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UniRef90_Q27888	I Q D C	F D E L I L Q D I	A T D K V E G E V M D L	R H G M P F I E P T D L K M G	
UniRef90_B0JP45	N Q G L	S D D I L V D I	N K K K A Q G D V M D L	D H G I V Y A P S P M T I R Y	
UniRef90_UPI000407F3BB	N Q G L	C E E I V L I D I	N K E K A Y G E A L D M Q	Q S V Y F M N R N K V K A	
UniRef90_R7GJS6	N Q G T	C E E L V L I D I	N K E K T E G E A L D L N	H G L S F A P R K M K I Y S	
UniRef90_R5X364	Q K G I	F S E L V L I D A	V M E K A E G E A M D I	S H G L P F A H A M D I Y A	
UniRef90_V8C578	L R R R	M P E L V L I D V	N H Q K A L G E A L D M N	H G M P F A G G V K L W A	
UniRef90_UPI0004707231	N Q G I	A Q E L G I I E I	P Q E K A V G D A E D L N	S H A L A F T S P K K I Y A A	
UniRef90_A3CN70	L R G R	M Q E L V L I D A	N A E K A K G D A L D M N	H G M P F L G N T D V W A	
UniRef90_W8BJU3	A Q N I	S N E V C I I D A	N E K L V N G E S K D V	Q Q G S L Y L R D A V I I G N	
UniRef90_R5ZYA2	S E R G	I D E L V L V D V	N A D K A K T E E M D L	S D G L V Y A D T K M K I R A	
UniRef90_S0KKJ8	T Q N I	A Q E V G I I D I	D N K A K T E G D A L D L	S H A L A F T S P K K I Y A A	
UniRef90_Q1YE15	L K D L	G D V V L F D I	S E G T P Q G K A L D I	A Q G P V E G F D G H L S G A	
UniRef90_C4LG72	N Q G V	C D E L A I I D I	D E K K T A G N V M D L	N H G V V W A S S P T N V K V	
UniRef90_R5KS57	F Q N I	C D E L V F I D K	D E V K A K S Q A M D L	A D S V C F L S S A P I I R T	
UniRef90_K9XKY3	I Q N L	L D E M I I V D V	N Q H K L E G E V M D L	N H G L P F V E P T L I R A	

QUERY	K	E	Y	S	L	T	E	G	T	K	L	A	V	V	T	A	G	V	R	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	A	N	V	F	F	I	120		
UniRef90_B5G2G0	K	D	Y	A	V	T	S	A	N	S	K	L	V	V	I	T	A	G	V	R	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	F	I		
UniRef90_H0XWQ6	K	D	Y	R	V	T	S	A	N	S	K	L	V	V	I	T	A	G	V	R	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	F	I		
UniRef90_P00342	K	D	Y	N	V	S	T	A	N	S	K	L	V	V	I	T	A	G	A	R	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	F	I		
UniRef90_P33571	K	D	Y	S	V	T	A	N	S	R	L	V	V	V	I	T	A	G	A	R	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	F	I		
UniRef90_G3S0B2	K	D	Y	N	V	T	A	N	S	K	L	V	V	I	I	M	A	G	T	C	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	F	I		
UniRef90_UPI000332F01E	T	D	Y	K	V	T	A	N	S	K	L	V	V	I	I	T	A	G	A	R	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	F	I		
UniRef90_F7FSV8	K	D	Y	S	V	T	A	N	S	K	L	V	V	I	I	T	A	G	V	R	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	F	I		
UniRef90_Q8BVP2	K	D	F	R	V	T	A	N	S	E	V	V	V	I	I	T	A	G	A	R	Q	Q	E	K	N	E	T	R	L	N	L	V	Q	R	N	V	N	V	F	F	I	
UniRef90_UPI000258E963	T	D	Y	A	S	T	A	N	S	S	L	C	V	I	I	T	A	G	A	R	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	F	I		
UniRef90_1QE91	K	D	Y	A	S	V	T	A	N	S	R	L	V	V	I	I	T	A	G	A	R	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	F	I	
UniRef90_C0L8R0	S	D	Y	A	L	S	T	A	N	S	K	L	C	V	I	I	T	A	G	A	E	L	R	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	F	I	
UniRef90_UPI0002653D1E	T	D	Y	K	V	T	A	N	S	R	L	C	C	C	I	I	T	A	G	A	R	Q	Q	E	G	E	S	R	L	N	L	V	Q	R	N	V	N	V	F	F	I	
UniRef90_G6DPG5	T	D	Y	A	V	S	E	G	S	K	L	C	V	I	I	T	A	G	V	R	Q	R	V	G	E	T	R	L	N	L	V	Q	R	N	V	N	V	F	F	I		
UniRef90_1MBW7	K	D	Y	S	V	T	A	N	S	K	L	V	V	V	I	T	A	G	L	C	Q	Q	Q	G	D	S	W	L	N	L	V	Q	R	N	V	N	V	F	F	I		
UniRef90_M3VVX4	K	D	Y	S	V	T	A	N	S	K	L	V	V	V	I	T	A	G	V	R	Q	Q	E	G	E	S	Q	L	N	L	V	Q	R	N	V	N	V	F	F	I		
UniRef90_UPI0003F076AE	L	D	Y	K	V	T	A	N	S	K	V	C	V	I	I	T	A	G	V	R	Q	R	V	G	E	G	R	L	N	L	V	Q	R	N	V	N	V	F	F	I		
UniRef90_H2KV10	G	D	Y	K	D	T	E	N	S	D	L	V	V	I	I	T	A	G	A	R	Q	V	E	G	E	T	R	L	N	L	V											



QUERY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
UniRef90_B5G2G0	P	R	I	V	K	Y	S	P	N	C	L	L	L	V	V	S	N	P	G	D	V	L	L	T	Y	V	A	W	K	I	S	G	F	P	V	G	R	V	I	G																																																																																																																								
UniRef90_H0XWQ6	I	P	Q	V	V	K	Y	S	P	N	C	K	M	L	V	V	S	N	P	V	D	L	L	T	Y	V	T	W	K	L	S	G	L	P	K	A	T	R	S	V	I	G																																																																																																																						
UniRef90_P00342	V	P	G	I	V	Q	N	S	P	D	C	K	I	I	V	T	N	P	V	D	I	L	L	T	Y	V	V	W	K	L	S	G	F	P	V	G	R	V	I	G																																																																																																																								
UniRef90_P33571	I	P	N	I	V	K	Y	S	P	D	C	K	L	L	V	V	S	N	P	V	D	I	L	L	T	Y	V	A	W	K	L	S	G	F	P	K	N	R	V	I	G																																																																																																																							
UniRef90_G3S0B2	I	L	N	V	V	K	Y	S	P	N	C	K	L	L	V	V	S	N	P	V	D	I	L	L	T	Y	V	A	W	K	L	S	G	F	P	K	N	R	V	I	G																																																																																																																							
UniRef90_UPI000332F01E	I	A	S	I	L	K	H	S	P	R	C	K	L	I	V	V	S	N	P	V	D	I	L	L	T	Y	V	A	W	K	L	S	G	F	P	R	K	N	R	V	I	G																																																																																																																						
UniRef90_F7FSV8	I	P	Q	I	V	K	Y	S	P	R	C	K	L	I	V	V	S	N	P	V	D	I	L	L	T	Y	V	T	W	K	L	S	G	F	P	K	N	R	V	I	G																																																																																																																							
UniRef90_Q8BVP2	I	A	E	I	I	K	H	S	P	R	C	K	L	I	V	V	S	N	P	V	D	I	L	L	T	F	V	T	W	K	L	S	G	F	P	K	N	R	V	I	G																																																																																																																							
UniRef90_UPI000258E963	I	P	Q	L	V	K	Y	S	P	N	T	I	L	L	V	V	S	N	P	V	D	I	L	L	T	T	Y	V	A	W	K	L	S	G	L	P	K	N	R	V	I	G																																																																																																																						
UniRef90_Q1EG91	I	P	Q	I	V	K	Y	S	P	N	T	I	L	L	V	V	S	N	P	V	D	I	L	L	T	T	Y	V	T	W	K	L	S	G	L	P	K	N	R	V	I	G																																																																																																																						
UniRef90_C0L8R0	I	P	K	L	V	E	H	S	P	D	T	I	L	L	V	V	S	N	P	V	D	I	L	L	T	T	Y	V	A	W	K	L	S	G	L	P	K	N	R	V	I	G																																																																																																																						
UniRef90_UPI0002653D1E	V	P	N	L	V	R	Y	S	P	N	T	V	L	L	V	V	S	N	P	V	D	I	L	L	T	T	Y	V	A	W	K	L	S	G	L	P	S	K	N	R	V	I	G																																																																																																																					
UniRef90_G6DPG5	I	P	Q	L	V	K	Y	C	P	D	A	I	F	I	V	V	S	N	P	V	D																																																																																																																																											

QUERY	S	G	C	N	L	D	S	A	R	L	R	N	V	M	A	I	K	I	V	L	G	S	L	C	H	G	W	L	V	L	G	R	H	G	D	S	G	V	P	V		
UniRef90_B5G2G0	S	G	C	N	L	D	T	A	R	F	R	Y	L	M	S	E	K	R	L	G	I	H	P	T	S	C	C	G	W	I	L	G	E	H	G	D	S	S	V	A	I	
UniRef90_H0XWQ6	S	T	C	C	N	L	D	T	A	R	F	R	Y	L	M	S	E	K	R	L	G	I	H	P	T	S	C	C	G	W	I	L	G	E	H	G	D	S	S	V	A	I
UniRef90_P00342	S	T	C	C	N	L	D	T	A	R	F	R	Y	L	M	S	E	K	R	L	G	I	H	P	T	S	C	C	G	W	I	L	G	E	H	G	D	S	S	V	A	I
UniRef90_P33571	S	T	C	C	N	L	D	T	A	R	F	R	Y	L	M	S	E	K	R	L	G	I	H	P	T	S	C	C	G	W	I	L	G	E	H	G	D	S	S	V	A	I
UniRef90_G3S0B2	S	T	C	C	N	L	D	T	A	R	F	R	Y	L	M	S	E	K	R	L	G	I	H	P	T	S	C	C	G	W	I	L	G	E	H	G	D	S	S	V	A	I
UniRef90_UPI000332F01E	S	T	C	C	N	L	D	T	A	R	F	R	Y	L	M	S	E	K	R	L	G	I	H	P	T	S	C	C	G	W	I	L	G	E	H	G	D	S	S	V	A	I
UniRef90_F7FSV8	S	T	C	C	N	L	D	T	A	R	F	R	Y	L	M	S	E	K	R	L	G	I	H	P	T	S	C	C	G	W	I	L	G	E	H	G	D	S	S	V	A	I
UniRef90_Q8BVP2	S	T	C	C	N	L	D	T	A	R	F	R	Y	L	M	S	E	K	R	L	G	I	H	P	T	S	C	C	G	W	I	L	G	E	H	G	D	S	S	V	A	I
UniRef90_UPI000258E963	S	G	T	N	L	D	T	A	R	F	R	Y	L	L	S	E	K	R	L	N	V	A	P	T	S	C	H	G	W	I	L	G	E	H	G	D	T	S	V	P	V	
UniRef90_Q1EG91	S	G	C	N	L	D	T	A	R	F	R	Y	M	M	A	E	K	L	G	I	A	H	A	P	T	S	F	H	G	W	I	L	G	E	H	G	D	T	S	V	P	V
UniRef90_C0L8R0	S	G	T	N	V	D	T	A	R	F	R	F	L	L	S	E	R	F	K	V	A	P	N	S	I	V	H	G	W	I	L	G	E	H	G	D	T	S	V	P	V	
UniRef90_UPI0002653D1E	S	G	T	N	V	D	T	A	R	F	R	F	L	L	S	E	K	L	G	I	A	V	A	P	T	S	V	H	G	Y	I	L	G	E	H	G	D	T	S	V	P	V
UniRef90_G6DPG5	S	G	T	N	L	D	T	A	R	F	R	Y	L	L	S	E	K	L	A	V	A	S	T	S	C	H	G	Y	V	I	L	G	E	H	G	D	S	S	V	P	V	
UniRef90_1G1MBW7	S	R	S	Y	L	M	G	S	R	S	Y	L	M	A	K	T	L	G	I	A	H	P	T	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	P	V		
UniRef90_M3WVX4	S	G	C	N	L	D	T	A	R	F	H	Y	L	M	A	E	K	L	G	I	A	H	P	T	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	P	V	
UniRef90_UPI0003F076AE	S	G	T	N	L	D	T	A	R	F	R	F	L	L	G	E	K	L	G	I	A	H	P	T	S	C	H	G	W	I	L	G	E	H	G	D	S	S	V	P	V	
UniRef90_H2KV10	T	G	T	L	L	D	T	A	R	F	R	H	L	L	G	E	K	L	G	I	A	N	S	V	H	A	Y	I	L	G	E	H	G	D	S	S	V	P	V			

QUERY	W	L	G	M	N	N	A	G	V	L	Q	N	L	N	Q	G	M	G	W	E	N	D	S	E	G	W	K	E	V	H	R	M	V	V	E	S	A	Y	E	V	240	
UniRef90_B5G2G0	W	S	G	V	N	V	A	G	V	C	L	Q	E	L	P	A	M	G	T	D	K	D	P	E	N	Q	W	K	E	I	H	K	Q	V	V	A	S	A	Y	E	V	
UniRef90_H0XWQ6	W	S	G	V	N	V	A	G	V	S	L	K	T	L	P	A	I	G	T	D	S	D	K	E	H	Q	W	K	N	I	H	K	Q	V	V	C	S	A	Y	E	V	
UniRef90_P00342	W	S	G	V	N	V	A	G	V	T	L	K	S	L	P	A	I	G	T	D	S	D	K	E	H	Q	W	K	N	I	H	K	Q	V	V	C	S	A	Y	E	V	
UniRef90_P33571	W	S	G	V	N	V	A	G	V	T	L	Q	S	L	P	D	I	G	T	P	K	D	G	E	D	W	K	N	V	H	K	Q	V	V	D	S	A	Y	E	V		
UniRef90_G3S0B2	W	S	G	M	N	V	A	G	V	S	L	K	P	H	P	D	L	E	T	D	K	H	K	E	Q	W	K	E	V	H	K	L	V	V	E	S	A	Y	E	V		
UniRef90_UPI000332F01E	W	S	G	V	N	V	A	G	V	P	L	K	E	L	S	A	L	G	T	S	H	D	P	E	R	W	G	D	V	H	K	D	V	V	A	S	A	Y	Q	I		
UniRef90_F7FSV8	W	S	G	V	N	V	A	G	V	L	Q	E	L	N	P	E	M	G	T	D	N	D	S	E	I	G	R															
UniRef90_Q8BVP2	W	S	G	V	N	I	A	G	V	P	L	E	L	N	S	A	I	G	T	S	K	D	P	E	K	W	G	D	V	H	K	E	V	I	A	S	A	Y	N	I		
UniRef90_UPI000258E963	W	S	G	V	N	V	A	G	V	R	L	D	L	N	D	K	V	G	T	P	E	D	P	E	H	W	S	D	V	H	K	Q	V	V	I	A	S	A	Y	E	V	
UniRef90_Q1EG91	W	S	G	A	N	V	A	G	V	C	L	K	S	L	P	N	V	G	T	D	K	D	Q	E	N	W	K	D	V	H	K	Q	V	V	D	S	A	Y	E	I		
UniRef90_C0L8R0	W	S	G	V	D	V	A	G	V	R	L	D	L	N	P	E	D	A	G	M	E	S	D	T	E	N	W	N	D	I	H	K	Q	V	V	I	D	S	A	Y	E	I
UniRef90_UPI0002653D1E	W	S	S	T	T	V	A	G	V	S	L	Q	Q	L	P	E	I	G	T	V	K	D	P	E	N	M	H	Q	V	H	K	Q	V	V	I	D	S	A	Y	E	I	
UniRef90_G6DPG5	W	S	G	V	N	V	A	G	V	R	L	D	L	N	P	K	I	G	S	D	D	D	P	E	N	W	K	K	V	H	E	D	V	V	K	S	A	Y	E	I		
UniRef90_G1MBW7	W	S	G	V	N	V	T	S	V	S	L	Q	E	L	P	E	M	G	I	D	N	S	E	N	W	K	E	V	H	K	V	V	V	V	E	S	A	Y	K	V		
UniRef90_M3WVX4	W	G	V	N	V	A	D	V	S	L	Q	E	L	N	P	E	M	G	I	A	N	D	S	E	N	W	K	E	V	H	K	M	V	A	D	S	A	Y	K	V		
UniRef90_UPI0003F076AE	W	S	G	V	N	V	A	G	T	L	L	K	S	L	A	D	T	G	I	D	A	S	A	K	K	L	E	G	L	H	K	K	V	V	D	S	A	Y	Q	I		
UniRef90_H2KV10	W	S	Y	A	N	I	A	G	V	R	L	S	S	L	P	H	I	G	T	V	D	D	P	E	D	F	S	D	I	Y	Q	Q	V	M	K	S	A	Y	E	I		
UniRef90_M0S1I5	W	S	S	I	S	V	A	G	V	P	L	S	Q	F	T	K	D	V	A	A	I	E	Q	G	L	E	R	I	R	K	A	V	V	D	S	A	Y	E	V			
UniRef90_UPI00046EC3DA	W	S	H	A	K	I	G	L	N	D	M	E	T	V	M	K	K	E	N	I	N	Q	E	D	L	D	Q	I	F	V	D	V	R	D	A	A	Y	Q	I			
UniRef90_UPI0001E2DE6A	W	S	L	A	N	I	A	G	I	P	M	E	K	Y	C	S	D	H	G	C	K	E	S	S	R	N	E	I	Y	E	N	V	K	N	A	A	Y	E	I			
UniRef90_L9KRK0	W	N	G	V	N	V	A	G	V	S	L	Q	E	L	N	P	E	M	G	I	D	N	S	E	N	W	K	E	V	H	K	M	V	A	D	S	A	Y	E	V		
UniRef90_L7EN55	W	S	I	T	N	I	A	G	N	I	S	E	Y	C	S	K	Y	C	D	K	Y	D	G	N	I	R	Y	E	I	H	E	K	V	K	N	A	A	Y	E	I		
UniRef90_A7Z152	W	S	H	A	N	I	G	G	V	P	V	Q	Q	L	L	E	K	H	A	A	Y	K	Q	D	E	L	D	Q	I	V	D	D	V	R	N	A	A	Y	E	I		
UniRef90_R7AK09	W	S	S	A	N	I	S	G	V	D	L	D	S	F	C	D	I	G	A	C	D	G	E	T	L	H	R	L	Y	E	D	V	R	T	S	A	Y	K	V			
UniRef90_K8ZCV3	W	S	H	A	T	V	G	G	K	P	I	M	Q	M	I	E	D	G	E	G	I	T	K	E	D	L	D	E	M	Y	V	A	V	R	D	A	A	Y	I			
UniRef90_L5NES4	W	S	H	A	T	V	G	G	V	P	V	M	E	W	V	E	R	D	P	R	Y	H	K	E	D	L	E	E	I	F	L	N	V	R	D	A	A	Y	Q	I		
UniRef90_U2DVD6	W	S	N	A	S	I	G	V	K	P	L	D	V	I	N	E	H	D	E	Y	K	Y	E	D	L	D	Q	I	Y	K	D	V	R	D	A	A	Y	E	I			
UniRef90_K6C558	W	S	H	A	D	I	A	G	T	S	L	S	E	W	T	N	N	K	D	G	F	N	Q	E	D	L	D	Q	L	F	L	N	V	R	D	A	A	Y	H	I		
UniRef90_W6N6R2	W	S	S	T	S	I	A	G	I	P	L	E	Q	Y	C	N	M	D	A	S	C	D	S	D	Y	Q	D	R	I	N	N	V	R	N	A	A	Y	E	V			
UniRef90_UPI00047A6A82	W	S	S	V	N	I	A	G	T	P	V																															
UniRef90_E6MHG5	W	S	E	A	N	V	S	G	I	A	L	D	Q	F	C	E	R	G	Y	R	A	H	A	E	N	E	Q	K	I	Y	E	H	V	V	N	A	A	Y	D	I		
UniRef90_W4P251	W	S	H	A	D	I	G	G	K	P	I	L	T	Y	V	D	E	E	N	H	I	N	M	N	E	L	E	K	I	F	T	N	V	R	D	A	A	Y	H	I		
UniRef90_R5Z283	W	N	H	A	Y	I	G	G	K	K	I	S	D	V	M	K	D	E	E	N	H	P	M	D	L	E	K	I	H	K	D	V	N	A	A	Y	E	I				
UniRef90_E0UB82	W	S	T	A	N	I	A	G	K	L	I	P	D	N	W	E	N	L	S	K	N	E	Q	E	E	L	E	A	I	Y	H	Q	V	K	N	A	A	Y	D	I		
UniRef90_K0YX46	W	S	T	A	N	V	G	G	V	P	L	I	N	S	F	C	E	L	G	F	Y	E	H	E	E	S	M	R	R	I	A	E	G	V	K	N	S	A	Y	E	I	
UniRef90_D4L419	W	S	S	A	N	V	S	G	I	P	L	N	T	F	C	E	M	G	H	F	N	H	D	D	S	M	R	I	A	A	N	V	R	N	S	A	Y	E	I			
UniRef90_E3DLE7	W	S	L	T	N	I	A	G	Q	I	K	N	Y	C	P	I	C	D	K	V	C	K	E	E	E	L	E	Q	I	S	S	K	V	K	N	A	G	Y	E	I		
UniRef90_A0A022QZV6	W	S	S	I	S	V	G	G	V	P	L	S	L	S	L	K	R	Q	Q	I	Y	E	K	E	T	L	E	S	I	H	K	E	V	V	Q	R	S	A	Y	E	V	
UniRef90_UPI00021A707C	W	S	G	I	N	V	A	G	Q	F	R	D	L	L	P	N	I	G	L	E	T	D	E	E	R	W	F	E	I	S	K	E	V	V	R	L	G	A	T	V		
UniRef90_UPI0004644CA6	W	S	Q	A	M	I	A	T	K	P	I	L	S	L	C	G	S	G	G	E	E	D	M	V	N	R	E	E	I	E	E	E	V	R	T	A	A	Y	K	I		
UniRef90_A0Q288	W	S	T	T	T	V	A	G	M	D	I	E	E	Y	C	S	R	C	H	K	C	N	G	I	E	K	Y	D	I	E	N	S	V	K	K	A	A	Y	E	V		
UniRef90_A6CLY3	W	S	H	A	T	I	G	A	S	P	L	E	E	Y	I	N	M	D	S	L	Q	T	Q	R	E	L	E	I	F	V	N	V	R	D	A	A	Y	H	I			
UniRef90_UPI000307FC5D	W	S	H	S	T	I	A	S	Q	P	L	E	E	Y	I	K	K	G	D	K	Y	N	I	K	D	L	E	Q	I	F	I	D	T	R	D	A	A	Y	I			
UniRef90_L7VQY7	W	S	L	T	T	I	A	G	M	P	M	D	E	Y	C	K	A	C	S	C	Q	E	E	G	R	S	K	E	I	F	E	N	V	K	N	A	A	Y	E	I		
UniRef90_R7QW70	F	S	S	A	N	V	S	G	I	N	L	N	K	F	C	E	M	G	Y	N	H	E	E	S	M	Q	R	I	Y	E	D	V	R	D	S	A	Y	K	I			
UniRef90_R4FM74	Y	S	S	L	R	V	G	D	V	S	L	V	G	C	K	K	S	D	C	G	E	F	K	Q	W	E	E	V	Y	E	A	V	R	I	S	A	Y	E	I			
UniRef90_U6HN46	W	S	K	V	T	V	G	G	C	N	L	H	I	N	Y	A	V	G	T	D	S	D	I	E	N	F	G	Q	V	H	K	D	T	V	G	A	A	Y	E	V		
UniRef90_A5N7Z2	W	S	L	A	S	I	N	G	I	P	L	K	E	Y	Y	K	L	S	H	T	D	S	K	E	H	E	K	I	L	N	C	D	V	R	N	A	A	Y	E	V		
UniRef90_E8SJA8	W	S	G	A	T	I	A	G	V	S	L	Y	E	Q	L	K	N	D	P	E	K	S	H	L	T	E	D	I	Y	V	N	T	R	D	A	A	Y	D	I			
UniRef90_D2RAI5	W	A	S	A	T	I	G	G	V	M	C	D	W	N	A	L	H	E	P	L	D	A	A	K	R	E	E	I	H	Q	E	V	V	N	A	A	Y	K	I			
UniRef90_U2NQZ5	W	S	L	T	N	I	A	G	I	S	A	D	Y	C	E	K	M	C	R	C	D	S	S	F	K	N	D	I	Y	K	Q	V	K	D	A	A	Y	N	I			
UniRef90_R5UEY4	W	S	S	A	N	V	A	G	I	T	H	D	F	C	E	L	R	G	H	Y	E	H	D	A	A	M	E	R	I	Y	K	E	V	R	D	S	A	Y	E	L		
UniRef90_UPI00027F721D	W	S	G	V	N	I	A	G	V	P	L	D	L	N	P	D	I	G	T	D	K	D	P	E	Q	W	E	N	V	H	K	K	V	V	S	S	G	Y	E	M		
UniRef90_Q8ELF0	W	S	T	A	T	I	G	T	V	P	L	L	T	Y	L	N	R	S	E	S	Y	T	T	E	D	D	I	L	F	T	N	V	R	D	A	A	Y	R	I			
UniRef90_R9BY17	W	S	H	V	Y	V	G	G	K	P	F	S	K	V	I	K	D	N	K	D	R	D	I																			



QUERY	I	K	L	K	G	Y	E	N	W	I	G	L	S	V	A	D	L	S	A	E	T	V	M	K	N	L	Y	R	V	H	P	V	S	T	L	V	K	E	L	H	E			
UniRef90_B5G2G0	I	K	L	K	G	Y	T	S	W	I	G	L	S	V	A	D	L	S	A	E	T	V	M	K	N	L	Y	R	V	H	H	P	V	S	T	L	V	K	E	L	H	E		
UniRef90_H0XWQ6	I	K	L	K	G	Y	T	S	W	I	G	L	S	V	A	D	L	T	G	S	I	L	K	N	L	Y	R	K	V	H	H	P	V	S	T	L	M	V	K	G	M	Y	G	
UniRef90_P00342	I	L	N	M	K	G	Y	T	S	W	I	G	L	S	V	T	D	L	A	R	S	I	L	K	N	L	R	K	R	V	H	H	P	V	S	T	L	V	K	G	F	H	G	
UniRef90_P33571	I	K	L	K	G	Y	T	S	W	I	G	L	S	V	A	D	L	T	A	R	S	I	L	K	N	L	R	R	V	H	H	P	V	S	T	L	H	C	K	G	H	G		
UniRef90_G3S0B2	I	K	L	K	G	Y	T	C	W	I	G	L	S	V	A	D	L	A	E	S	T	M	K	N	L	R	R	Q	V	H	H	P	V	S	T	M	I	K	G	L	Y	G		
UniRef90_UPI000332F01E	I	K	M	K	G	Y	T	S	W	I	G	L	S	V	V	D	L	I	E	T	I	L	K	N	L	R	R	T	H	H	P	V	S	T	L	I	I	K	G	L	Y	G		
UniRef90_F7FSV8	I	K	M	K	G	Y	T	S	W	I	G	L	S	V	T	D	L	I	A	E	S	I	L	K	N	L	R	K	T	V	H	H	P	V	S	T	K	I	V	X	M	Y	G	
UniRef90_Q8BVP2	I	K	L	K	G	Y	T	S	W	I	G	L	S	V	A	D	L	I	A	E	S	I	L	K	N	L	R	N	Q	V	H	H	P	V	S	T	L	V	K	G	L	Y	G	
UniRef90_UPI000258E963	I	E	L	K	G	Y	T	N	W	I	G	L	S	V	A	D	L	I	A	E	S	I	L	K	N	L	R	N	Q	V	H	H	P	V	S	T	L	M	V	K	G	L	Y	G
UniRef90_Q1EG91	I	R	L	K	G	H	T	S	W	M	A	S	S	V	A	T	L	T	A	I	L	K	N	L	R	N	Q	V	H	H	P	V	S	T	M	V	K	N	M	Y	G			
UniRef90_C0L8R0	I	K	L	K	G	Y	T	S	W	I	G	L	S	V	A	D	L	T	A	R	S	I	L	K	N	L	R	K	R	V	H	H	P	V	S	T	V	A	K	G	Y	H	G	
UniRef90_UPI0002653D1E	I	K	L	K	G	Y	T	S	W	I	G	L	S	V	A	D	L	T	A	R	S	I	L	K	N	L	R	N	Q	V	H	H	P	V	S	T	V	A	K	G	Y	H	G	
UniRef90_G6DPG5	I	K	L	K	G	Y	T	S	W	I	G	L	S	V	A	D	L	T	A	R	S	I	L	K	N	L	R	N	Q	V	H	H	P	V	S	T	C	V	K	G	E	H	G	
UniRef90_G1MBW7	I	K	L	K	G	Y	T	N	W	A	T	L	S	V	A	D	L	T	E	S	V	L	K	N	L	R	S	R	I	V	H	H	P	V	S	T	M	V	K	G	M	Y	G	
UniRef90_M3WVX4	I	K	L	K	G	Y	T	N	W	A	T	L	S	V	A	D	L	T	E	S	M	L	K	N	L	R	N	Q	V	H	H	P	V	S	T	M	V	K	G	L	Y	G		
UniRef90_UPI0003F076AE	I	H	L	K	G	Y	T	S	W	I	G	L	S	V	A	D	L	I	Q	S	I	L	K	N	L	R	N	E	N	S	V	L	P	V	S	T	L	I	K	G	F	R	E	G
UniRef90_H2KV10	I	K	L	K	G	Y	T	S	W	I	G	L	S	V	A	D	L	C	R	S	L	C	S	A	I	L	N	N	S	Y	T	I	Y	P	I	S	T	S	A	K	G	V	H	G
UniRef90_M0S1I5	I	R	L	K	G	Y	T	S	W	I	G	L	S	V	A	D	L	I	A	R	S	I	L	K	N	L	R	D	N	Q	H	I	H	P	V	S	L	L	A	K	G	F	Y	G
UniRef90_UPI00046EC3DA	I	E	R	K	G	A	T	Y	Y	I	G	M	S	L	C	R	I	T	K	A	I	L	N	N	E	N	S	V	L	P	V	S	T	L	V	K	G	L	Y	G				
UniRef90_UPI0001E2DE6A	I	K	K	K	G	T	Y	A	V	A	L	A	V	R	R	I	V	E	A	I	L	N	N	E	N	S	V	L	P	V	S	T	S	L	L	L	D	G	H	Y	G			
UniRef90_L9KRK0	I	K	L	K	G	Y	T	N	W	I	G	L	S	M	A	D	L	T	E	S	M	L	K	N	L	R	S	R	I	H	P	V	S	T	L	M	V	K	G	M	Y	G		
UniRef90_L7EN55	I	N	K	K	G	T	Y	A	V	A	L	A	T	R	R	I	V	E	A	I	L	N	N	E	N	S	V	L	P	V	S	T	L	V	K	G	L	Y	G					
UniRef90_A7Z152	I	E	K	K	G	A	T	Y	A	V	A	M	S	L	A	R	I	T	K	A	I	L	N	N	E	N	S	V	L	P	V	S	T	Y	L	L	D	G	Q	Y	G			
UniRef90_R7AK09	I	E	K	K	G	T	Y	A	V	A	L	A	V	T	R	I	V	E	A	I	L	N	N	E	N	S	V	L	P	V	S	T	S	A	Y	V	N	G	H	Y	G			
UniRef90_K8ZCV3	I	D	R	K	G	Y	T	N	F	I	G	L	S	T	A	R	I	V	V	K	A	I	L	N	N	E	N	S	V	L	P	V	S	T	A	Y	F	E	G	Y	G			
UniRef90_L5NES4	I	E	K	K	G	A	T	Y	Y	I	A	M	G	L	A	R	I	T	K	A	I	L	N	N	E	N	S	V	L	P	V	S	T	S	A	P	L	A	G	E	Y	G		
UniRef90_U2DVD6	I	K	R	K	K	A	T	Y	Y	I	G	M	S	L	A	Q	V	T	K	A	I	L	N	N	E	N	S	V	L	P	V	S	T	S	L	V	D	D	Y	Y	G			
UniRef90_K6C558	I	E	R	K	G	A	T	Y	Y	I	A	M	G	L	V	R	L	T	K	A	I	L	N	N	E	N	S	V	L	P	V	S	T	S	A	Y	L	D	G	E	Y	G		
UniRef90_W6N6R2	I	E	R	K	G	S	T	Y	F	A	A	L	A	V	R	R	I	V	E	A	I	L	S	R	D	E	N	S	V	L	P	V	S	T	S	A	L	F	S	G	E	Y	D	
UniRef90_UPI00047A6A82	I	K	A	K	G	A	T	Y	Y	I	A	A	M	G	L	I	R	I	T	K	A	I	L	R	D	N	E	H	V	L	P	V	S	T	G	A	L	V	E	G	E	Y	G	
UniRef90_E6MHG5	I	Q	K	K	G	A	T	Y	F	V	G	M	A	V	G	R	I	A	E	A	I	L	F	R	D	E	H	A	V	M	P	V	S	T	V	N	M	R	G	L	Y	G		
UniRef90_W4PZ51	I	E	R	K	K	G	A	T	Y	Y	I	A	M	G	L	V	R	L	T	K	A	I	L	R	D	E	N	S	V	L	P	V	S	T	L	L	K	G	Q	Y	G			
UniRef90_R5Z283	I	N	K	K	A	T	Y	Y	G	I	G	V	A	L	S	R	I	L	V	K	A	I	L	E	D	E	H	R	I	L	T	V	S	T	S	A	Y	L	K	D	G	E	Y	
UniRef90_E0UB82	I	K	L	K	G	Y	T	S	W	I	G	L	A	T	T	D	I	L	V	K	A	I	L	N	N	E	N	S	V	L	P	V	S	T	S	L	L	T	N	N	Y	G		
UniRef90_K0YX46	I	D	K	K	N	A	T	Y	Y	I	A	M	T	V	K	R	L	C	E	A	I	L	V	R	D	E	K	S	V	L	P	V	S	T	N	L	M	E	G	D	Y	G		
UniRef90_D4L419	I	A	K	K	N	A	T	Y	Y	I	A	M	S	V	K	R	I	C	E	A	I	L	V	R	D	E	K	S	V	L	P	V	S	T	G	M	I	H	G	M	Y	G		
UniRef90_E3DLE7	I	R	K	K	G	T	F	Y	A	I	S	L	A	V	A	R	I	A	R	A	I	L	N	N	E	N	S	V	L	P	V	S	T	S	L	M	E	G	Y	Y	G			
UniRef90_A0A022QZV6	I	R	L	K	G	Y	T	S	W	I	G	L	S	V	A	D	L	I	A	R	S	L	L	R	D	Q	R	R	I	H	P	V	S	T	V	L	A	K	G	L	Y	E		
UniRef90_UPI00021A707C	R	C	L	K	K	G	Y	S	N	A	I	G	L	S	V	A	H	I	V	T	A	I	L	S	N	S	Q	T	V	F	P	V	S	T	L	V	Q	G	H	H	E			
UniRef90_UPI0004644CA6	I	E	A	K	Q	A	T	Y	Y	I	G	M	S	L	T	R	I	T	R	A	I	L	G	D	E	N	S	V	L	P	V	S	T	A	M	L	R	G	E	Y	G			
UniRef90_A0Q288	I	E	E	K	K	G	T	Y	A	I	G	L	A	V	R	R	I	V	D	A	I	L	N	N	E	N	S	V	L	P	V	S	T	S	L	L	E	R	G	E	Y	D		
UniRef90_A6CLY3	I	E	R	K	K	G	A	T	Y	Y	I	A	M	G	L	V	R	I	T	K	A	I	F	N	N	E	N	S	V	L	P	V	S	T	S	A	L	L	E	G	E			

QUERY 290 300 310 320

UniRef90\_B5G2G0 K E E V F L S L P C L L N Q S S G L R E S V V K M L L K P E E V G Q S K R S A D T

UniRef90\_H0XWQ6 I K E E F F L S L P C V L G G Q S G G V T S D F V K K V N M T A E E E A L L F R K K S A N D T

UniRef90\_P00342 I K E E F F L S L P C V L G G Q S G G V T S D F V K K V N M T A E E E A L L F R K K S A N D T

UniRef90\_P33571 V H D D V F L S L P C V L G G Q S G G V T S D F V K K V N M T A E E E A L L F R K K S A N D T

UniRef90\_G3S0B2 I N D D V F L S L P C V L G G Q S G G V T S D F V K K V N M T A E E E A L L F R K K S A N D T

UniRef90\_UPI000332F01E V N E E V F L S L P C V L G G Q S G G V T S D F V K K V N M T A E E E A L L F R K K S A N D T

UniRef90\_F7FSV8 I N E E V F L S L P C V L G G Q S G G V T S D F V K K V N M T A E E E A L L F R K K S A N D T

UniRef90\_Q8BVP2 I D K E E V F L S L P C V L G G Q S G G V T S D F V K K V N M T A E E E A L L F R K K S A N D T

UniRef90\_UPI000258E963 I D K E E V F L S L P C V L G G Q S G G V T S D F V K K V N M T A E E E A L L F R K K S A N D T

UniRef90\_Q1EG91 I N E E V F L S L P C V L G G Q S G G V T S D F V K K V N M T A E E E A L L F R K K S A N D T

UniRef90\_C0L8R0 I V E H H P V F L S L P C V L G G Q S G G V T S D F V K K V N M T A E E E A L L F R K K S A N D T

UniRef90\_UPI0002653D1E I D K E E V F L S L P C V L G G Q S G G V T S D F V K K V N M T A E E E A L L F R K K S A N D T

UniRef90\_G6DPG5 T E N K E V F L S L P C V L G G Q S G G V T S D F V K K V N M T A E E E A L L F R K K S A N D T

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L H E V Q S N L  
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UniRef90_A3XCN3			M A R P K I	A L I	G A G N I G G T L A H L A A
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UniRef90_E7GB17				R K V V L I	G T G M V G M S M A Y S L M
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UniRef90_I9M5S3				T K N K L V I V	G T G N V G S A V L N C A L
UniRef90_E8WV17				R K K V T I V	G A G N V G A T A A H W L A
UniRef90_E6LF27				S K S K V A I V	G S G L V G S S T A F S L I
UniRef90_W9BRL0				M A R N K I A L I	G A G N I G G T L A H L A A
UniRef90_UPI00036269BF				M A R K K I A L V	G A G N I G G T L A H L I G
UniRef90_I4AIL3				K V T V V	G A G N V G A T C A D V L A
UniRef90_E4U8E1				R P K V S V I	G A G H V G S T L A M R I A
UniRef90_U6ITN0			P L A P N V H T K P	K T K V S V V	G V G S V G M A I A F S I M
UniRef90_W7YV58				A L T R K K I T V V	G A G F T G A T T A L M L A
UniRef90_UPI000411DC59				T I N R K K V S V V	G A G F T G A T T A F L I A
UniRef90_N6UJH7				M A R K K I A L I	G S G M I G G T L A H M I G
UniRef90_W4QDI0				A I K R R K I S V I	G G G F T G A T T A L M V A
UniRef90_V4NVA5				M A R A K I A L I	G S G M I G G T L A H I A A
UniRef90_D9RXX0				K I G I I	G T G Y V G S T T A F A L M
UniRef90_UPI0002192FC6				N T I V L I	G A G E V G V A Y A I V
UniRef90_F0HET9				R R V G I I	G T G L V G A T C G Y A L I
UniRef90_A5D2J2			I K R R K I	T I V	G A G N V G A T A A H W A A
UniRef90_UPI00041677F3				N S K L A I V	G A G S V G T S I A Y A A L
UniRef90_R6C5E7				N K V I I I	G C G N V G M S Y A F S L L
UniRef90_UPI0003827A8F			S S A R P S	S Q V T V V	G A G N V G S T L A Q R L L
UniRef90_UPI00035FE4BB				H R D K I V V I	G A G N V G E A I A Y T L M
UniRef90_N9Y6U4				T I K N T K V A I V	G T G L V G S S T A F S L V
UniRef90_E8MJ15				T M N R N K V V I	G T G Q V G A T A A F G I V
UniRef90_V2ZHL6				T T N Y R K A A V I	G C G F V G A S I A F R F L
UniRef90_B6BK81				R R V G I V	G A G F V G A T A A Y S L T
UniRef90_UPI0002886A52				S R V A L I	G T G L V G S S Y A F A L M
UniRef90_B4LKK2			L E K Q E F Q P	G N K V S V I	G A G A V G M G C A I A L L
UniRef90_UPI000476629C				R K K V T I V	G S G N V G A T A A F L A A
UniRef90_UPI00024904E4			T K K Q N H	Q K V V L V	G D G A V G S S Y A F A M A
UniRef90_D1KDK0				N K I S I I	G A G R V G E S T A Q M L A
UniRef90_F2I4J4			I H D A K I	I L I	G D G S V G S A F A Y H N V
UniRef90_K9VLQ6			P S T R V	S I I	G A G K V G S T L A Q R I A
UniRef90_A0A022KZ81				S K L T V V	G A G A V G S S V A Y A A L
UniRef90_D1B1Z2				K K V S I I	G A G N V G A T I C Y W L A
UniRef90_F8WZT9				S K V T V V	G A G N V G A T C A N V L A
UniRef90_H1H5L9				K V T I I	G A G N V G A T C A D V I A
UniRef90_U2UA26				R K S R V V I A	G V G N V G A T T A Y S I I
UniRef90_UPI00035F367A			M S S S F P T C	S Q F R V S I V	G S G N V G S A L A Q R V A
UniRef90_R6VA23				M N N R K I A I I	G C G Y V G A T A F T I M
UniRef90_UPI000289CA07			S V R H R K V	T V V	G A G F T G A T T A Y L I A
UniRef90_UPI000249225B			T Q N H Q K V	I L V	G D G A V G S S Y A Y A M A
UniRef90_W4W7T5				K V T I V	G A G M I G V A L A N S L L
UniRef90_I0ALH5				M S R K K I A L I	G G G Q I G G V L A Q L I A
UniRef90_Q1Q6E9					T I I G A G N V G A T L S Q R L A
UniRef90_U7V8P0				K L G I I	G A G N V G A T A Y A A T
UniRef90_A3ZNV9			Q L Q D G E T T M R R A K I	S I I	G A G N V G A T T A H W C A

		50	60	70	80																																					
UniRef90_K8EE42	A	K	E	L	G	D	I	V	L	L	D	V	A	E	G	I	P	Q	G	K	A	L	D	L	M	Q	A	A	P	V	E	G	Y	S	I	V	I	G	T			
UniRef90_F3ZYV6	M	N	G	V	A	E	E	I	V	L	L	D	V	N	R	D	K	A	E	G	E	V	M	D	L	N	H	G	I	L	F	V	P	V	Q	I	L	T	G	T		
UniRef90_I3TQO9	L	K	E	L	G	D		V	V	L	F	D	V	A	D	G	L	P	Q	G	K	A	L	D	I	A	E	S	S	P	V	D	F	D	S	R	L	T	G	S		
UniRef90_A3XCN3	I	K	E	L	G	D		V	V	L	F	D	V	A	D	G	L	P	Q	G	K	A	L	D	I	A	E	S	S	P	V	D	F	D	S	R	L	T	G	S		
UniRef90_Q92F65	N	L	S	I	G	Q	E	F	G	I	I	D	I	D	K	E	R	T	I	G	D	A	M	D	L	S	H	A	V	P	F	S	T	P	K	K	I	Y	S	A		
UniRef90_E7GB17	N	T	G	G	I	D	E	L	V	L	I	D	I	D	E	E	K	A	K	G	E	A	M	D	L	N	H	G	I	P	Y	S	T	N	K	M	K	I	K	S		
UniRef90_TOCBH1	N	Q	I	C	V	C	D	E	L	L	M	I	D	I	N	E	E	K	A	K	G	E	A	M	D	L	V	H	G	V	E	Y	M	S	Q	R	T	K	V	R	Q	
UniRef90_R6PTM0	Q	S	K	L	F	S	E	E	L	V	L	I	D	V	D	K	A	R	A	E	G	E	A	M	D	I	S	H	G	M	P	F	A	A	P	M	K	I	Y	A		
UniRef90_D1C2T1	Q	R	N	L	I	A	D		V	V	L	V	D	I	V	E	N	L	P	Q	G	K	A	L	D	L	M	E	G	S	P	V	L	G	F	D	T	A	V	I	G	A
UniRef90_UPI0003675586	L	K	E	M	G	D		I	V	L	F	D	I	A	E	N	L	P	Q	G	K	A	L	D	L	L	A	Q	S	A	P	V	E	G	Y	N	S	V	K	G	A	
UniRef90_D4LCA2	I	M	G	M	A	S	E	I	V	M	I	D	I	N	S	E	K	A	L	G	E	A	L	D	I	R	Q	G	T	P	F	C	S	P	C	S	I	Y	A			
UniRef90_R5NYU5	Q	S	G	L	F	T	S	E	I	A	L	I	D	A	D	R	N	K	A	E	G	E	A	M	D	I	S	H	G	I	P	F	A	S	P	M	R	I	Y	A		
UniRef90_D1C099	T	R	G	T	A	R	S	V	A	L	L	D	V	N	K	Q	K	V	E	A	E	V	L	D	L	N	H	G	M	M	F	I	P	P	A	E	L	T	G	G		
UniRef90_UPI0001E2E7B0	L	Q	Q	M	A	T	E	I	V	L	I	D	V	F	K	E	K	A	Y	G	E	A	L	D	L	N	H	G	L	A	F	V	G	Q	M	A	V	T	Y	Q		
UniRef90_U7KVG4	N	Q	S	I	V	N	H	L	G	I	I	D	I	D	E	K	K	L	E	G	N	V	M	D	L	N	H	G	V	V	W	A	P	T	R	T	R	V	T	K	G	
UniRef90_R5VC80	Q	K	D	I	V	N	E	V	V	L	L	D	I	K	E	G	V	S	E	G	N	S	L	D	M	W	Q	T	A	P	I	N	M	Y	D	T	R	I	K	G		
UniRef90_A7X6Y1	T	Q	G	V	A	D	E	F	V	I	I	D	I	A	K	D	K	V	K	A	D	V	Q	D	L	N	H	G	T	V	H	S	P	S	P	V	D	V	K	A		
UniRef90_B0PD75	T	Q	G	V	C	D	E	I	L	L	V	D	I	N	Q	N	E	R	A	H	E	G	E	M	D	L	R	D	G	I	D	Y	L	G	R	N	V	K	V	S	V	
UniRef90_W7CFK8	N	Q	G	I	C	N	E	L	V	L	I	D	V	N	Q	N	K	A	E	G	E	A	L	D	L	L	A	D	G	L	A	W	A	D	T	K	T	I	Y	A		
UniRef90_R7JT82	N	E	D	I	A	S	E	I	V	L	I	D	I	N	K	K	K	V	E	G	E	V	M	D	I	A	Q	G	T	C	F	R	D	P	V	S	I	I	A			
UniRef90_R5ECL1	L	G	D	I	A	S	Q	I	V	V	L	D	I	N	R	E	K	V	E	G	E	V	M	D	I	V	I	Q	G	T	S	F	R	E	P	L	S	V	I	A		
UniRef90_W2BRJ8	I	E	G	V	A	R	H	I	V	L	E	D	I	N	G	P	K	V	R	A	E	A	L	D	L	I	H	G	G	Q	F	V	P	E	A	L	I	E	G	S		
UniRef90_UPI000428FE0E	Q	K	E	L	G	D		V	V	L	V	D	I	N	E	D	P	T	K	G	K	A	L	D	M	L	E	S	A	P	V	Q	G	F	S	H	I	K	G	T		
UniRef90_D9QU51	M	N	G	L	A	S	E	I	V	L	V	D	I	D	Q	D	K	A	E	G	E	A	M	D	L	L	R	H	G	A	S	F	V	S	P	V	N	I	E	T	G	
UniRef90_R7EXD5	Q	S	G	L	F	S	E	M	V	L	I	D	V	D	S	K	R	A	E	G	E	A	M	D	I	L	A	H	G	L	P	F	H	T	P	M	K	I	Y	Q		
UniRef90_R5LCD6	Q	S	G	L	F	N	E	I	V	I	I	D	A	N	K	N	K	A	E	G	D	A	L	D	I	I	A	H	G	I	Q	F	T	N	P	V	N	I	V	Y	S	
UniRef90_A0A023X3H2	E	R	N	Y	T	D		V	V	L	V	D	I	V	E	G	L	P	Q	G	K	A	L	D	I	L	Q	G	P	I	Y	G	Y	D	S	K	V	I	G	T		
UniRef90_M1MES6	N	S	G	V	A	T	E	I	C	L	F	D	I	N	M	D	K	A	M	G	E	V	M	D	L	L	V	H	G	T	S	F	V	K	P	V	S	I	Y	A		
UniRef90_H1LGM6	Q	Q	G	L	A	E	D	F	V	I	V	D	V	I	K	K	R	T	E	G	D	A	L	D	L	E	D	A	Q	V	F	T	A	P	K	N	I	Y	S			
UniRef90_R9GY43	L	R	E	R	M	D	E	L	V	L	I	D	A	N	Q	G	K	A	L	I	G	D	A	L	D	M	N	H	G	L	P	F	L	G	Q	S	K	V	W	A		
UniRef90_R9LEP8	L	R	E	R	V	S	E	L	V	L	I	D	A	N	K	E	K	A	L	G	E	A	L	D	M	N	H	G	L	P	F	T	G	G	V	K	K	L	W	A		
UniRef90_R6CBK8	N	Q	D	I	A	S	E	I	V	L	I	D	I	N	K	E	K	V	A	G	E	V	M	D	I	I	Q	G	T	C	F	R	D	P	I	N	I	K	A			
UniRef90_E7G9A4	Q	S	G	L	F	S	E	M	V	L	I	D	A	N	H	E	K	A	V	G	E	A	M	D	L	L	S	H	G	S	A	Y	S	T	P	V	K	I	Y	A		
UniRef90_G4R6B6	L	K	E	L	G	D		V	M	L	F	D	I	V	D	G	V	Q	G	K	A	L	D	L	L	L	A	Q	G	P	V	E	G	Y	N	S	T	L	K	G	T	
UniRef90_C5XRJ6	T	R	D	L	A	D	E	I	A	L	V	D	A	L	P	D	K	L	R	G	E	M	L	D	L	Q	H	A	A	A	F	L	P	R	T	R	L	V	S	D		
UniRef90_UPI0003B36BF8	E	K	E	L	A	D		V	V	L	I	D	I	V	E	G	L	A	Q	G	K	A	L	D	M	M	E	S	A	P	I	E	G	F	T	K	I	V	G	T		
UniRef90_U4TKM1	L	Q	G	I	A	Q	E	I	G	I	V	D	I	A	K	K	T	Q	G	D	A	I	D	L	L	S	N	A	L	P	F	V	I	Q	K	T	I	Y	S			
UniRef90_UPI00047854C6	A	K	E	L	A	D		V	V	L	V	D	I	V	E	G	V	P	Q	G	K	G	L	D	L	L	Q	A	G	P	I	E	G	Q	D	N	I	V	G	T		
UniRef90_R6H1A5	V	R	R	Q	A	S	E	I	V	L	V	D	I	N	G	D	R	A	E	G	S	A	L	D	L	V	H	G	T	A	F	F	S	H	Q	V	K	V	R	N	G	
UniRef90_V6Q4M9	T	Q	N	I	G	R	E	L	G	I	D	L	N	V	D	R	A	E	G	S	D	A	L	D	L	S	D	G	L	A	F	T	S	P	K	K	I	Y	A	A		
UniRef90_S7PVK8	M	K	D	L	A	D	E	L	A	L	V	D	V	K	E	D	K	L	K	G	E	M	D	L	L	Q	H	G	S	F	F	L	R	T	P	K	I	V	S	G		
UniRef90_M3WZL2	F	T	K	G	L	S	D	E	V	A	F	V	D	V	D	E	G	K	L	K	G	E	T	V	D	L	Q	H	G	S	S	F	M	K	M	N	I	F	S	G		
UniRef90_UPI00047E2A89	N	T	I	G	I	D	E	L	V	L	I	D	I	D	Q	E	K	A	L	G	E	A	M	D	I	S	H	G	L	P	Y	S	K	S	S	L	K	V	K	A		
UniRef90_A0A023DCC0	N	Q	G	I	C	E	E	L	L	M	I	D	I	N	K	E	R	A	I	G	E	A	L	D	L	S	H	C	I	D	F	T	T	S	R	T	K	V	R	P		
UniRef90_UPI000427009F	T	Q	G	V	C	D	N	I	L	M	I	D	I	N	E	E	K	A	K	G	E	V	M	D	L	L	Q	H	C	I	E	Y	L	N	K	N	T	K	I	E	V	
UniRef90_Q3AS98	E	K	Q	F	A	N	E	V	V	L	I	D	V	V	E	G	I	P	Q	G	K	A	L	D	M	Y	E	G	A	V	S	L	N	F	D	T	R	V	I	G	S	
UniRef90_I9M5S3	S	F	N	F	V	S	E	I	A	V	I	D	I	N	K	K	A	Q	G	E	A	L	D	S	T	H	A	I	P	F	T	G	A	N	V	N	I	H	A			
UniRef90_E8WV17	A	K	E	L	A	D		V	V	L	L	D	V	A	E	G	I	P	Q	G	K	A	L	D	L	L	Q	A	M	P	I	E	K	R	V	S	I	V	G	T		
UniRef90_E6LF27	T	Q	G	V	C	D	E	V	L	M	I	D	I	N	E	E	K	A	A	G	E	V	R	D	L	L	R	N	S	I	Q	Y	L	D	R	N	V	H	V	K	T	
UniRef90_W9BRL0	I	K	G	L	G	D		I	V	L	F	D	V	V	E	G	V	P	Q	G	K	A	L	D	L	S	Q	C	P	V	E	G	F	D	A	K	I	T	G	T		
UniRef90_UPI00036269BF	L	K	E	L	G	D		V	V	L	F	D	I	A	E	G	I	P	Q	G	K	G	L	D	I	A	E	S	T	P	V	E	G	V	A	Y	T	G	V	T		
UniRef90_I4AIL3	T	R	E	I	C	Q	E	V	V	L	V	D	I	K	E	G	F	A	E	G	K	A	L	D	I	I	A	Q	K	A	P	V	I	G	Y	T	V	G	V	T		
UniRef90_E4U8E1	E	A	A	L	A	D		V	V	L	V	D	I	V	E	G	M	P	Q	G	K	A	L	D	L	S	Q	S	P	V	V	L	N	D	V	T	I	T	G	T		
UniRef90_U6ITN0	T	K	G	L	A	N	T	L	A	L	V	D	F	D	E	N	K	C	L	G	E	V	L	D	M	Q	H	G	S	Q	F	L	H	G	C	N	V	I	G	G		
UniRef90_W7YV58	Q	K	E	L	G	N	V	V	L	L	D	I	P	E	N	P	T	K	G	K	A	L	D	L	L	E	A	S	P	V	Q	G	F	S	Q	I	T	G	T			
UniRef90_UPI000411DC59	Q	K	E	L	A	D		V	V	L	V	D	I	N	E	N	P	T																								



[illegible]

UniRef90_K8EE42	T	E	Q	I	V	R	Y	S	P	D	A	Y	I	L	V	V	T	N	P	V	D	V	S	T	Y	I	A	Y	K	T	S	G	L	A	P	S	N	R	V	E	G			
UniRef90_F3ZYV6	V	A	Q	I	S	K	Y	S	P	G	E	A	F	I	L	V	V	T	N	P	L	D	V	M	T	Y	F	T	L	R	V	S	G	L	K	P	S	E	K	V	L	G		
UniRef90_I3TQ09	A	D	G	I	K	T	H	C	P	D	A	F	V	I	L	V	V	T	N	P	L	D	V	M	T	Y	F	T	L	R	V	S	G	L	K	P	S	E	K	V	L	G		
UniRef90_A3XCN3	G	E	G	I	A	M	A	S	P	D	A	F	V	I	L	V	V	T	N	P	L	D	A	M	V	W	A	L	Q	K	F	S	G	L	P	T	K	E	R	K	V	I	G	
UniRef90_Q92F65	V	D	E	V	M	A	S	G	F	D	G	I	F	I	V	A	S	N	P	V	D	I	L	T	Y	A	T	W	K	F	S	G	L	P	T	K	E	R	K	V	I	G		
UniRef90_E7GB17	A	L	K	I	K	S	S	G	F	D	G	I	V	I	V	A	S	N	P	V	D	I	L	T	Y	V	V	Y	K	V	M	G	L	P	D	K	K	N	Q	V	I	G		
UniRef90_T0CBH1	V	K	E	V	M	K	S	G	F	N	G	I	F	I	V	A	S	N	P	V	D	I	L	T	A	Y	H	I	W	K	L	S	G	L	P	P	K	N	Q	V	I	G		
UniRef90_R6PTM0	I	P	E	I	A	N	R	R	C	P	D	A	F	I	L	V	V	T	N	P	V	D	I	L	T	A	L	A	L	K	L	S	G	L	P	P	R	N	R	K	V	I	G	
UniRef90_D1C2T1	T	E	Q	A	V	A	H	S	P	D	A	F	V	I	L	V	V	T	N	P	L	D	A	M	V	C	H	V	A	L	E	A	S	G	L	P	P	R	N	R	K	V	I	G
UniRef90_UPI0003675586	G	E	G	I	G	K	Y	A	P	D	A	F	V	I	L	V	V	T	N	P	L	D	A	M	V	W	A	L	Q	K	F	S	G	L	P	P	T	E	N	R	K	V	I	G
UniRef90_D4LCA2	I	P	E	I	T	R	H	A	P	N	A	T	Y	I	L	V	V	T	N	P	V	D	I	L	T	Y	T	F	H	K	F	S	G	L	P	P	T	E	N	R	K	V	I	G
UniRef90_R5NYU5	I	P	E	I	A	K	R	N	F	S	G	I	L	L	V	V	A	N	P	V	D	I	L	T	Q	V	A	I	K	L	S	G	L	P	P	E	N	Q	R	K	V	I	G	
UniRef90_D1C099	L	P	E	L	L	E	V	A	P	D	A	I	Y	I	M	V	A	N	P	V	D	I	L	T	Y	A	A	Q	K	L	S	G	L	P	P	N	G	R	K	V	I	G		
UniRef90_UPI0001E2E7B0	T	A	N	I	M	K	H	Y	T	S	G	V	I	L	V	V	T	N	P	V	D	I	L	T	Y	M	I	S	K	W	S	G	L	P	P	N	G	R	K	V	I	G		
UniRef90_U7KVG4	V	S	D	V	M	A	N	D	F	D	G	I	F	I	V	A	S	N	P	V	D	I	L	T	Y	A	V	W	K	A	S	G	L	P	D	H	K	R	K	V	I	G		
UniRef90_R5VC80	T	E	N	I	J	K	H	S	P	K	A	K	I	I	V	A	S	N	P	V	D	I	V	M	C	Y	C	A	Y	L	E	T	A	K	I	D	S	S	R	V	I	G		
UniRef90_A7X6Y1	V	K	S	V	M	D	S	G	F	D	G	Y	F	I	L	V	A	N	P	V	D	I	L	T	R	F	V	W	K	L	S	G	L	P	P	A	E	R	K	V	I	G		
UniRef90_B0PD75	V	G	P	I	M	D	A	G	F	S	G	V	F	I	L	V	A	N	P	V	D																							

UniRef90_K8EE42	L	S	G	V	L	D	A	A	R	F	R	T	F	I	A	R	E	H	N	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M		
UniRef90_F3ZYV6	S	G	T	V	L	D	S	S	R	F	R	F	L	F	L	S	R	E	H	N	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M	
UniRef90_I3TQY9	M	A	G	V	L	D	S	S	R	F	R	F	L	F	L	S	R	E	H	N	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M	
UniRef90_A3XCN3	M	A	G	V	L	D	S	S	R	F	R	F	L	F	L	S	R	E	H	N	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M	
UniRef90_Q92F65	S	G	T	S	L	D	T	A	R	F	R	M	S	I	L	A	E	E	F	N	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M	
UniRef90_E7GB17	T	G	T	L	L	D	T	A	R	F	R	M	G	Y	L	L	S	E	Y	L	G	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M
UniRef90_T0CBH1	T	G	T	T	L	D	S	A	R	L	R	K	N	F	L	L	S	E	Y	L	G	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M
UniRef90_R6PTM0	S	G	T	V	L	D	T	A	R	L	R	K	N	M	L	L	S	E	Y	L	G	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M
UniRef90_D1C2T1	Q	A	G	V	L	D	S	A	R	F	R	A	F	L	L	L	A	M	E	L	G	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M
UniRef90_UPI0003675586	M	A	G	V	L	D	S	S	R	F	R	F	L	F	L	L	S	E	Y	L	G	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M
UniRef90_D4LCA2	S	G	T	V	L	D	T	A	R	L	R	A	R	L	L	L	S	E	Y	L	G	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M
UniRef90_R5NYU5	S	G	T	V	L	D	S	A	R	L	R	K	Y	K	L	L	G	E	H	L	G	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M
UniRef90_D1C099	S	G	T	V	L	D	S	S	R	L	R	A	A	I	L	L	A	L	H	C	G	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M
UniRef90_UPI0001E2E7B0	S	G	T	V	L	D	S	S	R	F	R	Y	L	L	L	L	S	E	Y	L	G	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M
UniRef90_U7KVG4	S	G	T	V	L	D	S	A	R	F	R	Y	M	L	L	L	G	E	L	E	G	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M
UniRef90_R5VC80	M	A	G	V	L	D	T	A	R	Y	K	A	F	L	L	L	A	E	A	L	G	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M
UniRef90_A7X6Y1	S	G	T	V	L	D	S	A	R	L	R	Q	Y	L	L	L	S	E	Y	L	G	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M
UniRef90_B0PD75	T	G	T	A	L	D	S	A	R	L	R	K	A	L	L	L	G	E	L	V	G	V	S	F	E	N	V	T	S	F	V	L	G	H	G	D	S	M	V	P	M
UniRef90_W7CFK8	T	G	T	M	L	D	T	A	R	F	R	K																													



	210	220	230	240
UniRef90_K8EE42	V R Y T Y V	G G L P V	E K L I	S K D R L D A M V
UniRef90_F3ZYV6	W S L A D I	A G M P V	I D S Y C L Q C	G R R C A G S E K E Q A I
UniRef90_I3TQ09	A R Y S T V	A G I P L	T D L V I E M G W	L T Q E K L D Q A I I
UniRef90_A3XCN3	V R Y S T V	A G I P L	P D L I I D M G W	T T Q E K L D A M V
UniRef90_Q92F65	W S H T T V	G G L P L	I T E W I N E	D E Q G A M D T A I F
UniRef90_E7GB17	W S N T Y V	G K T L L	E Y V D E	K N L D M N D L N E I
UniRef90_T0CBH1	W S N V N V	A G K S L	L K I L L D E N E	K L K S E N L D E L V
UniRef90_R6PTM0	F S S A N V	S G I P L	E Y Q Y K L R	G Y E Y E S H T K R I
UniRef90_D1C2T1	P R Y S T V	A G I P V	T E L I	L P P E K I E A I
UniRef90_UPI0003675586	T R Y S A V	A G I P V	P D L I	K M G W S T E E K I I N Q I
UniRef90_D4LCA2	W S V A N I	S N V P L	E L C D K G W	E K L D F V D I
UniRef90_R5NYU5	W S S A N V	S G V L S	E M C E M R G	H Y Q H K E N T R E I
UniRef90_D1C099	W S S A T I	G G V P I	L D W K G	G S P L D A E V R D R I
UniRef90_UPI0001E2E7B0	W S A T H I	A G Q S I	E Y S Q G A S	G I F T A E D K I Q I
UniRef90_U7KVG4	V S T A N I	A G V P L	S K K F D T D	P E Y A E R I E K I F
UniRef90_R5VC80	P R Y T T V	A G I P V	T E L I	D E E K L N A I T
UniRef90_A7X6Y1	W S Q A N V	A G I S V	Y D T L K E Q T G	S E A K A E E I
UniRef90_B0PD75	W S R V T V	G G K F A	E V L R D N	P G R F E G V D L D K L V
UniRef90_W7CFK8	W S H T T V	G G K P I	L I E W	D N I T A D D L N T I
UniRef90_R7JT82	W S G A Y V	S G V S L	D E Y E K M G K N	V T K I D K D A M L E Y
UniRef90_R5ECL1	W S L A Q I	S G C P I	L D M M V K R N V	T K N R L D P E Q T L K Y V
UniRef90_W2BRJ8	W S T A S I	G G V P I	L D W K F G N G K	C F T G E K L D A E M S Q R V
UniRef90_UPI000428FE0E	L R Y S S V	G G I P V	Q T L I G	K E R L D A I V E R T R K G G G E I
UniRef90_D9QU51	W S A T N I	V G V P F	E E F D E	V N Q K K N N D D K S E L I
UniRef90_R7EXD5	F S S A N V	S G V D L	S F C R E C C D D	C C D I S D L S G L F E D
UniRef90_R5LCD6	W S N A D I	S G I H I	E D Y C K N I L G S	C D I N L L E E I L D E V R N S A Y K I
UniRef90_A0A023X3H2	P S L A T V	A G T V I	E Y A D K F D L	E W D Q V K A V I N D
UniRef90_M1MES6	W S T A S I	A G G T F	L A A A K R A G L	S T D D L A K I E D D V R N K A Y E I
UniRef90_H1LGM6	Y S A A R V	G G E P L	F L A A K R A G L	S T D D L A K I E D D V R N K A Y E I
UniRef90_R9GY43	W S M T N V	A G S T I	N F T D E E K E N	L Y L D T K N A A Y Q I
UniRef90_R9LEP8	W S L A N V	A G I G L	E F S D E D R E E I	F N N T K N A A Y E I
UniRef90_R6CBK8	W S R A H I	S C A N I	D E Y T N I	G K E I P T L D K D A M L E Y
UniRef90_E7G9A4	W S G A Q V	A G I H I	N H F C E L G	H F Q H Q E A M N R L Y
UniRef90_G4R6B6	A R Y S T V	A G I P L	D M V K M G W M	S K D K L D E I I Q R T R D
UniRef90_C5XRJ6	W S S V S V	A G M P V	L K S L Q Q S	H S S F D E E A L E G I R R V
UniRef90_UPI0003B36BF8	P E Y T K I	K G E P I	T E V V K	K E K I D A I N Q R T Q D
UniRef90_U4TKM1	W S H A N I	G G T K I	A D W V K A	H P E I D E S K L V T M F E
UniRef90_UPI00047854C6	P R Y T T V	A G I P V	T Q F I	S E E R L A Q I V E R T K K G G G E I
UniRef90_R6H1A5	W S S A T V	A G E P V	D A F Y Q S	S Q K G R D L D H A G I A E R T K N A G G T V
UniRef90_V6Q4M9	W S H A N I	G G L Q V	E Y W M K G Q	P D V T E S L I E L V A G V R D A A Y E L
UniRef90_S7PVK8	W S G V N V	A G V S L	K N L L D	G T D A D Q E Q
UniRef90_M3WZL2	W S G V N I	A G I P L	D L N S E I	I G M D K D P E H W E N V
UniRef90_UPI00047E2A89	W M N T Y I	G C K S M	M E Y I V E M N I	D M N Q L H N I Y K E V
UniRef90_A0A023DCC0	W S H T Y V	G G K P L	E I L E E R K E E L	G E I D L D Q I V K K V R K
UniRef90_UPI000427009F	W S H V Y I	G G K P L	K V V E D N K Q R F	G D I D L D K L V L D T A K A G W E V
UniRef90_Q3AS98	V N Y T N V	A G I P L	T E L I P L	D I I D G L V E R T R N G G I E I V N Y
UniRef90_I9M5S3	W S L V N I	A G V P Y	N Q L D S Y F Q	P N E P L D T E K T A A G V I S V A Y D V
UniRef90_E8WV17	S R Y S T M	A G I P I	T E L I E P A K	L E K E L E T R T A N G G A E I V K H
UniRef90_E6LF27	W S T V T I	A G K K F L	D V I H D N P E I	D V D L A E I V T K T T R S G W E I Y
UniRef90_W9BRL0	L S Y S T I	N G I P V	K D M A K K	G V S E A R L D D E I V K R T R S G G G E I
UniRef90_UPI00036269BF	T R Y S T V	A G I P L	P D L V K M G W	T S Q E K L D Q I V Q R T R D G G A E I
UniRef90_I4AIL3	P R Y T T V	A G I P V	T E L I	P A D K L D A I V E R T K K G G G E I
UniRef90_E4UE81	P R F T V W	G G A P L	P D V M	P A D Q I E A I V E R T R K G G A E I
UniRef90_U6ITN0	W S R V S V	G G V N L	S V Y P K F A E E	G D P P N N F V A V H K D V I E S A Y E I
UniRef90_W7YV58	V R Y S S V	G G I P L	I D T L I	S A E R I Q E I V Q R T R V G G G E I
UniRef90_UPI000411DC59	I R Y S A A	G G V P L	E K L I	S P D R L E E I V E R T R K G G G E I
UniRef90_N6UJH7	V R Y S T V	G G I P L	P D L V K M G W	T T Q E K L D Q I V Q R T R D G G A E I
UniRef90_W4QDI0	I R Y S F A	G G V P L	D K L I	S K D R M D A I V E R T R K G G G E I

[illegible]

	290	300	310	320																																													
UniRef90_K8EE42	E	T	D	I	F	A	G	V	P	A	V	I	G	N	G	N	G	V	A	R	V	L	E	E	L	D	L	N	E	E	E	M	S	A	L	K	K	S	[ ]	Q	S								
UniRef90_F3ZYV6	I	K	D	G	V	[C]	L	Y	V	G	V	P	A	N	I	V	I	G	N	E	G	H	G	V	A	R	V	L	E	E	E	E	[ ]	S	S	A	L	K	K	S	[ ]	Q	S						
UniRef90_I3TQ09	I	V	D	G	V	[C]	L	Y	V	G	V	P	A	N	I	V	I	G	N	E	G	H	G	V	A	R	V	L	E	E	E	E	[ ]	S	S	A	L	K	K	S	[ ]	Q	S						
UniRef90_A3XCN3	V	N	D	M	[ ]	Y	V	G	V	P	A	V	I	G	N	G	N	G	V	A	R	V	L	E	E	L	D	L	N	E	E	E	E	[ ]	S	S	A	L	K	K	S	[ ]	Q	S					
UniRef90_Q92F65	M	N	[ ]	K	H	D	I	Y	T	G	V	P	A	V	I	G	N	G	N	G	V	A	R	V	L	E	E	L	D	L	N	E	E	E	E	[ ]	S	S	A	L	K	K	S	[ ]	Q	S			
UniRef90_E7GB17	K	[ ]	H	K	E	T	N	I	Y	T	G	V	P	A	V	I	G	N	G	N	G	V	A	R	V	L	E	E	L	D	L	N	E	E	E	E	[ ]	S	S	A	L	K	K	S	[ ]	Q	S		
UniRef90_T0CBH1	E	T	N	I	Y	T	G	V	P	A	V	I	G	N	G	N	G	V	A	R	V	L	E	E	L	D	L	N	E	E	E	E	[ ]	S	S	A	L	K	K	S	[ ]	Q	S						
UniRef90_R6PTM0	I	N	D	I	L	Y	V	G	V	P	A	V	I	G	N	G	N	G	V	A	R	V	L	E	E	L	D	L	N	E	E	E	E	[ ]	S	S	A	L	K	K	S	[ ]	Q	S					
UniRef90_D1C2T1	I	N	D	I	L	Y	V	G	V	P	A	V	I	G	N	G	N	G	V	A	R	V	L	E	E	L	D	L	N	E	E	E	E	[ ]	S	S	A	L	K	K	S	[ ]	Q	S					
UniRef90_UPI0003675586	L	D	D	M	[ ]	Y	V	G	V	P	A	V	I	G	N	G	N	G	V	A	R	V	L	E	E	L	D	L	N	E	E	E	E	[ ]	S	S	A	L	K	K	S	[ ]	Q	S					
UniRef90_D4LCA2	I	E	S	[ ]	D	V	[C]	L	Y	V	G	V	P	A	V	I	G	N	G	N	G	V	A	R	V	L	E	E	L	D	L	N	E	E	E	E	[ ]	S	S	A	L	K	K	S	[ ]	Q	S		
UniRef90_R5NYU5	I	E	S	[ ]	D	V	[C]	L	Y	V	G	V	P	A	V	I	G	N	G	N	G	V	A	R	V	L	E	E	L	D	L	N	E	E	E	E	[ ]	S	S	A	L	K	K	S	[ ]	Q	S		
UniRef90_D1C099	I	E	S	[ ]	D	V	[C]	L	Y	V	G	V	P	A	V	I	G	N	G	N	G	V	A	R	V	L	E	E	L	D	L	N	E	E	E	E	[ ]	S	S	A	L	K	K	S	[ ]	Q	S		
UniRef90_UPI0001E2E7B0	I	E	S	[ ]	D	V	[C]	L	Y	V	G	V	P	A	V	I	G	N	G	N	G	V	A	R	V	L	E	E	L	D	L	N	E	E	E	E	[ ]	S	S	A	L	K	K	S	[ ]	Q	S		
UniRef90_U7KVG4	V	E	[ ]	K	H	G	V	F	[C]	L	Y	V	G	V	P	A	V	I	G	N	G	N	G	V	A	R	V	L	E	E	L	D	L	N	E	E	E	E	[ ]	S	S	A	L	K	K	S	[ ]	Q	S
UniRef90_R5VC80	M	K	[ ]	H	G	V	F	[C]	L	Y	V	G	V	P	A	V	I	G	N	G	N	G	V	A	R	V	L	E	E	L	D	L	N	E	E	E	E	[ ]	S	S	A	L	K	K	S	[ ]	Q	S	
UniRef90_A7X6Y1																																																	



UniRef90\_K8EE42 V R N N I A K L  
UniRef90\_F3ZYV6 I R Q A I Q Q L  
UniRef90\_I3TQ09 V K K L N E A L  
UniRef90\_A3XCN3 V Q G L V D A C K  
UniRef90\_Q92F65 L K K V L D D  
UniRef90\_E7GB17 L R K L K V E V K  
UniRef90\_T0CBH1 L R E F A K T I  
UniRef90\_R6PTM0 L R D V I A D I E  
UniRef90\_D1C2T1 V R V L V E A M K  
UniRef90\_UPI0003675586 V K G L M E  
UniRef90\_D4LCA2 L K D V I K N L E  
UniRef90\_R5NYU5 L K E I L A S L E  
UniRef90\_D1C099 M R A V Q Q  
UniRef90\_UPI0001E2E7B0 V K A V L N E V K  
UniRef90\_U7KVG4 L N D I K E E  
UniRef90\_R5VC80 V K S V M K V L D  
UniRef90\_A7X6Y1 L E D T F D S I K  
UniRef90\_B0PD75 I R S Y V K D L  
UniRef90\_W7CFK8 L R L T I Q S L D  
UniRef90\_R7JT82 L K A V I A Q I E  
UniRef90\_R5ECL1 L K E V I A S L D  
UniRef90\_W2BRJ8 I R E A A T S L  
UniRef90\_UPI000428FE0E V K E V M K A L  
UniRef90\_D9QU51 L Q D L I  
UniRef90\_R7EXD5 L K E I I A S L  
UniRef90\_R5LCD6 L K E A Y R S I K  
UniRef90\_A0A023X3H2 V Q E L V N V L N  
UniRef90\_M1MES6 L K E H I K K V  
UniRef90\_H1LGM6 L K E T L  
UniRef90\_R9GY43 I K D I I S S V  
UniRef90\_R9LEP8 L K A E I A K L D  
UniRef90\_R6CBK8 L K S V I A Q I E  
UniRef90\_E7G9A4 L K Q V L E S L D  
UniRef90\_G4R6B6 V D G L V E A C K  
UniRef90\_C5XRJ6 L W E N C Q  
UniRef90\_UPI0003B36BF8 V R E N C N K L  
UniRef90\_U4TKM1 L K K V L  
UniRef90\_UPI00047854C6 V Q D S I A A L  
UniRef90\_R6H1A5 L R T F M D Q  
UniRef90\_V6Q4M9 I R E M Q  
UniRef90\_S7PVK8  
UniRef90\_M3WZL2 L W E I Q K E I K  
UniRef90\_UPI00047E2A89 L K E M I D  
UniRef90\_A0A023DCC0 L R K Y M E S I  
UniRef90\_UPI000427009F I R E Y I S K L K  
UniRef90\_Q3AS98 V E K N C K M L E  
UniRef90\_I9M5S3 I S N V M K S V  
UniRef90\_E8WV17 V K E L  
UniRef90\_E6LF27 I K E F T N K I R  
UniRef90\_W9BRL0 V K E L L  
UniRef90\_UPI00036269BF V R G L L A K S K  
UniRef90\_I4AIL3 V K E V M D T F D  
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1 10 20 30 40

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UniRef90_I3QFU8	Q	K	D	I	V	K	K	I	V	L	M	D	I	I	E	K	L	S	E	G	K	S	L	D	I	S	Q	M	L	P	M	I	N	T	E	I	I	G	I	S	
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UniRef90_W0EUD1	R	K	E	L	A	S	E	L	V	L	L	D	I	K	E	G	V	A	E	G	K	S	I	D	M	M	Q	T	A	T	L	L	G	F	D	T	K	I	K	G	
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UniRef90_F0M8H8	I	R	G	S	A	S	N	I	A	L	F	D	V	N	A	A	K	A	E	A	E	V	L	D	L	A	H	G	T	Q	F	A	A	A	A	A	M	T	G	G	
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UniRef90_I2K9G7	M	N	G	V	C	H	H	L	V	L	R	D	R	N	I	E	I	A	K	G	K	A	L	D	M	S	Q	A	N	A	A	R	S	H	T	I	V	S	A		
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UniRef90_I7KHN4	Q	N	V	K	I	S	E	L	V	L	C	D	I	V	A	K	E	L	T	V	G	D	A	M	D	L	E	D	L	A	P	F	V	I	G	V	K	V	V	S	
UniRef90_D7N2G1	N	Q	A	L	C	D	D	L	V	L	I	D	L	N	R	K	R	A	E	G	E	A	R	D	F	R	H	G	M	P	Y	A	A	S	P	A	R	I	Y	S	
UniRef90_UPI000306DB93	K	H	E	L	A	D	V	V	L	I	D	Q	N	E	G	Q	V	K	G	K	A	L	D	I	L	Q	S	S	P	I	Y	G	F	D	V	N	V	S	G		
UniRef90_U6KZN5	L	K	E	L	G	D	V	S	I	F	D	I	V	E	G	L	P	Q	G	K	A	L	D	L	S	Q	G	P	V	E	G	V	D	T	K	V	S	G	S		
UniRef90_D5UDQ4	M	R	G	A	R	T	V	A	L	L	D	I	V	N	K	A	K	V	D	A	E	V	L	D	L	A	H	G	I	Q	F	M	S	M	A	E	V	V	G	S	
UniRef90_UPI0003F145D9	G	K	S	L	A	D	E	L	A	L	V	D	V	L	E	D	K	L	K	G	E	M	D	L	Q	H	G	S	L	F	L	Q	T	P	K	I	V	A	D		
UniRef90_UPI00036F51AE	N	Q	S	I	S	D	E	I	M	M	I	D	R	T	Y	E	R	A	V	A	N	A	L	D	L	S	H	C	M	D	F	T	S	T	R	T	K	V	S	A	
UniRef90_C7M7P0	I	K	D	F	A	S	E	I	V	L	L	D	I	K	E	G	F	A	E	G	K	A	M	D	L	I	M	Q	T	A	S	L	N	G	F	D	T	R	I	V	G
UniRef90_R5I916	F	K	E	V	A	D	E	I	V	L	L	D	I	K	Q	G	V	S	E	G	K	A	L	D	M	M	Q	T	A	T	L	L	G	F	D	S	K	V	I	G	
UniRef90_C2FY21	R	K	S	V	A	E	E	I	V	L	L	D	I	K	E	G	F	A	E	G	K	A	Q	D	I	S	Q	T	A	A	L	L	G	F	D	A	K	I	K	G	
UniRef90_UPI000248FF3F	Q	N	V	S	A	T	E	L	V	I	V	D	I	K	K	D	H	T	E	G	D	A	L	D	L	E	D	V	T	P	F	A	G	P	A	K	I	H	T		
UniRef90_UPI00036AB099	N	Q	A	V	C	D	E	I	L	I	I	D	R	S	S	D	R	A	L	A	Q	A	L	D	L	S	H	C	M	D	F	T	H	T	R	T	K	V</			



UniRef90_K9TQZ6	N	D	Y	D	D	T	A	N	S	D	I	V	V	I	T	A	G	R	P	R	K	P	G	M	N	R	D	D	L	L	I	E	I	N	A	K	I	V	K	T	A					
UniRef90_K0YP12	D	D	V	E	I	V	R	S	D	S	D	L	V	V	I	T	A	G	A	K	Q	K	P	G	G	Q	S	R	L	E	L	A	G	S	T	V	E	I	L	M	K	K	I	A		
UniRef90_I2F537	G	D	I	A	V	S	R	G	S	D	L	V	V	I	V	T	A	G	R	P	R	K	P	G	G	S	R	R	L	E	L	A	K	D	S	T	V	E	I	L	M	K	E	A		
UniRef90_E0U8U5	N	N	Y	E	D	T	A	G	S	D	I	V	V	I	V	T	A	G	L	P	R	K	P	G	G	M	S	R	D	D	L	L	L	Q	V	N	A	K	I	V	Y	E	A			
UniRef90_D5V1Z2	K	D	S	N	D	L	K	D	C	D	V	V	I	V	V	T	A	G	L	P	R	K	P	G	G	M	S	R	D	D	L	L	L	E	T	N	A	K	I	M	K	I	V			
UniRef90_Q39VY0	N	S	Y	A	D	I	A	G	S	D	V	V	I	V	V	T	A	G	L	P	R	K	P	G	G	M	S	R	D	D	L	L	L	E	T	N	A	K	I	M	T	Q	V			
UniRef90_I3QFU8	N	D	Y	S	K	S	K	N	S	E	I	I	I	I	I	T	A	G	L	P	R	K	P	G	G	M	S	R	D	D	L	L	L	V	K	T	N	A	K	I	R	S	V			
UniRef90_UPI0003661EA3	S	D	L	S	V	V	E	G	S	H	V	V	V	I	V	T	A	G	A	K	Q	Q	P	P	G	Q	T	R	D	D	L	L	A	G	V	N	A	R	I	M	K	T	M			
UniRef90_UPI000341A218	S	S	Y	A	A	I	Q	D	A	D	V	V	V	I	V	T	A	G	V	P	R	K	P	P	G	M	S	R	D	D	L	L	L	A	G	I	N	L	Q	V	I	M	E	Q	V	
UniRef90_H2BY90	N	D	Y	S	A	K	T	A	G	S	D	V	V	V	I	T	S	G	L	P	R	K	P	P	G	M	T	R	E	E	L	L	L	I	G	I	N	A	G	I	V	K	S	D	V	
UniRef90_W0EUD1	N	N	Y	A	A	T	A	D	S	D	V	V	V	I	V	T	S	G	A	L	P	R	K	P	P	G	M	S	R	E	E	L	L	L	I	K	V	N	A	D	I	T	R	A	C	
UniRef90_E0RDM2	G	T	Y	A	D	A	C	T	D	M	D	V	V	I	V	T	A	G	A	N	P	K	P	P	G	Q	D	R	L	S	V	L	D	D	A	V	L	I	T	R	E	I				
UniRef90_K9P6L6	S	V	E	E	G	R	D	A	D	L	V	V	I	V	I	T	A	G	V	A	Q	Q	P	P	G	Q	S	R	R	E	L	L	L	I	E	R	N	A	A	V	I	F	R	K	E	V
UniRef90_B3CM44	N	R	Y	E	D	I	K	N	S	D	A	I	I	I	I	T	A	G	I	A	R	K	P	P	G	M	S	R	D	D	L	L	L	Q	T	N	A	A	V	I	L	M	K	E	V	
UniRef90_G8X5F5	N	D	Y	S	K	T	S	N	S	D	V	V	V	I	V	T	S	G	I	P	R	K	P	P	G	M	T	R	E	E	L	L	L	I	G	I	N	A	G	I	V	K	S	D	V	
UniRef90_B1LZN1	S	D	Y	A	A	I	K	D	A	D	V	V	V	I	V	T	A	G	V	P	R	K	P	P	G	M	S	R	D	D	L	L	L	I	G	I	N	L	K	V	I	M	Q	A	V	
UniRef90_F7MKS5	G	T	Y	E	E	C	K	D	V	D	I	V	V	I	V	T	A	S	A	P	P	K	P	P	N	Q	T	R	L	D	T	L	L	G	V	S	S	K	I	C	T	S	I			
UniRef90_A6LX5																																														

UniRef90_K9TQZ6	A	K	E	A	V	A	R	S	P	E	A	I	L	I	V	V	T	N	P	L	D	V	M	T	Y	V	A	W	E	A	S	Q	L	P	C	R	R	V	I	G	
UniRef90_K0YP12	V	P	N	L	Q	N	V	A	S	P	D	A	I	F	M	F	I	T	N	P	V	D	V	V	T	Y	V	A	L	K	L	T	G	L	P	R	R	Q	V	I	G
UniRef90_I2F537	V	A	K	S	L	S	Y	S	P	D	E	P	V	F	I	F	I	T	N	P	V	D	V	T	T	W	V	A	W	K	A	T	G	L	P	R	N	Q	V	I	G
UniRef90_E0U8U5	A	Q	K	A	V	K	Q	S	P	K	N	A	V	F	I	V	I	T	N	P	L	D	V	M	T	Y	L	T	W	K	A	T	G	L	P	H	R	Q	V	I	G
UniRef90_D5V1Z2	V	K	D	I	E	E	Q	A	P	N	S	A	L	I	V	V	S	N	P	L	D	V	M	T	Y	L	T	K	V	I	T	G	L	P	S	K	N	Q	V	I	G
UniRef90_Q39VY0	A	E	G	I	K	Q	Y	A	P	N	S	F	V	I	V	I	S	N	P	L	D	A	M	V	T	L	C	Q	K	I	T	G	L	P	S	K	N	Q	V	I	G
UniRef90_I3QFU8	T	E	K	S	I	F	F	S	P	K	A	K	L	I	V	I	S	N	P	L	D	V	M	T	Y	V	S	Y	L	T	A	K	V	D	P	S	R	I	I	G	
UniRef90_UPI0003661EA3	M	P	Q	L	L	E	A	A	P	N	A	L	I	V	I	V	T	N	P	C	D	V	L	T	V	L	A	Q	E	Q	T	G	L	P	P	S	R	I	I	G	
UniRef90_UPI000341A218	G	A	G	I	K	K	Y	A	P	N	A	F	V	I	C	I	T	N	P	L	D	A	M	V	W	A	L	Q	K	F	T	G	L	P	P	A	N	K	V	I	G
UniRef90_H2BY90	S	S	K	L	I	Q	H	S	P	D	T	V	M	I	V	V	S	N	P	M	D	T	M	T	Y	L	H	K	T	T	G	L	P	S	K	N	K	V	I	G	
UniRef90_W0EUD1	T	E	N	L	L	K	Y	S	P	D	T	I	L	I	V	V	S	N	P	M	D	T	M	N	Y	L	T	Q	T	T	G	L	P	S	K	H	R	V	I	G	
UniRef90_P80040	I	S	Q	A	A	P	L	S	P	D	N	A	V	I	M	V	N	P	L	D	A	M	T	Y	L	A	A	E	V	I	S	G	L	P	P	K	N	K	V	I	G
UniRef90_E0RDM2	V	T	A	I	M	E	G	G	F	D	G	I	F	I	V	A	N	P	V	D	I	V	T	Y	M	V	Q	S	I	S	G	L	P	P	R	N	K	V	I	G	
UniRef90_K9P6L6	V	P	I	A	L	H	C	Y	P	R	A	V	L	V	V	T	N	P	L	D	V	L	T	H	I	A	G	Q	L	S	G	L	P	A	H	R	V	I	G		
UniRef90_B3CM44	G	E	N	I	K	K	H	S	P	N	A	F	V	I	V	V	T	N	P	L	D	A	M	V	S	V	Y	K	A	S	S	L	P	T	N	M	I	V	I	G	
UniRef90_G8X5F5	A	E	N	L	K	T	H	S	P	N	A	V	F	I	V	I	S	N	P	M	D	T	M	T	Y	L	T	Y	K	A	L	G	I	P	K	N	K	V	I	G	
UniRef90_B1LZN1	G	E	G	I	K	T	H	A	P	N	A	F	V	I	C	I	T	N	P	L	D	A	M	V	W	A	L	Q	K	F	S	G	L	P	P	K	N	K	V	I	G
UniRef90_F7MKS5	V	K	S	I	M	N	Y	G	F	N	G	F	F	I	V	I	S	N	P	V	D	I	I	S	Y	H	T	W	K	L	S	G	L	P	P	K	N	K	V	I	G
UniRef90_A6LX59	I	D	P	I	L	E	S	G	F</																																

		170	180	190	200
UniRef90_K9TQZ6	MA G V L	D A S R L R K T F I	S M E L G V S I Q N V	I K A M V L G D H G Q L M V P L	
UniRef90_K0YP12	S G T V L	D T S R L R Y S F I	S R E T G V S A T Q N V	H A Y I A G E H H G D S E I V N	
UniRef90_I2F537	S G T T L	D T S R L R Q S F I	A M E H C Q L D P R N V	H A Y I A G E H H G D S E I V N	
UniRef90_E0U8U5	MA G V L	D S S R L R Q T F I	A M E L K V S T A D N V	T T M V L G G H H G D S E I V N	
UniRef90_D5V1Z2	MA G I L	D S S R M S H F I L	E K L G V S G A G Q V	N A S V M G G H H G D S E I V N	
UniRef90_Q39VY0	Q A G V L	D S S R F A A F F I	A W E L G V S V K D I	V A V T L G G H H G D S E I V N	
UniRef90_I3QFV8	MA G I L	D S S R F A A F F I	S K K L N V S P I D I	Q S L L L G G H H G D S E I V N	
UniRef90_UPI0003661EA3	S G T V L	D T S R L R W K L A	E R A G V S T S V V	H A Y I V G E H H G D T E F P L	
UniRef90_UPI0003A1A218	MA G V L	D S S R F R Y F R L	E E F K V S V E D V	T A F V L G G H H G D T M V P L	
UniRef90_H2BY90	M G G A L	D S S R F R Y F R L	S E A L E C A A S D V	D G M V I G G H H G D T M V P L	
UniRef90_W0EUD1	M G G A L	D S S R F R Y F R L	S Q E L G C S P A D L	N A V V V G G H H G D T T M I P	
UniRef90_P80040	Q A G V L	D A A R Y R T F I	A M E A G V S V E D V	Q A M L M G E H H G D S E M V P L	
UniRef90_E0RDM2	T G T S I	D S S R L K T L L	S E V F S I D P R S V	Q G Y A L M G E H H G S Q F V A	
UniRef90_K9P6L6	S G T V L	D S S R F R M A I	S R R L G I S D P H D V	Q A W V I G E H H G D S E V P V	
UniRef90_B3CM44	MA G V L	D S S R F R Y F R L	A S E L N L S V E D V	S A F V L G G H H G D T M V P L	
UniRef90_G8X5F5	M G G A L	D S S R F K T Y L	A L A L D K P T N D I	A A M V I G G H H G D T T M I P	
UniRef90_B1LZN1	MA G V L	D S S R F R H F L A	E E F K V S V E D V	T A F V L G G H H G D D M V P L	
UniRef90_F7MKS5	T G T S L	D T S R L K M I S	E L G G I D T K S I	Q A F A M G E H H G D S Q I V P	
UniRef90_A6LX59	T G T T L	D S S R L R M I L	S D E A G I D Q K S I	Q A Y C M G E H H G D S Q M V P	
UniRef90_V9TW88	MA G T L	D S S R L R Y F L	A K E F A V S V E D V	T A F V I G S H H G D T M V P L	
UniRef90_UPI000374DBEB	S G T V L	D T S R L R V E L	S D L L G F A P S N I	H A Y I L G G H H G D S S F V S	
UniRef90_D2QMR3	L G G A L	D S S R F K T Y L	S L A L E C S P N D L	Q A S V I G G H H G D T T M I P	
UniRef90_UPI0003F15038	S G C N L	D T S R F R F L I	G K K L G T H S E S C	H G W I L G E H H G D S S V P V	
UniRef90_F0Z5G7	S G T V L	D T S R L K Y L I	G K K F N L D Y R N I	H A W M I G E H H G D S E I V N	
UniRef90_L7KUV7	S G T V L	D S S R L R F L I	A Q K H C G V A V Q S V	H S Y I V G E H H G D S E I V N	
UniRef90_F0M8H8	S G T V L	D T S R L R W L I	A R R A G V A V P S V	H A S I V G E H H G D T E F P V	
UniRef90_P0C0J2	S G T V L	D T S R L Q F A I	A K R A K V S P N S V	Q A Y V M G E H H G D S S F V A	
UniRef90_D1AUS3	MA G V L	D S S R F S F F L	A K M N V S V R S V	S A M V I G G H H G D L M L P	
UniRef90_M4VF97	M G G C L	D S S R F R A F I	A E E L N V S V K D V	T G V V L G N H H G D A M M P	
UniRef90_F7XQC3	M G G M L	D S S R F A T F V	A M E L G C S V K D I	S A M V I G G H H G D N L M L P	
UniRef90_C7RSB0	MA G V L	D S S R F R H F L	A D E F K V S V E D V	T A L V L G S H H G D T M V P	
UniRef90_I4X1A3	Q S G V L	D S S R F R T F V	A E E L D V S V K D V	T G F V L G G H H G D D M V P	
UniRef90_G1LHX6	S G C N L	D S A W F H Y L M	G E R L G V H P L S C	H R L V F R E H H G D S S V P	
UniRef90_N6VFJ8	T G C H L	D T A R F Y L F I	G Q L L G I A A R S V	H G Y V I G E H H G D S S V P	
UniRef90_I2K9G7	MA G I L	D S S R M A H F I	Y E K I G Y G A G Q I	R A S V M G G H H G D D M V P	
UniRef90_N2A030	T G T S L	D S S R L R V E L	A K K L N V P V K K V	N S M V L G E H H G D T S F E N	
UniRef90_UPI00046F909D	MA G V L	D S S R F K L F L	S L E L K V P V K Q I	E T L V M G G H H G D T M V P	
UniRef90_UPI0003611BB6	T G T S I	D S S R L K T I L	S D V F S I D P R S V	H G Y V L G E H H G S Q F V A	
UniRef90_B4MS98	T G C S L	D S S R F R F L I	A Q R L K V P T T E V	E G Y V I G E H H G N S A V P	
UniRef90_R7KBE0	S G T I L	D S S R L R T K I	S D L F S V R Q D Q I	I Y A H V F G E H H G D N S F I P	
UniRef90_U6B8C4	MA G V L	D S S R F R Y F L	A Q E F N V S V E A V	T A L V L G S H H G D S M I P M	
UniRef90_W3Y4C0	S G T A L	D S S R L Q K E L	S K H F H I S H R S I	T A Y C L G E H H G T S A M I P	
UniRef90_L0K5P2	T G T I V	D S S R L M R I L	G N K Y Q L D P K N I	F G Y I L G E H H G K V S F V P	
UniRef90_Q8PVJ7	M S G V L	D A G R F A S F I	A E E L K C S K R D V	E A M V I G G H H G D L M V P	
UniRef90_I7KHN4	T G T S L	D T S R L R V A L	A K K T G A N I D N V	D A Y V L G E H H G D T S F E N	
UniRef90_D7N2G1	S G T I I	D S S R F R S C L	G N E F N V A P W S V	D A M M I G E H H G D S V I A V	
UniRef90_UPI000306DB93	Q S G I L	D T S R Y Q T F I	A E A L G I S I K D V	K G L V L G G H H G D T M L P	
UniRef90_U6KZN5	MA G V L	D S S R F R H F L	A Q R L R V S V E D V	H A M V M G G H H G D N M V P	
UniRef90_D5UDQ4	S G T V L	D S S R L R Y L I	A Q H T G V A V Q N V	H A Y V A G E H H G D T G L P	
UniRef90_UPI0003F145D9	S G C N L	D S T R F R Y L M	A E K L G I H P S S C	H G W	
UniRef90_UPI00036F51AE	T G T S I	D S S R L K T L L	S E V F E I D P R S V	N G Y A M G E H H G D S S Q F V A	
UniRef90_C7M7P0	M G G A L	D S S R F K Y R L	A E A L N S P I S D V	D G M V I A A H S D S T T M I P	
UniRef90_R5I916	M G G A L	D S S R F K C Y L	S Q A L N A N P N E V	E G V V I A G H H G D T T M I P	
UniRef90_C2FY21	M G G T L	D S S R F K Y Q L	S E K L N A S P A D L	N A L V I G G H H G D T T M I P	
UniRef90_UPI000248FF3F	T G T S L	D S S R L Q V A L	A H K L N A S V N E V	N A Y V F G E H H G D S S F A N	
UniRef90_UPI00036AB099	T G T S I	D S S R L K T I L	S E V F A I D P R S V	S G Y A L G E H H G S Q F V A	
UniRef90_H4GK94	T G T F L	D K A R L N V I L	G D H F G F K P S E I	D A L V L G E H H G D T S F V N	
UniRef90_UPI0003B46551	T G T L L	D T A R F R A L I	G Q Y Y S V D P S E I	H A Y I L G E H H G D S E V P I	
UniRef90_UPI00041101B1	MA G V L	D S S R F Q T F I	A M E L G M S M A N I	H A T V L G S H H G D L M V P	
UniRef90_I2EX27	M G G S L	D S S R F R Y Y L	S Q A T G F A Q S D I	H G Q V I G G H H G D T T M I P	
UniRef90_A7U552	MA G V L	D S S R L R T F L	S E R L N V S V D D I	H A L V M G G H H G D T M V P	
UniRef90_L8LM46	MA G V L	D S S R L Q T F I	A M K L G V Y T A D V	S A M V L G G H H G D L M L P	
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UniRef90_Q39VY0	V	R	Y	T	S	V	C	G	I	P	V	M	E	L	L	E	R	K	Y	K	D	K	E	V	M	E	A	M	V	K	R	T	R	G	A			
UniRef90_I3QFU8	Y	R	Y	T	S	V	S	G	I	P	I	K							E	F	L	S	E	E	D	N	N	V	I	E	K	T	K	K				
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UniRef90_H2BY90	L	T	R									P	V	S	A	F	L	S				S	K	E	R	L	E	Q	V	S	E	D	T	K				
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UniRef90_I2F537	I	E	K	K	S	T	N	Y	A	I	G	L	A	V	S	N	K	V	I	A	S	T	I	F	R	N	Q	S	R	V	T	V	S	S	L	V	H	P	E	F	E
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UniRef90_W0EUD1	T	K	G	T	S	A	W	Y	A	P	G	A	G	T	A	A	M	V	E	S	I	L	R	D	E	K	K	I	I	P	C	S	V	A	L	L	D	G	E	Y	G
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UniRef90\_Q8EUG3 M T K Q K V S I I G A G N T G A T L A F I T A

UniRef90\_K9X2X6 K K I S I I G A G N V G S T T A F Y I A

UniRef90\_U1ECV7 K V G I V G A G M V G S A A G F A L I

UniRef90\_X1EZU1

UniRef90\_W8RXW5 R K V G I I G C G N V G S A T A F S L V

UniRef90\_R6QWX2 R K V A V I G M G H V G A T V A Y T L F

UniRef90\_UPI000473A96F R H K V V L I G D G A V G S S F A F S L L

UniRef90\_I7L6N0 K R P T V S I V G A G N V G E H V A N L I A

UniRef90\_R9WGV3 K V S I I G A G A V G V G I C N Y L L

UniRef90\_B2V8I8 K R K V V I I G A G H V G S H V A M A L C

UniRef90\_S6ETZ9 M K N S K I I L I G D G A I G S S Y A F N C L

UniRef90\_R6QNK9 I T I I G S G K V G A S A A L N C G

UniRef90\_X0PRM6 I I I I G D G A I G S S F A F N C L

UniRef90\_K0IC78 H N V F Y Q E N T M N T R K V M I I G A G N V G A S A Y A L L

UniRef90\_U4TJK7 R K I G L I G M G N V G A T I A Y T L V

UniRef90\_I6WQ50 K I T V I G A G N V G A T C A Q R A A

UniRef90\_UPI000249100E K I G I V G A G F V G S T A A Y A M V

UniRef90\_E1QGP1 M K K N K L V V I G V G H V G S C V L A D A M

UniRef90\_UPI00036345EF K F S V I G C G K V G A T I A F T A M

UniRef90\_F7NEE8 R K I G V I G L G H V G A T I A Y T L V

UniRef90\_A0A023CZG0 R K I A V I G M G H V G S T A A H Y I V

UniRef90\_W6T8D7 M S R P K I S L I G G G Q V G G N I A L L S A

UniRef90\_UPI00039B06BA K V A V I G C G A V G S S F L Y S A I

UniRef90\_U5ND34 K I T L V G T G R V G S A I A F A L T

UniRef90\_Q7UY63 K K V G I V G I G H V G S H C A L A M L

UniRef90\_I3DJX3 K V S I I G G G V G S C A A F A L Q

UniRef90\_UPI00036CF85A

UniRef90\_E2AWM9 M R M K K V A V I G A G N V G E H V A S L I L

UniRef90\_O67655 R K M A V I G L G H V G A T V A Y T L V

UniRef90\_D8IMU5 A S L K D K L I T P I T Q P S T Q P N N K V T V V G V G Q V G M A C A V S V L

UniRef90\_V8NIF8 K P K I S V I G A G N V G A S L A Q F L V

UniRef90\_T0LHY4

UniRef90\_K1YRZ3 R K V G I I G L G H V G A T L A Y T L V

UniRef90\_UPI0004721177 R K V A V I G M G N V G A A V A H Q L I

UniRef90\_F6A2N6 K I A I I G A G R V G E S T A Q F L A

UniRef90\_L0DSI4 Y T L F

UniRef90\_J9HTX8

UniRef90\_A3MWU9 S Q I A I V G S G R V G T A A A A I M G

UniRef90\_Q0UCM2 K I G I V G C G F V G A T A A Y A M V

UniRef90\_B9LZ61 R K I A I I G M G N V G A A V A H G L I

UniRef90\_F5TZL9 K V A I V G A G R V G E T T A Q L L A

UniRef90\_S6C167 R K I G V I G M G S V G S T V A H Y I V

UniRef90\_F4FXF8 P K A K I V L V G S G M I G G V M A T L I V

UniRef90\_Q7SI97 M K P R K V M I I G A G N V G T A A A H A F V

UniRef90\_H7F6C3 K I G I V G A G F V G S A A A Y A M V

UniRef90\_W9H5U0 T T T K N A L I T T Q L G P C D V Y P H R K V S I I G V G K I G I A C A I A I L

UniRef90\_UPI00021A6FA8 R K L G V I G I G N V G V T V A Y T V V

UniRef90\_UPI00046915FB K V S V I G A G R V G K A T A F C L A

UniRef90\_F6D4D4 R N H K V A I I G A G S V G T A I A Y A C L

UniRef90\_Z5X959 R K V G I I G V G H V G A D M A F S L V

UniRef90\_UPI00035D2DF5 V P P K R V S V I G G G V G A A T V N A L I

UniRef90\_A0A023B8Q6 N K L S I V G A G M V G E A A A Q I A

UniRef90\_UPI0003792010 M G Y K K V G I V G I G N V G S S I A Y N L A

UniRef90\_G2HYX1 A T I I S I L

UniRef90\_F6VVZ7 K V S V I G M G A V G T E T V R G L M

UniRef90\_UPI000372F2A7 L K R N K I V L V G A G G V G S S F A Y A L I

UniRef90\_W5S7Z3 K R K V A L I G T G M V G M S Y A S M L

UniRef90\_D3ANQ4 K I G V I G A G S V G V G V C N Y L L

UniRef90\_E8LT55 Q K L I S P L A S S P A E P P R N K V T V V G V I G Q V G M A C A I S I L

UniRef90\_B9V2Z4 M V G A A V L G A L L

UniRef90\_U2EXK3 I G I V G T G S V G A S V A I S L L

UniRef90\_K9PZR7 R K I G I I G M G N V G A A A A H Y I V

UniRef90\_C2CYB4 T T T K N A L V T R Y L G S C D E Y P H R K V S I I G T R K V G M A C A I A I L

UniRef90\_E2AWM8 M S Y A Y A L G

UniRef90\_S7ULC7 M T H P K I A I I G C G A I G T T L A Y S L L

UniRef90\_C4LFJ3 S K I G I I G A N H V G A H V A N A L L

UniRef90\_C8V8Q2

UniRef90\_F7VQR5



		50	60	70	80																																						
UniRef90_A5CF61	V	K	E	L	G	D	I	V	I	V	D	A	D	N	A	K	A	K	A	Q	A	S	D	I	S	Q	S	M	G	I	G	K	C	I	N	I	T	G	T				
UniRef90_B3QX21	M	R	G	S	C	S	E	I	V	I	V	D	A	D	N	A	K	A	K	A	Q	A	S	D	I	E	H	A	V	P	F	S	F	A	M	T	V	R	D				
UniRef90_K7SF38	I	R	G	S	A	D	V	V	A	L	L	Y	D	I	A	V	E	G	L	V	Q	K	A	L	D	I	A	H	G	S	E	F	V	P	S	K	V	M	G	S			
UniRef90_UPI000361B85D	E	M	R	G	L	A	N	E	M	V	L	V	D	V	N	R	E	K	A	E	A	E	V	L	D	I	T	H	G	M	P	L	G	S	T	A	N	I	Y	A	A		
UniRef90_H9ULD2	N	R	G	L	A	N	E	M	V	L	V	D	V	N	R	E	K	A	E	A	E	V	L	D	I	T	H	G	M	P	L	G	S	T	A	N	I	Y	A	A			
UniRef90_UPI0003F908A1	C	E	E	L	V	L	I	D	S	N	H	A	K	A	E	G	E	A	M	D	L	N	H	G	I	S	F	A	P	S	P	V	R	I	W	A	A						
UniRef90_R6RGV3	C	E	E	L	V	L	I	D	S	N	H	A	K	A	E	G	E	A	M	D	L	N	H	G	I	S	F	A	P	S	P	V	R	I	W	A	A						
UniRef90_Q55383	N	Q	N	I	C	E	E	L	V	L	I	D	I	N	K	V	R	A	K	E	A	A	D	L	S	H	G	L	P	F	A	P	S	S	M	S	I	Y	A				
UniRef90_UPI000413445E	Q	Q	N	V	A	N	V	V	L	L	D	I	V	P	G	L	P	Q	G	I	A	L	D	L	S	M	A	A	S	V	E	E	Y	D	S	K	I	I	G	T			
UniRef90_F8AVQ4	N	Q	T	I	C	E	E	L	V	L	I	D	I	D	K	E	R	V	E	G	H	R	Q	D	L	S	D	A	A	A	Y	M	P	G	M	I	T	V	S	T			
UniRef90_B1YKA6	E	Y	D	I	F	D	T	V	V	L	T	D	I	L	E	G	K	P	Q	G	L	A	L	D	L	S	N	Q	S	R	P	I	E	G	F	T	T	V	V	G	T		
UniRef90_I7C1J0	Q	K	E	L	G	D	V	L	V	D	M	P	Q	Q	E	N	A	T	K	G	K	A	L	D	M	Q	E	T	A	P	I	Q	F	D	A	W	I	N	G	T			
UniRef90_N4XSB7	H	Q	N	L	A	A	E	F	G	L	I	D	Y	N	V	E	F	A	R	G	Q	A	L	D	L	S	E	D	S	T	P	Y	L	T	A	E	A	R	V	K	V		
UniRef90_A9A450	M	D	P	V	A	G	D	I	L	L	V	D	P	K	E	V	R	D	A	Q	V	Q	D	L	L	S	E	D	A	T	F	H	G	N	T	T	T	R	I	R	S		
UniRef90_J0L3X1	L	K	R	L	D	D	Q	I	L	L	V	D	V	A	E	G	L	P	Q	G	E	A	M	D	I	N	H	M	L	S	E	Q	G	D	V	E	V	K	G	S			
UniRef90_M5TV68	V	Q	G	F	A	D	E	L	L	L	I	D	K	N	E	K	K	A	R	A	E	Q	L	D	L	Q	D	A	T	A	R	L	D	S	R	P	K	I	K	I			
UniRef90_G8C2T5	A	A	E	L	G	D	V	C	L	L	I	D	P	E	D	M	P	A	G	K	A	L	D	L	M	Q	D	A	S	P	I	M	G	S	N	I	L	G	T				
UniRef90_UPI00036CDEB2	H	Q	D	L	A	A	E	Y	G	L	I	D	Y	N	E	E	F	A	K	G	Q	A	L	D	L	E	D	S	A	Y	F	D	A	S	P	K	L	K	V	I			
UniRef90_UPI000363135A	Q	K	H	L	A	R	E	I	V	L	I	G	D	T	E	A	H	V	Q	G	E	A	L	D	L	Q	Q	A	V	P	L	G	T	P	V	K	I	F	A				
UniRef90_UPI00036C466C	A	C	Q	L	A	P	E	I	V	C	I	D	T	D	E	K	K	A	H	G	E	A	L	D	A	S	H	S	T	P	C	T	Y	L	P	G	I	V	Y	S			
UniRef90_B7JVP2	E	R	N	L	G	D	V	V	L	I	D	I	V	E	G	L	P	Q	G	K	A	L	D	M	M	E	S	A	P	I	W	G	F	S	R	V	F	G	T				
UniRef90_M5TN84	E	K	N	L	A	D	V	V	L	I	D	I	E	G	L	P	Q	G	I	A	L	D	L	M	A	A	Q	G	I	E	L	H	S	L	V	I	I	G	T				
UniRef90_UPI0003623161	M	Q	N	L	G	R	E	I	V	M	V	D	K	N	D	A	R	A	A	E	A	D	D	I	L	F	H	A	V	P	F	A	H	P	L	T	I	R	S				
UniRef90_Q8EUG3	N	F	D	L	A	D	E	L	A	I	I	D	I	I	N	K	K	A	H	G	E	A	L	D	S	C	H	A	L	P	F	P	Y	N	T	N	V	I	H	E			
UniRef90_K9X2X6	N	Q	G	L	F	D	E	Y	V	L	I	D	A	F	D	N	L	S	K	G	N	A	W	D	F	E	D	A	N	I	M	T	P	A	G	M	I	K	S				
UniRef90_U1ECV7	E	K	N	L	A	D	V	V	L	I	D	I	V	A	G	M	P	Q	G	L	A	L	D	L	M	E	A	G	I	E	L	H	N	R	Q	I	I	G	T				
UniRef90_X1EZU1	Q	Q	G	L	A	D	V	V	L	I	D	R	P	E	G	P	V	Q	G	K	A	L	D	I	L	E	S	S	P	F	G	F	H	S	N	V	E	G	A				
UniRef90_W8RXW5	E	K	N	L	F	S	D	V	M	L	I	D	I	A	E	G	R	A	K	G	K	A	L	D	L	M	E	A	A	P	V	R	N	Y	T	K	I	D	G	S			
UniRef90_R6QWX2	Q	R	G	H	A	R	E	I	V	F	I	D	I	D	T	A	R	A	R	A	E	A	D	I	A	H	A	V	P	F	A	A	P	A	L	V	R	H					
UniRef90_UPI000473A96F	V	Q	G	I	V	D	E	L	V	L	V	D	V	K	E	Q	K	V	I	S	E	C	Q	D	L	R	D	S	V	S	Y	L	P	H	R	V	E	V	R	G			
UniRef90_I7L6N0	N	Q	Q	A	I	E	E	L	V	L	V	D	K	L	K	E	K	A	E	G	D	A	L	D	L	Q	D	A	T	V	T	A	S	G	F	T	N	V	Y	A			
UniRef90_R9WGV3	T	H	G	I	V	D	E	L	V	L	V	D	C	N	E	K	K	S	T	A	E	Y	N	D	L	R	D	T	L	A	R	N	N	Y	Y	V	D	V	E	A			
UniRef90_B2V818	Q	T	N	E	V	D	E	L	V	L	V	D	R	T	R	S	K	A	V	G	D	A	A	D	L	A	D	I	T	P	L	T	N	P	V	K	I	Y	A				
UniRef90_S6ETZ9	I	K	E	L	A	N	I	K	L	E	D	L	P	K	K	T	V	K	G	K	A	L	D	L	K	Q	M	A	A	I	K	G	Y	N	V	T	P	D	G				
UniRef90_R6QNK9	T	M	G	E	C	Q	E	V	V	L	V	D	L	N	K	E	R	T	R	G	E	Q	L	D	F	S	H	T	S	A	L	T	F	K	N	T	K	I	S				
UniRef90_X0PRM6	F	Q	G	T	C	D	E	I	A	F	I	D	I	H	E	K	A	V	A	N	C	Y	D	V	A	D	A	C	L	F	L	G	S	T	T	K	I	K	V				
UniRef90_K0IC78	M	T	G	V	G	K	S	I	G	I	D	I	N	M	K	R	V	Q	G	D	V	E	D	L	R	D	A	L	P	Y	T	S	Q	N	I	Y	A	A					
UniRef90_U4TJK7	L	R	E	L	D	R	D	I	L	L	I	D	I	V	Q	G	L	P	Q	G	E	A	M	D	I	N	H	Q	L	S	E	R	G	S	D	A	V	A	A				
UniRef90_I6WQ50	T	S	G	V	G	S	S	L	G	I	D	I	N	M	E	R	V	Q	G	D	V	E	D	L	N	D	A	L	P	Y	A	S	Q	K	N	I	Y	A	A				
UniRef90_UPI000249100E	N	Q	N	I	C	E	E	L	V	L	I	D	L	N	T	S	R	A	E	A	H	A	Q	D	L	S	D	A	A	A	Y	M	P	G	M	M	T	I	S				
UniRef90_E1QGP1	T	K	G	L	A	D	E	L	V	M	I	D	K	N	E	K	V	V	A	E	Q	L	D	L	S	Q	D	S	L	G	R	L	D	S	N	T	T	K	I				
UniRef90_B6IX40	E	K	E	L	A	D	V	V	L	V	D	V	V	E	G	M	P	Q	G	K	A	L	D	L	C	E	A	A	P	V	E	K	H	A	R	L	L	G	T				
UniRef90_UPI00036345EF	M	R	G	V	G	S	E	I	V	L	V	D	R	N	G	E	L	A	D	A	Q	A	R	D	L	L	H	A	T	P	E	A	Y	T	P	K	I	R	A				
UniRef90_F7NEE8	K	L	G	L	F	S	E	I	A	V	I	D	K	D	E	V	A	F	G	E	A	L	D	Q	Q	H	A	T	A	L	T	Y	M	T	N	V	V	K	A				
UniRef90_A0A023CZG0	L	K	N	F	A	H	E	I	V	L	V	D	V	N	S	D	K	A	R	G	E	M	F	D	I	M	Q	C	E	A	Y	E	P	Q	T	L	F	H	A				
UniRef90_W6T8D7	T	K	G	F	A	D	E	L	V	L	I	D	S	N	E	D	K	A	V	A	E	E	Y	D	L	R	D	T	L	S	R	L	D	T	F	T	K	I	P				
UniRef90_UPI00039B06BA	A	N	G	F	A	D	D	L	V	L	I	D	P	N	T	G	K	V	E	A	D	A	L	D	F	K	D	A	M	P	N	L	P	H	T	N	I	T	V				
UniRef90_U5ND34	Q	K	E	L	G	D	I	V	I	V	D	I	A	E	N	F	M	K	G	K	A	L	D	I	S	Q	L	L	P	H	D	G	Y	S	K	L	S	G	T				
UniRef90_Q7UY63	H	Q	D	L	A	S	E	Y	G	I	D	Y	N	N	E	L	A	K	G	Q	A	L	D	L	E	D	S	T	L	E	F	F	K	A	Q	S	K	V	R	A			
UniRef90_I3DJX3	I	N	P	L	A	S	E	L	L	L	N	R	S	R	E	K	A	E	G	D	A	L	D	L	T	H	A	A	A	L	V	D	S	N	I	K	I	S					
UniRef90_UPI00036CF85A	L	Q	G	V	C	D	E	M	V	L	M	D	I	L	P	E	K	A	K	A	H	A	I	D	C	M	D	T	V	S	F	L	P	H	R	T	I	K	D				
UniRef90_E2AWM9	C	G	G	I	V	S	E	I	Q	L	I	D	A	N	Q	A	M	A	E	G	E	A	L	D	L	M	H	G	S	A	F	T	A	D	Q	R	I	Y	A				
UniRef90_O67655	S	T	R	L	A	S	E	L	V	L	I	D	V	N	E	D	A	K	A	E	A	E	D	L	I	S	H	A	A	Y	L	G	N	P	K	I	I	G	T				
UniRef90_D8IMU5	L	K	N	L	A	N	V	K	M	F	D	L	P	R	K	P	V	K	G	K	A	L	D	M	K	Q	M	L	A	M	G	Y	T	V	T	P	E	G					
UniRef90_V8NIF8	S	Q	G	I	A	D	E	L	V	L	I	D	T	N	E	K	K	V	V	A	E	K	L	D	F	E	D	A															

	90	100	110	120
UniRef90_A5CF61	N	N	Y	Q
UniRef90_B3QX21	G	D	F	V
UniRef90_K7SF38	A	D	V	N
UniRef90_UPI000361B85D	N	D	F	N
UniRef90_H9ULD2	G	Y	E	A
UniRef90_UPI0003F908A1	G	D	Y	T
UniRef90_R6RGV3	G	D	Y	S
UniRef90_Q55383	N	E	Y	E
UniRef90_UPI000413445E	R	D	A	S
UniRef90_F8AVQ4	N	D	Y	A
UniRef90_B1YKA6	S	D	Y	Q
UniRef90_I7CIJO	I	D	Y	S
UniRef90_N4XSb7	G	T	H	K
UniRef90_A9A450	N	N	F	E
UniRef90_J0L3X1	Q	D	Y	A
UniRef90_M5TV68	T	D	Y	A
UniRef90_G8C2T5	K	H	Y	Q
UniRef90_UPI00036CDEB2	G	T	Y	K
UniRef90_UPI000363135A	G	G	F	E
UniRef90_UPI00036C466C	N	D	P	K
UniRef90_B7JVP2	N	R	Y	E
UniRef90_M5TN84	G	Q	Y	A
UniRef90_UPI0003623161	G	V	E	E
UniRef90_Q8EUG3	G	T	Y	E
UniRef90_K9X2X6	N	N	Y	A
UniRef90_U1ECV7	V	I	D	Y
UniRef90_X1EZU1	D	N	I	E
UniRef90_W8RXW5	G	D	Y	A
UniRef90_R6QWX2	G	T	Y	E
UniRef90_UPI000473A96F	G	G	L	I
UniRef90_I7L6N0	N	N	W	D
UniRef90_R9WGV3	G	T	Y	E
UniRef90_B2V8I8	Q	G	Y	E
UniRef90_S6ET29	G	E	Y	E
UniRef90_R6QNK9	G	D	Y	E
UniRef90_X0PRM6	N	N	Y	A
UniRef90_K0IC78	N	N	Y	E
UniRef90_U4TJK7	N	N	Y	H
UniRef90_I6WQ50	R	E	A	S
UniRef90_UPI000249100E	Q	D	Y	S
UniRef90_E1QGP1	N	D	Y	A
UniRef90_B6IX40	G	S	Y	A
UniRef90_UPI00036345EF	G	D	Y	S
UniRef90_F7NEE8	G	S	Y	E
UniRef90_A0A023CZG0	Q	D	Y	T
UniRef90_W6T8D7	N	D	Y	S
UniRef90_UPI00039B06BA	S	N	F	E
UniRef90_U5ND34	I	D	Y	C
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UniRef90_E2AMW9	K	D	Y	A
UniRef90_O67655	E	G	Y	E
UniRef90_D8IMU5	Q	D	Y	A
UniRef90_V8NIF8	Y	Y	S	V
UniRef90_T0LHY4	T	A	Y	K
UniRef90_K1YRZ3	D	Y	K	D
UniRef90_UPI0004721177	Q	D	Y	Q
UniRef90_F6A2N6	N	D	Y	E
UniRef90_L0DSI4	T	D	P	G
UniRef90_J9HTX8	G	T	Y	Q
UniRef90_A3MTWU9	N	D	Y	K
UniRef90_Q0UCM2	G	T	H	K
UniRef90_B9LZ61	G	E	Y	E
UniRef90_F5TZL9	N	D	Y	Q
UniRef90_S6C167	N	D	P	A
UniRef90_F4FXF8	N	D	Y	D
UniRef90_Q7SI97	N	T	Y	D
UniRef90_H7F6C3	R	D	A	S
UniRef90_W9H5U0	G	D	Y	S
UniRef90_UPI00021A6FA8	S	D	F	S
UniRef90_UPI00046915FB	Q	D	Y	A
UniRef90_F6D4D4	S	D	M	E
UniRef90_Z5X959	D	Q	I	D
UniRef90_UPI00035D2DF5	N	D	Y	A
UniRef90_A0A023B8Q6	G	S	F	A
UniRef90_UPI0003792010	S	R	A	E
UniRef90_G2HYX1	H	S	D	E
UniRef90_F6VVZ7	D	C	A	M
UniRef90_UPI000372FA27	G	D	Y	P
UniRef90_W5S7Z3	G	N	Y	D
UniRef90_D3ANQ4	G	E	Y	K
UniRef90_E8LT55	D	D	Y	L
UniRef90_B9V2Z4	K	D	Y	A
UniRef90_U2EXK3	G	D	Y	A
UniRef90_K9PZR7	E	T	L	S
UniRef90_C2CYB4	N	D	Y	A
UniRef90_E2AMW8	S	D	V	Y
UniRef90_S7ULC7	G	F	E	M
UniRef90_C4LFJ3	E	T	P	E
UniRef90_C8W8Q2	D	R	Y	E
UniRef90_F7VQR5	G	N	Y	E

UniRef90_A5CF61	A	T	Q	I	K	Y	Y	S	S	N	A	F	V	I	V	V	T	N	P	L	D	A	M	V	W	V	M	Q	K	N	L	G	F	D	H	Q	K	V	I	G		
UniRef90_B3QX21	V	P	Q	K	V	V	A	E	S	S	N	A	F	V	I	V	V	T	N	P	V	D	I	L	T	S	V	M	Q	K	N	L	G	F	D	H	Q	K	V	I	G	
UniRef90_K7SF38	M	P	Q	L	V	E	Q	A	E	S	N	A	F	V	I	V	V	T	N	P	V	D	I	L	T	S	V	M	Q	K	N	L	G	F	D	H	Q	K	V	I	G	
UniRef90_UPI000361B85D	C	D	Y	I	K	R	F	A	P	E	A	I	V	I	V	I	T	N	P	L	D	I	M	V	Q	L	A	F	H	L	L	N	H	P	A	P	A	K	I	M	G	
UniRef90_H9ULD2	V	G	D	L	M	A	S	G	F	G	G	V	I	L	V	V	T	N	P	V	D	V	L	T	F	V	A	Y	R	E	S	G	L	L	P	A	K	H	R	V	I	G
UniRef90_UPI0003F908A1	T	K	Q	V	L	M	A	S	G	F	N	G	V	I	L	V	V	T	N	P	V	D	V	M	T	Q	I	V	Y	E	L	S	G	F	P	A	N	R	V	I	G	
UniRef90_R6RGV3	V	N	P	R	E	I	A	S	G	F	N	G	V	I	L	V	V	T	N	P	L	D	V	M	T	Y	L	A	W	K	V	L	T	G	L	P	A	N	R	V	I	G
UniRef90_Q55383	A	R	E	A	L	R	Y	S	P	N	A	I	F	I	L	V	V	T	N	P	L	D	I	I	T	W	Q	V	W	K	L	S	G	L	P	P	R	G	R	V	I	G
UniRef90_UPI000413445E	V	P	M	M	E	N	G	S	P	N	A	I	F	I	L	V	V	T	N	P	V	D	E	M	T	A	L	A	S	N	V	L	G	F	P	K	R	S	R	V	I	G
UniRef90_F8AVQ4	S	E	N	I	A	K	T	S	P	E	A	V	V	I	V	V	S	N	P	L	D	E	M	T	A	L	A	S	N	V	L	G	F	P	K	R	S	R	V	I	G	
UniRef90_B1YKA6	T	K	E	I	V	T	H	A	P	E	S	I	V	I	V	L	T	N	P	V	D	A	M	T	Y	T	V	F	Q	A	S	G	F	P	K	R	S	R	V	I	G	
UniRef90_I7CIJO	A	E	N	V	K	S	S	G	F	K	G	I	V	L	I	V	S	N	P	V	D	V	L	T	Y	V	F	Q	K	V	I	T	G	F	P	A	N	K	V	I	G	
UniRef90_N4XSb7	I	S	D	M	K	P	F	R	P	D	T	S	L	L	L	V	A	N	P	V	D	V	L	T	Y	F	A	Q	H	F	S	G	F	P	K	R	S	R	V	I	G	
UniRef90_A9A450	V	E	N	V	K	K	Y	A	D	D	S	M	I	L	V	V	T	N	P	L	D	P	M	A	Y	I	T	Y	K	V	S	G	F	P	D	K	S	R	V	I	G	
UniRef90_J0L3X1	A	P	K	I	K	A	S	G	F	N	G	V	I	L	I	V	V	T	N	P	V	D	A	I	T	Q	Y	L	Q	K	E	I	G	L	P	G	S	Q	R	V	I	G
UniRef90_M5TV68	G	E	Q	I	K	A	T	S	P	N	A	V	V	I	V	V	S	N	P	V	D	A	M	V	Q	Q	M	K	V	I	T	G	F	E	K	S	S	R	V	I	G	
UniRef90_G8C2T5	A	E	D	V	R	D	S	A	F	Q	G	I	V	V	I	V	S	N	P	V	D	V	L	T	Y	V	F	Q	K	V	I	T	G	F	P	H	R	S	R	V	I	G
UniRef90_UPI00036CDEB2	I	T	K	L	M	A	E	G	F	D	G	I	L	I	L	V	A	N	P	V	D	V	L	T	Y	I	V	Q	K	E	T	G	L	A	P	G	Q					



UniRef90_A5CF61	M	A	G	V	L	D	S	I	R	F	K	Y	F	L	S	Q	E	F	G	V	S	I	N	V	N	A	M	V	L	G	H	G	D	T	M	I	F	L				
UniRef90_B3QX21	S	G	T	L	L	D	T	A	R	R	F	R	A	L	I	S	G	N	E	L	G	V	D	A	T	P	Q	H	I	I	G	E	H	G	D	S	E	F	P			
UniRef90_K7SF38	S	G	T	L	L	D	T	S	A	R	L	R	Y	L	I	S	Q	W	A	N	G	I	S	I	N	V	N	A	M	V	L	G	E	H	G	D	S	E	F	P		
UniRef90_UPI000361B85D	M	A	G	C	L	D	S	A	R	M	C	S	F	L	I	A	E	E	L	G	I	S	I	N	V	N	A	M	V	L	G	E	H	G	D	L	M	V	P			
UniRef90_H9ULD2	S	G	T	V	L	D	S	A	R	L	R	T	F	L	I	S	R	S	C	S	I	N	V	N	A	M	V	L	G	E	H	G	D	T	S	F	P	A				
UniRef90_UPI0003F908A1	S	G	T	V	L	D	T	A	R	L	R	Y	K	V	I	G	E	Y	F	D	L	I	S	R	N	C	H	V	Y	M	G	E	H	G	A	G	F	V	A			
UniRef90_R6RGV3	S	G	T	L	L	D	S	A	R	L	R	H	M	M	S	D	Y	F	K	L	I	S	R	N	V	N	A	M	V	L	G	E	H	G	D	S	E	F	V	P		
UniRef90_Q55383	M	A	G	V	L	D	S	A	R	L	K	R	F	L	I	A	M	K	L	G	A	C	P	S	I	N	T	L	V	L	G	E	H	G	D	L	M	L	P	L		
UniRef90_UPI000413445E	T	G	V	W	L	D	T	T	R	L	K	A	F	L	I	A	E	T	L	E	I	G	P	Q	S	I	D	A	F	L	L	G	E	H	G	D	S	F	P	V		
UniRef90_F8AVQ4	Q	A	G	V	L	D	T	A	R	F	T	N	F	V	A	A	V	E	L	G	V	P	V	K	S	I	R	T	L	T	L	G	E	H	G	D	T	M	V	P	V	
UniRef90_B1YKA6	Q	S	G	V	L	D	T	A	R	F	R	T	F	V	A	A	M	E	L	N	V	S	V	K	D	I	S	G	F	V	L	G	E	H	G	D	D	M	V	P	L	
UniRef90_I7CIJO	S	G	T	V	L	D	S	A	R	L	R	L	E	V	I	S	K	A	L	E	V	P	A	S	L	E	G	A	F	V	L	G	E	H	G	D	S	S	L	V	T	
UniRef90_N4XSb7	S	G	T	F	L	D	S	A	R	L	R	G	L	I	I	H	A	L	K	A	E	V	A	A	S	I	D	R	A	Y	V	L	G	E	H	G	E	S	Q	F	V	A
UniRef90_A9A450	M	G	F	M	L	D	L	S	R	F	R	Q	F	I	I	A	E	A	T	G	H	S	A	R	D	S	I	R	A	L	V	L	G	E	H	G	E	N	M	L	P	L
UniRef90_J0L3X1	T	G	T	F	L	D	T	A	R	M	Q	R	V	V	I	S	E	K	F	N	V	D	P	K	N	I	S	G	F	V	Y	L	G	E	H	G	E	S	Q	F	V	A
UniRef90_M5TV68	Q	A	G	V	L	D	T	A	R	Y	R	T	F	I	I	A	M	E	L	G	V	S	I	E	D	I	S	A	F	L	M	G	E	H	G	D	T	M	V	P	L	
UniRef90_G8C2T5	S	G	T	V	L	D	S	S	R	L	K	V	E	I	I	S	R	E	L	G	V	S	P	S	S	E	G	A	F	V	L	G	E	H	G	D	S	S	L	V	T	
UniRef90_UPI00036CDEB2	S	G	T	L	L	D	S	E	R	L	R	H	I	L	I	G	E	Q	L	N	V	D	P	R	S	V	H	A	A	I	I	G	E	H	G	D	S	S	V	A	V	
UniRef90_UPI000363135A	T	G	T	L	L	E	T	L	R	F	K	R	L	I</																												



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UniRef90_A5CF61	V	K	Y	S
UniRef90_B3QX21	W	S	T	A
UniRef90_K7SF38	W	S	T	A
UniRef90_UPI000361B85D	P	E	Y	T
UniRef90_H9ULD2	W	S	N	T
UniRef90_UPI0003F908A1	W	D	N	A
UniRef90_R6RGV3	W	S	N	A
UniRef90_Q55383	P	R	Y	C
UniRef90_UPI000413445E	W	S	H	S
UniRef90_F8AVQ4	P	S	H	S
UniRef90_B1YKA6	L	R	Y	S
UniRef90_I7CIJO	F	S	M	M
UniRef90_N4XSb7	W	S	L	A
UniRef90_A9A450	P	R	F	S
UniRef90_J0L3X1	W	S	T	V
UniRef90_M5TV68	P	S	C	T
UniRef90_G8C2T5	F	S	N	I
UniRef90_UPI00036CDEB2	W	S	A	Q
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UniRef90_K9X2X6	P	R	Y	A
UniRef90_U1ECV7	V	R	S	T
UniRef90_X1EZU1	P	R	Y	A
UniRef90_W8RXW5	W	S	N	A
UniRef90_R6QWX2	W	S	H	V
UniRef90_UPI000473A96F	W	S	H	S
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UniRef90_I6WQ50	W	S	H	S
UniRef90_UPI000249100E	W	S	T	V
UniRef90_E1QGP1	P	R	F	S
UniRef90_B6IX40	W	S	N	A
UniRef90_UPI00036345EF	F	S	R	L
UniRef90_F7NEE8	A	S	N	I
UniRef90_A0A023CZG0	W	S	T	V
UniRef90_W6T8D7	W	S	T	V
UniRef90_UPI00039B06BA	S	R	L	A
UniRef90_U5ND34	F	S	Q	I
UniRef90_Q7UY63	S	S	I	A
UniRef90_I3DJX3	Y	S	S	A
UniRef90_UPI00036CF85A	W	S	S	A
UniRef90_E2AWM9	W	S	T	V
UniRef90_O67655	I	S	I	S
UniRef90_D8IMU5	W	S	T	V
UniRef90_V8NIF8	W	S	G	V
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UniRef90_L0DSI4	L	R	Y	S
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UniRef90_A3MWWU9	P	S	K	S
UniRef90_Q0UCM2	W	S	L	A
UniRef90_B9LZ61	W	S	T	V
UniRef90_F5TZL9	W	S	Q	V
UniRef90_S6C167	A	R	F	C
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UniRef90_H7F6C3	W	S	H	S
UniRef90_W9H5U0	W	S	G	A
UniRef90_UPI00021A6FA8	W	S	S	I
UniRef90_UPI00046915FB	W	S	T	V
UniRef90_F6D4D4	V	S	S	T
UniRef90_Z5X959	W	S	S	T
UniRef90_UPI00035D2DF5	W	S	T	V
UniRef90_A0A023B8Q6	W	S	A	T
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UniRef90_E2AWM8	W	S	S	I
UniRef90_S7ULC7	W	S	R	V
UniRef90_C4LFJ3	W	S	L	A
UniRef90_C8W8Q2	W	S	H	V
UniRef90_F7VQR5	W	S	L	A

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UniRef90\_H9ULD2 I K A K S T Y Y A V A Q A V A I I T Q A I V R D E N R I L P I T A V M S G F E

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UniRef90\_UPI000413445E A R K G G T E F G I A G T I A E I C R N I F T G S H R A L A V S C V L Q G G E Y G

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UniRef90\_A9A450 I E L K G T V H A P G N A I S A I V E A V V R D R K Q V I P V A T Y L D G E Y D

UniRef90\_J0L3X1 H S G K G Y T S F I A T C A I K L S R A V D D A Q L M C P C S S Y N

UniRef90\_M5TV68 V S L L K T G S A P A A A C A Q M V E A V V K D K K R V I P V A A H C E S E Y G

UniRef90\_G8C2T5 I N R K R T H Y G I G A A L A Q I L K A I I F D K Q E V L P V S V L L N G E Y G

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UniRef90\_UPI000363135A L M S K G W T N G I A A M G A C R L A K A V L F N E H C I T P V S T P L Q G G E Y G

UniRef90\_UPI00036C466C V K R G S A Y Y A P A A A I A Q M V E S V V R D Q K R L L P C S A W C S G G Q Y G

UniRef90\_B7JVP2 V K L L Q T Y Y A P A S S A C L M I E A I L R D Q S R L L P A A A Y L S G E Y G

UniRef90\_M5TN84 I E G K G A T N Y Y I G S A A L A R I V D V I L H D Q R S I L T I C S R I E N M E G

UniRef90\_UPI0003623161 L M S K G W T N S I A M G A C R L A K A V L W N E R C I M P V S T V L E G E Y G

UniRef90\_Q8EUG3 I N T K R T F Y G I G A C L A R I C K A V L R D E N V I L P V S I K K N

UniRef90\_K9X2X6 M Q T G G A F F A P A S A A S V M V E S I L L N Q S R L L P V A T Y L Q G G E Y G

UniRef90\_U1ECV7 V G L L G T G S A Y Y A P A A A M L E A I I K D Q K R L L P S I A L L K G E Y G

UniRef90\_X1EZU1 L E K T A T H Y A P A A A I A E M V E A I I K D T R S I L C V S A C L Q G G E Y G

UniRef90\_W8RXW5 I E G K G T W Y G I G G G L A R I V G A I A G D E Q A V L S V S T V E A E V L G

UniRef90\_R6QWX2 A G K G A T E F G I C S T L A R L V F C V F H D E K A V M P V S T Q L N G Q Y G

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UniRef90_UPI0004704A2D			K L A L V G A G G V G A N I A Q I A A		
UniRef90_G9MWM6			M S G S R I A I V G V G Q V G A A A Y A L I		
UniRef90_I0Z3A2			P D R K V A I L G A G G I G Q P L S L L M K		
UniRef90_K2BHP2			K V A I I G L G R V G V T T A Y A L L		
UniRef90_A9S0Q4			K V A I L G A G G I G Q P L S L L M K		
UniRef90_W8K293			K I T I I G A G N V G S V A Y A L I		
UniRef90_P16Z15	T V A T Q G V K N F S T T S Q N N V K V A V C G A G G I G Q P L S L L L K				
UniRef90_UPI0003B50BAF			R K I G I I G L G H V G S A V A H G L I		
UniRef90_H9G589			S S S Q S N A K V A V L G A G G I G Q P L S L L L K		
UniRef90_Q4VVC2			S T S A K S L R K V A L L G A G G I G Q P T A L L L K		
UniRef90_U6PKB5			T P H G K V T V V G V G Q V G M A C A Y S I L		
UniRef90_W5HYN5	S L R A S V T T R V A P K A K S V A R Y K V A V L G A G G I G Q P L G L L I K				
UniRef90_G3I256					
UniRef90_B4H195					
UniRef90_B2GB94			R T V G I I G S G H V G A T L A N N L L		
UniRef90_D3LWG1					
UniRef90_C1FFG8					
UniRef90_A9SLS5			S S A T P K R K V A V L G A G G I G Q P L G L L M K		
UniRef90_I2H0J8	R L V A K R S F S S T S T N L R K V A V L G A G G I G Q P L S L L L K				
UniRef90_I0DV95			K V A V L G A G G I G Q A L A L L L K		
UniRef90_M5X4I0			S S S F Q P Q R K V T I L G A G G I G Q P L S L L L K		
UniRef90_F4WPA4			S T S A T R D A K V S V M G A G G I G Q P L S L L L K		
UniRef90_A0A026V785					
UniRef90_M1Y654					
UniRef90_UPI00036A660E			K V A V L G A G G I G Q A L S L L L K		
UniRef90_F0RMP1					
UniRef90_W6KFY9			M S L K K V A I L G A G G I G Q P L S L L L K		
UniRef90_R5C2Q1	L K R E L I Y S P L K I M E F L T N E K L T I V G A G M I G S N M A Q T A A				
UniRef90_J6H3M9			S F L T Q D K L T I V G A G M I G S N M A Q T A A		
UniRef90_UPI0003B307A4			K K V G I I G M G N V G A V A H A M M		
UniRef90_UPI0004575D79			P Y S K V T V L G S G D L A M A C V T S I L		
UniRef90_UPI00046693B7			K V A I I G T G A V G A S L M A L V		
UniRef90_G4TRY5	I P R R A F S T S A P R Q T K V A V L G A G G I G Q P L S L L L K				
UniRef90_S2Y5M7			M K H S K L V C I G L G H V G S Y V L T Y A M		
UniRef90_C4LKR7			M H S T K L V V V G L G H V G S S V T F A M		
UniRef90_Q9Y750			N R K V A V L G A G G I G Q P L S L L M K		
UniRef90_U1NNZ6					
UniRef90_K8FCT0			K V A V L G A G G I G Q S L S L L L K		

		50	60	70	80																																				
UniRef90_K0NJB2	T	H	G	Y	A	D	E	L	L	L	D	K	N	E	K	K	C	A	E	W	G	D	L	R	D	T	L	P	R	N	D	H	Y	N	W	S	T	W			
UniRef90_W9EDV5	A	N	G	F	T	D	E	L	V	L	L	D	T	N	T	K	K	V	E	A	D	A	L	D	F	R	E	A	M	P	N	L	P	F	H	T	E	T	V		
UniRef90_K7RNP5	I	T	G	L	V	D	D	L	V	L	V	D	L	N	A	Q	A	A	A	S	Q	A	L	D	L	N	Q	A	A	S	A	Q	F	G	T	V	V	T	S		
UniRef90_R4KCT2				L	V	S	E	I	V	V	I	D	N	N	K	D	K	A	Q	G	E	A	L	D	S	S	H	T	T	S	F	A	Y	S	P	N	V	V	R	V	
UniRef90_G2D929	Q	K	E	L	G	D		V	V	I	L	D	L	P	H	N	P	M	K	G	K	A	L	D	L	M	G	M	R	P	V	D	G	D	V	E	L	S	G	S	
UniRef90_UPI000416F5C5	L	Q	G	I	S	D	E	L	L	L	C	D	V	N	E	S	K	L	A	A	E	V	Q	D	L	N	D	S	V	V	F	A	P	H	R	V	V	C	H		
UniRef90_W7VWC8	E	S	D	L	F	S	E	V	L	L	V	D	V	V	P	L	A	A	G	L	A	L	D	M	W	H	G	A	L	Y	G	F	S	T	R	L	S	G	S		
UniRef90_G2WUT6				L	A	A	D	I	V	L	L	D	I	D	R	K	H	R	A	D	G	E	A	T	D	I	G	H	A	A	H	F	T	H	S	K		V	R	A	
UniRef90_Q04GC4	D	R	G	M	V	D	E	I	V	L	L	D	I	N	Q	K	H	L	K	A	E	A	L	D	F	W	D	A	Q	S	F	L	P	H	H	T	K	L	I	A	
UniRef90_Q5C0H9	S	Q	G	L	A	G	E	I	T	L	I	D	V	V	A	D	K	V	R	A	S	E	A	L	D	F	S	D	A	A	S	L	L	D	K	H	I	D	V	H	V
UniRef90_I7JC30								A	R	E	V	L	L	D	L	D	R	K	L	A	Q	A	H	A	E	D	I	L	H	A	T	P	F	A	P	V	W		V	R	A
UniRef90_P62055	T	K	G	L	A	D	E	L	V	L	V	D	S	K	N	E	K	V	A	A	D	A	L	D	F	R	D	A	A	S	L	L	S	T	H	A	T	I	H	T	
UniRef90_F4HFL3	A	Q	G	L	A	D	E	L	V	L	V	D	K	N	S	D	K	V	A	A	D	A	L	D	F	R	D	A	A	S	L	L	S	T	H	A	T	I	H	T	
UniRef90_D5T3B8	Y	A	G	L	F	Q	E	I	I	L	I	D	T	D	R	D	R	I	A	E	G	E	A	L	D	H	E	H	F	Q	L	S	G	T	H	H	T	R	I	K	V
UniRef90_E8SFF7	T	H	G	L	A	D	E	L	V	L	L	D	K	N	E	D	K	V	A	A	E	Y	N	D	L	R	D	S	L	S	R	N	N	Y	Y	V	R	V	T	M	
UniRef90_Q5FIY9	V	T	G	A	V	D	E	L	V	L	V	D	T	N	E	L	K	V	N	A	E	A	T	D	F	E	D	A	A	A	N	L	N	W	H	S	K	V	V	V	
UniRef90_H4GIE8	S	Q	G	L	A	G	E	I	V	L	L	D	I	D	R	E	K	A	A	A	Q	A	L	D	I	G	D	A	A	Y	L	P	Y	P	V	K	I	K	A		
UniRef90_F7K142								L	G	E	I	V	L	L	D	V	N	R	A	K	A	E	A	L	D	I	G	D	S	T	A	F	T	T	P	V	K	V	K	Y	A
UniRef90_C9R8P8	E	K	D	V	I	D	E	I	I	M	F	S	R	P	H	E	R	V	K	G	E	I	L	D	M	Y	D	A	A	A	E	D	I	D	C	E	L	K	A	S	
UniRef90_Q2NGI3	T	Q	D	L	V	D	E	L	A	L	V	D	V	N	S	D	K	L	R	G	E	M	L	D	L	Q	H	A	A	A	F	L	P	R	T	K	I	V	A	S	
UniRef90_M1AXH8	N	L	E	I	G	G	E	F	G	L	I	D	I	D	K	D	R	T	I	G	D	A	M	D	L	L	S	H	A	V	P	F	S	A	P	K	I	Y	S	A	
UniRef90_W7CF56	L	Q	G	I	S	D	E	L	Y	M	T	E	Q	C	S	G	D	L	A	A	E	V	Q	D	L	G	D	S	L	A	F	C	P	H	N	V	V	N	C	G	
UniRef90_UPI0003B2FC6B	M	R	R	M	A	S	E	V	C	L	I	D	H	D	A	N	K	A	S	A	E	A	E	D	I	Q	H	V	G	F	F	L	G	C	P	L	V	T	G	T	
UniRef90_UPI0003DE9AE8	Q	K	N	L	G	D		V	L	L	Y	D	I	A	E	G	L	V	K	G	A	L	D	I	N	Q	S	A	V	V	D	G	Y	D	S	R	V	T	G	S	
UniRef90_H8MG5	M	R	G	A	A	D	V	V	K	I	C	D	I	N	E	Q	K	A	I	S	E	R	Q	D	L	M	D	A	V	L	F	M	P	H	H	V	D	Y	V	I	
UniRef90_E2ZB26	E	Y	D	I	F	E	T	V	V	L	T	D	I	I	J	E	G	R	P	E	G	L	A	L	D	I	N	Q	S	R	P	I	E	G	F	E	T	K	V	I	G
UniRef90_A0LRV1	A	L	G	L	F	S	R	I	S	L	I	D	V	D	J	E	G	R	P	E	G	L	A	L	D	I	N	Q	S	R	P	I	E	G	F	E	T	K	V	I	G
UniRef90_E4LB85	M	M	G	I	A	D	E	I	L	C	D	I	D	A	K	K	L	A	S	E	C	N	D	L	N	D	A	V	P	F	M	P	H	R	V	Q	Y	K	T		
UniRef90_D2RK05	E	K	H	I	A	D		L	V	M	V	D	V	V	E	G	L	P	Q	G	K	S	L	D	I	I	Q	S	S	A	F	R	N	Y	N	I	T	T	G	S	
UniRef90_UPI00036BD304	L	Q	P	I	C	S	E	V	L	L	V	D	L	K	H	S	L	L	E	A	Q	V	R	D	L	S	D	A	T	Y	R	G	S	G	V	R	V	R	A		
UniRef90_N4X296																																									
UniRef90_UPI0002256DC3	A	A	G	L	T	D	D	L	V	L	L	D	S	N	E	K	K	V	A	A	D	A	L	D	F	Q	D	A	M	A	N	L	P	V	H	T	T	I	V	F	
UniRef90_E6LDM9	A	K	G	V	A	D	K	V	V	L	L	E	C	S	E	G	T	V	K	G	G	T	M	D	L	E	I	F	A	L	P	K									
UniRef90_R0JDQ0	A	K	D	V	A	D	K	V	V	L	L	E	C	S	E	G	T	V	K	G	G	T	M	D	L	E	I	F	A	L	P	K									
UniRef90_G1K890	T	H	G	Y	C	D	E	I	V	L	L	D	V	N	E	A	K	M	Q	A	E	A	I	D	L	L	D	T	L	P	V	N	D	H	E	V	K	V	Y	Y	
UniRef90_D6S2Q1	Q	T	E	L	F	G	E	I	V	L	L	D	P	K	N	E	K	V	A	W	G	E	L	D	Q	M	H	A	A	G	L	L	S	R	K	N	I	V	I		
UniRef90_G4L486	A	M	G	F	A	D	D	L	V	L	L	D	K	N	E	A	K	V	K	A	D	A	L	D	F	E	D	A	M	A	N	L	P	F	H	T	N	I	T	V	
UniRef90_A5VHZ0	F	N	E	V	A	D	E	V	M	L	D	V	K	E	G	V	S	E	G	K	A	M	D	M	Q	T	A	Q	L	L	G	F	D	T	T	V	C	T			
UniRef90_J9G261	Y	Q	G	L	A	A	E	I	Y	C	D	S	I	E	S	K	V	A	C	E	V	N	D	L	Q	D	A	M	S	F	Y	P	R	R	V	Y	N	C	H		
UniRef90_G5F266	L	R	D	V	A	D	E	L	V	L	V	D	I	M	E	D	K	T	V	Q	A	A	D	V	N	H	G	A	A	Y	D	S	N	T		V	V	R	Q		
UniRef90_E7QNQ6	Q	K	N	I	A	S	E	L	C	L	V	D	V	V	A	D	K	L	K	G	E	M	M	D	L	Q	H	G	I	P	F	E	M	D	P	C	L	I	R	A	S
UniRef90_C7DRP0	R	A	D	T	V	D	E	I	V	F	F	T	R	E	K	S	K	A	K	G	E	I	Y	D	M	Y	D	A	A	E	D	I	D	C	K	L	I	T	P	T	
UniRef90_D3E3J4	L	K	G	S	A	D	E	V	R	L	L	D	I	N	E	N	L	L	T	S	Q	C	Q	D	L	M	D	A	V	K	Y	M	P	H	R	I	S	Y	G	A	
UniRef90_U7UQY2																																									
UniRef90_UPI00022B28B0	K	E	P	Y	M	K	D	L	V	L	I	G	R	E	K	N	G	L	K	A	D	I	Y	D	A	L	A	G	A	R	S	D	A	N	I	Y	V	S	D	D	
UniRef90_N6VXN6																																									
UniRef90_UPI0001D54491																																									
UniRef90_S2R753																																									
UniRef90_C6PQN3																																									
UniRef90_J3JXT9	I	N	P	L	V	T	E	L	S	L	Y	D	I	V		H	T	P	G	V	A	A	D	L	S	H	I	E	T	V	G	K	V	K	G	Y	N	G	E	S	
UniRef90_U6JTR4	L	K	E	L	G	D		V	S	I	F	D	V	V	E	G	M	P	Q	G	K	A	L	D	I	S	H	G	P	V	E	T	V	D	C	R	I	S	G	S	
UniRef90_U8JTR4	A	K	G	A	D	Q	V	V	L	I	D	L	S	E	S	T	A	K	G	G	T	M	D	L	D	I	F	S	L	P	N										
UniRef90_K7F3W1	Q	N	P	L	V	T	R	L	A	L	Y	D	I	A	P		V	T	P	G	V	A	A	D	L	S	H	M	N	T	P	A	K	V	S	G	H	K	G	P	
UniRef90_H9JU51	Q	S	P	L	V	T	E	L	S	L	Y	D	I	V		N	T	P	G	V	A	A	D	L	S	H	I	D	S	N	S	K	N	T	G	F	T	G	P		
UniRef90_Q4PP90	M	R	G	M	A	E	I	A	L	I	D	I	S	P	G	L	A	A	A	L	A	L	D	L	S	H	A	G	M	G	N	A	S	F	V	I	G	G			
UniRef90_UPI0004704A2D	R	S	S	I	A	T	E	L	L	V	D	I	N	V	S	L	R	D	G	Q	V	R	D	L	S	D	V	A	Y	S	C	N	S	R	T	R	V	R	A		
UniRef90_G9MWM6	M	N	P	Y	V	S	D	L	A	L	Y	D	I		Q	G	T	P	G	V	A	A	D	L	S	H	I	N	S	K	A	K	T	K	G	Y	A	G	A		
UniRef90_I023A2	L	K	G	L	A	T	E	L	V	L																															

UniRef90_K0NJB2	D	D	W	S	G	L	K	D	V	D	V	I	I	T	A	F	G	S	A	T	I	K	T	G	D	R	F	A	E	F	P	I	N	T	A	N	A	K	E	V		
UniRef90_W9EDV5	N	D	Y	G	A	L	R	D	A	D	I	I	I	S	A	L	G	N	I	R	K	A	N	G	D	R	F	V	E	L	L	P	F	N	S	E	N	V	K	Q	V	
UniRef90_K7RNP5	G	G	Y	D	A	C	K	D	A	D	I	I	V	I	T	A	S	A	P	L	K	A	N	G	D	R	F	V	E	L	L	P	F	N	S	C	G	I	V	D	A	I
UniRef90_R4KCT2	G	D	Y	E	D	C	K	N	A	Q	I	I	V	M	T	A	G	P	S	L	K	P	G	M	S	R	D	D	L	L	A	N	K	N	V	S	V	M	N	E	V	
UniRef90_G2D929	G	E	M	A	A	I	A	G	A	D	V	I	I	V	T	A	G	N	V	P	R	K	P	G	M	S	R	D	D	L	L	D	I	N	L	S	V	V	T	K	K	V
UniRef90_UPI000416F5C5	A	D	Y	E	Q	L	A	G	C	D	V	I	I	N	A	A	G	N	V	K	L	A	A	V	S	R	D	D	G	E	L	F	A	T	V	D	S	A	R	T	F	
UniRef90_W7VWC8	D	D	L	A	A	L	G	G	A	E	Y	I	V	I	T	A	G	R	P	R	Q	P	G	M	S	R	D	D	L	L	T	T	V	N	A	E	I	M	T	S	V	
UniRef90_G2WUT6	G	D	Y	S	D	C	A	G	A	T	L	V	V	I	T	A	G	V	N	Q	K	P	G	Q	T	R	L	E	L	V	Q	T	N	Y	A	L	F	A	D	V		
UniRef90_Q04GC4	D	D	Y	K	D	L	A	G	A	N	L	V	I	S	T	F	G	N	V	T	V	E	G	S	G	D	R	F	A	E	L	V	T	F	N	V	K	Q	I	R	S	M
UniRef90_Q5C0H9	T	D	Y	K	Y	S	E	N	S	D	I	V	V	I	T	A	G	A	R	Q	N	E	G	E	S	R	L	N	L	V	Q	R	N	V	D	I	F	K	H	I		
UniRef90_I7JC30	G	D	Y	P	D	L	A	D	A	D	V	V	I	S	A	L	G	H	I	H	K	P	G	D	G	D	R	F	E	L	V	K	A	N	L	P	M	A	K	Q	V	
UniRef90_P62055	G	S	Y	G	D	L	E	G	A	R	A	V	V	L	A	A	G	V	A	Q	R	P	G	E	T	R	L	Q	L	L	D	R	N	A	Q	V	F	A	K	Q	V	
UniRef90_F4HFL3	Q	D	Y	Q	A	L	A	D	A	D	V	V	I	T	A	F	G	D	I	K	A	E	G	D	R	F	L	E	Y	H	F	N	K	E	Q	A	K	Q	V			
UniRef90_D5T3B8	G	T	A	A	D	L	T	D	A	D	L	V	I	S	A	L	G	H	I	D	K	P	G	G	D	R	F	L	E	Y	K	A	N	T	P	E	V	Q	Q	V		
UniRef90_E8SFF7	G	T	Y	E	M	L	A	D	V	D	L	I	I	S	A	S	I	P	S	N	A	D	M	D	R	T	K	L	T	A	Y	N	T	K	I	Q	E	I				
UniRef90_Q5FIY9	Q	D	W	H	E	L	K	D	A	D	I	I	V	S	T	A	F	G	A	A	S	V	K	G	D	R	F	G	E	F	E	L	N	A	K	N	A	K	E	V		
UniRef90_H4GIE8	N	D	F	A	A	L	A	D	A	D	V	V	V	S	S	V	G	A	I	S	D	A	K	H	D	R	F	V	E	L	K	F	T	S	Q	A	A	K	E	V		
UniRef90_F7KI42	G	D	Y	T	D	A	G	D	G	D	V	M	V	I	A	V	G	T	N	P	D	K	G	E	T	R	M	D	T	L	A	A	T	A	A	I	R	D	V			
UniRef90_C9R8P8	G	D	Y	P	D	A	A	G	A	D																																

UniRef90_K0NJB2	A	G	P	K	I	K	E	S	G	F	H	G	I	I	I	N	I	S	N	P	Q	D	V	V	T	S	I	L	Q	R	E	T	G	L	P	R	N	Q	V	E	G				
UniRef90_W9EDV5	A	A	K	R	I	V	E	D	V	F	N	G	I	I	I	T	N	P	V	D	V	D	V	V	T	T	Q	L	Q	R	Q	V	T	G	L	P	R	N	Q	V	E	G			
UniRef90_K7RNP5	V	P	A	D	V	V	E	A	G	F	N	G	I	I	I	T	N	P	V	D	V	D	V	V	T	T	D	R	V	A	Q	R	V	L	S	G	F	P	R	K	E	K	I	I	G
UniRef90_R4KCT2	M	S	S	I	T	K	Y	T	K	D	A	V	I	I	I	T	N	P	V	D	V	D	I	V	T	T	Y	L	A	Q	R	N	H	F	G	D	Y	P	P	K	E	K	I	I	G
UniRef90_G2D929	A	T	A	V	K	A	H	A	P	D	A	F	V	I	I	T	N	P	L	D	S	I	V	S	V	Y	A	E	F	H	R	K	L	S	G	L	P	A	T	E	R	I	I	G	
UniRef90_UPI000416F5C5	V	G	R	L	A	K	A	A	G	F	D	G	F	W	V	N	V	S	N	P	L	Q	D	V	V	S	A	E	F	H	R	K	L	S	G	L	P	A	T	E	R	I	I	G	
UniRef90_W7VWC8	C	R	G	I	R	T	A	A	P	N	S	T	I	L	V	V	V	S	N	P	L	E	E	M	T	H	L	A	A	Q	Q	T	G	F	P	T	E	E	R	V	I	I	G		
UniRef90_G2WUT6	V	P	R	I	A	T	A	A	P	D	T	I	L	I	I	A	T	N	P	A	D	V	L	T	Y	V	A	Q	R	K	L	S	G	L	P	A	T	E	R	I	I	G			
UniRef90_Q04GC4	A	E	Q	L	K	K	V	H	F	D	G	V	F	L	T	I	T	N	P	V	D	V	L	T	A	V	A	Y	Q	R	K	L	S	G	L	P	A	K	N	Q	R	V	I	I	G
UniRef90_Q5C0H9	I	P	N	V	K	K	Y	S	P	N	G	I	I	V	V	V	S	N	P	V	D	V	L	T	Y	V	A	R	K	L	S	G	L	P	A	S	A	Q	R	V	I	I	G		
UniRef90_I7JC30	G	A	D	L	K	A	V	G	F	N	G	V	L	I	A	I	S	N	P	V	D	V	L	T	T	G	I	V	Q	Q	A	T	G	F	P	A	S	A	Q	R	V	I	I	G	
UniRef90_P62055	V	P	R	V	L	E	A	A	P	E	A	V	L	L	V	A	T	N	P	V	D	V	M	T	Q	L	V	A	Y	R	L	S	G	L	P	P	S	A	Q	R	V	I	I	G	
UniRef90_F4HFL3	G	S	A	L	K	Q	K	G	F	N	G	V	I	I	N	I	S	N	P	V	Q	D	V	L	T	T	G	L	Q	K	H	H	S	G	L	P	S	K	N	Q	R	V	I	I	G
UniRef90_D5T3B8	G	A	D	L	K	K	A	G	F	N	G	V	L	I	V	I	S	N	P	V	D	V	L	T	T	G	I	V	Q	Q	A	T	G	F	P	A	S	A	Q	R	V	I	I	G	
UniRef90_E8SFF7	M	A	Q	I	K	A	V	T	T	S	P	H	I	M	M	I	S	N	P	V	D	T	M	T	Y	I	A	E	V	Q	F	N	Y	P	H	H	K	I	M	G	I	I	G		
UniRef90_Q5FIY9	G	E	K	I	K	N	T	G	F	K	G	V	L	N	I	S	N	P	V	Q	D	A	V	I	T	A	Q	I	L	Q	E	T	T	G	L	P	S	K	N	Q	R	V	I	I	G
UniRef90_H4GIE8	G	T	H	L	K	E	V	G	F	N	G	V	L	V	S	I	T	N	P	Q	D	A	V	I	T	A	L	Y	Q	R	F	T	G	L	P	S	K	N	Q	R	V	I	I	G	
UniRef90																																													



	170	180	190	200
UniRef90_K0NJB2	T G T F L	D T A R M Q R A V V	G E K L G Q D P R N V	S G F N L G E H G S S Q F T A
UniRef90_W9EDV5	T G T L L	D S S L R I R Q Q L	S E Q L F S V D E T K N	S G A Y A M G E H H G N S T Q F T A
UniRef90_K7RNP5	T G T A L	D T A R L R R R I	A K N E T S V D T K N	S Q A Y A M G E H H G N S T Q F T A
UniRef90_R4KCT2	T G T L L	D T A R L R R R I	A K N E T S V D T K N	S Q A Y A M G E H H G N S T Q F T A
UniRef90_G2D929	M A G A L	D T A R F R T Y I	A M E T S V K R S	S C L Y M M G E H H G N T M I I A A
UniRef90_UPI000416F5C5	T G T C	D S A R F L R T V I	S L T T K L A P E S	S Q A Y A M G E H H G N T M I I A A
UniRef90_W7VWC8	M A G V L	D S A R F C A L V	G L T T G K A R P Q D	V R A V A L G S H H G D P E M V I P
UniRef90_G2WUT6	T G T S L	D T T R F R E L	G H F H G I S P R S	V H A F I V I G E H H G D S Q F P A
UniRef90_Q04GC4	T G T F L	D S S R L K K E I	G E R F K I S D P R S	V S G F I V I G E H H G D S Q F P A
UniRef90_Q5C0H9	T G T M L	D T A R F R F L	G E K L G V S A N S	V H G Y V I G E H H G D S S V P R
UniRef90_I7JC30	T G T Y L	D T A R L K R V L F	G E A L G V D P R S	V N G Y V I G E H H G D S Q F A A
UniRef90_P62055	S G T I L	D T A R F R A L L	A E H L R V A P Q S	V H A Y V L G E H H G D S E V L V
UniRef90_F4HFL3	T G T F L	D T A R M Q R A V	S Q A L R Q N P H N	I E G Y V I G E H H G E S Q F A A
UniRef90_D5T3B8	T G T Y L	D T A R L K R V L F	G E A L G V D P R S	V N G Y V I G E H H G D S Q F A A
UniRef90_E8SFF7	T G T M L	E S T R F R T L I	A N H Y Q V D P K N	V E A F V I G E H H G K T T V P V
UniRef90_Q5FYI9	T G T F L	D T A R M Q R I	G E K L G Q D P R S	V E G W V I G E H H G S Q F I A
UniRef90_H4GIE8	T G T L L	D S A R M K K A V	G Q A L D I D P K N	V T G Y N L G E H H G N S Q F T A
UniRef90_F7KI42	T G T A L	D S A R L R R V T	A E A A G V I S I E D	V E G Y A L G E H H G E S Q I A A
UniRef90_C9R8P8	T G T I L	D S A R F R Y A L	S K H T G V D A R N L	H A Y V I G E H H G D T A V L L
UniRef90_Q2NGI3	L G N H L	D S L R L K T Y L	S K H F H I N S R E I	H T R V I G E H H G D H M V P L
UniRef90_M1AXH8	S G T N L	D S S R F R F L I	A D H L D V N A Q D V	Q V H G Y I L G E H H G D T E F P A
UniRef90_W7CF56	S G T S L	D S A R F R M S I	A D F L K V D A R N	I H G Y I L G E H H G D S M F A A
UniRef90_UPI0003B2FC6B	T G T A L	D S S R L K Y A L	S R A T G Y D Q H S	I C A Y M L G E H H G S T E F A A
UniRef90_UPI0003DE9AE8	I G T L I	D C A R L Q D F V	S R R Y H P P S P Y	F F P Y H P C P H P F A V P L W
UniRef90_H8MGM5	M A G V L	D T S R F K C A I	A E A L G V S I R D	V E A L V L G E H H G D S M V P L
UniRef90_E2ZB26	T G T G L	D T S R L V S A I	S Q Q T G I D H H S	F T A F M L G E H H G N S Q M T P
UniRef90_A0LRV1	Q A G M L	D T A R F S H F A	A E E L G V P I R A	V R T L T L G E H H G D T M V P V
UniRef90_E4BL85	T G T A L	D S A R L R R H L	A D W A G V S P D P	V Q A F M L G E H H G N A T A F P Y
UniRef90_D2RK05	T G T L L	D S A R L C H A L	S D A T G L D S R S	F N A F M L G Q H G G A Q F V P
UniRef90_UPI00036BD304	M A G V L	D T C R F R Y F V	A E E L G V R P G D	V S A M V L G G H H G D S M V P L
UniRef90_N4X296	T G T S L	D S A R L R G V L	A E K A E V A P N S	I D A Y V L G E H H G D S V F E K
UniRef90_UPI0002256DC3	S G C N L	D S A R F R Y L M G	E R L G V H P L S	C H G W V L G E H H G D A S V P V
UniRef90_E6LDM9	T G T L L	D S A R M K R A V	G R Q L A L D P R S	V Q G Y N L G E H H G N S Q F T A
UniRef90_R0JDQ0	V G G N L	D T E R F Q Y T L	A N L L Q V A Q K D	A L V I V G E Q Q G E D K V L S
UniRef90_G1K890	I G C G N L	D S S R F Q H I I	T N V L K Q A T R D	K G H W I V G E Q Q G E N K V T A
UniRef90_D6S2Q1	I G T M L	D S V R L R R V I	S E K L E L N S K Q	I G G F V L G E H H G L C D F I A
UniRef90_E4L486	T G T M L	D S S R L R Q L L	G Q R Y Q V D P R S	V S G Y M M G E H H G N A A F P V
UniRef90_A5VHZ0	T G T L L	D S A R M K R A V	A E R L L D P R S	V D G Y N L G E H H G N S Q F T A
UniRef90_J9G261	M G G A L	D S S R F K Y F L	S Q A L G C N A N E	V E G M V I G G H H G D T T M I P
UniRef90_G5F266	S G T A L	D S A R F R H A L	W D A T G Y N P N S	I T S W M I G E H H G A S Q F A A
UniRef90_E7QNQ6	F G G R L	D S A R F R Y V L	S Q R F D A P V Q N	S I T A T M G E H H G D A Q V P V
UniRef90_C7DRP0	S G T N L	D S A R F R F L L	S E K L G I A P T S	S C H G W I V I G E H H G D S S V P V
UniRef90_D3E3J4	L G N H L	D S L R L K T Y F	A R R L D I N S S E	V H T R V I V G E H H G E R M V P L
UniRef90_U7UQY2	T G T G L	D T A R L L N F L	A Q S T G L S H G S	I T A Y M M G E H H G F A Q M V P
UniRef90_UPI00022B28B0	S G C N L	D S A R F R Y L I	A E K L S V H S A S	C H G W I I G E H H G D S S V P L
UniRef90_N6VXN6	L G T H L	D S L R F K V A I	A K F F K V H S E S	V R T R I I G E H H G E T M V P L
UniRef90_UPI0001D54491	S G C N L	D S A R F R Y I F	G Q R L G I H S E S	C H G L I L G E H H G D S S V P V
UniRef90_S2R753	S G T A L	D S A R L R S E I	G L R Y N V D A R I	V H G Y I L G E H H G D S E F P V
UniRef90_C6PQN3	T G T M L	D S A R L R K T V	A N L Y H I D P K S	V T G Y M M G E H H G M T A F P V
UniRef90_J3JXT9	G V T S L	D I V R A N T F I	A D G K G L N P K D	V S I P V I G G H S G
UniRef90_U6JTR4	M A G V L	D S A R F R S F V	A E K L Q V S V E D	V Q A M V M G G H H G D A M V P L
UniRef90_K7F3W1	I G C N L	D T E R F Q Y I I	T N L L K A Q T I G	K E A W I I G E Q Q G E G K V P A
UniRef90_H9JU5				

UniRef90_K0NJB2	W	S	T	V	N	V	N	K	S	A	F	D	L	A	F	T	E	E	R	A	E	M	D	Q	A	S	K	D	N	A	F	K	V	240		
UniRef90_W9EDV5	W	S	T	V	V	A	L	D	Q	P	L	T	K	L	A	P	A	R	G	L	D	L	A	E	L	D	S	E	A	K	R	R	G	F	A	V
UniRef90_K7RNP5	W	S	A	V	T	F	L	W	G	K	P	L	D	Q	A	L	A	D	N	P	E	R	S	R	G	V	D	S	E	D	T	V	D	E	A	K
UniRef90_R4KCT2	W	S	G	I	S	I	S	I	S	I	P	A	D	K	F	D	T	V	F	E	S	C	D	P	I	D	H	E	K	V	V	K	E	A	K	
UniRef90_G2D929	T	R	T	A	S	V	S	G	G	I	P	L	T	E	L	V	F	L	D	Q	E	T	I	L	Q	R	I	V	E	R	T	R	N	A	G	T
UniRef90_UPI000416F5C5	W	S	A	I	S	F	A	G	V	P	M	K	N	V	I	S	K	P	G	L	F	S	D	L	K	P	D	E	V	Q	A	K	R	D	G	Y
UniRef90_W7VWC8	L	S	Q	A	F	V	G	D	R	P	L	E	S	M							F	D	A	E	A	L	K	G	I	V	E	R	A	R	E	
UniRef90_G2WUT6	W	S	L	A	N	I	S	G	M	L	P	E	Y	S							Y	R	Q	A	G	R	P	H	D	E	E	A	M	A	C	
UniRef90_Q4GC4	W	S	S	I	R	I	F	D	N	P	I	S	S	F	A	K	E	N	S	V	N	I	D	D	L	E	E	K	T	K	E	D		A	F	R
UniRef90_Q5C0H9	W	S																																		
UniRef90_I7JC30	W	S	T	V	N	V	M	G	Q	N	V	R	T	W	A	E	K	S	L	D					L	D	K	L	E	N	D	A	R	V	G	
UniRef90_P62055	W	S	S	A	Q	V	G	G	V	P	L	E	F	A	E	A	R	G	R	A	L	S	P	E	D	R	A	R	L	I	D	E	G	V	R	
UniRef90_F4HFL3	W	S	T	I	T	V	Q	G	E	P	I	V	E	I	A	E	K	L	S	L	N	L	A	D	L	D	K	A	A	R	E		G	G	W	
UniRef90_D5T3B8	W	S	T	V	K	I	L	G	Q	D	I	V	Q	S	L	A	K	H	L	D					L	D	K	I	A	N	D	A	R	V	G	
UniRef90_E8SFF7	W	S	R	V	R	I	A	G	M	S	L	E	E	Y	E	Q	L	N	G	A	T	P	I	S	K	Q	G	I	R	D	Q	I	D	K	V	
UniRef90_Q5FIY9	W	S	T	V	R	V	N	N	K																											
UniRef90_H4GIE8	W	S	Q	V	R	A	L	G	H	S	L	P	E	L	A	E	T	E	Q	L	F	S	E	N	E	Q	R	K	L	N	K	V	P	N	K	
UniRef90_F7KI42	W	S	T	V	S	V	Q	G	R	T	L	S	E	L	A	E	N	K	E	K	Y	G	R	I	D	W	E	S	L	A	G	E	V	R	G	
UniRef90_C9R8P8	W	S	R	A	T	V	A	G	I	P	L	E	D	F	C	R	Q	R	G	L	N	P	P	D	K	E	Q	I	D	R	Y	V	R	Q		
UniRef90_Q2NGI3	L	S	S	T	T	I	G	G	L	L	K	S	F	V	E	Y	D	M	L	D	V	P	K	L	V	E	T	L	K	N	S		G	N	N	
UniRef90_M1AXH8	W	S	H	T	T	V	G	G	L	P	I	T	E	W	L	D	D	S	E					Q	G	A	M	D	T	I	F	V	S	V	R	
UniRef90_W7CF56	W	S	A	V	N																															

UniRef90\_K0NJB2  
UniRef90\_W9EDV5  
UniRef90\_K7RNP5  
UniRef90\_R4KCT2  
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UniRef90\_W7VWC8  
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UniRef90\_K7RNP5  
UniRef90\_R4KCT2  
UniRef90\_G2D929  
UniRef90\_UPI000416F5C5  
UniRef90\_W7VWC8  
UniRef90\_G2WUT6  
UniRef90\_Q04GC4  
UniRef90\_Q5C0H9  
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UniRef90\_P62055  
UniRef90\_F4HFL3  
UniRef90\_D5T3B8  
UniRef90\_E8SFF7  
UniRef90\_Q5FIY9  
UniRef90\_H4GIE8  
UniRef90\_F7KI42  
UniRef90\_C9R8P8  
UniRef90\_Q2NGI3  
UniRef90\_M1AXH8  
UniRef90\_W7CF56  
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UniRef90\_E2ZB26  
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UniRef90\_E4BL85  
UniRef90\_D2RK05  
UniRef90\_UPI00036BD304  
UniRef90\_N4X296  
UniRef90\_UPI0002256DC3  
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UniRef90\_G4L486  
UniRef90\_A5VHZ0  
UniRef90\_J9G261  
UniRef90\_G5F266  
UniRef90\_E7QNQ6  
UniRef90\_C7DRP0  
UniRef90\_D3E3J4  
UniRef90\_U7UQY2  
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UniRef90\_N6VXN6  
UniRef90\_UPI0001D54491  
UniRef90\_S2R753  
UniRef90\_C6PQN3  
UniRef90\_J3JXT9  
UniRef90\_U6JTR4  
UniRef90\_K7F3W1  
UniRef90\_H9JU51  
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UniRef90_F3KLW7			V	T	V
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UniRef90_U6FVG0					
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UniRef90_W5M1C4					
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UniRef90_D5EUY6	M	L	G	L	T	P	N	I	C	L	Y	D	I	A			P	G	V	H	G	V	Y	D	E	M	L	L	D	G	M	S	A	L	A	V	Q	P	T	I	K	V	
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UniRef90_D5EUY6	D P K E A F T G A K Y I I S S G G A P R K E G M T R E D L L K N A G I V K G T	S S G G A P R K E G M T R E D L L K N A G I V K G T	L K N A G I V K G T	
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UniRef90_W4KHW3	Q L D Q A L E G V K V V I P A G V P R K P G M T R D D L F N T N N A S I V R D L	P A G V P R K P G M T R D D L F N T N N A S I V R D L	F N T N N A S I V R D L	
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UniRef90_Q6CIK3	E L A A A L K D E V V L I P A G V P R K P G M T R D D L F S I N A G I V R D L	P A G V P R K P G M T R D D L F S I N A G I V R D L	F S I N A G I V R D L	
UniRef90_M1VCB1	E S Y E D T A H S A V C L T A G V R Q R P G E S R L E L M D R N A A L F K G I	T A G V R Q R P G E S R L E L M D R N A A L F K G I	A G V R Q R P G E S R L E L M D R N A A L F K G I	
UniRef90_K2BJW8	D K F E D L S G T D L V I F T A G S S Q Q P G Q T R L D L T K Q N C E I V A K L	T A G S S Q Q P G Q T R L D L T K Q N C E I V A K L	A G S S Q Q P G Q T R L D L T K Q N C E I V A K L	
UniRef90_A8Q8R4	N E D E A L Q D A D I V I P A G L P R K P G M T R D D L F N T N N A S I V R D L	P A G L P R K P G M T R D D L F N T N N A S I V R D L	F N T N N A S I V R D L	
UniRef90_I2BAM9	D A T P A L E G A D I V I S A G V A R K P G M D R S D L F N V N A G I V K N L	S A G V A R K P G M D R S D L F N V N A G I V K N L	A G V A R K P G M D R S D L F N V N A G I V K N L	
UniRef90_UPI00046732CA	D L P K A L D G S N V V V I C A G I A R K P G M D R S D L F K F N A T V I Q N L	C A G I A R K P G M D R S D L F K F N A T V I Q N L	A G I A R K P G M D R S D L F K F N A T V I Q N L	
UniRef90_A0A034WJP5	N L P K A L E K A H V M V I G T A R K P G M K R E D L F N K N A S V V E E I	V I G T A R K P G M K R E D L F N K N A S V V E E I	K A L E K A H V M V I G T A R K P G M K R E D L F N K N A S V V E E I	
UniRef90_G0W7D4	Q Q Q D T I K D S D L I L I P A G V P R K P G M T R D D L F N I N A			



UniRef90_H3RPF4	A	P	Q	L	K	Q	S	G	F	S	G	V	L	L	N	L	A	N	P	N	E	A	T	A	Y	L	Q	Y	L	T	E	L	P	R	P	K	V	I	G						
UniRef90_D8LQM3	A	E	Q	C	S	K	A	P	K	A	C	F	L	L	I	I	A	S	N	P	V	N	S	T	V	P	A	V	A	K	R	F	G	V	P	N	P	Q	R	A	I	L	M		
UniRef90_H0A805	L	E	R	V	L	K	A	V	A	S	E	T	V	L	L	F	A	S	N	P	V	N	S	T	V	P	A	V	A	K	R	F	G	V	P	N	P	Q	R	A	I	L	M		
UniRef90_Q201V2	I	K	V	I	G	Q	V	C	P	H	A	L	V	L	G	I	I	S	T	N	P	V	N	S	T	V	P	E	I	L	K	K	L	N	V	Y	D	P	K	R	L	I	F		
UniRef90_F3KLW7	A	N	K	I	K	K	Y	C	P	S	A	I	V	L	V	V	V	S	N	P	L	D	V	L	T	F	I	F	Q	K	E	T	Q	F	S	R	N	K	R	L	I	F			
UniRef90_E2BPD9	I	P	L	I	A	K	L	A	G	K	A	V	L	L	V	V	S	S	N	P	L	D	V	L	M	S	Y	V	F	T	W	K	L	S	K	F	S	H	R	K	V	L	I	G	
UniRef90_T1J6F4	A	E	A	C	V	Q	V	C	P	K	T	M	L	C	I	I	S	S	N	P	V	N	S	T	V	P	I	A	A	K	K	G	N	C	F	D	P	K	R	L	I	F			
UniRef90_K4E1P3	V	I	A	C	A	K	V	C	P	K	A	F	L	G	V	V	I	S	S	N	P	V	N	S	T	V	P	I	T	L	K	K	A	G	V	Y	D	P	A	R	N	R	I	F	
UniRef90_UPI000265732D	A	T	A	C	A	Q	V	C	P	K	A	M	L	A	I	I	S	S	N	P	V	N	S	T	V	P	I	A	S	K	K	A	G	V	Y	D	F	D	P	A	R	N	R	I	F
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UniRef90_B9D261	V	E	K	I	A	K	F	A	P	D	C	V	I	N	V	I	S	S	N	P	L	D	A	L	T	Y	L	V	Y	K	T	S	G	F	D	K	P	N	R	V	L	I	G		
UniRef90_D5EUY6	G	E	N	I	K	K	Y	C	P	D	V	K	H	V	V	V	I	F	N	P	A	D	V	T	A	L	T	A	L	I	H	S	G	L	K	P	N	R	V	L	I	G			
UniRef90_G2QMJ0	M	R	D	M	T	F	R	S	D	A	I	V	L	V	V	V	I	S	S	N	P	V	D	L	T	S	I	A	Q	E	L	S	G	L	V	P	R	F	Q	V	I	F	T	G	
UniRef90_G8JRX4	A	S	A	I	G	D	Y	S	P	K	A	S	V	L	V	V	I	S	S	N	P	V	N	S	T	V	P	I	V	A	K	S	K	N	G	V	Y	N	P	K	R	L	I	F	
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UniRef90_N1JA02	A	S	A	I	S	K	S	A	P	S	A	N	A	N	L	I	I	S	S	N	P	V	N	S	T	V	P	I	V	A	K	K	A	G	V	Y	D	P	A	R	N	R	I	F	
UniRef90_W5M1C4	I	P	C	L	A	R	C	S	P	S	A	V	L	L	I	A																													

	170	180	190	200											
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UniRef90_D8LQM3	GVTTL	DVSR	RAQT	FL	AENQ	QGM	V	DK	V	TV	VG	H	AG	TS	M
UniRef90_H0A805	G	Y	C	AL	DVS	RFR	DR	FL	AEN	Q	GV	PA	GS	V	H
UniRef90_Q201V2	GVTTL	DIV	RSNR	FI	AE	LK	C	LN	AT	DV	NV	P	V	I	
UniRef90_F3KLW7	I	AS	SL	DSS	RFR	Y	LL	SE	K	F	I	K	QS	Q	I
UniRef90_E2BPD9	T	GT	LL	DSS	C	RL	QD	LV	SQ	K	L	GV	AR	K	S
UniRef90_T1J6F4	G	VST	LL	DVV	R	ANT	FI	AE	L	K	GL	D	P	TT	V
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UniRef90_B9D261	M	A	G	E	L	D	S	A	R	L	K	Y	E	I	S
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UniRef90_U6FVG0	G	VTT	LL	D	I	T	R	S	N	T	F	I	AE	A	K
UniRef90_N1JA02	G	VTT	LL	D	V	V	R	A	S	R	F	I	S	E	I
UniRef90_W5M1C4	T	G	C	N	L	D	S	E	R	L	N	Y	I	V	S
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UniRef90_M2MIZ4	G	VTT	LL	D	V	V	R	A	S	R	F	I	S	Q	L
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S G P T I I P L L S Q C T P Q V K F D H D V L V K L T K R I Q E A G T E V  
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V P L L S L A K P P V S I P E D R L A G L V N R I Q F G G D E V  
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V T I L P L L S Q V N V E W S A E E I E T L T K R I Q N A G T E V  
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V N Q A V V D L N G K S M P V R E A V K D N W L N D F I K T V Q Q R G A A V  
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UniRef90_D3FF93	S	G	A	L	L	G	R	L	L	E	I	T	P	A	L	K	A	V	E	G	V	I	M	E	L	D	D	C	A	F	P	L	L	H	S	V	E	A	T	D		
UniRef90_D1BB08	S	G	Q	L	L	G	R	L	R	L	L	E	I	P	Q	G	V	A	E	G	T	A	M	E	L	D	D	C	A	F	P	L	L	A	G	I	D	I	F	D		
UniRef90_UPI000364BB9A	S	G	Q	L	L	G	Q	L	L	E	I	P	Q	A	V	K	A	A	E	G	T	A	M	E	L	D	D	C	A	F	P	L	L	H	G	I	D	I	F	D		
UniRef90_M0U771	S	Q	P	I	A	L	K	L	L	G	S	E	R	S	F	Q	A	L	E	G	V	A	M	E	L	D	D	C	A	F	P	L	L	R	E	V	S	I	G	K		
UniRef90_UPI00034583AA	S	G	Q	L	L	G	R	L	L	E	I	P	Q	A	V	K	A	A	E	G	T	A	M	E	L	D	D	C	A	F	P	L	L	Q	G	I	D	I	F	D		
UniRef90_C5YDH6																																										
UniRef90_D2VZB1	S	G	E	M	L	G	H	I	V	L	I	D	I	P	D	S	M	V	E	G	V	V	M	E	L	Q	D	C	A	F	P	L	L	V	R	G	I	T	A	T	S	
UniRef90_UPI00037E5090	S	G	E	M	M	G	Q	L	I	E	V	P	Q	A	M	E	A	L	R	G	I	A	M	E	L	D	D	C	A	F	P	L	L	H	T	I	T	L	H	D		
UniRef90_C8PGF0	L	S	Q	K	I	D	S	I	A	L	V	D	T	V	E	Q	I	A	R	G	K	A	L	D	L	E	H	A	A	V	I	E	R	D	L	R	I	S	G	S		
UniRef90_L1PHI3	S	G	A	V	F	G	K	L	N	L	L	D	I	P	Q	G	V	A	E	G	T	A	M	E	L	D	D	C	A	F	P	L	L	A	G	V	D	I	Y	D		
UniRef90_K7K4T0																																										
UniRef90_H8GPW3	A	G	D	L	F	G	H	L	L	E	V	S	Q	A	M	H	V	L	D	G	V	V	M	E	L	Q	D	C	A	S	P	L	L	Y	R	I	E	T	T	D		
UniRef90_UPI000478441B	A	G	E	M	L	G	R	L	L	E	I	P	Q	A	V	G	A	A	E	G	T	A	M	E	L	D	D	C	A	F	P	N	L	T	G	V	D	I	F	D		
UniRef90_U4L6K9	I	S	P	L	V	D	E	L	S	L	F	D	V	V			N	S	P	G	V	A	A	D	L	S	H	I	N	T	A	A	Q	V	E	G	V	L	P	K		
UniRef90_M2R8R7	C	N	P	L	I	K	E	L	S	L	F	D	V	V			N	T	P	G	V	A	A	D	L	S	H	I	N	T	A	A	Q	V	E	G	V	L	P	K		
UniRef90_W2RVT1	I	S	P	L	I	K	E	L	S	L	F	D	V	V			N	T	P	G	V	A	A	D	L	S	H	I	N	T	A	A	Q	V	E	G	V	L	P	K		
UniRef90_U2RH83	S	G	S	L	L	G	E	L	R	L	L	E	I	P	P	R	L	E	G	V	V	M	E	L	D	D	C	A	F	P	N	L	A	G	V	E	I	T	D			
UniRef90_A4FFX3	S	G	Q	L	I																																					
UniRef90_Q0QF32																																										
UniRef90_I1IGW7	M	S	P	L	V	S	E	L	R	L	L	D	I	A			N	V	K	G	V	A	A	D	L	S	H	I	N	T	A	A	Q	V	E	G	V	L	P	K		
UniRef90_G9KA08	N	S	P	L	V	S	R	L	T	L	L	D	I	A			H	T	P	G	V	A	A	D	L	S	H	I	N	T	A	A	Q	V	E	G	V	L	P	K		
UniRef90_UPI00035E41C5	S	G	A	M	F	G	H	L	L	E	I	E	P	A	L	P	A	L	Q	G	V	C	M	E	L	D	D	C	A	F	P	L	L	K	G	I	V	P	T	A		
UniRef90_M0SY74																																										
UniRef90_W5WTD8	S	G	Q	L	L	G	K	L	R	L	L	E	I	T	P	Q	S	M	L	E	G	V	K	M	E	L	D	D	C	A	F	P	L	L	D	G	I	D	I	T	D	
UniRef90_D2V4P7	T	G	E	M	L	G	E	L	R	L	L	D	V	P	Q	S	M	L	E	G	V	K	M	E	L	D	D	C	A	F	P	L	L	E	E	I	F	I	T	D		
UniRef90_S2WNR5	S	G	A	V	F	G	K	L	L	E	I	T	P	A	L	K	A	A	E	G	T	A	M	E	L	D	D	C	A	F	P	L	L	E	G	V	D	I	F	D		
UniRef90_I3LBY9																																										
UniRef90_UPI0003A294E5	S	G	E	M	L	G	K	L	Q	L	L	D	L	A	Q	Q	A	A	Q	G	V	M	M	E	L	D	D	C	A	F	P	L	L	A	G	M	T	A	T	D		
UniRef90_C6TNA8	N	Q	P	M	I	L	H	M	L	D	I	E	P	A	T	E	S	L	K	G	L	K	M	E	L	I	D	A	A	Y	P	L	L	R	G	V	V	A	T	T		
UniRef90_UPI00042AEE7D																																										
UniRef90_S9X8R2	N	S	P	L	V	S	R	L	T	L	L	D	I	A			H	T	P	G	V	A	A	D	L	S	H	I	N	T	A	A	Q	V	E	G	V	L	P	K		
UniRef90_U5PNC5	Q	G	G	P	V	D	E	L	I	I	I	D	K	K	R	E	K	A	E	A	E	V	L	D	L	D	L	D	A	L	S	L	L	P	F	S	V	E	I	L	Y	V
UniRef90_UPI0003B31073	S	G	S	M	P	D	Q	P	V	I	L	Q	L	L	E	E	K	K	G	T	I	M	E	V	E	D	C	A	F	P	L	L	V	H	S	I	E	L	H	S		
UniRef90_A0CVC4	L	L	L	E	L	P	E	K	L																																	
UniRef90_A2FKC7	N	R	P	V	V	L	H	L	E	D	I	P	V	A	E	N	R	L	K	A	L	V	M	E	L	D	D	C	A	F	P	L	L	N	N	V	I	V	S	S		
UniRef90_A9S4X3	Q	P	I	A	L	N	L	L	G	S	E	R	S	R	D	A	L	E	G	V	A	M	E	L	D	D	C	A	F	P	L	L	R	E	R	V	N	I	G	I		
UniRef90_Q6C5X9	L	S	P	Y	V	T	E	L	A	L	L	D	V	V			N	S	P	G	V	A	A	D	L	S	H	I	N	T	A	A	Q	V	E	G	V	L	P	K		
UniRef90_J9JXV1	N	G	D	V	F	G	T	L	H	L	L	D	I	P	P	A	M	L	E	G	V	C	M	E	L	D	D	C	A	F	P	L	L	K	G	V	K	T	T			
UniRef90_L9WNNH6	S	A	D	P	T	F	E	I	T	L	V	D	K	A	E	E	P	A	W	A	H	A	V	D	V	T	H	S	V	F	H	T	V	D	A	P	V	V	G	A		
UniRef90_G4YTB0	I	G	H	V	F	G	E	L	R	L	L	D	I	P	P	A	Q	L	E	G	V	K	M	E	L	Q	D	C	A	F	N	L	V	D	A	T	V	P	T	S		
UniRef90_X4QXX0	S	G	A	L	L	G	K	L	N	L	L	E	I	P	Q	G	A	A	E	G	T	A	M	E	L	D	D	C	A	F	P	L	L	E	S	V	N	I	Y	D		
UniRef90_W6MVE8	L	N	T	S	I	D	V	L	S	L	L	D	I	V			N	A	H	G	V	A	A	D	L	S	H	I	N	T	A	A	Q	V	E	G	V	L	P	K		
UniRef90_UPI0003B710B1	S	G	A	L	F	G	R	L	N	L	L	E	I	P	Q	G	A	A	E	G	A	A	L	E	L	D	D	C	A	F	P	L	L	A	H	V	E	V	S	D		
UniRef90_D5NX66	Q	Q	P	L	S	L	H	L	L	E	I	E	A	Q	Q	A	A	R	G	V	E	M	E	L	D	D	C	A	F	P	L	L	A	D	I	K	V	T	T			
UniRef90_L0JN00	V	Q	R	P	E	T	T	V	T	L	A	D	A	P	Q	T	A	V	T	T	G	H	A	I	D	L	R	H	A	Q	C	H	D	P	G	T	V	T	A	I		
UniRef90_H3CWU3	K	G	D	V	F	G	K	L	L	S	D	I	T	P			I	T	H	F	L	N	C	I	L	H	F	C	V	E	M	S	S	E	I	A	T	D				
UniRef90_UPI00044495F5	S	N	P	L	V	T	E	L	G	L	L	D	I	V			N	T	P	G	V	A	A	D	L	S	H	I	N	T	A	A	Q	V	E	G	V	L	P	K		
UniRef90_F0ZEA3	K	G	D	M																																						

	90	100	110	120
UniRef90_A9T125	D V A E A C K D V N I A V V M V G G F P R K E G M E R K D V M S K N V S I Y K A Q			
UniRef90_J6EZB6	D D T K A L T G A K L V V I P A G V P R K K D G M T R K D L F V N A G I C Q S L Q			
UniRef90_L1J5R2	D A K V A F T G A D A V I M L P A G V P R K P D G M T R K D L F L E K N C G I F K E Q			
UniRef90_K0KXSX7	G L A K A L N G T D L V I I P A G V P R K P P G M T R K D L F A I N A G I V R D L			
UniRef90_G8BJ12	D I V E A L K G T D L V I I P A G V P R K P P G M T R K D L F A I N A G I V R D L			
UniRef90_A0A031HRC6	D P M V A F K D I D A A M L V G S R P R K S K G M T R K D L L A A N A A I F K T Q			
UniRef90_UPI00037566D9	D A N K V F D G V N L A M L V G A R P R T A G M E R G D L L S A N G A I F T A Q			
UniRef90_S5RPG2	N P I T A F K D G A N L A I L V G S F P R K S A N M E R S E L L A I N S S I F E Q			
UniRef90_UPI00034947CC	D P N V A F K D A D F A L L V G S R P R K P G M E R K D L L E A N A A I F S V Q			
UniRef90_UPI00032A9E21	P Q L D N L T G M D L V I P A G V P R K P G M T R K D L F K I N A G I V R T L			
UniRef90_D3FF93	D A N V A F D G A S V G L L V G A R P R S R G M E R A D L L E A N G G I F K P Q			
UniRef90_D1BB08	N P T D G F A G T N I G L L V G A R P R T K G M E R G D L L E A N G G I F K P Q			
UniRef90_UPI000364BB9A	D A K Q A F A G T N A L L V G A R P R S K G M E R A D L L E A N G G I F K P Q			
UniRef90_MOU771	D P Y E V F Q D A E W A L L I G A K P R G P G M E R A G L D I N G Q I F A E Q			
UniRef90_UPI00034583AA	N P G Q A F E G S N V A L L V G A R P R T K G M E R G D L L E A N G G I F K P Q			
UniRef90_C5YDH6	D E A E G F R G V N F A V L I G S K P R R E G M Q R K D L L A K N V P I Y Q S Q			
UniRef90_D2VZB1	D L A E G F K D V E Y T L L V G A K P R S K G M E R K D L L L E N A P I F Q T Q			
UniRef90_UPI00037E5090	N V E D G F K N T H F A L L L V G A R P R G A G M E R S D L L E V N A E I F T R Q			
UniRef90_C8PGF0	T E P S D I A D A G T V I T A G R A K A G M S R E E L F G S N A A I V A Q C			
UniRef90_L1PHI3	D P K A A F Q G M D L V I P A G V P R K P G M T R K D L F N I N A G I V K T L			
UniRef90_K7K4T0	D P R T A F K N A D Y V F L V G A R P R G A G M E R K D L L E V N A E I F S V Q			
UniRef90_H8GPW3	D P V K A F K D G V N V A L L V G A R P R G A G M E R A D L L E A N G G I F G P Q			
UniRef90_UPI000478441B	D D E K A L T G C D I V V I P A G I P R K P G M T R Q D L F T I N A G I V R T L			
UniRef90_U4L6K9	D D K K A L T G A D I V V I P A G V P R K P G W C D L F K I N A G I V R D L			
UniRef90_M2ZR8R7	K G K A A L T G V D I A I L V G A V P R K P G M T R D D L F K T N A G I V Q G L			
UniRef90_W2RVT1	D P E K V F D G V D L A M L V G A M P R K E G M D R S D L L S A N G K I F T A Q			
UniRef90_U2RH83	D A R T A F D G T N V A L L V G A R P R T K G M E R G D L L E A N G G I F K P Q			
UniRef90_A4FFX3	E Q P D C L K G C D V V V I P A G V P R K P G M T R D D L F N T N A T I V A T L			
UniRef90_QQQF32	G E L S C L K G V D V V V I P A G V P R K P G M T R D D L F N I N A G I V K S L			
UniRef90_I1IGW7	E Q P D C L K G C D V V V I P A G V P R K P G M T R D D L F N T N A S I V A T L			
UniRef90_G9KA08	D L N E G F K G V N W A L L V G S V P R K Q G M E R Q D L L G I N G K I F L G Q			
UniRef90_UPI00035E41C5	N V E E A C G G V N I A I M V G G F R R K E G T E R K D V M S K N V S I Y K A Q			
UniRef90_M0SY74	D A K T A F D G V N V A L L V G A R P R T K G M E R G D L L A A N G G I F K P Q			
UniRef90_V5WTD8	S E S E A F R G T D Y A V L L V G K P R G P G M E R A D V M K D N A A I F K K Q			
UniRef90_D2V4P7	D A N K A F A G T N A A F L V G A R P R T K G M E R A D L L E A N G G I F G P Q			
UniRef90_S2WNR5	K E E I A F K D L D V A L L V G S M P R T D G M E R K D L L K A N V K I F K C			
UniRef90_I3LBY9	D P N V A F K D A D V C L L V G A R P R T K G M E R A D L L S A N G A I F K A I			
UniRef90_UPI0003A294E5	D V V E A C K D V N I V V M V G G F P R K E G M E R K D V M S K N V S I Y K A Q			
UniRef90_C6TNA8	K V Y L S A S A H S K V V I F T A N S L G G S E S Y L H A V I Q S N V D M F R A L			
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UniRef90_S9XR2				
UniRef90_U5PNC5	G E Y T D L V N A D I I L S T L G H I I K P G G D R F T E L K A N I P E I K E V			
UniRef90_UPI0003B31073	D S M T A F E G T D Y A L L V G A R P R G P G M E R K D L L T A N G G I F G P Q			
UniRef90_A0CVC4	D S A V A F K D A D V A I E L V G A M P R K P G M E R S D L L Q M N R E I F L Q Q			
UniRef90_A2FKC7	E P E K A F K D I D C A F L V A S M P L K P G Q V R S D L I S S N S V I F K N T			
UniRef90_A9S4X3	E P E E V F A D A D W A L L I G A K P R G P G M E R A D L L D L N G Q I F A N Q			
UniRef90_Q6C5X9	D D K N A L T G A N I V V I P A G I P R K P G M T R D D L F K I N A G I V R D L			
UniRef90_J9JVX1	E P E V A F K D V D A A F L V G A M P R R E G M E R K D L L S A N V K I F K V Q			
UniRef90_L9WNH6	D E I G D L D P Q P D L A V F T A A A P R P D D A R E A E L E A N G I V D D V			
UniRef90_G4YTB0	N L E T A F K D A D V A I L V G G F P R K Q G M Q R K D L L I E K N V T I F K A Q			
UniRef90_X4QXX0	D A N K A F D G A S V G L L V G A R P R T K G M E R A D L L E A N G G I F G P Q			
UniRef90_W6MVE8	Q L Q Q A L V G S D V V I P A G I P R K P G M T R D D L F K I N A G I V A G L			
UniRef90_UPI0003B710B1	D A R V A F S D A N V A L L V G A R P R A A G M E R G D L L L A N G G I F G P Q			
UniRef90_D5NX66	D P R E A F E D V S A A F L V G A P R S K G M E R S D L L M			

[illegible]

UniRef90_A9T125	C	L	T	R	L	D	H	N	R	A	L	G	Q	V	A	E	R	L	N	V	P	V	T	V	K	N	V	I	W	G	N	H	S	S	S	Q	Y	P	D		
UniRef90_J6EZB6	G	V	T	T	L	D	V	V	R	A	A	T	F	A	A	T	V	A	G	K	P	P	A	G	K	Y	Q	K	V	I	W	G	N	H	S	S	T	Q	Y	P	D
UniRef90_L1J5R2	A	L	T	T	R	L	D	H	N	R	A	I	T	A	L	I	K	A	S	G	V	P	V	E	Q	N	S	I	I	W	G	N	H	S	S	T	Q	Y	P	D	
UniRef90_K0KXSX7	G	V	T	T	L	D	L	V	R	A	N	T	F	I	S	Q	L	D	S	S	N	P	S	N	L	N	V	P	V	I	W	G	N	H	S	S	T	Q	Y	P	D
UniRef90_G8BJ12	G	V	T	T	L	D	S	V	R	A	E	T	F	F	G	E	L	T	N	T	N	P	N	T	L	K	G	K	I	S	V	I	G	H	S	S	T	Q	Y	P	D
UniRef90_A0A031HRC6	S	M	I	T	R	L	D	H	N	R	A	Q	G	Q	L	A	A	K	A	G	V	G	V	D	A	I	T	K	K	V	W	G	N	H	S	S	T	Q	Y	P	D
UniRef90_UPI00037566D9	A	L	T	T	R	L	D	H	N	R	A	I	T	Q	V	A	Q	K	A	G	V	P	V	T	S	V	H	M	T	I	W	G	N	H	S	S	T	Q	Y	P	D
UniRef90_S5RPG2	A	M	L	T	R	L	D	H	N	R	A	I	T	K	L	A	S	K	L	N	E	P	V	S	L	K	M	F	I	W	G	N	H	S	S	T	Q	Y	P	D	
UniRef90_UPI00034947CC	A	M	T	R	L	D	H	N	R	A	L	T	Q	L	A	Q	Q	T	G	K	H	V	N	D	V	E	S	I	V	W	G	N	H	S	S	T	Q	Y	P	D	
UniRef90_UPI00032A9E21	G	V	T	T	L	D	V	V	R	A	N	T	F	V	A	E	V	L	G	V	D	P	R	E	V	D	V	P	V	I	W	G	N	H	S	S	T	Q	Y	P	D
UniRef90_D3FF93	A	M	T	R	L	D	H	N	R	A	I	T	Q	L	A	S	K	K	T	G	A	V	K	D	I	N	V	T	I	W	G	N	H	S	S	T	Q	Y	P	D	
UniRef90_D1BB08	A	M	T	R	L	D	H	N	R	A	L	S	Q	A	T	K	A	G	V	P	V	S	Q	V	R	R	T	I	W	G	N	H	S	S	T	Q	Y	P	D		
UniRef90_UPI000364BB9A	A	M	T	R	L	D	H	N	R	A	I	T	Q	L	A	K	K	L	D	V	A	V	A	D	V	K	K	M	I	W	G	N	H	S	S	T	Q	Y	P	D	
UniRef90_MOU771	A	L	T	T	R	L	D	E	N	R	A	K	C	Q	L	A	K	L	G	V	Y	D	K	V	S	N	M	T	I	W	G	N	H	S	S	T	Q	Y	P	D	
UniRef90_UPI00034583AA	A	M	T	R	L	D	H	N	R	A	L	S	Q	L	A	K	K	L	G	V	S	I	N	E	I	K	K	T	I	W	G	N	H	S	S	T	Q	Y	P	D	
UniRef90_C5YDH6	C	L	T	T	R	L	D	H	N	R	A	L	G	Q	I	S	E	K	L	G	V	H	V	D	V	R	N	A	I	V	W	G	N	H	S	S	T	Q	Y	P	D
UniRef90_D2VZB1	A	M	T	R	L	D	H	D	R	A	L	A	Q	V	A	N	K	L	K	V	P	V	R	S	L	N	A	K	F	I	W	G	N	H	S	S	T	Q	Y	P	D
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UniRef90_C8PGF0																																									



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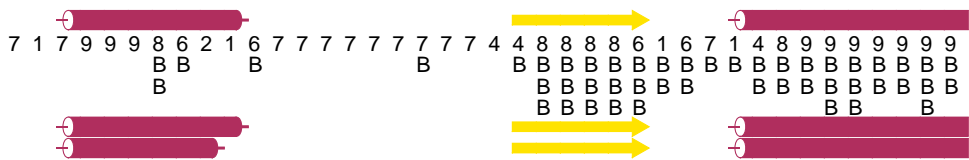
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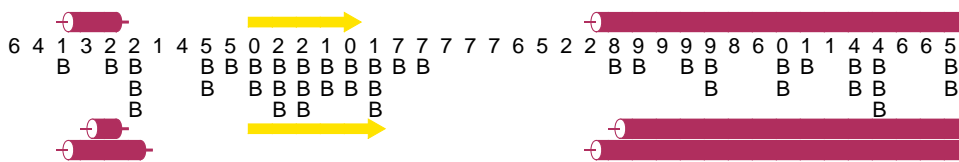
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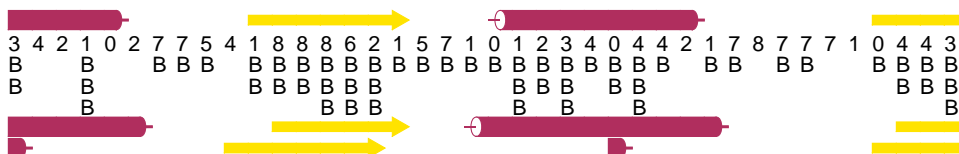
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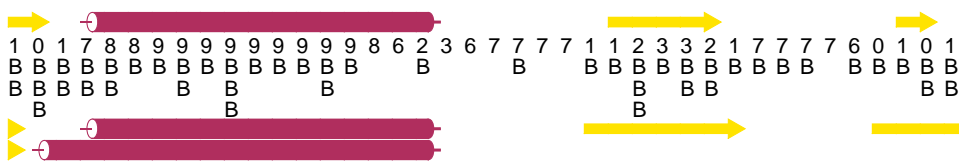
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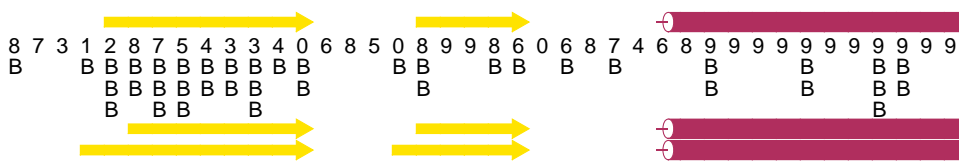
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G G V Y M G A K N R L I S S G T E V E T L T L H P L L L N R L Q E T Y D K

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

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