   V   L   S	
UniRef90_A5UMX0	P   V   A   L   A   R   K   I   A   S   G   Q   D   E   F   L   R   V   K   I   G   R   L   I   A   S   Q   L   P   R   G   S   G   S   T	
UniRef90_F0K8J2	V   R   A   G   F   A   M   R   K   P   A   G   R   V   E   Y   L   P   V   A   L   E   N   D   I   A   K   P   I   F   G   K   S   G   L   I   S	
UniRef90_D2PS77	G   K   V   L   A   R   L   K   S   G   F   A   S   G   T   R   E   F   V   F   V   V   K   L   D   E   L   L   A   E   P   L   Y   G   K   S   G   S   I   N	
UniRef90_T4VF10	R   R   L   R   A   E   L   T   R   A   N   I   A   S   G   R   E   D   F   I   R   V   V   R   L   E   E   L   W   A   V   P   V   P   G   R   S   G   L   M   R	
UniRef90UPI0003B3FC4A	I   V   K   R   E   S   M   L   K   P   S   G   T   R   E   F   L   R   V   V   R   L   D   R   W   L   A   H   P   V   L   G   K   S   G   L   I   S	
UniRef90_R9SM63	T   I   P   A   V   L   P   I   R   L   T   R   N   M   R   S   G   R   E   E   V   V   R   V   R   L   D   R   W   L   A   H   P   V   L   G   K   S   G   L   I   S	
UniRef90_UPI0003666180	K   I   E   A   E   L   T   C   N   M   V   S   G   R   E   D   Y   V   R   V   F   V   E   K   F   Y   A   D   P   L   L   G   K   S   G   L   I   S	
UniRef90_W9H9D2	K   P   R   A   K   L   G   A   N   L   T   S   S   G   R   E   D   Y   V   R   V   R   L   L   E   E   L   W   A   V   P   V   L   G   K   S   N   L   I   Y	
UniRef90_A8M9Q6	T   I   P   A   V   L   P   I   R   L   T   R   N   M   R   S   G   R   E   E   V   V   R   V   R   L   D   R   W   L   A   H   P   V   L   G   K   S   G   L   I   S	
UniRef90_F4BTF6	K   T   A   G   R   L   A   G   P   L   I   R   E   G   R   Q   M   L   A   V   G   V   S   G   D   L   V   Y   P   V   D   K   G   S   G   S   T	
UniRef90_E7QQV6	T   T   A   A   R   L   G   A   R   K   I   T   S   S   G   R   E   D   Y   V   R   V   T   L   D   R   E   G   D   E   P   V   A   S   G   S   G   V   L   S	
UniRef90_M0BRH2	U   V   R   A   K   L   G   A   K   I   T   S   S   G   R   E   E   Y   F   R   V   R   V   K   W   T   D   P   R   V   H   P   V   T   G   G   A   G   V   L   S	
UniRef90_S0G1Q0	P   V   A   L   A   R   K   I   A   S   G   Q   D   E   F   L   R   V   K   I   G   R   L   I   A   S   Q   L   P   R   G   S   G   S   T	
UniRef90_N6YG04	V   R   A   G   F   A   M   R   K   P   A   G   R   V   E   Y   L   P   V   A   L   E   N   D   I   A   K   P   I   F   G   K   S   G   V   L   S	
UniRef90_UPI000470DFE5	G   K   V   L   A   R   L   K   S   G   F   A   S   G   T   R   E   F   V   F   V   V   K   L   D   E   L   L   A   E   P   L   Y   G   K   S   G   S   I   N	
UniRef90UPI0003B4C770	V   P   S   L   T   A   R   L   T   R   A   N   I   A   S   G   R   E   D   F   I   R   V   V   R   L   E   E   L   W   A   V   P   V   P   G   R   S   G   L   M   R	
UniRef90_B6WUI7	K   I   E   A   E   L   T   C   N   M   V   S   G   R   E   D   Y   V   R   V   F   V   E   K   F   Y   A   D   P   L   L   G   K   S   G   S   V   T	
UniRef90_A9W6N0	V   S   A   R   L   P   Q   R   L   T   S   S   G   R   E   D   Y   V   R   V   F   V   E   K   F   Y   A   D   P   L   P   K   G   S   G   S   V   T	
UniRef90_U1QGC6	E   A   T   L   E   R   K   I   S   S   G   R   E   E   Y   F   R   V   V   N   V   L   N   K   F   T   A   V   P   L   T   A   S   G   S   G   V   L   S	
UniRef90_M5DZD0	I   E   A   E   V   L   K   R   I   S   S   G   R   E   E   Y   F   R   V   V   N   V   L   N   K   F   T   A   V   P   L   T   K   R   G   S   S   A   M   E	
UniRef90_M8EBV6	K   I   K   A   T   I   G   R   R   I   V   S   G   A   E   E   D   F   I   R   M   T   V   G   K   Y   I   A   N   P   L   T   R   A   G   V   T   M	
UniRef90_A4G0V3	V   K   L   Q   I   N   R   N   I   A   S   G   R   T   D   I   V   R   V   K   L   V   E   T   K   I   E   P   L   I   T   G   S   G   V   L   S	
UniRef90UPI000360DD21	R   A   R   R   L   T   A   D   S   P   K   G   R   Q   F   L   R   G   Y   A   D   G   A   V   P   V   G   G   G   S   H   L   V   A   T	
UniRef90_Q0W6D3	T   V   K   A   K   M   A   L   T   L   Q   S   G   R   E   E   V   Q   P   V   G   L   D   G   L   V   A   Y   P   I   E   K   G   S   G   A   V   T	
UniRef90_G7Q6W8	K   T   V   M   A   V   L   E   R   R   V   G   S   G   A   E   E   Y   Y   I   R   V   Q   V   E   K   N   H   A   R   V   L   K   R   G   A   S   V   I   S	
UniRef90_E4SFZ6	I   P   C   K   F   S   M   N   Y   A   K   G   R   E   E   Y   I   P   V   T   I   E   E   Y   I   A   T   P   I   L   T   K   S   A   A   I   S	
UniRef90_R4K8T2	T   V   E   A   R   L   A   V   R   L   P   S   G   R   T   E   Y   A   M   V   S   L   V   G   L   D   G   L   V   A   Y   P   I   L   A   K   G   S   G   A   V   T	
UniRef90UPI00047555CA	K   V   K   A   E   L   T   Q   N   L   T   S   G   E   E   E   F   V   R   V   N   V   G   D   L   K   A   V   P   L   Q   R   G   A   G   V   I   N	
UniRef90_D9QT63	R   T   I   E   A   R   L   S   H   D   L   R   A   G   R   A   H   F   V   R   V   T   L   Q   G   Y   V   V   T   S   T   T   Q   G   S   G   V   L   M	
UniRef90UPI00036586D1	K   T   V   M   A   V   L   E   R   R   V   G   S   G   A   E   E   Y   Y   I   R   V   Q   V   E   K   N   H   A   R   V   L   K   R   G   A   S   V   I   S	
UniRef90_F8ANF5	V   R   K   T   V   A   I   L   A   K   K   T   A   S   G   R   T   D   I   V   R   V   K   L   N   K   T   Y   I   E   P   L   I   T   G   S   G   V   L   S	
UniRef90_A8ZUT1	I   Y   A   T   M   S   R   P   V   H   S   G   V   D   Q   I   V   R   I   T   L   D   K   L   M   A   T   P   S   G   K   G   A   G   V   M	
UniRef90_M0H2T4	T   T   T   A   R   L   D   R   K   V   R   S   G   T   R   S   T   F   V   F   V   R   V   R   L   D   E   T   T   A   V   P   T   A   S   G   A   G   A   L   S	
UniRef90_Q6AKC1	H   K   I   V   K   R   T   S   T   K   I   H   S   G   R   T   D   Y   I   R   A   V   A   D   D   E   T   V   H   H   V   L   R   G   S   G   L   I   R	
UniRef90_L0L1W1	I   K   I   K   L   S   E   K   I   I   S   E   P   D   F   L   P   V   K   L   K   N   G   I   A   Y   P   T   F   K   G   S   N   M   L   T	
UniRef90_M0LWS1	V   P   A   R   V   A   V   Q   I   P   S   G   R   A   E   F   A   M   V   S   L   D   G   L   V   A   F   P   T   G   K   G   S   G   A   I   T	
UniRef90_Q0G3Z7	R   V   Q   A   R   V   V   R   K   M   T   S   G   Y   L   S   L   V   R   V   A   F   E   D   G   Q   V   I   P   I   M   S   G   A   G   I   L   S	
UniRef90_M1ZT46	R   S   K   M   V   K   L   A   T   K   I   S   S   G   R   I   E   Y   V   R   L   R   I   E   N   R   A   F   F   P   L   A   G   G   A   S   I   L   S	
UniRef90_F4C0R5	E   A   T   L   T   R   K   L   P   S   G   T   R   T   F   V   R   V   K   L   D   E   S   T   A   E   P   P   T   T   S   G   S   G   G   I   L   S	
UniRef90UPI000288AB53	R   V   Q   A   R   V   V   R   K   M   T   S   G   Y   L   S   L   V   R   V   A   F   E   D   G   Q   V   I   P   I   M   S   G   A   G   I   L   S	
UniRef90_D4GWG7	UniRef90_I7LN16	R   L   S   R   K   I   A   S   G   F   D   E   F   I   P   V   S   V   G   R   V   W   A   T   P   H   P   R   G   G   G   I   Q   M
UniRef90_D3DYR0	UniRef90_F6BAR5	I   K   I   K   L   S   E   K   I   I   S   E   P   D   F   L   P   V   K   L   K   N   G   I   A   Y   P   T   F   K   G   S   N   M   L   T
UniRef90_E4NNG3	UniRef90_M1Y333	V   E   A   R   L   E   R   K   I   P   S   G   V   R   T   F   V   R   V   R   L   R   E   E   I   A   E   P   T   T   S   G   S   G   V   L   S
UniRef90_G7WEQ9	UniRef90_G7WEQ9	R   E   A   T   L   T   R   K   I   R   S   G   I   R   T   F   V   R   V   T   L   E   G   L   E   A   T   P   T   A   S   G   S   G   V   L   S
UniRef90UPI000470388D	UniRef90_M1ZKX3	K   T   I   W   A   L   L   E   R   R   L   F   P   S   G   A   E   E   Y   I   R   V   S   I   E   N   D   L   A   R   V   L   K   R   G   A   S   V   I   S
UniRef90_D5CNW7	UniRef90_D5CNW7	R   T   V   E   A   R   L   T   H   E   V   K   H   S   R   T   E   F   V   R   V   M   L   G   G   Y   T   A   T   S   T   G   Q   G   S   G   I   L   A

50            60            70

T	L	T	R	A	D	G	I	L	R		P	S	S	Q	E	G	V		D	Q	S	S		L	V		Q	V	E	L		R	N		
S	M	V	R	N	E	G	F		R		P	P	E	C	E	G	M	E	P	G	E	V	V	E	V	V	L	L		R					
S	L	V	R	A	D	G		L	R	V		P	R	L	Q	E	G	H	E	G	E	T	V	P	V	E	L	L		R					
A	F	A	F	T	D	G	F	V	E		P	E	N	V	V	M	L	E	E	G	D	E	V	E	V	K	L		F	S	H		L		
S	L	V	R	A	D	G		V	I	L		P	R	G	V	Q	G	L	E	A	G	A	P	V	R	V	R	L		Y	R	S			
S	L	A	M	S	D	G	Y		E	I		P	K	N	V	E	I	I	E	K	N	E	K	V	E	V	K	I		F					
S	V	A	K	A	D	G	Y	V	L	V		P	E	N	I	E	G	Y	D	E	E	E	V	D	V	F	L		I	E					
S	L	V	R	A	D	G		L	V	V		P	P	E	E	L	G	Y	E	Q	G	D	I	V	E	V	E	L		Y	R				
T	L	V	Q	A	D	G	I	L	T	V		P	A	A	S	E	G	I	A	A	G	A	E	V	Q	I	D	L	L		R	T	L		
S	V	A	K	A	D	G	Y	V	L	V		P	E	N	I	E	G	Y	E	D	G	Q	E	V	E	K	T	S	I	S	S				
T	M	L	Q	A	D	G	V	T	R		P	G	D	S	E	G	I		Y	E	G	T	A	V	D	V	L	F	F						
S	L	L	K	A	D	G	I	I	E	I		D	R	S	L	E	G	L	N	T	G	D	K	V	E	I	S	S	L	L	K				
T	M	V	E	S	D	G	I	M	E		P	A	E	K	E	G	I		Y	T	G	E	K	V	W	V	K	R	Y	S					
S	F	A	Q	A	D	G	F	L	K		E	A	L	A	E	Q	M	P	A	G	T	D	A	E	V	T	L	F							
S	L	V	K	A	D	G	L	L	I	V		P	P	E	S	L	G	Y	E	Q	G	E	K	V	T	E	L		Y	K	P	L			
T	L	T	E	A	D	G	I	R		P	A	N	S	E	G	I		S	Q	K	E	V	P	A	Q	P	A	L		R					
S	M	V	E	S	N	A	Y		V	I		D	E	N	L	E	G	I	A	E	G	E	V	V	E	L	F	D	S						
T	L	V	G	S	H	G	L	V	R		P	A	G	L	E	V	G	A	M	V	D	V	K		P	F									
S	L	V	R	A	D	G	L	L	V	V		P	S	Q	S	L	G	F	E	Q	G	T	S	V	E	V	E	L	Y	K					
S	L	L	K	T	N	A	F	M	I		P	R	N	V	E	G	F	E	E	G	E	T	V	W	V	H	L	I							
Q	L	S	R	A	D	G	F	F	A		P	G	N	L	G	A	A	G	E	V	D	V	R	M	F	S									
V	L	A	R	A	D	G	Y	V	V		P	E	D	V	E	F	L	D	E	G	E	V	V	E	R	L	F	E	R	Y					
S	V	A	L	A	D	G	W	L	V	V		P	E	D	R	E	G	V	P	A	G	E	R	V	D	V	E	L	W	E					
U	N	Ref90	_D1Z2E9	Al	L	D	A	D	G	Y		P	E	D	V	H	V	L	D	S	G	D	E	V	E	V	V	R	L	S	D				
U	N	Ref90	_K4LDI1	P	M	V	E	A	D	G		V	R		P	L	E	S	E	G	L	A	Q	E	A	E	V	D	V	Y	L	F			
U	N	Ref90	_UPI000366C6E2	S	M	A	M	A	E	G	F		I	L	P	A	D	C	E	A	M	S	A	G	D	E	V	M	V	Q	L	L	Q	G	
U	N	Ref90	_UPI000417A2A4	S	L	V	K	A	D	G		A	I	I	P	Q	S	L	E	G	I	D	A	G	G	I	V	N	V	R	L	L	K	P	L
U	N	Ref90	_E3H9H5	S	L	N	K	A	F	G	Y		T	I	P	S	D	K	E	F	G	N	S	D	G	I	V	D	V	W	A	F			
U	N	Ref90	_UPI00037A5711	T	L	T	K	A	Q	G	T	T		P	A	T	M	E	G	V	E	A	G	T	V	S	A	R	L	L					
U	N	Ref90	_I0I365	T	L	V	N	A	E	G	T		K	I	P	L	D	S	N	G	L	R	T	G	E	W	T	V	T	L					
U	N	Ref90	_K4MC67	T	L	A	D	A	D	G		I	E	I	R	A	Q	T	E	Y	I	E	A	G	I	P	V	E	V	T	M	F	G	N	
U	N	Ref90	_UPI00036CE966	S	L	V	R	N	D	G	F		R	V		P	P	E	K	E	G	L	M	E	L	V	E	V	L	L	R	F			
U	N	Ref90	_B8G7B7	S	L	I	R	A	D	A	I	A	H	I	P	R	F	S	E	G	L	H	A	G	A	E	V	T	V	E	L	L	R		
U	N	Ref90	_X0S0J5	T	M	V	R	A	S	G	L	I	K	I	G	L	N	I	E	G	L	E	K	G	S	K	V	M	V	K	L	F			
U	N	Ref90	_C7LQ73	T	M	L	D	A	D	G	L	V	R		P	A	S	L	E	G	M	T	A	G	Q	D	V	D	V	W	I	F			
U	N	Ref90	_E1YC32	T	I	T	E	A	D	G		I	R		P	N	H	V	E	G	I	N	A	Q	E	P	V	T	A	E	L	I	R	P	
U	N	Ref90	_D6Z3F9	T	L	V	R	A	H	G	W		I		D	A	H	R	Q	G	L	D	S	G	S	Q	V	A	V	Y	N	F	D		
U	N	Ref90	_E8R8U5	S	L	L	K	S	Q	G	Y		V	I	P	E	N	V	E	G	F	K	G	D	V	L	V	H	L	F					
U	N	Ref90	_A5UMX0	S	M	V	E	A	N	S	Y		I	I	D	E	N	D	E	G	Y	Q	K	G	D	V	D	V	V	F	F	D	S		
U	N	Ref90	_F0K8J2	T	F	T	S	R	A	W	G	Y		K		P	E	P	A	T	G	L	E	R	G	Q	V	T	V	T	M	Y	R		
U	N	Ref90	_D2PS77	L	L	T	S	A	D	G	Y	V	V		P	E	P	A	T	G	L	E	R	G	Q	V	T	V	T	M	Y	R			
U	N	Ref90	_T4VF10	L	L	S	K	A	C	G	Y	V	V		D	E	N	C	E	G	L	Y	K	K	E	K	V	K	V	H	L	L			
U	N	Ref90	_UPI0003B3FC4A	T	L	T	R	A	D	G		C	E		P	E	E	L	G	Y	E	Q	G	A	E	C	E	L	E	I	L	R			
U	N	Ref90	_R9SM63	S	M	V	E	A	N	S	Y		I	I	D	E	N	N	E	G	V	E	K	G	D	M	V	D	V	V	L	F	N		
U	N	Ref90	_UPI0003666180	T	M	V	Q	A	D	A	L	A	W		P	Q	H	E	E	A	V	E	A	G	T	P	V	T	P	R	P				
U	N	Ref90	_W9H9D2	A	F	S	H	A	D	G	F	V	A		P	Q	H	E	E	A	V	E	A	G	T	P	V	S	V	Q	L	I	G	R	
U	N	Ref90	_A8M9Q6	T	L	A	Y	A	E	G	Y		E	I	P	E	N	R	E	F	L	E	E	G	E	W	V	N	V	R	L	F			
U	N	Ref90	_F4BTF6	T	L	A	L	A	D	G	V	I	E		P	A	G	V	E	F	L	E	G	G	S	P	V	Q	V	R	L	F			
U	N	Ref90	_E7QV6	S	V	A	L	A	D	G	W	V	E		P	E	G	R	E	G	I	P	E	G	E	T	V	A	V	A	N	W	E		
U	N	Ref90	_M0BRH2	S	V	T	R	A	D	G	W	V	V		P	E	S	L	E	G	I	G	P	A	G	E	P	V	D	V	E	L	W	R	
U	N	Ref90	_S0G1Q0	T	L	T	E	A	D	G		I	Q		P	R	D	V	E	G	I	S	E	T	E	T	P	A	T	R	L	L	K		
U	N	Ref90	_N6YG04	S	M	S	E	A	D	O	F	I	L		P	E	D	C	T	G	V	Q	A	G	D	I	V	S	V	Q	P	F	N	G	
U	N	Ref90	_UPI000470DFE5	L	L	N	N	A	S	G	Y	V	K		P	E	A	T	R	T	G	L	K	P	D	L	V	E	V	V	L	L			
U	N	Ref90	_UPI0003B4C770	T	L	I	Q	S	H	G	L	A	A	V		P	T	S	E	G	I		S	Q	K	E	V	P	R	P	L	Y			
U	N	Ref90	_B6WUI7	G	L	V	E	A	D	G		V	I	C	A	E	N	R	E	G	L	T	A	G	E	D	I	V	D	V	L	P			
U	N	Ref90	_A9W6N0	A	F	S	Q	A	D	G	F	F	A	V		P	A	A	R	S	G	V	E	A	G	E	T	V	S	V	V	R	L		
U	N	Ref90	_U1QG6C6	S	V	A	L	A	D	G	W	V	V		P	E	S	R	E	G	F	G	T	D	E	T	V	T	V	E	I	W	E		
U	N	Ref90	_M5DZD0	S	L	K	A	D	G	I	M	R	I	P	R	N	K	E	R	G	H		H	P	G	D	R	A	P	V	I	L	L	K	
U	N	Ref90	_M8EBV6	S	M	V	R	A	D	G	L	R		P	S	G	H	L	G	Y	E	Q	G	E	T	A	E	I	E	L	Y	R			
U	N	Ref90	_A4G0V3	S	M	T	K	A	D	G	Y	M	M		K	E	N	I	E	G	E	K	D	E	F	V	E	V	Y	L	F				
U	N	Ref90	_UPI000360DD21	A	L	A	Q	A	N	L	I	V	V		P	E	D	V	E	S	V	A	P	G	T	E	V	E	V	V	V	L			
U	N	Ref90	_Q0W6D3	S	L	R	D	A	D	G	Y	V	E		P	E	D	V	H	V	I	E	E	G	S	E	V	E	V	R	L	F			
U	N	Ref90	_G7Q6W8	T	L	L	L	A	D	G		I	T		P	A	D	L	E	G	I	A	G	G	A	E	V	A	V	R	P	L			
U	N	Ref90	_E4SFZ6	S	L	I	R	A	D	G	Y	V	V		P	I	N	V	D	V	E	E	G	S	L	V	E	V	V	K	M	I			
U	N	Ref90	_R4K8T2	G	F	T	K	A	W	G	I		K	N	V	E	G	I																	

1                    10                    20                    30                    40

UniRef90_R7RTH8		A K G R E E Y   P   V T   I   E G G Y A Y   P   Y A K S S S A   I   S		
UniRef90_I7CUJ9	T T R A R   L   E R K I   P   S G T R T F   A R   V K   L   E R Y D A   I   P   T A S G S G   V   L   S			
UniRef90_F3YWG6	R Q A E L   A R N V   A S G R E D Y   L   R   V S L   Q   P   A L   P   R   L   G K S G   G   L   L   K			
UniRef90_M0DCZ9	E A R L   R R K I   P   S G   V   R   T F   A R   V R   L   D D G T   A   E   P   T R A G S G   V   L   S			
UniRef90_G2MGQ7	A T   V E G T   L   A E R Y   S E G R   T   R M   M   P   V   G   L   V   E   D   L   V   Y   P   V   D   K   G   S   G   A   T   T			
UniRef90_X6EWJ7	R G T A N V   P   V   R   I   A   S   G   R   T   E   F   V   M   V   S   L   V   G   L   V   A   Y   P   T   G   K   G   S   G   A   I   T			
UniRef90_H5SML4	K   V   H   A R   L   V   K   P   I   R   S   G   Y   R   E   F   V   R   A   K   V   E   R   L   V   V   Y   P   L   Q   G   G   A   S   K   L   S			
UniRef90_N9XQQ2	K   L   D   T   N   I   H   S   G   K   T   T   F   Q   M   V   D   I   N   D   G   V   A   S   P   I   M   G   R   S   S   M   I   K			
UniRef90_V4JCS4	R   V   K   G   I   I   T   R   R   V   A   A   G   V   R   T   Y   L   R   V   K   V   K   G   Y   E   V   E   P   L   A   T   A   S   G   V   L   S			
UniRef90_I4F3P7	R   T   T   A   R   L   T   T   R   S   P   A   G   R   Q   F   L   R   G   R   F   D   G   E   V   V   T   Q   V   G   G   G   S   H   L   V   A			
UniRef90_D3NXD4	V   V   A   T   L   P   V   R   L   G   S   G   R   T   E   Y   V   M   V   S   L   E   E   L   A   A   Y   P   L   S   K   G   S   G   A   V   T			
UniRef90_E0ST58	I   R   A   K   L   L   K   R   V   T   G   G   Y   N   T   F   V   R   V   K   V   E   E   L   C   V   E   P   I   L   R   G   S   G   I   L   S			
UniRef90_A6TSZ0	I   E   G   S   V   A   V   N   I   P   S   G   R   E   H   Y   V   M   V   V   I   Q   E   E   R   V   Y   P   V   H   G   K   S   G   M   L   T			
UniRef90_F0YY92	R   A   E   L   S   T   N   I   P   G   G   K   R   T   C   Q   L   V   S   L   N   G   Y   Q   A   V   P   L   W   G   K   S   G   L   I   H			
UniRef90_UP1000367806A	T   V   S   A   R   L   S   A   P   V   I   S   S   G   R   R   S   Y   L   R   V   R   L   E   G   L   R   A   V   P   A   S   R   Q   S   H   Q   L   S			
UniRef90_M0CIF7	T   T   Q   A   R   L   E   R   K   I   P   S   G   T   R   T   F   A   R   V   R   L   E   A   Y   T   A   I   P   T   A   S   G   S   G   V   L   S			
UniRef90_UP10003701067	V   E   A   V   L   P   Q   R   I   A   S   G   R   M   E   F   V   M   A   S   L   D   A   P   V   A   V   P   L   S   K   G   S   G   S   V   T			
UniRef90_F8D8K3	T   L   T   A   V   L   G   E   D   V   I   S   G   R   H   E   L   L   A   V   R   L   E   N   G   V   F   S   T   S   R   S   S   A   A   I   T			
UniRef90_Q12VS8	R   T   A   R   A   R   L   T   E   P   L   P   R   G   R   R   Q   F   L   R   G   T   H   D   A   G   T   V   T   P   V   G   G   G   S   H   L   I   T			
UniRef90_UP1000360B173	A   K   L   T   A   D   R   P   L   K   S   P   A   G   R   R   Q   Y   L   R   A   T   C   A   D   G   T   V   S   P   V   G   G   G   S   H   L   V   A			
UniRef90_A6UT56	K   L   R   A   I   L   E   D   D   V   P   S   G   R   H   E   F   V   K   V   L   Y   R   D   G   K   A   K   V   L   K   K   G   S   G   I   I   S			
UniRef90_UP100028A2DDB	K   V   K   A   R   L   P   F   R   F   P   A   G   R   M   E   L   I   P   V   Q   L   V   Q   N   V   A   Y   P   L   M   T   G   S   G   S   V   A			
UniRef90_Q9V1A7	R   A   R   L   P   V   A   M   I   S   G   R   T   E   Y   V   L   V   R   L   T   E   D   V   A   Y   P   L   G   K   G   S   G   S   V   T			
UniRef90_M0LZG0	A   R   L   G   R   K   I   P   S   G   T   R   T   F   A   R   V   R   L   E   E   R   Y   R   A   I   P   T   A   S   G   S   G   V   L   S			
UniRef90_D9Q2R7	K   V   K   A   R   L   P   F   R   F   P   A   G   R   M   E   L   I   P   V   Q   L   V   Q   N   V   A   Y   P   L   M   T   G   S   G   S   V   A			
UniRef90_A0A017TAP0	R   A   R   L   P   V   A   M   I   S   G   R   T   E   Y   V   L   V   R   L   T   E   D   V   A   Y   P   L   G   K   G   S   G   S   V   T			
UniRef90_L9V947	A   R   L   G   R   K   I   P   S   G   T   R   T   F   A   R   V   R   L   E   E   R   Y   T   A   T   P   T   A   S   G   S   G   V   L   S			
UniRef90_UP1000477CDA5	R   A   R   L   A   E   P   M   P   A   G   R   R   Q   Y   M   R   G   R   Y   D   D   G   V   T   P   V   G   S   A   S   H   M   L   G   S   V   A			
UniRef90_K2EX30	K   L   D   A   I   L   A   K   D   V   P   K   G   V   E   D   Y   I   R   V   R   L   G   K   I   T   A   Y   P   Y   A   G   K   S   S   F   L   S			
UniRef90_GOLF38	V   V   K   V   R   A   R   I   P   F   R   F   Q   A   G   R   T   E   L   I   P   V   Q   L   E   G   I   S   A   Y   P   L   M   A   G   S   G   S   I   A			
UniRef90_V4JCT7	R   T   R   L   P   L   S   R   D   L   C   A   H   P   D   R   E   Y   H   I   P   V   R   I   D   N   G   Y   V   F   S   L   S   R   K   A   G   L   V   S   S			
UniRef90_Q2FRD4	T   I   A   A   T   L   A   R   S   V   P   S   G   M   T   D   F   L   R   L   S   V   G   Q   Y   V   A   L   P   L   S   R   G   A   G   S   I   S			
UniRef90_G9PWY8	R   T   V   R   A   R   L   T   Q   N   I   P   S   G   R   E   D   Y   V   R   V   S   T   S   G   G   E   A   T   P   V   F   G   K   S   G   L   L   N			
UniRef90_E1JVH1	T   R   D   I   P   S   G   T   E   F   E   F   P   R   V   N   I   D   R   H   V   A   T   P   L   P   R   A   A   G   S   I   S			
UniRef90_A3CS19	R   S   V   K   A   R   L   S   E   S   V   S   A   G   R   A   Q   Y   T   G   V   R   L   D   G   L   Y   A   A   P   V   R   T   K   S   G   L   I   T			
UniRef90_D8EYV1	V   R   G   R   M   A   V   E   E   R   A   E   E   G   R   H   R   L   V   P   V   G   L   V   E   N   G   Y   P   V   D   K   G   S   G   A   T   T			
UniRef90_R7B2S7	R   V   K   A   I   L   K   E   T   V   L   S   G   R   K   K   F   I   R   I   K   L   D   K   Y   L   A   V   P   A   P   S   H   S   G   V   L   K			
UniRef90_R6J2W6	I   V   G   T   L   T   E   N   V   H   A   G   R   T   F   T   Q   T   V   A   V   D   G   V   L   V   R   P   T   Y   G   K   S   G   M   I   T			
UniRef90_N6YFU2	T   T   P   P   I   L   A   R   K   T   P   S   G   M   R   E   A   L   R   G   R   I   E   R   I   V   A   A   P   L   A   R   G   A   G   M   I   T			
UniRef90_UP100046AF2D7	A   T   V   E   A   M   E   R   Y   E   E   G   R   T   R   L   I   M   P   V   G   I   G   R   T   L   A   Y   P   V   D   K   G   S   G   A   T   T			
UniRef90_Y0KJV8	T   L   E   A   V   T   P   V   R   I   L   S   G   R   E   F   F   M   V   M   V   A   L   E   G   L   N   A   F   P   L   S   K   G   S   G   S   V   S   S			
UniRef90_M0MXR4	V   K   V   E   C   T   E   S   I   K   K   A   A   G   R   T   E   F   Q   R   G   V   V   D   G   N   W   V   K   P   L   P   Q   S   S   G   V   L   S			
UniRef90_X0VHZ8	R   V   K   A   I   L   K   E   T   V   L   S   G   R   K   K   F   I   R   I   K   L   D   K   Y   L   A   V   P   A   P   S   H   S   G   V   L   K			
UniRef90_UP1000465B6BE	T   T   P   I   L   A   R   K   T   P   S   G   M   R   E   A   L   R   G   R   I   E   S   I   V   A   P   L   A   R   G   A   G   M   I   T			
UniRef90_M1WU80	R   R   M   T   S   G   S   E   D   F   V   R   V   H   I   G   K   Y   I   A   N   P   L   L   S   R   S   A   S   V   T   M			
UniRef90_D6XSF1	A   T   V   T   K   N   I   V   S   S   N   T   E   Y   I   R   M   S   M   G   K   L   V   A   T   P   L   E   R   G   A   A   Q   I   M   T			
UniRef90_B6WUI8	E   V   V   L   A   R   K   T   P   S   G   M   R   E   A   L   R   G   R   I   E   R   I   V   A   A   P   L   A   R   G   A   G   M   I   T			
UniRef90_R7K893	T   V   R   A   V   L   S   V   D   K   P   A   G   R   R   Q   F   L   R   G   T   Y   D   E   G   T   V   T   P   V   G   G   G   S   H   L   I   A			
UniRef90_E6VRK3	K   L   S   R   R   Y   H   S   G   R   S   H   L   V   L   V   K   I   E   E   N   I   A   H   P   L   L   K   D   S   G   A   L   T			
UniRef90_N0CQ50	A   T   V   E   A   M   E   R   Y   E   E   G   R   T   R   L   I   M   P   V   G   I   G   R   T   L   A   Y   P   V   D   K   G   S   G   A   T   T			
UniRef90_K2RD98	A   T   V   E   A   M   E   R   Y   E   E   G   R   T   R   L   I   M   P   V   G   I   G   R   T   L   A   Y   P   V   D   K   G   S   G   A   T   T			
UniRef90_D8JA87	T   L   E   A   V   T   P   V   R   I   L   S   G   R   E   F   F   M   V   M   V   A   L   E   G   L   N   A   F   P   L   S   K   G   S   G   S   V   S   S			
UniRef90_UP1000367D4F0	V   K   V   A   K   M   A   Y   R   I   E   K   G   K   L   E   L   I   P   V   Q   I   V   E   N   I   A   Y   P   L   I   G   Q   S   G   S   T   H			
UniRef90_E6N3F5	A   T   V   E   G   R   M   A   E   R   Y   G   R   G   R   T   R   L   I   M   P   V   G   I   G   R   T   L   V   Y   P   V   D   K   G   S   G   A   T   T			
UniRef90_U2YXM3	I   V   G   T   L   T   E   N   V   H   A   G   R   T   F   T   Q   T   V   A   V   D   G   V   L   V   R   P   T   Y   G   K   S   G   M   I   T			
UniRef90_A8F7B6	T   T   P   I   L   A   R   K   T   P   S   G   M   R   E   A   L   R   G   R   I   E   S   I   V   A   P   L   F   S   E   S   A   H   V   S   S			
UniRef90_D3L1R3	V   P   T   V   R   G   V   L   T   R   R   V   P   I   N   V   R   V   D   R   T   Y   I   E   P   L   V   A   T   G   S   G   V   L   S			
UniRef90_G4RN6	T   T   T   P   A   K   C   T   E   A   V   A   S   G   K   R   Q   F   L   R   G   S   Y   D   A   G   T   V   T   P   V   G   G   G   S   H   L   I   K			
UniRef90_UP100036B810A	A   T   V   E   A   M   E   R   Y   E   E   G   R   T   R   L   I   M   P   V   G   I   G   R   T   L   V   Y   P   V   D   K   G   S   G   A   T   T			
UniRef90_H2J481	T   L   E   A   V   T   P   V   R   I   L   S   G   R   E   F   F   M   V   M   V   A   L   E   G   L   N   A   F   P   L   S   K   G   S   G   S   V   S   S			
UniRef90_G0V4L5	V   E   C   K   M   A   V   N   Y   H   K   G   R   A   E   F   F   P   V   R   I   K   E   L   I   A   Y   P   T   Y   Y   K   S   G   L   I   S			
UniRef90_Q0AYT1	A   R   S   T   A   A   L   R   K   Q   P   G   R   R   E   F   F   L   R   G   T   L   D   G   L   T   V   T   P   A   G   Q   G   S   G   I   L   R			
UniRef90_A1K9D6	R   I   S   T   N   P   A   G   R   E   F   F   V   F   V   R   L   E   G   F   I   A   H   P   L   I   L   G   E   S   G   L   I   S			
UniRef90_I7LL73	R   V   A   A   R   L   T   T   S   Q   S   G   T   D   F   V   R   V   A   R   A   G   G   G   V   A   P   V   S   R   G   A   G   V   Q   M			
UniRef90_B0R2L6	R   E   A   R   L   A   L   R   T   P   S   G   R   T   E   Y   V   M   A   S   L   G   G   L   T   A   W   P   L   L   G   K   G   S   G   S   V   T			
UniRef90_D5RN89	T   L   E   A   K   L   G   Q   K   I   K   K   G   R   T   E   F   I   R   A   H   L   K   G   Y   H   V   K   P   L   A   Q   G   S   G   M   L   K			
UniRef90_B6BWC4	V   V   A   T   L   T   R   K   I   P   S   G   T   R   T   F   A   R   V   R   V   L   D   H   P   T   A   E   P   T   T   S   G   S   G   L   I   S			
UniRef90_A4WLZ2	R   V   R   A   D   F   D   Y   K   K   G   R   E   F   F   V   F   V   R   V   R   L   G   G   L   V   A   T   K   F   A   R   G   A   G   V   L   S			
UniRef90_W9H3G7	A   T   I   E   G   R   M   A   E   R   Y   G   E   G   R   M   R   L   M   P   V   G   I   G   R   T   L   D   L   V   Y   P   V   D   K   G   S   G   A   T   T			
UniRef90_B9L46	E   V   R   L   M   E   Q   V   Q   S   G   R   T   D   F   V   R   V   A   R   A   G   G   G   V   A   P   V   T   G   G   A   A   S   L   S			
UniRef90_UP100016C5421	R   R   V   R   L   A   R   N   V   A   S   G   R   E   D   W   V   R   V   R   I   D   G   G   L   A   V   P   L   L   G   K   S   G   L   L   R			
UniRef90_G2H732	A   R   M   T   T   N   I   A   G   G   R   A   T   C   Q   L   V   R   L   E   E   Y   Y   A   E   P   V   H   G   K   S   G   L   I   S			
UniRef90_V6JY88	R   A   A   F   A   Y   R   K   K   A   G   R   R   E   F   F   V   R   V   S   L   R   R   G   V   K   Y   P   R   D   G   A   G   V   L   T			
UniRef90_UP1000465AC96	V   A   A   V   T   P   V   R   I   L   S   G   R   T   E   F   V   M   V   A   L   H   G   L   N   A   F   A   L   A   K   G   S   G   I   S			
UniRef90_UP1000307E3B1	P   A   G   R   R   Q   F   L   R   G   K   Y   D   A   G   T   V   S   P   V   G   G   G   S   H   L   I   A			
UniRef90_UP1000406D752	F   S   M   R   K   K   T   E   R   L   E   W   L   R   V   N   I   D   K   N   C   K   H   K   I   L   Q   G   S   G   M   I   S			
UniRef90_F2R7M7	R   L   R   A   R   L   D   R   M   V   T   S   G   Y   D   F   V   L   L   A   V   D   R   Y   A   A   T   P   L   P   R   G   G   G   T   Q   M			
UniRef90_M0LWP0	R   V   R   L   A   R   N   V   A   S   G   R   E   D   W   V   R   V   R   I   D   G   G   L   A   V   P   V   G   G   G   S   H   L   I   A			
UniRef90_A0A024YL16	P   A   G   R   R   Q   F   L   R   G   K   Y   D   A   G   T   V   S   P   V   G   G   G   S   H   L   I   A			
UniRef90_X1HUZ9	I   K   A   K   L   S   R   A   V   S   G   R   E   Y   I   P   V   K   I   G   E   L   L   A   I   P   Q   L   G   K   S   S   L   I   S			
UniRef90_E4RMJ9	A   T   V   E   A   T   L   T   R   K   I   P   S   G   T   R   T   F   A   R   V   R   V   L   D   H   P   T   A   E   P   T   T   S   G   S   G   L   I   S			
UniRef90_M0H0L6	A   T   V   Q   A   V   L   A   K   D   L   P   S   G   I   E   F   F   R   R   M   I   V   D   R   F   V   A   V   P   L   K   Q   G   A   G   A   I   T			
UniRef90_E8RFT0	T   L   L   R   A   R   L   L   E   R   K   H   S   G   R   T   D   F   Q   R   G   V   L   D   G   E   W   W   V   R   S   T   G   G   S   H   Q   L   R			
UniRef90_L0DZQ6	R   V   R   A   D   F   D   Y   K   K   G   R   E   F   F   V   F   V   R   V   R   L   G   G   L   V   A   T   K   F   A   R   G   A   G   V   L   S			
UniRef90_V4YBB2	A   R   M   T   T   N   I   A   G   G   R   A   T   C   Q   L   V   R   L   E   E   Y   Y   A   E   P   V   H   G   K   S   G   L   I   S			
UniRef90_UP100036EFBE0	R   L   R   A   R   L   D   R   M   V   T   S   G   Y   D   F   V   L   L   A   V   D   R   Y   A   A   T   P   L   P   R   G   G   G   T   Q   M			
UniRef90_A3CSF2	R   V   R   A   R   L   D   R   M   V   T   S   G   Y   D   F   V   L   L   A   V   D   R   Y   A   A   T   P   L   P   R   G   G   G   T   Q   M			
UniRef90_I2MZW6	R   A   A   F   A   Y   R   K   K   A   G   R   R   E   F   F   V   R   V   S   L   R   R   G   V   K   Y   P   R   D   G   A   G   V   L   T			
UniRef90_B8IL81	R   A   A   F   R   Y   R   K   K   T   G   R   E   Y   V   R   V   S   L   R   R   G   V   K   Y   P   R   D   G   A   G   V   L   T			
UniRef90_V4AZJL0	P   A   G   R   R   Q   F   L   R   G   K   Y   D   A   G   T   V   S   P   V   G   G   G   S   H   L   I   A			
UniRef90_H0A8Z4	P   A   D   F   T   Y   R   K   K   A   G   R   E   Y   V   R   V   S   L   S   H   G   T   A   T   K   Y   P   R   G   A   G   V   L   T			

50                  60                  70

V M A K C D G F I K I E R D L E G   V M K E Q E V I V
S V A L A D G W V V I D D D R E G I P A G E T V A V E N W E
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S V A L A D G W V T V P E G R E G Y A E D E T V T V E G W E
S L V E A D G V V E V D A D T E Y L A A G E S V T V T L F S
S F A R A D G F L R I D A L S D G M P A A T Q A S I T L F
T L V G A D G W I E V P E G V D Q Y E Q G A L V E T T L V R G
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T L T E A N G L L I I P E D V E G Y D E G D E V E V V V L I S
H L A R A N C L V V V P E D V T E L P A G A E V V V V L I E G
A F S H A D G F L A I D A Q A E A V E A G T P V S V Q L I G R
S L A K A N G F L E I I P S N V E G F E K G D Y V W I Q M L
T M T K A H G Y I C L A L N Q E G V S L G D A V K V Y L F
T L A A A D G Y V M L E E D A E G L K K G E T V S V Y L L E R
A L L A D A D G L A V V P E D A E G L P E G T E V A V L R L
S V A L A D G W V V V D D D R E G I P A G E T V A V E N W E
A F S Q A D G F F A I P A A R A G M E A G E R V
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UniRef90_U1P219	V Q E R Y D Q G R M R L L M P V G L L E G V V Y P V D K G S G A T T
UniRef90_V5ADV4	V L R A K A S A D I R K R G G R T E Y Q R A S I E D Y V A T V L P Q G S G V L S
UniRef90_UP100046D4C96	V R A N L T E A I T S G R R E F R P V K V G G Y T V T P L G M Q S Y T L S S
UniRef90_H2J862	I E G V S G K R I H S S I T E Y L R V G V D R Y V A I P L K R G A A N I S S
UniRef90_D9WM12	P E G R R Q F L L R G W Y E P S V A A P V G G G S H H L I K
UniRef90_UP100036A43B4	K V E C V T A I K K A P G R T E F Q R G I L G S D W K V K T T G G S G I L S
UniRef90_I4ECR2	T V K A R L D Q E N R G R R R H F V R G I L D E Y V V E P S S Q G S A V L T
UniRef90_B0NJ01	L A A I P I F G R S G L I S S
UniRef90_UP100036C8988	T I R K Q P G R R E F M R G R L E G R Q T V R L A G G S G V L R
UniRef90_I3I5C5	D A K Q S F K K H P G R M D F Q R G V L E Q G V N T V S A G S G V L S
UniRef90_UP1000466DC44	I P A G F T R K R A I Q R Q E Y I L R V K V E D N R L V P F S Q S S G V L A
UniRef90_Q2BLQ1	K K S P G R L E F I R G I L L G H Q V R S A G K G S H H I L S
UniRef90_G4SZD5	T I E A T L D G R I R N G R I F A R A T V D R Y L A R V T P Q G S G I L T
UniRef90_X0TAA2	V K A K I L G N K I L R K G R K W F V P V V L N E V Y A I P F S Y S S G N I S S
UniRef90_E0ST57	V P A G F S R S R P G G R Q E Y I L R A R L D A G R A C O P F A Q S S G V L S
UniRef90_UP1000369D929	A R L T G R L I R S S G K R Q Y R R G T F D D S V T V P G G A G S H H L L S
UniRef90_UP100047B6961	E A K L T H D F P K A N T R F V R A S L D Q L S V T P T G D K S S A V V T S
UniRef90_W8QVF3	K V I I A A F E H L R S G N R E E Y Y L R G R Y S D G Q V Q P F K Q S S G M L S
UniRef90_S6GLY9	V P A A F T K T K K A G R E Y Y L R A R L R D G R A E V F A S G S G R I S S
UniRef90_UP100046AA44A	V P A A F S K N K K P G R T E Y Y L R A R L N I D G H A E I F K G S G R I S S
UniRef90_Q0FA51	T T P A R L T H A I R S G K R Q F V R A E Y A G P S V T P V G G G S H H L I G
UniRef90_A1SET1	R K A P G R A D Y Q R G R L D E L F V S P N G K G S G V M S
UniRef90_K7AEY6	R I K A K T T K R K R P G R T D F Q R A I Y H T D V S G Q V G Q G S G L L T
UniRef90_Q1MYT2	K V P V T T A L K K S P G R L D F Q R G I L T A N V A T T G H Q Q S H H V F S
UniRef90_K8WJT9	R P S V M A R A Y H R G R T N F V R V M L E K K D N E Y F F K G S G I L T
UniRef90_X0ZGL1	I P A I A Q H A I R S G R T E F L R G I Y D G R I K V S T T G G S G M L S
UniRef90_Q07W68	T V K A V L S G D I K S G L R H F L R A R L G G Y T V D P A D Q G S H Q L A
UniRef90_E1RH87	L R K E K A T L A T K K A N P F T R F V V R V R F E G L V A A P P S F D K S S A V S
UniRef90_UP10004099005	L V Y P V D K G S G A T T
UniRef90_UP1000288E94E	K K R P G R T D F Q R G I L E G Y V V K P A G K D S H R K
UniRef90_M0AXG8	S G R F E F Q R G I I D G Q L H V R L A G G S G I L S S
UniRef90_UP10003619F22	R K A K G R T E F Q R G I L D G T W K V K T T G G S G M L S
UniRef90_I1YG11	R A T E A I R K R P G R T E Y Q R G I L G G E P Q V R L T G G S G I L S
UniRef90_C6XA33	R L H A R L A R T V Q P G F D E Y V F L T V D R Y I A T P L P R G A G T Q M
UniRef90_L9PHI8	A L K K K S P Q G E Y Q R G I L E F F V V A S A G Q Q G S H H I L S
UniRef90_I7J956	P D G K R Q F L R G A Y D E G R V I A P V G G G S H H L V A
UniRef90_G3IY91	R T R R G Y I T R S I F E N M R M F V R V R M G K T M V E P M T T G S G V I N
UniRef90_UP100036C4B60	M R A A F A Y R K K E G R R E Y V R A S L R K G A A T K F P R G A G G L L S
UniRef90_Q9HJE6	R R V S A D F E T K K P D K R R E Y Q R A R L V R V Q V F P S R S S A A I T
UniRef90_UP10002F00188	V P A G F A W N R A G S R R E Y L R A R F E L G R A Y P N Q S S G V L R
UniRef90_H8Z766	R V V S Q A A I R K R P G R T E Y Q R G I L E G I Q E V R I T G G S G V L R
UniRef90_UP1000374002D	K A T Y D Y S K S A G L T H F I K A F Y K E G R A T P L A Q E S F R L H
UniRef90_A4G4Y8	R L K A K L L S S R V F S G R E F L P V N I E G Y T A Y P V T G N S A A I S
UniRef90_UP10004101EB3	R L A A E P V R S G K R Q F L R A R S A E G A V T P V S G S S H H L V A
UniRef90_UP1000375C995	K T N V E L S T S L H S G T D E F V M M S V G K Y I G V P M S R G A G V Q M
UniRef90_F2KNQ1	E A V F Q E K F S K R R R H F L R G V L R E D G V F K V D Q G S G I L L T
UniRef90_U2R093	V Q T G R A L L S R D V I S S G K T Q Y L R A A L V P G T A E P V S G G S S H H L V A
UniRef90_H1YY19	E V K A S F E K R K K P G R R E Y Y L R A R F S G E Q V E V F K S G S G R I S S
UniRef90_D8PIE1	T R R A A V V G W R T P P G R T Q V L P V V L L D D T T V R P A T S G S S H H L V S G
UniRef90_A0A022LKD7	T V P A G F S H K K P G R A E Y L R A T L Q G Q I Q H G R R G A G V I S S
UniRef90_U4UY70	R V R S A Q A I R K K P G R T E Y Y Q R G I L D G Q W E V R I T G G S G V L R
UniRef90_M3UT95	P A S E G W R S P P G R R Q Y L P A R R V N S G V E P L G S G S S H H L V A
UniRef90_UP100036EDCCB	V P A G F V W P V A G N R R E Y Y L R G R L E Q G R A I I Y R S S G V L R
UniRef90_D5BQN5	V P S G F E H H K K P G R A E Y L R A R L E D G A Q Q A V L K G A G V I S S
UniRef90_V2GHM6	P A A F S K S K K E G R R E Y Y L R A R V E D G Q V I F P S G S G R V S S
UniRef90_UP10003B4BBE8	L R K A T A T L M A D F P K P N T R F V R V A V E D G T V S P V G T K S N I V T
UniRef90_V8R415	L K K V Q A V L Q K D K P N F T R F V R V S Y D D G M V I E P V G K K S N I V S S
UniRef90_G5ZZJ2	E A V L A G D I K A G T E E F V P A F L S G G Q A K P M P G K S G Y V V S S
UniRef90_A4EHI5	A R V V S K K K R V G R T D F Q R A R R Q G I L W V E P L S Q G S S H Q I Q
UniRef90_C5D759	R R K P P G R R E W L R A R L R F D A I Y P T N S S G A L S G
UniRef90_R4FZG9	T V P A A F S K R K K P G R R E F L R A R L D G E G R A E V F A G S G R I S G
UniRef90_UP10003B65AD2	A G F D W P K P G S R R E Y Y L R V R L E G G Q A Y P N Q S S G V L L S
UniRef90_B5JRW4	V K A R L K E N F S K G R V Q F L R V R V V D T G E H L L A S S S G I L S S
UniRef90_W6M9S2	V L A G F D Y K K K Q D R R E Y Y V R V R L E R L V A H R F E Q G A G V V L S
UniRef90_D0DD70	V V A D F S F T K K P G R R E F L R A R L E R G M A V K F P S S S G V L L T
UniRef90_Q3KEB2	K K K P G R T E F Q R G I L W V E P L S Q G S S H Q I Q
UniRef90_UP1000363D9AC	T R R D F A R G R L V N D E V F P K Q G S N V L T
UniRef90_K2KLE3	L S N Q V S S G R T E F V L G R L K E N I I E P L L S D S S F T F
UniRef90_G7ZTC4	
UniRef90_I3BTZ0	
UniRef90_UP1000466AF21	
UniRef90_I0GJP0	

UniRef90\_UPI00036B80C0 S | L | A | K | A | N | C | F | I | V | L | P | S | E | Q | G | R | V | E | A | G | E | I | V | T | V | Q | L | F | D | Q | Y

UniRef90\_Q3ADY1 T | L | L | K | A | N | A | L | L | R | I | P | P | R | F | S | E | G | Y | K | E | G | M | E | I | E | V | T | L |

UniRef90\_B8GIX4 S | M | V | R | S | N | G | Y | L | Q | L | A | A | D | Q | E | G | I | M | A | G | D | E | V | R | V | Q | L | S | G

UniRef90\_A8A8U4 S | Y | S | K | A | D | G | Y | I | V | I | P | P | E | T | R | R | A | V | E | P | G | E | E | V | E | V | W | L | F | K | D

UniRef90\_M0ARY8 S | L | A | E | A | D | G | V | V | E | V | G | P | P | E | T | D | Y | L | E | R | G | E | P | V | D | V | Q | L | F | S

UniRef90\_C7HSD9 S | L | L | K | K | A | K | G | Y | I | V | I | D | E | Y | V | E | G | I | K | E | N | E | K | V | W | V | N | L | I | R

UniRef90\_D7D848 S | L | V | K | T | N | G | Y | I | I | L | Y | E | N | I | E | G | Y | E | K | G | S | I | V | D | V | I | L | Y

UniRef90\_D1AIE9 V | L | A | K | A | D | G | F | V | I | I | E | K | N | K | E | G | L | Y | S | G | E | K | I | K | V | Y

UniRef90\_M0MWL5 S | V | A | L | A | D | G | W | V | V | V | A | E | E | R | E | G | I | P | A | G | E | T | V | A | V | E | H | W | E | A

UniRef90\_M0CSH9 T | L | T | A | A | D | G | V | V | D | V | P | P | A | D | R | N | R | L | S | A | G | E | R | V | T | V | D | L | F | S

UniRef90\_A3V4Y3 G | L | A | W | A | D | G | L | V | M | L | P | P | D | A | A | M | T | I | S | P | G | D | P | V | T | Y | I | P | F | D | S | F

UniRef90\_Q163E4 G | L | S | W | A | E | G | L | V | E | L | P | Q | E | A | A | S | I | V | P | G | D | P | V | R | Y | M | P | F | G | S | F

UniRef90\_A4BQX8 S | M | S | E | A | N | C | F | I | V | L | P | P | E | E | C | E | G | V | A | E | G | E | W | V | T | V | E | P | F | A | G | L

UniRef90\_D9Q2T3 T | L | T | D | A | N | A | L | L | V | L | N | E | N | V | E | G | Y | D | A | G | D | E | V | E | V | M | L | I | S | P | L

UniRef90\_UPI0003B691AE S | L | G | R | A | D | A | Y | A | I | V | P | P | A | E | L | D | S | V | A | A | G | D | V | V | D | V | M | L | I | S

UniRef90\_UPI0002DFCB5E G | L | G | R | A | E | A | Y | A | V | V | P | P | A | D | V | E | A | V | A | A | G | D | V | V | D | V | M | L | I | S

UniRef90\_A8F7B8 A | L | S | K | M | S | G | T | V | V | Q | K | G | V | E | L | L | D | E | G | D | K | V | T | V | G | L | N | R | S | L

UniRef90\_D1BA10 I | L | S | R | C | H | G | L | V | R | P | P | K | D | R | E | T | L | L | R | R | G | D | E | A | E | V | W | L | F | R

UniRef90\_X0NC69 A | M | A | H | A | D | A | L | I | V | I | P | P | E | D | T | T | E | V | P | P | A | D | A | V | V | D | V | L | P | L

UniRef90\_V6KW56 A | L | A | Q | A | D | A | L | I | V | V | P | P | K | A | E | Q | V | R | P | G | E | Q | V | D | V | L | L | L | H

UniRef90\_U1P219 S | L | V | D | A | D | G | V | V | T | M | G | A | D | T | S | Y | L | A | A | G | E | D | V | T | V | T | L | F | S

UniRef90\_V5ADV4 G | M | V | Q | A | Q | G | L | V | V | L | F | H | D | S | G | T | V | S | A | G | D | W | V | D | V | W | M | L | D | R | F

UniRef90\_UPI00046D4C96 G | F | A | E | A | T | G | L | M | A | V | G | E | N | A | S | T | V | P | A | G | S | T | V | D | V | M | L | L | D | R

UniRef90\_H2J862 A | V | S | K | Q | D | G | V | V | Y | I | E | K | G | I | E | V | L | E | D | G | E | E | I | N | I | H | L | K | R | S

UniRef90\_D9WM12 A | L | A | R | A | N | A | L | I | V | I | P | P | E | D | V | A | E | V | A | P | G | A | E | V | D | V | V | L | L

UniRef90\_UPI00036A43B4 S | M | S | Q | A | N | C | F | I | V | L | D | E | Q | S | G | T | I | K | A | G | S | Q | V | E | V | Q | P | F | P | W

UniRef90\_I4ECR2 S | V | A | R | A | N | C | O | L | I | V | V | P | P | E | S | W | E | Y | A | E | A | G | A | I | V | D | V | Q | L | L | D

UniRef90\_B0NJ01 T | L | S | G | A | D | G | Y | I | L | I | E | E | N | K | E | G | L | L | K | K | G | E | R | V | S | V | Y

UniRef90\_UPI00036C8988 S | M | S | E | A | N | C | F | I | V | L | P | P | E | E | R | G | D | V | L | A | G | E | T | V | Q | V | Q | I | F | D | G | L

UniRef90\_I3I5C5 S | M | A | K | A | N | C | Y | I | R | L | E | A | E | R | G | T | V | L | P | G | E | T | V | T | V | I | P | F | D | S | F

UniRef90\_UPI000466DC44 I | L | K | E | A | D | G | L | I | R | L | D | E | N | T | E | T | V | R | Q | G | E | R | V | D | F | M | P | W

UniRef90\_Q2BLQ1 S | A | S | W | A | D | G | Y | I | A | V | I | P | P | E | T | M | V | S | P | G | D | F | V | A | F | I | P | F | A | D | L

UniRef90\_G4SZD5 S | M | S | H | A | N | C | F | I | V | F | P | P | S | D | C | E | G | I | K | K | G | D | R | V | I | V | E | P | L | S | T | W

UniRef90\_X0TAA2 S | M | S | R | S | N | G | L | V | I | V | P | P | E | D | V | G | A | V | E | H | G | E | T | V | K | V | L | M | L | D

UniRef90\_E0ST57 V | L | I | K | A | D | G | I | A | L | L | P | P | E | N | R | D | V | I | D | E | G | E | Y | I | I | D | V | L | P | L | S | N

UniRef90\_UPI000369D929 S | A | S | L | A | Q | L | V | V | V | P | P | D | T | P | V | A | E | G | D | L | V | G | F | I | P | F | S | E | L

UniRef90\_UPI00047B6961 G | M | A | E | A | D | C | O | L | V | E | L | P | P | D | S | T | E | V | A | E | G | T | T | V | R | V | W | L | L | D

UniRef90\_W8QVF3 S | I | A | H | A | D | C | F | I | V | L | P | P | G | G | T | R | G | F | S | A | G | D | Q | V | S | V | L | L | F | H

UniRef90\_S6GLY9 T | A | S | R | A | N | G | L | I | V | I | P | P | A | D | A | V | I | Q | S | G | E | L | V | D | F | I | P | F | S | E | L

UniRef90\_UPI00046AA44A G | S | S | W | A | E | G | L | V | E | L | P | P | E | P | A | A | T | V | K | E | G | A | L | V | R | Y | I | P | Y | S | S | F

UniRef90\_Q0FA51 G | L | S | W | A | E | G | L | V | A | L | D | H | N | T | E | N | V | E | K | G | N | T | V | K | Y | I | I | P | F

UniRef90\_A1SET1 D | L | A | S | S | D | A | L | V | V | V | P | P | A | D | V | T | S | V | E | A | G | E | Q | V | Q | V | L | R | L | D

UniRef90\_K7AEY6 S | I | A | H | A | N | C | Y | I | V | L | P | P | Q | D | T | G | S | I | E | Q | G | S | T | V | Q | I | Q | P | F | T | S | L

UniRef90\_Q1MYT2 S | M | S | Q | A | N | C | Y | I | V | L | E | Q | E | R | G | H | V | E | Q | D | E | E | V | M | I | E | P | F | D | G | F

UniRef90\_K8WJT9 S | F | S | L | A | N | C | F | I | V | L | E | L | E | R | E | R | G | R | V | E | Q | A | G | E | M | V | E | V | E | M | F | N | S

UniRef90\_X0ZGL1 S | M | A | K | A | D | G | I | A | V | F | P | P | E | D | A | G | D | I | I | K | K | D | S | E | I | E | V | V | F | C | L | K | S

UniRef90\_Q07W68 S | M | V | S | A | N | C | Y | I | V | I | G | D | D | T | A | T | I | P | P | A | G | E | S | V | F | I | Q | P | F | A | D | L

UniRef90\_E1RH87 S | A | V | R | A | N | A | Y | M | K | I | P | P | R | E | A | G | S | T | V | E | T | V | Q | L | F | H

UniRef90\_UPI0004099005 S | L | A | S | A | D | A | L | I | T | V | P | P | E | D | V | E | T | L | P | P | A | G | S | T | V | D | V | M | R | L

UniRef90\_UPI000288E94E S | L | A | T | A | N | A | F | I | V | L | P | P | G | G | T | R | G | Y | E | E | G | M | D | V | D | V | L | L | E | D

UniRef90\_M0AXG8 S | L | A | Q | A | D | G | V | V | E | V | P | P | E | T | D | Y | L | E | A | G | E | S | V | V | R | V | R | L | F | S

UniRef90\_UPI0003619F22 Q | L | S | L | A | N | C | O | L | I | V | L | P | P | R | E | A | G | S | S | M | S | A | G | E | T | V | E | V | Q | L | F

UniRef90\_I1Y1G11 S | M | S | R | A | N | C | F | I | L | L | D | E | T | C | Q | G | V | V | A | A | G | D | T | V | T | V | Q | P | F | A | G | L

UniRef90\_C6XA33 S | M | S | R | A | N | C | F | I | V | L | D | E | D | T | D | G | S | L | P | A | N | Q | L | V | R | V | Q | L | L | E | G

UniRef90\_L9PHI8 S | M | T | E | A | N | C | I | V | V | L | R | E | A | Q | A | G | V | V | A | A | G | E | M | V | D | V | L | L | F | D | G | L

UniRef90\_I7J956 T | V | R | A | N | A | Y | L | H | V | P | P | P | G | T | G | S | I | H | E | G | A | E | V | E | I | I | L | L

UniRef90\_G3IY91 S | M | S | Q | S | G | C | Y | I | V | L | V | P | P | E | G | C | K | G | V | V | Q | A | G | D | R | V | T | V | E | P | F | S

UniRef90\_UPI00036C4B60 A | L | A | H | A | D | C | O | L | I | V | V | P | P | E | A | V | T | S | V | E | P | G | T | D | V | E | V | V | L | L

UniRef90\_Q9HJE6 S | V | I | S | A | D | G | Y | L | V | I | E | E | N | S | E | G | Y | P | E | G | A | E | V | D | V |

UniRef90\_UPI0002F00188 S | L | V | D | T | D | G | L | V | E | L | P | P | E | D | D | T | G | S | L | P | A | N | Q | L | V | R | V | Q | L | L | E | G

UniRef90\_H8Z766 S | L | T | W | A | D | G | L | V | V | V | P | P | E | R | T | R | I | S | R | G | D | M | V | D | F | L | P | F | S | E | L

UniRef90\_UPI000374002D S | V | S | W | A | D | G | L | V | E | I | P | P | E | G | R | T | L | V | E | G | P | V | D | F | I | P | L | S | E | L

UniRef90\_A4G4Y8 S | M | S | E | A | N | C | M | V | V | L | E | E | H | D | R | A | E | V | K | A | G | E | L | V | D | V | I | L | F | D | G | L

UniRef90\_UPI0004101EB3 S | F | A | Q | A | N | C | F | I | I | L | P | P | E | E | S | T | G | C | K | A | G | D | T | V | D | V | H | L | L

UniRef90\_UPI000375C995 S | V | S | K | A | N | C | Y | I | K | I | P | P | R | E | S | G | N | I | A | A | G | E | T | V | E | T | I | P | F | D | K | W

UniRef90\_F2KNQ1 K | L | G | E | A | D | G | F | I | E | I | P | P | E | S | R

UniRef90\_U2R093 A | M | A | R | A | D | V | L | I | D | V | P | P | A | E | V | E | S | L | P | P | A | G | A | D | V | T | V | W

UniRef90\_H1YY19 S | A | V | R | A | N | A | Y | I | K | I | P | P | A | E | S | E | G | I | S | S | G | E | E | T | E

UniRef90\_D8PIE1 S | M | V | K | A | N | C | O | L | I | D | I | P | P | V | E | V | E | R | I | N | P | P | G | D | S | V | T | V | Q | L | L | S | G

UniRef90\_A0A022LKD7 S | M | A | R | A | D | V | L | I | E | I | P | P | A | D | V | T | S | L | I | A | A | G | D | E | V | V | V | V | P | L

UniRef90\_U4UY70 G | L | S | W | A | N | G | F | V | E | L | P | P | D | H | A | V | T | I | T | H | G | D | F | V | K | F | I | P | F | D | S | F

UniRef90\_M3UT95 S | L | A | V | A | Q | A | L | A | I | V | P | P | A | D | V | E | R | V | G | E | G | A | S | V | E | V | M | V | L

UniRef90\_UPI00036EDCCB S | I | S | R | A | N | C | Y | I | V | L | P | P | A | D | C | T | G | V | E | A | G | A | P | V | V | V | E | P | F | S

UniRef90\_D5BQN5 S | L | T | G | A | D | G | L | V | E | I | P | P | L | D | N | A | G | V | E | V | G | M | P | L | A | F | L | P | F

UniRef90\_V2GHM6 S | M | S | E | A | N | C | F | I | V | L | A | A | H | E | Q | G | G | V | V | A | A | G | D | P | V | E | V | M | L | F | E | G | L

UniRef90\_UPI0003B4BBE8 S | L | A | L | A | D | C | O | L | V | V | V | D | E | Q | V | T | E | V | K | A | G | D | L | V | G | V | L | P | L | H | G

UniRef90\_V8R415 S | A | A | W | A | D | G | L | V | E | V | P | P | E | R | G | R | T | L | S | E | G | D | E | V | S | F | I | P | L | S | D | L

UniRef90\_G5ZZJ2 S | L | T | G | A | D | G | L | V | E | I | P | P | F | S | S | A | T | G | G | L | G | Q | P | V | P | R | F | Y | P | F | H

UniRef90\_A4EHI5 G | L | S | W | A | T | G | L | V | E | I | P | D | D | P | A | Q | K | I | A | P | G | D | L | V | T | Y | I | P | F | N | S | F

UniRef90\_C5D759 S | L | A | K | A | N | A | L | M | V | L | P | P | G | G | T | R | G | F | A | K | G | D | T | V | D | V | W | L | L | E | D

UniRef90\_R4FZG9 S | L | A | Q | A | N | A | F | I | V | L | P | P | G | G | T | R | G | F | Q | A | G | N | R | V | D | V | R | L | L | H | D

UniRef90\_UPI0003B65AD2 V | L | K | N | A | N | A | L | V | R | L | A | E | N | E | E | T | T | R | R | K | G | E | R | V | E | V | L | Q | W

UniRef90\_B5JRW4 M | L | A | S | A | D | C | O | L | V | V | L | P | P | R | E | S | E | G | L | A | E | G | E | W | A | T | V | L | P | L | S

UniRef90\_W6M9S2 S | L | S | W | A | D | G | L | I | E | L | P | P | E | D | S | T | G | V | Q | L | G | D | K | V | S | Y | L | P | F | Q | G | L

UniRef90\_D0DD70 G | L | S | W | A | T | G | L | V | E | I | P | D | E | A | V | E | I | A | P | G | S | P | V | P | R | F | L | P | Y | E | G | F

UniRef90\_Q3KEB2 G | A | T | W | A | D | G | L | V | E | I | P | P | E | N | S | T | L | Q | R | G | A | P | L | R | F | I | P | F | S | E | L

UniRef90\_UPI000363D9AC T | M | L | R | A | N | G | I | A | V | L | P | P | A | E | A | T | A | V | R | P | G | D | L | V | D | F | L | P | F | T | G | L

UniRef90\_K2KLE3 S | M | V | A | A | D | G | L | V | E | L | P | P | E | E | A | T | R | I | A | A | G | S | V | V | P | Y | L | P | F | S

UniRef90\_G7ZTC4 S | M | V | E | A | D | G | L | V | D | M | P | P | A | E | A | T | A | V | R | P | G | D | L | V | D | F | L | P | F | T | G | L

UniRef90\_I3BTZ0 S | M | S | K | G | N | C | L | I | I | P | P | Q | E | S | A | T | V | E | P | G | D | V | V | Q | V | Q | P | F | F

UniRef90\_UPI000466AF21 S | T | A | W | A | D | G | F | V | V | I | P | P | E | D | T | T | I | A | K | G | D | K | V | A | F | F | P | F | N | S | L

UniRef90\_10GJP0 V | L | N | E | S | H | G | F | I | K | I | P | P | Q | E | K | E | G | L | L | A | N | E | S | V | E | F | F | L | W



50                  60                  70

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

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UniRef90_K0D179	A T I T T T L K R R	10	A G R R D F Q R A V M V K N S V T P F S Q S S G V M T
UniRef90_UP100047DD0ED	R A R P A T L I S G V E		S G R R Q F G R A V V S R L V A V P V A G G S S H F V A
UniRef90_B2JFH6	R K R P G R T E F Q R G V A Q R D A V T P T S Q G S G V L S		
UniRef90_R4VKH2	R K K P G R Q E F Q R G R I V T D A V E S V G R G S G M L R		
UniRef90_F7YW47	V K E M E A E L A Y K K S S G L T H F L K A H Y Q N G K V I P L G Q E S F R L S		
UniRef90_T0LEF2	K L P F R I N S E R K D L V L P A I K G G R A Y P I F G E S G S I S		
UniRef90_C4LHG2	I Q A R A L H G V S S G R R G F I R G Q L D E Y L V D P L G A S A G L L G		
UniRef90_UP10003060E00	I E A T L N E K K A N P F T R F I R A K I D G V Y A E P S F N K S N A V V		
UniRef90_D5UYI2	R R R A V L A E A V D S G K R Q F Q R G R L V R G A V S V V G G G S H Y L R		
UniRef90_N0APP2	L R K E M A I L E A D F P K A N T R F V R V T I K N G R L T V P S G S S N I V M		
UniRef90_UP1000478801B	A A R L A A P L P S G K H Q V R G S V A G D G T V H M E G G S H L V H		
UniRef90_E1W6B1	K K A P G R L D F Q R G F Y Q Q L E V H P V F Q G S H L F S		
UniRef90_UP1000395D1F6	T A T L T T K K R P G R T D Y Q R G I Y E Q G V A S S G A Q G S A L L M		
UniRef90_F5XE37	K A R A T H A M S S S R R L A R G I V D G N R L V S L A G G S S H L I G		
UniRef90_A6VP41	L R A V A A T G L K K S A G R L D F Q R G F Y Q L Q V Q P V F Q G S S H L F G		
UniRef90_W9TJC5	V V A A G F A W P K P G K R E Y L R A R L E Q G K A Q Y A N Q S S S V L R		
UniRef90_B1KL43	V P A V A D C K M R S G R T E F T R G V F D G K L H V T T G G S S G M L S		
UniRef90_B9M604	K A T L T E E I R K G R L H F L R V T L D G Y L A T S S G Q E T G I V R S		
UniRef90_G8M615	K K R A G T E F Q R G I A T R D V V T T G P Q G S G V L S		
UniRef90_E2CLN4	K K K P D R R E F Y R G T L G R T I V R K F D R G S S G L L T		
UniRef90_UP1000255562E	R R L R A R L I S P F P S G T R R F I R A R L E G D E E F P L G H S S G H M L		
UniRef90_D7B7T7	M R A L L T S P V T S G R R S F L R A V L E E P T V S P A S Q G S S H Q L S		
UniRef90_C8X907	T V T A P L S A P L P A G K R Q F R G H L E G T V A A W G G P G S H L L A		
UniRef90_A4YCA6	T L R S R E G R T E F I R G I Y Q R L Y V R S T G Q G S S G M L N		
UniRef90_UP100028A3885	L R R E K A V L G F K K A N P F T R F I R A T V G Q L V A V P S F D K S S A V S		
UniRef90_E6WB19	R L R A R A S Q R L K K G R L D F Q R G I F D G M L E V R S T G G S S H V F S S		
UniRef90_UP10003760A4E	V Q A Q Q L L H D I D K G H E R F V R C R L G Q L Q A D P L Y G K S S G M M A		
UniRef90_F9DRM7	R I Q A K L G F K K A N P F T R F V R A S W E G I V A T P A F N K S S A V S		
UniRef90_X1WZZ7	R A R A T Q R L L K K S P G R I L D F Q R G I L E D G V L I E V R S Q G S S H V F S S		
UniRef90_UP10003818A68	T Q A T L S V D L T S G K T Q F L R G W V V P S G A Y P V G G G S S H L L A		
UniRef90_UP10002627225	R T V S A R L L S P V S S G R R G Y L R G Q L G E Y L V Q P L T S G A H L L A		
UniRef90_H2FWH7	T A L V P F K K S P G R M D F Q R G R V E R L G V V P A G A Q S S S A V S		
UniRef90_D1C2T2	I P T L R A R L G H E N R G R R R H F V R G I V E E W V A W P C G Q G S S G V L T		
UniRef90_W4Q0V3	U I Q V T A T L G V D F P K P N M R L V R A K V E T L V A S P S G D K S S G I V S S		
UniRef90_L0HD88	R I V Q A Q V T T A L A K G S D E Y V A C T L D R F V I S P Q S K G A G V Q M S		
UniRef90_B6B0Z6	V P A A F E K R K K A G R R E F L R A R L R E G R V E T F A S G S G R I S		
UniRef90_UP100047E8D22	R F T A T L A V R K S G G R T E F Q R A L I G N W L A E P C G Q D S H R I Y S		
UniRef90_D6ZBR2	R S P A G K R Q F L R G V I L D R S S V S P F P P G S H F L R S		
UniRef90_UP100037E9692	R K K P G R T E I Y R G I I E G E W R V K T T G G S S G I L S S		
UniRef90_UP10003FD16C2	R V R A R L T E A M T S G R R Q F R G F Y E G E V G P R G G P G S H L L A		
UniRef90_R4TGV2	A L R K A P G R T E Y Q R G I V S E D G V L Q V P Q G A G V L S		
UniRef90_Q2G6Q6	R T I P A R L A G P M G P G R M E F L R A H W D G N G V T D E L Q D S G A L S		
UniRef90_W6JXY7	V G Q G S S H F V A		
UniRef90_U3TPQ9	R Q R A R A T Q R L A P G R L D F Q R G I L L D D G V L E V R S Q G S S H V F S S		
UniRef90_C8Q198	A A K T T H D I K K G R Q D Y Q R A V F E D G S V T P L S Q D S H R V K S		
UniRef90_S3IS32	R T V G R L K K S P G R L D F Q R G I L L Q G D L E V L S T G G S S H I F S S		
UniRef90_UP1000365506A	R K A T G R T E F F Q R G I L L D G S S W V K P L A Q S S G V L S S		
UniRef90_D2ZA82	R V R A A T R L K K S P G R L D F Q R G I L L D G E L E V S T T G G S S H I F S S		
UniRef90_UP10003782B47	F V R G R Y Q Q L V A E P A G K K S S N M V H		
UniRef90_Q21YF4	I P S A F E M K K K S G R K E W L R G R Y G D L R V E K F R S G S G L I E S		
UniRef90_UP1000472FD2E	V R A R L S A A V T S G R R S Y L R A V V E H T V A P A V R Q G S S H Q L S		
UniRef90_UP100034CBDDBE	I P K I K A K L G F E V P H P R P E Y Q R V I L H E D S E T P V A K S T G A L V		
UniRef90_T1JB58	P Q G S S G I L T		
UniRef90_X1LAP1	V K A V L P V K I R K G F T M F V P V G L K G F T A Y P L Q S S S G G S I S		
UniRef90_C3B981	R V T A R L G A D I R S G K R Q F L R G V L R G V V V D P I P P A S H H L R		
UniRef90_I3TG87	R I Q A T L G K K K P N P F T R F V R G Y L R G R V I V D P V G M K S S A V V S S		
UniRef90_L7KYV8	K A E A A F S R P H P G T R E E Y L R V V L N N Q P V P V A Q S S G V L S S		
UniRef90_I0JLT1	V V K A I A T E N L R S G R M E F S R V N S N G L L E V K T T G G S S G I L L R		
UniRef90_A0Z172	V V A D F K K N K R R G R S E Y L R A R I N R V D V F P S E G S S G R I L S S		
UniRef90_UP1000361C937	G R L D F Q R G I L L D G E L V V N T T G G S S H I F S S		
UniRef90_I1DV62	K K Q P G R M D F Q R G W Y T G L K V K T L S Q S S G M L S		
UniRef90_U5MSW7	N K P S V R R F I R A Y F N D G K V R F V E N K S S G M L S A		
UniRef90_E6SC74	R V R S A T L T S R S P E G R Q F G R A V V S R L M C Y P V A G G S S H F V A S		
UniRef90_A1AWX4	K T Q A N F D W H K P K P R E F I R A R L D H T T F Y P K Q G S S D V L S S		
UniRef90_X0XUQ6	T I R A I A K E R I V N R R R Y F A R C C V V G R Y Y A S L T P Q G S S G I L L S		
UniRef90_U4JXY3	K V K A I A T E N L R S G R M E F S R V N S N G L L E V K T T G G S S G I L L R		
UniRef90_Q47T05	V R A R L L A P I T S G R R S Y L R A V L D A Y T A L P V A Q G S S H Q L S S		
UniRef90_UP1000262CEF4	V V A D F K K N K R R G R S E Y L R A R I N R V D V F P S E G S S G R I L S S		
UniRef90_S3JKY5	G R L D F Q R G I L L D G E L V V N T T G G S S H I F S S		
UniRef90_UP10002D3A987	A I R K K P G R T E Y Q R G I L L D G V W K V K L T T G G S S G I L L R		
UniRef90_F4HEJ3	R K L P A I A A Q P K K G R L D F Q R G F Y Q Q I E V S P V F Q G S S H M F S S		
UniRef90_K2R0Z4	F A L R K K E G R T E F F V P V R V Q G R D A T P V R G S S G S L S S		
UniRef90_X7EJ97	V P A G F E K R K K P G R E Y L R A R M R D G R A E V F K S G S S G R I L S S		
UniRef90_G0EH19	R L I G R I E R R V T S G V M D V V R V H L D G L M V K P L T T G G S S G V L S S		
UniRef90_A4BGQ3	R K A P G R M D F Q R G H W E T G V D V R L T R G S S H I L T		
UniRef90_UP1000468F612	R V K V T E K L K K S P G R L D F Q R G I L L S R N A G G E L A Q G S S H V F S S		
UniRef90_A0A059II0G	P A G F S Q T K K P G R E F W R G W L E T T P Q G P V A R G S S G I L L S		
UniRef90_UP1000479B3E3	L R K E K A E L I A D F P K A N T R F V R T S L N R L V A A P S G D K S S N I V M		
UniRef90_A5G6Y1	T V K A A L K E D V R K G R L H L L R V R L D G Y Q A S V F G D Q S S G I L L R		
UniRef90_C0D1L0	P K A S P S R R F L R G I C E N G Q V I P E V K K S S G I L L S		
UniRef90_UP100036FBA76	K S R P G R T E F F L R G I F H Q D R N G Q L P Q G S S G I L L S		
UniRef90_K0AXZ7	K K T S S Q R R F M R V K V E E R V E I Y L S G K Q G V L R S		
UniRef90_X2GQQ1	U V A M K K A P G R T E F F Q R G I L L S H W S V R P A G Q G S S G V L R		
UniRef90_UP1000464A947	K V R A G G R F K K S P G R L D F Q R G V L R T G V V T T G H Q G S S H I F S S		
UniRef90_D1BA11	P P G M E E W A K G R L D R E V V Y P L G G G S S S L W		
UniRef90_A0L8R2	R K T A G K R S Y V R A R L D T Y V V A P V V G G G S S H I L V A R		
UniRef90_A0A011P3W9	V P A N F Y K N K P G R N E M L R A R V R N Q V E A F G S S G S G R V T		
UniRef90_M1FM67	R L R A R A S E K K A P G R L D F Q R G V F S R D A A G D L Q Q G S S H I V F S S		
UniRef90_UP1000346FA0E	V S A A L A E A L V S D K R Q F R R G V L D G T V A E V G A P A S H H L L A		
UniRef90_F4D0P2			

50            60            70

UniRef90_K0D179	S I T S A N C L M V V H E D I S E L Q A G D T V P V M P L H
UniRef90_UPI00047DD0ED	D L S R A N A L F V V P E D V T E L V I A G E V V D V L V L D
UniRef90_B2JFH6	S M S E A N C F I V L A H E Q A D L D P G D P V D I M L F D G L
UniRef90_R4VKH2	S M S A A N C F I V L P A D Q G D V E P G D W V S V E P F G R
UniRef90_F7YW47	P L T K M D G K V V I P R G V E I V E E G E L C Q V E T S K S L
UniRef90_UPI00029A10F9	T F A Q A N C L I M L E E E T E Q V N Q D E R V K I M L L
UniRef90_T0LEF2	R L A Y A D G F V V L K S E R N Y Y D E N D E V I Y F P L H N
UniRef90_C4LHG2	S F A E A N C L I H V P E D D V V G I A P G D V V D V L F L S N
UniRef90_UPI0003060E00	A I A K S N G M I I L P S G T R G Y A K G D K V K V L L I D
UniRef90_D5UYI2	W L S K A D C L L D I P P P A V E H L A A G E P V D V I
UniRef90_N0APP2	S L A G A N S L M I L P G G T R G Y E A G T E V E V L F L E D
UniRef90_UPI000478801B	A L A R A N A L I Q I P A A V T E L N N A G A E V E V W M L
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UniRef90_UP100037F1FC7	S L A G A N S L T V L	P G G T R G F M A G D E V	D V L L L E D
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UniRef90_R5XE14	S M V G C N C O L I D I	P G Q T P K L D K G E K V E V V L L	
UniRef90_B6IRY1	A M V E A D G L I E L G	E A V T A V A E G D L V P C L P L G S L	
UniRef90_A0QQS7	W L A S A N C C O L L E I	G E D V T E V P A G T S V Q V W D L S	
UniRef90_A3MZ28	A F Y E S N C C F I V L E	A E R G N V D A G E K V T I Q P F N S L	
UniRef90_F5SPX7	Q S L A N C C O L I V L P	K P K D S G N V S A G E E V L V Q P F	
UniRef90_F2BDU4	H V S R A N A Y I I L P	A E S G S L E A G Q T V T V Q P F D G	
UniRef90_G8S607	G L A E A N G L L V L G	E R V T T A A A G S T V D V L L L D R	
UniRef90_V6MLS7	S F S V A N C C F I V L E	R E R E R G K V A A G E T V T I E L F N S L	
UniRef90_U3CGS5	S M S L A N C C F I V L E	E R E R G S V E A G E T V Q I Q M F N	
UniRef90_C6DDDS1	S F S L G N C C F I V L E	Q E Q D R G H V A A G E W V E I E P F N A L	
UniRef90_N9XEN7	S M A G C C N C L V D I S	A G T E R I E A G E S V T I	
UniRef90_UP1000364758E	S M S E A N C C F I V L A	H E R G D V I A G E L V D I M P F E G L	
UniRef90_UP10004217892	S F A A S N C C F I V L A	H E R G D V I A G E L V D I I I L D R	
UniRef90_D3AQ0Q	G V S R A N G Y I I L P	A G V A E V A G D E V D V L L L D R	
UniRef90_W5X348	G L A T A D A L V R L P	A G T V R L K S G E K A S A L L L D	
UniRef90_F9S824	S M S E A N C C O L I E I S	P A V D T V K V G E S V T I I P L Q G	
UniRef90_UP1000308E893	S I A R S N A L I V L P	P G G S R G F K V G D K V D V L L L	
UniRef90_A0A024Q1G9	S M V A A N C C O L I E I G	D G D C A A V E A G T P V T I Q P F G D L	
UniRef90_UP1000410E03E	A M S Q A N C C F V V L E	A Q R G D V E A G E K V V E P F D E F	

1                    10                    20                    30                    40

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

50            60            70

UniRef90_M4U7H8	S M S Q S N C F M V L	E E Q R G D V L E G E T V M I E P Y N A L
UniRef90_R9NV95	S F S Q A N C F I V L	E R E R G N V A A G E E W V D V E P F N S L
UniRef90_D3SL45	S Y V G M N A Y M I V P	P E G V N T L R E G D R V D V I L L
UniRef90_T1XBR5	S M V E A N G L V V L	H H D Q G N V A A G D E V D V M M L E A
UniRef90_V7IGD8	Q V S R A N A Y L V L	P A E S G S L P A G A E V T V Q P F
UniRef90_A8G1K6	S M S L A N C F V I L	S Q E Q G D T A D G T M V T V E P F N S
UniRef90_B1M9C4	S L T E T E G L V E L	E D N R T E V V P G D V V R F H P
UniRef90_F7YRZ2	S M S L A N C F V V L	E Q D R G R V E V G E T V N I Q L F N
UniRef90_U2LUZ3	S F S Q G N C F I V L	E R E R G S V A A G E T V E I E P F N A L
UniRef90_UP10003B40CC0	S L A G A N A C I V L	P G G S R G Y Q R G D V V D V M L L E D
UniRef90_W9GCH4	D L S R A N A L L V I	A E D T T E V V G A G E V V D A I L L D D
UniRef90_Q65TU8	S F V K S N C F I V L	E R E R G N V T A G E T V T I E P F N H L
UniRef90_UP1000372344C	S L V K T D A F M K L	P N D I T D F K K G E V F P V I R Y R
UniRef90_B5EIK3	T M T R C D G L A A L	P S E A T F V P A G S E V D L V L L R D
UniRef90_UP10004239537	Q L S Q A N C L I V L	A K D N G N L A A G E S V T V Q P F
UniRef90_H6CQ08	T I K D S D C L I V V	P P T T E G L R A G E E V R V L I L Q G
UniRef90_H6LB54	S L K D C N C L I E I	E A G K N S V K A G E T V K V I L L
UniRef90_B8GJ19	S L V R S N G Y L H I	P A S V E G Y E A G G S A V D
UniRef90_UP100035D1077	A F T Q A N C L I V L	P E D V T R A P E G E E V D V L L L
UniRef90_M0CNJ0	T L A R A D G W V T V	P A E R G G L P A G E T V S V E R W E A
UniRef90_K7S0L5	S L P L V E G L A V V	P A G V D A V A P G D A L D V L V T R G
UniRef90_UP10002F3C4FA	S M L G C N C L I D I	A A G S E G L K A G E T V K I V M L E
UniRef90_Q11FK7	A M R L A D A W L A V	P D D S E G Y A A G T P V A A F P L R S
UniRef90_P45210	A F V K S N C F I V L	E Q E R G N V S A G E T V T I E P F N H L
UniRef90_U4KCU5	S M S L S N C F A V L	E R E R G N L E Q G E T V Q I Q L F N
UniRef90_UP1000225B8D9	S L G H A N V L I Q L	P G G S R G Y Q A G M E V S V I L L E D
UniRef90_U3BOS3	S M S E A N C L I E I	D P L Y A K V E P G E L I T I I P L N
UniRef90_H8GVF3	S L S D A D A L V I V	P E G Q K V E A G D E V D V I L L
UniRef90_UP100045E9A59	S M S R A N A F I I L E	H E R E R G N V K A G E W V V S V K P F A G
UniRef90_Q1GYX3	S M S E A N C F I V L	G D Q V G D L P P G G S E V E V Q V M E G
UniRef90_K6ZBL1	S F A N S N C Y I V L	E T D R G H V Q A G E T V Q I Q L F D
UniRef90_UP100037BC706	S F A D A N C F I V V	D K S K E I C K E N E I V E I E L L
UniRef90_UP100037B0A6E	S F A N A D C L I C L	P E N K E E F K D N D L V E V H I L
UniRef90_M1F6P1	S A C W A D G L A L V	P E H S T L S P G D I I T Y F P F S E L
UniRef90_UP1000463F1E6	T L A D A N G L I V R	R P P F A A A A I A G E P C Q V L M L R
UniRef90_UP10003198B4A	S M S L A N C F I V L	E S E R G S V E A G E T V T I Q T F
UniRef90_V4ITP4	S L T W A N G G I V V I	P E G R T I A I G D P V D F I P F S E L
UniRef90_D2TYA4	S F N Q S N C F I V L	A Q N R G Q V N A G E L V D I E Y F N
UniRef90_H0URS1	S L G E A D G L A C I	P S S S V E L D K G D K V R F Y P L
UniRef90_A7GTZ8	C L A E A A N A F I V L	R G F E T G M T V S V L L L D S
UniRef90_UP100037893B6	G L A S A H A L L V V	P E E V T E V S A G T R L P A L L L P D
UniRef90_D4E8V5	S F S Q G N C F I V L	E R D R G A V A A G E M V E I E P F N
UniRef90_H5XR79	S F A Q A N C C L I V L	D E E T T E A P K D S T V D V L L L
UniRef90_U3HTV9	S A A W A D G L I V E V	R E H S Q L N E G D L V S F I S F A E L
UniRef90_F6DB45	S T V W A D G F A I I	V N Q Q V H L G D W I E Y L P F S Q F
UniRef90_UP1000472629C	S V T W A D G L A V L	A K Q Q T V A A G D R L D F L P F S D L
UniRef90_A1HUC7	S A I A A N A L V V I	P E N S P P L P A G T E V E V I L L
UniRef90_K6UXX5	Y L A R A D A L I D	A A D V D A V S A G T P V D V I M L
UniRef90_M1KL04	S L A E A A N A F I I L L	P G G T R G F E V A G R T V H A L L I R D
UniRef90_UP1000479EF87	S M S E A N C L I E I	S L A G A N S L M V L P G G T R G F E V A G N V V D I L L L E D
UniRef90_UP10002D30E3F	S F V K S N C F I V L	E P L Y A K V E Q G E L V T I I P L
UniRef90_UP10003730967	S L P W A N G F A R V	E K D R G N V T T G E T V T I E P F N H L
UniRef90_V8QNC1	S L V G L D G M V V I	P A V Q K Y T G G D R V W V Y P K E D W
UniRef90_L1MIU8	S C A W A D G L A D I	P A G T S V A E G D F V S Y Y P F R D L
UniRef90_UP100047D62D8	U N I F O R M A T I R I	A M S W A E G L A V V E A G R T L G A G E L V E F L A L D T L
UniRef90_UP10004708C72	S L S S A N A L I V L	P E A V D L A S A G S H H V E V M R L
UniRef90_D5UZC9	S M S E A N C M V I L	S M S E A N C M V I L A A S Q G D A A P G D M V D V V L F D G L
UniRef90_B1VIJ5	V L C K C N S F I A L	D E N V S K L N E N Q E V K V I P I N
UniRef90_R7BX84	S L V G L D G M V V I	P A G S V V K L G Q P L A F L P F D G L
UniRef90_U2ZNA8	S C A W A D G L A D I	P E D V T H R P G D V V E V I F L S
UniRef90_E6Q4B0	U N I F O R M A T I R I	A L A R S D G Y L A L G E E I T L A V G E R V D I Y R Y
UniRef90_UP100030A85AB	S L A K C N A I I V L	S L A K C N A I I V L P S G S T K G F T A G I E V D V L L L
UniRef90_C5WCX8	S F M L A N C F I I L	Q S D R V T V E P G E W V D I E F F N K L
UniRef90_G3ZZL3	S F V K S N C F I V L	S F V K S N C F I V L E Q E R G N V A A G E T V T I E P F T D L
UniRef90_UP10003A54DFE	U N I F O R M A T I R I	S A S E A T G L I L I P A G S V V K L G Q P L A F L P F D G L
UniRef90_F6IPY8	A L A A S N V L I D R P A H A P A A T P G D T V R V F L L E N	A L A A S N V L I D R P A H A P A A T P G D T V R V F L L E N
UniRef90_K1E855	S L G G A H A L A V V V	S L G G A H A L A V V V D E E T D T V E P G D L V G V R
UniRef90_UP100023761B4	S M V Q A N G L I V L	S M V Q A N G L I V L H H D Q G P V A V G D P V D V M L L D G
UniRef90_F4L7K3	N L N D A D G F I E L	P K E R T Y F A T G E S F P L F R Y R G
UniRef90_F8J801	S L Q R A N C L V V I	S L Q R A N C L V V I P A D A P S L H A G T T V K V L R L D
UniRef90_UP100039589C6	S A V W A D G L V D N	S A V W A D G L V D N P P G Q T I A Q G D S V R F V P F A Q L
UniRef90_J4QAW7	S A A G C D A F V D V	S A A G C D A F V D V P P A G T K P L A A G T E V E V V I L
UniRef90_UP100041D1897	S L V Q A N C L V V L	S L V Q A N C L V V L E P E R G Q V L A G E T V N V L L L D G
UniRef90_F1YJA1	S L A E A T A L A V V	S L A E A T A L A V V P A E V I E F E G D P V T V M E L R
UniRef90_UP1000463F797	S L N H T N C F I V V	S L N H T N C F I V V E Q E R G K V A A G E Y V T V E L F N P L
UniRef90_M3VFJ3	E L A E A N C L I V I	E L A E A N C L I V I P E D V E D V N T G D R V E V S F L
UniRef90_B1XTJ5	S M S E A N C F V I L	S M S E A N C F V I L G H D Q G N V A T G D W V D I A L F D G L
UniRef90_S6MS04	S A A W A D G L I E V	S A A W A D G L I E V P E E G T T V A E G D W V S F I P L N
UniRef90_W5Y043	G L S E A N A M I K I	G L S E A N A M I K I P E E V T Q V R P G D I V E V I F L S
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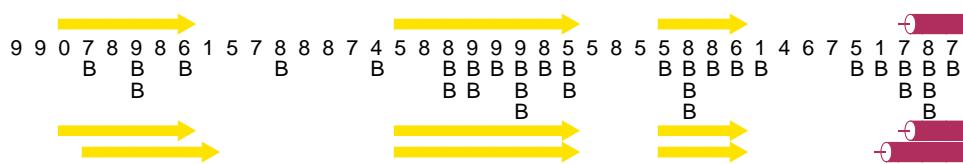
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UniRef90_B8EJZ8		V   R   A   A   F   D   T   R   K   A   I   P   L   E   Q   Y   L   R   A   A   L   D   G   E   T   T   A   L   Y   G   G   S   G   A   V   V		
UniRef90_UPI00037356FC		R   L   R   A   Q   L   T   T   A   L   T   S   G   K   R   Q   F   Q   R   A   V   F   D   G   P   A   V   T   T   V   P   P   A   S   H   H   L   S		
UniRef90_D8JXB5		V   R   A   A   F   D   T   R   K   A   I   P   L   E   Q   Y   L   R   A   R   L   D   T   T   A   P   P   R   A   Q   D   S   G   M   I   T		
UniRef90_C3XA72		R   A   D   F   T   L   D   N   P   D   E   R   N   E   F   L   R   V   K   L   E   A   G   G   L   E   P   F   P   G   Q   G   S   G   V   M   S		
UniRef90_R6KR60		K   S   V   G   G   R   R   Y   V   R   A   V   T   D   G   E   T   V   T   P   T   K   I   H   S   G   I   L   S		

50                    60                    70

UniRef90_UPI0003FC1A8E	S I A R S N G V I V L P G G T R G F E K G D T V K V M M
UniRef90_D4I030	S F R Q A N C F I V L E R E R G N V A V G E W V E V E P F N A L
UniRef90_Q9RY74	S L S D A D A L V V V P E G Q N I A A G E R V E V V L L
UniRef90_A0A024HBT8	A A S W A N G L A V V E A G R T L E E G E A V E F L P F G E L
UniRef90_R6WUR4	T A M S A N G Y V R I S K D E E G I Y K D A P L K V I P L E
UniRef90_E6PAT2	T L T K A D G I L V V P
UniRef90_UPI0002D9D24E	S L S I A N C F A V L E Q D R G H I D V G E N V T I I E P F
UniRef90_M7YQM1	R L V Q A D G I V V V E P E S E G F Q A G E E A E V W
UniRef90_S2WSK9	T L H H A T G L A V I A A D V D E V A E G D L V Q Y I P L
UniRef90_Q6AIW1	S I V K A D G Y I A M E P G V T L N P G D L T D V F A F
UniRef90_W1VAB9	S L A R A E A L A V V V P A E A E G V S Q G D Q V R L L A L S A
UniRef90_H5USJ5	S L A E A H A L A V V V P D V A Q V E A G D E L L L V L G L D G
UniRef90_I3E5V7	S L A E A N S T I L P G G T R G F K S G S E V D V L M L E D
UniRef90_B1M121	P L A E A D G L A E L P E T F A S G S A A G Q R V A F H P F E S F
UniRef90_M4XJ16	A F N E S N C F I V L E A E R G N V D A G E K V T I Q P F N S L
UniRef90_V5UIW9	S T V W G D G L I D N P P G H R I E A G Q T V A F L P F S D L
UniRef90_UPI00047EF5BF	A L A E S N C O L V E I A P E V T V V E P D T P V E V L L L G G
UniRef90_UPI0003646A0F	S L A E A D G Y C V V A E D T T T V T A G D P
UniRef90_UPI0003B6B708	S M S L A N C F I V L P D E Q A D V A I G D E I L V E P I
UniRef90_E3PWZ6	T V S K S D A V L I I P E N I E D V N K G D
UniRef90_E4PK65	S T C C W A E G L A V V P E N S T V S P G D L L T Y Y S F A E L
UniRef90_UPI0003617497	G L A E S N G M I R I P E D V T E V R P G D V V D V
UniRef90_UPI000414EDA5	S L A L T D G F I V L D P D Q E F Y E A G E S V S F V P T R Q L
UniRef90_H8KW27	T L T S A N A F M E L P E N R D F F E A G E V Y P V W M Y
UniRef90_Q8FU34	Q A A G A T C L I R V P A G T T V E A G N S V D T Y P L
UniRef90_G9EGJ0	A A S Q A H G Y L M I N P A T E V I E
UniRef90_C6WJG0	S L A E A N C L V M V D E D V T D V A V G E E V L V
UniRef90_UPI0003B580AE	S M A R A Q A L V S I P E G V Q S L A A G S M V S V Q L L E
UniRef90_C4LFK5	S L C A A N C F V I V E K D V P A G S S V T I V E L F N
UniRef90_M1IUM5	V F S T A D G Y I I I N P G E N I E E G S E V S V Y L
UniRef90_C0QQG0	S M L Y A D G F G L V D I G V K E I K K D G E M I D V I V F D
UniRef90_F2P808	S M S E A N C L I E I L P E Q E N A E I G D K V T I I P L D
UniRef90_A0A015KXV0	S L P W A N A L A V R I S A G R E G A E I A G M A V Q A I V L
UniRef90_UPI00030B56C0	S L P W S D G L A R I P A G R Q F K E G D L V P Y Y S W A S W
UniRef90_UPI0003B527BD	S A V W A D G L L D N P A G Q A F A A G D T V N Y F P L
UniRef90_UPI0002D87543	G L A R A N A I A V V P E E A R S V S A G D T L H C L L L D A
UniRef90_G2LSL2	G A A D S N A L I V L P E Q A R R F E A G E I V R V I P Y
UniRef90_C7PD79	A L L Q A D G F L E L P A E Q R V F E K G S S Y P V W R F R
UniRef90_UPI00046EB3DE	S F A L A N A L V Y L P E D T T E V K I G D A L Q V I L L
UniRef90_UPI0002F84A5B	E L A H A D C L I V L E K E Q D G V E V D Q Y V L V L P
UniRef90_V5X8H8	W L A S A N C L L D I P A D V D Q L A A G A Q L D V W D L S G
UniRef90_G8AL02	R L A R A D A L I V R E P Q A T A A A V G D R V T V I P L S G
UniRef90_A0L7R2	S M A A A D C F I V L P P A E A V D Y A P G E L V T V Q
UniRef90_UPI0003474DA1	R L I E A D G A V L V P P E R E G Y P A G S E V E M V P L
UniRef90_UPI00047B5B54	T I V G A D C L I E I P P L K A G L E A G Q L V T A W R L S
UniRef90_A6GQ81	S L A R S T G L I R L A K G Q R V N P G D W V D Y V A Y Q D L
UniRef90_UPI0002892DB2	G F N N A N A L V F I P E N T S F I K S N E D V E V I L L
UniRef90_A0A014QDL6	S T V W G D G L I D N P P L T P I Q P G D S V R F I P F T E L
UniRef90_I0RXZ8	W L A S A N C L L E I D E D V D A L T A G A A V T V W
UniRef90_B6A891	A F S Q G N C F I V L E R D R G S V A V G E S V D I E L F N G L
UniRef90_UPI000375945D	S M S E A N C L I E I S P A V D T V K V G E T V T I I P L Q G
UniRef90_M5IXN4	S L P W A Q A L A R L P A D T H T A P G D V V R L Y E Y S Q W
UniRef90_UPI00036E5F07	G L A W A D A Y M A V P P E G A V A G E P V P V L P L
UniRef90_B8FP66	S L L K M D A L L I V P I G V A G Y Q A G E E V E V E L
UniRef90_W7ZDX6	S L A E A E V F I I L P A G T R G F E R G M E V D F L L L E D
UniRef90_UPI0003B61DE1	T L A A A A D A L I Q R P E H A P P V E A G T I I
UniRef90_M7PHR9	S M N N A N C F I V L L D H C D G V A A G S E V L I Q P F T G L
UniRef90_K8D011	S F T Q G N C F I V L E R D R G N V E P G E W V E V E L F N H
UniRef90_W0F4D2	S F A T A N C L I V L D E D Q Y E F F E G A L V E V H L
UniRef90_B1YVJ7	G L A A A N C F I V L G H D C A T V D A G A P V D I L P L D G L
UniRef90_D4ZF28	S M S L A N C F V I V L A Q E Q G H T A D G T L V T V E P F N
UniRef90_A1TXW1	S A C W G D G L A V V P E H T A I H A G D L I T Y Y P F T E L
UniRef90_UPI00046627FD	A L A H A D A V A V V P A D V T A V E P G D A V R V L L L D
UniRef90_W0DH97	S Y V G A N C Y M V V R E G V K E L K G G E L V E V V L F
UniRef90_H0J5R2	S M V A A N C L I E L G D D Q A G A Q P G E T V S I Q P L T G W
UniRef90_D5U5T8	S F S E A N G I L K I D I G V S C I N K G S L V D V R F L
UniRef90_B2U955	S M S E A N C F V V L A H E Q G Q V N A G D A V Q V L L F D G L
UniRef90_W5YNR4	S A C C W A E G L A V V P E N T T
UniRef90_I3X8L8	V F A Q S Q D G L I V R P P Q T P A A A P G D H C T V L K L R D
UniRef90_UPI0003F902D7	T M I N S N A I L E I P K N K E L K K G G E E V E V
UniRef90_UPI00036BA8BF	S T V W G E G F V V I E E D T T V S S Q G D T V A F L P F D A F
UniRef90_L8TRC5	A L A R A N V L V H I P E G I S E L A E G S K V E V W
UniRef90_NOAY44	S L A H T D S L T V L P G G E R G F Q K G D Q V Q V L L L E D
UniRef90_UPI0003608A01	A L H K A N C H I V L P S E C Q G V Q L G E Q V I V E P F S
UniRef90_A6UKT0	A M R L A D A W L A V P P G D S E G Y D V G T P V T A M P L R N
UniRef90_UPI0004712749	T I K D S D C L I V I P P E E R G V S A G D S V K V
UniRef90_D0KYB9	S I A W A D G V A L I P A D R T L M C G D M V D Y F P F E G W
UniRef90_W9GZB6	V L A R A D O C L L V V R P P F A P P A E A G D S V E I L P L G G
UniRef90_D8GUB1	G L I Y A N A H L C I P G S V D G Y E A G A K V E V E L
UniRef90_B2A6W0	T M I L W A N G Y I V V P P D S Q A I R A G D K V N F I P I D
UniRef90_D2R6S4	T L A Q A D A L I C Y P C A G D T Y E R E A E V I V Q P L S G
UniRef90_F3NWZ6	A L P A T D G L A I V P D G V D H V D I G N E L S I L L T R
UniRef90_H6R892	S M A A A D V L L D V P A E V G E L P V G A P V R V W
UniRef90_B8HHD1	G L A W A E G V M V V P P G G V D S G Q P V A V L P L
UniRef90_S3AGA2	S L A N A E A I L G V V L P D V E K V E A G Q E L A V V P L
UniRef90_UPI0002E3A2BB	A I A H S N A M I V L P S G T R G Y Q K G H T V D V I L T E S
UniRef90_H0RKW7	N L A H A D A L V D I P A E T V S L A A G D L V D V V R L
UniRef90_B8EJZ8	S L T R T R G F V D L P E E A V E I A P G D R V N F I
UniRef90_UPI00037356FC	S T V G T D G L V I V P P N R Q V E R G D T V E F I P F
UniRef90_D8JXB5	A L Q C A D C O I P D A P A Q P A G S P V K V L K L D
UniRef90_C3XA72	S T V W G D G L I D N P P G Q L I K K G D F V R F I P F S E L
UniRef90_R6KR60	T M A G C N C O I E M Q K G K T G S H A G E E A V L L L

UniRef90_A0A024KJJ7	1	R R H F Q R A T I E G S G A T P S T D S G H T S
UniRef90_W9GGR2		S R R T R L G R V Q F V S A V V R D G T V S P A P G V H L R
UniRef90_UPI000374DC79		F L P V R L Q R L L A H P L P G G S G D F T
UniRef90_W2D811	10	P G N R R E Y L R G R L E Q G R A V I Q N Q S S G V L R
UniRef90_W0Z9Q6		R L P A S E G W S T P P G R R Q Y L P A A I D R W T V R P A T S G S H L A G
UniRef90_UP100036ED538		G K E Q L L R G T L T T E G V T P V G G S S H F L R
UniRef90_UPI0003B4916E		V R G V M A R D Y L K N N G Y D R F L R G K A N K Y Q V E P I P P G S S H F L R
UniRef90_W7B267		P A G K R Q F R R G Y F E R N T V R P I P P G S S H F L R
UniRef90_C2GIL1		G R R G F I L R A R L Q D Y L V E G L S G A A H L L A R
UniRef90_C9NXF7	20	K V N A V A L E D L R S G R T E F S R G V Y E Q L T V R S T G K G S G I L R
UniRef90_UP1000373E285		G M D R F L R A K I G Q A A Y P L P F G A G V M S
UniRef90_L1LVQ5		V P A G F D W P K A G N R E Y L R A R L E Q Q G Q A I Y R N Q S S G V L R
UniRef90_G8PIZ5		T K A T L T A D L P A N R Q D Y L R A S L G N L T T E P F G K D S S M L A
UniRef90_B8IUN6		A S R L L R K P G R T E F I P A R L V G P A L E P L G S T S A R L T
UniRef90_D5UVS0		P A G R G Y V R Q G L G E F M V A P P N G S H L L V
UniRef90_Q1JZK9		T V R A I L L K V K K K S G R T Q F M R V F V G Q Y L A T S G D Q N T G I L K
UniRef90_UP1000402CB27		R L T T A R L A A P L P A R R Q D Y V R A R L G S L L A H P F S R D S S M V S
UniRef90_UP10003B44BC8		R A A T T T V A W K S P A G K R Q F V P V H L D T P T V T P L G A R S H F V A
UniRef90_U7VGG8		N K K S S K R R F I R G Y F K E G Y I Y L N D Q K S G T I S
UniRef90_UP100030A35C6		T R F I R A E I E R V M A R P S F N K S S N A V T
UniRef90_UP10004030A78		K I T V I L E E G I P G D L T L L R V R L K R L L V S Q V K N G S G D L T
UniRef90_T0JRT8		P A R L A V D I P A V R R D F M R A R M D R V H V T P A S Q D S A M L S
UniRef90_A7INJ9		T T T G R L S Q Q I S S G V R K L V Q V Q L T H P V V I E P I D N K M G V R S
UniRef90_U1Q0T3		R R K P G R T E F M P A R L V P G P Q G P L G S T S A R L A
UniRef90_B0U8R0		A K C V E R L A K K P G R T E Y Q R G I L E G D W E V R T T G S S G I L R
UniRef90_UP10004223CE5		I Q A T L M E D K P N P F T R F I R A K L D G M T V T P A F N K S S G A V V
UniRef90_H0DFK4		R V V R A R A L N H I E S G R R G F I L R A R L S D Y L V E G L S G A A H L L A R
UniRef90_W5XUF2		R R A A M L T E S V T S G K R Q F R R A V L D A D S G Q V T S Y G S H H L R
UniRef90_W4HZ68		R A A F A W P K P D K R R E F M R A R L N A L G E L E L F Q S S G V M T
UniRef90_U2RLV8		I A E V P L R S R E G R V D Y L R G I F E G R L V V R D T G G S S G I L S
UniRef90_H5WIB5		R R T A M L T E D L V S G K R Q F R R G V L D P A T D T V T G Y G S H H L R
UniRef90_U7NV81		
UniRef90_K0UKP2		

lupas\_21  
 lupas\_14  
 lupas\_28  
 jnet  
 conf  
 sol25  
 sol5  
 sol0  
 jhmm  
 jpssm



	50	60	70
UniRef90_0A024KJJ7	S L A R A H A L I I Q P E N D P G Q P A G A G L V E V I P L		
UniRef90_W9GGR2	A L A G A N A F I E V P E G V D Q F R A G D E V S V R L L		
UniRef90_UPI000374DC79	N L T G A D A F L E P A D Q T T F A E G E A L P V		
UniRef90_W2D811	S A A W A E G L V E V L E G T T L A [ ] G D R V N F I P L S E L		
UniRef90_W0ZQ6	G L A R A E A Y A I V A A E L S R V E P G D A V D V M L V S		
UniRef90_UPI00036ED538	Q G A V A D C L I R I P A G A T V G A G E F V T V Y P L		
UniRef90_UPI0003B4916E	W L A A S D C L I D L D E D T T E L P A G S Q V A W L L N S		
UniRef90_W7B267	N L P F A N C O L I M I P R G K V G K A [ ] G E E V R V W L M S S		
UniRef90_C2GIL1	G L A E A E A N S Y I V I P E E Q P D V R P G D V V D V M F L S		
UniRef90_C9NXF7	S M S E A N C L I E V S P A I D T V K V G E S V T I I P L Q G		
UniRef90_UPI000373E285	T L A G I [ ] Q G F I R I P A R T E V K R G D L V E A Y L L D		
UniRef90_L1LVQ5	S A A W A E G L V E V L E G S T P R Q G D I V Q F I P L S E L		
UniRef90_G8P1Z5	L L T K A D A L I V R P P H A P A A S A G E K V E L L K L R		
UniRef90_B8IUN6	P L V E A D G F A E V P A T V S G M P G Q R V A F H P F		
UniRef90_D5UVS0	S L A E A N C L I V V D D P E V T E V R A G D D V V V D F L		
UniRef90_Q1JZK9	T M I R A N G L A I L P A P A P D H I G S G A Q V D V Q L I G G		
UniRef90_UPI000402CB27	I F A Q S E G L I V R P P H A P E A L S G E T C T V L K L R D		
UniRef90_UPI0003B44BC8	S L H Q Q A N A L A I V P P E E V T E V E Q W S L V D V L P		
UniRef90_U7VGG8	S L I G K N A I V E I L P G T P C L N E G D K V T V I L I D		
UniRef90_UPI00030A35C6	S I A K S N G L V I L P G G T R G F E K G D A V R V M M		
UniRef90_UPI0004030A78	S L A L T D G F I V L D P V K E F Y E A G E S V S F V P		
UniRef90_T0JRT8	S A M I A N S L I V I P E N S P P L P S G S E V E V I L L		
UniRef90_A7INJ9	V L A A A D C L I R P P F A P A A T A G D P C E I I P F D D		
UniRef90_U1Q0T3	S I A L T D G W I I L P E E I E T V S P G T E I I D V Y H W		
UniRef90_B0U8R0	P L V E A D G F V E V P A S L A S G A P G E P V A F H P F G G L		
UniRef90_UPI0004223CE5	S M S L A N V L I A L E H D R A D V E P G D L V D V L P L		
UniRef90_H0DFK4	S I A H S N A M I V L P K G T R G F K K G Y T V N V I L T E S		
UniRef90_W5XFU2	G L A E A N A M V R V P E D V T A I R P G D V V D V V F F L S		
UniRef90_W4HZ68	W L A S A N A L L D I P E D V V E V F A G T E L L Q V W D L S		
UniRef90_U2RLV8	S L P R A D G L A V V P V G T G R V E P G T E L L E F I		
UniRef90_H5WIB5	S A V W A D G L V D N P A S Q A V T P G D T V R F L P L S E L		
UniRef90_U7NV81	S M V Q A N C L I E I D D A R G A V A A G E A V T I Q P F R L		
UniRef90_K0UKP2	W L A S A N C L L E L D E D T A E V A A G S R V Q V W D L R		

The diagram illustrates the distribution of jnet, conf, and sol variants across three clusters. The first cluster (purple) contains jnet, conf, and sol25. The second cluster (yellow) contains sol5, sol0, and jhmm. The third cluster (blue) contains ipssm.