

[illegible]

QUERY	50	60	70	80
UniRef90_G2NVV3	WWSNS	ARTTTL	GLTTS	GSSTF
UniRef90_S2YGX7	WWSNS	DSSTNEI	GLTNE	QSSSF
UniRef90_M3E632	T	GYGDRTAQ	GTTF	QASFF
UniRef90_J1RWT9	WS	DQAGGNTS	AIATTE	DQASFF
UniRef90_K4RC81	WYT	DQAHA	NTL	GLT
UniRef90_S3ZX8X1	WS	NKQGGQ	AI	GENA
UniRef90_UPI000287EF6E	WYS	NSQGQST	VL	GENN
UniRef90_E9UNN3	WYT	NAGETT	TL	GLT
UniRef90_D7C0Z0	T	TG	VNKA	QA
UniRef90_UPI00047B9AE8	WS	AT	QG	GT
UniRef90_UPI00038097C0	WYT	NS	AQ	TT
UniRef90_D2PZH7	T	TR	GW	DS
UniRef90_UPI000377C8DC	W	T	GY	NQ
UniRef90_UPI0004653651	V	S	T	S
UniRef90_UPI000475A26C	WF	A	D	N
UniRef90_UPI0003456024	V	G	S	Q
UniRef90_UPI0003644D39	G	S	T	G
UniRef90_D9W9G2	WT	A	D	Q
UniRef90_A4X936	WYS	NS	S	Q
UniRef90_R1ICF8	AT	P	G	F
UniRef90_Q1D164	T	T	G	H
UniRef90_F3NED5	WF	A	D	Q
UniRef90_UPI0004767288	T	W	L	N
UniRef90_UPI000345930D	V	H	G	W
UniRef90_UPI000422AE0E	W	A	D	D
UniRef90_F3NER1	I	E	V	T
UniRef90_R1CBQ3	F	T	K	N
UniRef90_K6W5M8	WY	A	D	P
UniRef90_D9XN22	V	T	V	P
UniRef90_UPI00034C2584	G	T	S	G
UniRef90_H8MK66	T	S	G	Y
UniRef90_V6JHK7	T	T	T	T
UniRef90_UPI00039E847D	I	E	V	T
UniRef90_H6LA07	WF	R	D	R
UniRef90_D6X979	V	S	V	L
UniRef90_A5EY82	V	V	G	W
UniRef90_D81H12	I	V	V	R
UniRef90_I3Y6P3	V	L	V	R
UniRef90_UPI00037DDA2B	L	V	L	T
UniRef90_B3QU21	WY	A	D	A
UniRef90_UPI00036F88C1	V	T	V	H
UniRef90_R5E418	I	V	V	T
UniRef90_W6EEV9	I	T	V	K
UniRef90_Q7NWC9	I	H	E	V
UniRef90_A3Y8F6	I	E	V	A
UniRef90_C3X651	I	N	I	K
UniRef90_A8GM89	V	T	V	K
UniRef90_D9QK40	I	K	V	K
UniRef90_B5E9X7	I	L	V	R
UniRef90_K2GIX5	I	L	V	V
UniRef90_Q6SHZ8	V	Y	V	L
UniRef90_U5NEC8	I	V	V	R
UniRef90_C5BRN2	I	T	V	K
UniRef90_D2QXG2	L	R	V	L
UniRef90_UPI0003742D7B	I	K	V	T
UniRef90_UPI00037EEC05	I	T	V	R
UniRef90_UPI00036CE46C	I	D	V	T
UniRef90_Q1PXM9	I	T	V	Q
UniRef90_R1CNA3	I	L	V	R
UniRef90_H0PU24	I	K	V	K
UniRef90_UPI00035D8513	I	E	V	A
UniRef90_C6WSZ2	V	R	I	L
UniRef90_UPI000255A74B	V	T	V	N
UniRef90_I0AKF7	I	E	V	A
UniRef90_A6T368	I	V	V	K
UniRef90_UPI000374E79A	I	V	V	S
UniRef90_B7IER5	I	K	V	K
UniRef90_H7CYQ4	V	K	V	I
UniRef90_UPI00037AB4B8	V	I	V	R
UniRef90_H5SNV6	I	Q	V	T
UniRef90_UPI00035FE661	W	N	I	G
UniRef90_UPI00035FB7EB	W	F	R	G
UniRef90_M7NZ40	I	L	V	R
UniRef90_Q39Q25	I	K	V	R
UniRef90_Q6SFI5	I	V	V	K
UniRef90_UPI0003B47F72	V	M	V	R
UniRef90_UPI000369CA71	V	T	V	K
UniRef90_A4BBJ4	V	R	V	R
UniRef90_F8EX95	I	F	I	N
UniRef90_UPI0004095BE5	I	M	V	A
UniRef90_G2J9P8	I	E	V	A
UniRef90_W6M3H0	I	V	V	G
UniRef90_M7SR90	V	T	T	T
UniRef90_D2Z2N9	I	T	V	T
UniRef90_Q2CD93	A	T	V	T
UniRef90_R7NUE5	I	S	V	K
UniRef90_C3JB33	I	S	V	K
UniRef90_UPI00047A293B	I	E	V	T
UniRef90_H5XSC2	I	S	V	S
UniRef90_E8YP89	V	T	V	K
UniRef90_J1JPT9	I	E	V	N

QUERY	90	100	110	120
UniRef90_G2NVV3	G G Q D I T T S A A N A N T V G M A V T T R R G S T T T G T H S G S V T A L L N A T V N Y			
UniRef90_S2YGX7	G S Q D I T T T K A A A D A T T V G G E K V T Q R R S G S T T T G V H H S G Q V T T G L L D A T V N Y			
UniRef90_M3E632	Q E V Q V T T G S A A Q A L V G G A S V Q R S G S T T T G W H H G G V I T Q Q H D A S V N Y			
UniRef90_J1RWT9	S T Q K I T T K A A E A T Y V G E K V T Q R S G S T T T Q V T H H S G T V T K A L L D A S V N Y			
UniRef90_K4RC81	S A A D A T Y V G E S V K R T S G S T T T G V T H H S G T V T K A L L D A S V N Y			
UniRef90_S3Z8X1	S T Q K I T T K A G D A T V G G Q E V T V Y R D G S T T T Q L I H H S G K R V T T G L L N A T V N Y			
UniRef90_UPI000287EF6E	G N T D I T S V G D A H V G Q R V T R D G S S T T G V H H S G R V T E A L L D A S V N Y			
UniRef90_E9UNN3	G P V T V A G S Q E A P V G S S V C R S G S T T T G W H H G G V T E Q L L D T S V N Y			
UniRef90_D7C0Z0	G E Q D I T S A G A E A V V G Q R V T R D G S T T T Q V H H S G T V T A L L N A S V N Y			
UniRef90_UPI00047B9AE8	G D Q L V R G S W E A P V G T S V C R S G S T T T H H S G G T I R A K N N E T V N Y			
UniRef90_UPI00038097C0	G D V Q T A G S V Q A L E T G A A V C R S G S T T T G W H H G G V T Q Q R N D S V T Y			
UniRef90_D2PZH7	G D V T T V T G S T E A L E G S S V C R S G S T T T G W H H G G V T T A L L N A T V N Y			
UniRef90_UPI0003456024	S G V T I T G L A D A A V G E K V F R S G S T T T G L H H D G E V T A A K N Q S V S Y			
UniRef90_UPI0003644D39	G T V A V A G S E E A P E T G S S I C R S G S T T T G W H H G G V T E A K N Q T V N Y			
UniRef90_D9W9G2	Y A R V V S G S S E A S P T G S S I C R S G S T T T G W H H G G V T E A K N Q T V N Y			
UniRef90_A4X936	S N Q A I G R A V E A S V G L K V Q R S G S T T T G V H H S G S V T T G L L N A T V N Y			
UniRef90_R1ICF8	N Y Q D I T T A G N A F V G Q S V C R S G R T T T G L H S G S V T T G L L D A T V N Y			
UniRef90_Q1D164	D G V R V E G L Q E A P V G A S I C R S G I T T S G W R C G G T I Q A K N N E T V N Y			
UniRef90_F3NEN5	G N V T V A G S Q E A P V N A S I C R S G Y T T S G W R C G G V L T Q A K N T V N Y			
UniRef90_UPI0004767288	K G V R I A G A G D A A V V G Q R V F R S G S T T T G L R D R G K V T Q A K N Q T V N Y			
UniRef90_UPI000345930D	A T R T V Q G S Q S A P V G S S V C R S G Q T T T G W H H G G T V T A K N Q T V N Y			
UniRef90_UPI000422AE0E	G T V T V T G S T E A P V G A S I C R S G Q T T T G W H H G G V I T A K N Q S V N Y			
UniRef90_F3NER1	G D V L V R G S S V A P V G S S I C R S G S T T T G W R C G G T V E A L L N A T V N Y			
UniRef90_R1CBQ3	N V V A I L K A A E A A V V G Q Q V L R M G S T T T G L H H D G T V L G L D A T V N Y			
UniRef90_K6W5M8	G D S S K L K V G E L A V I G N P L G E N F S G V T S G I I S A L L N R T V T I			
UniRef90_D9XN22	K V V V V K G S T E A P V G T S V C K S G E N T T G W T C G T I T A K D R T A K Y			
UniRef90_UPI00034C2584	G T R D I T N A A N A P V V G Q S I C H V G R T T T G Y R C C G T V Q A V N L T I N Y			
UniRef90_H8MK66	G P Q A V T G A N Q A P I G S S V C R S G S T T T G W H H C G T I Q A R N Q T V N Y			
UniRef90_V6JHK7	G N V L V Q G S Q E A P V N A S V C R S G S T T T G W R C G G V I T G K N V T V N Y			
UniRef90_UPI00039E847D	G N V Q V T G S T Q S P V G A S V C R S G S T T T G W H H C G G V I Q Q H N T S V T Y			
UniRef90_H6LA07	G T V T V A G S T E A A V G S S I C R S G S T T T G W R C G G V I Q A R N S V T Y			
UniRef90_D6X979	E L S N S D E T K V G E W V L A V G N P F T V T A G I V S A K G R N I N I			
UniRef90_A5EY82	R G V Q I V G A G E P A V G Q R V F R S G S T T T G F R S G E V T A V N A T V N Y			
UniRef90_D81H12	G D S D A V K V G D W V L A I G S P F F G F D T G I V S A L L G R S L P S			
UniRef90_I3Y6P3	G D A L V R G S W V A P V G T S V C R S G S T T T H H W H G G T V E G Q N E T V N Y			
UniRef90_UPI00037DDA2B	R I G S T K E L Q V G E W V L A I G S P F F G F T A G I V S A K G R S L P T			
UniRef90_B3QU21	R L G S S E A L E A G E W V L A I G S P F F G F H S V T A G I V S A T E R A			
UniRef90_UPI00036F88C1	G N S D S L H V G E W V M A I V G N P F F E L T S G I I S A M N R T I N I			
UniRef90_R5E418	G A L E I T G A A Q P S V G Q Q V C R A G R T T T G V H H G G T V S A V N D T I N Y			
UniRef90_W6EEV9	K L G K S D D V K V G E W V A A I G A P F F G L D N G I V S A K S R N I N N			
UniRef90_Q7NWC9	G D S S N L L E G D V F A I G A P F F G V T S G I I S A L L N K N N			
UniRef90_A3Y8F6	R M G D P K S L K V G Q W V L A I G S P F F G F T S G I I S A K N R M L S			
UniRef90_C3X651	K I G D S D D M A K P G Q V V L A I G S P F F G V T A G I V S A L L G R N L P S			
UniRef90_A8GM89	T F G N V D D A R V G D W V L A I G N P F F G V T S G I I S S K G R D I D I			
UniRef90_D9QX40	G D S N N I K P G D W T V A I G N P F Y G L N V I G I S A L L G R P L R I			
UniRef90_B5E9X7	G D S D K M E V G D W V M A I G N P F F G V T A G I V S A Q G R V I G S			
UniRef90_K2GIX5	K I G S S R D L K V G E W V L A I G A P F F G F E S G I V S A L L G R S L			
UniRef90_Q6SHZ8	L P M G D S D K I L V G E D V I A V G S P F F G L I Q G I V S A L L G R S			
UniRef90_U5NEC8	R I G D V G R L K V G E W V M A I G S P F F G L D N T V T A G I V S A K Q			
UniRef90_C5BRN2	Y L E L A A K D I Q I G E W V V A I G S P F F G L D A G I V S A L L G R S I P T			
UniRef90_D2QXG2	G D S D E M R I G D W V L A I G Q P F F G L R N D G I I S A K G R A I Q			
UniRef90_UPI0003742D7B	Y V T V G D S E S I D V G E			

QUERY	G	G	G	D	V	V	Y	G	M	I	R	T	N	V	C	A	E	P	G	D	S	G	G	P	L	Y	S	G	T	R	A	L	G	L	T	S	G	G	S	G	130		
UniRef90_G2NVV3	G	N	G	D	I	V	Y	G	M	I	Q	T	T	D	V	C	A	E	P	G	D	S	G	G	P	L	Y	A	G	S	T	R	A	L	G	L	T	S	G	G	S	G	140
UniRef90_S2YGX7	G	N	G	D	I	V	N	G	L	L	Q	T	T	D	V	C	A	E	P	G	D	S	G	G	P	L	F	D	G	E	S	A	L	G	L	T	S	G	G	S	G	150	
UniRef90_M3E632	P	E	G	T	V	D	G	L	L	T	R	T	T	V	C	A	E	P	G	D	S	G	G	P	Y	V	J	A	G	A	Q	A	L	G	L	T	S	G	G	S	G	160	
UniRef90_J1RWT9	Q	E	G	T	V	D	G	L	L	T	Q	T	T	D	V	C	A	E	P	G	D	S	G	G	A	L	F	D	G	D	A	A	L	G	L	T	S	G	G	S	G		
UniRef90_K4RC81	Q	G	G	G	T	V	R	G	M	I	Q	T	T	D	V	C	A	E	P	G	D	S	G	G	P	L	Y	D	G	T	K	A	L	G	L	T	S	G	G	S	G		
UniRef90_S3Z8X1	G	N	G	D	V	V	N	G	L	L	Q	T	T	D	V	C	A	E	P	G	D	S	G	G	A	L	F	A	G	D	T	A	L	G	L	T	S	G	G	S	G		
UniRef90_UPI000287EF6E	G	G	G	D	V	V	Y	G	M	I	Q	T	N	V	C	A	E	P	G	D	S	G	G	P	L	Y	S	T	G	A	L	G	L	T	S	G	G	S	G				
UniRef90_E9UNN3	R	G	S	G	T	V	R	G	M	I	Q	T	T	D	V	C	A	E	P	G	D	S	G	G	P	L	Y	A	G	S	T	A	L	G	L	T	S	G	G	T	G		
UniRef90_D7C0Z0	S	E	G	M	V	S	G	L	L	S	R	T	T	V	C	A	E	P	G	D	S	G	G	S	Y	I	T	G	S	Q	A	L	G	L	T	S	G	G	S	G			
UniRef90_UPI00047B9AE8	Q	E	G	S	V	S	G	L	L	T	Q	T	T	V	C	A	E	P	G	D	S	G	G	S	L	F	A	G	D	K	A	L	G	L	T	S	G	G	S	G			
UniRef90_UPI00038097C0	A	E	G	S	V	S	G	M	L	T	Q	T	T	N	V	C	A	E	P	G	D	S	G	G	A	L	Y	S	G	S	T	A	L	G	L	T	S	G	G	S	G		
UniRef90_D2PZH7	G	N	G	Q	L	F	Y	G	A	T	K	T	S	V	C	A	E	P	G	D	S	G	G	S	F	I	T	G	D	Q	A	L	G	L	T	S	G	G	W	G			
UniRef90_UPI000377C8DC	A	E	G	T	V	D	G	V	T	R	T	T	V	C	A	E	P	G	D	S	G	G	S	F	I	S	G	V	Q	A	L	G	L	T	S	G	G	S	G				
UniRef90_UPI0004653651	Q	E	G	T	V	S	G	V	T	R	T	T	N	V	C	A	E	P	G	D	S	G	G	S	F	I	S	G	S	Q	A	L	G	L	T	S	G	G	T	G			
UniRef90_UPI000475A26C	P	E	G	T	V	T	G	L	V	Q	T	T	V	C	A	E	P	G	D	S	G	G	P	L	F	A	N	G	I	A	L	G	L	T	S	G	G	S	G				
UniRef90_UPI0003456024	P	Q	G	T	V	N	G	L	T	Q	T	D	V	C	A	E	P	G	D	S	G	G	S	W	L	S	D	D	Q	A	L	G	L	T	S	G	G	S	G				
UniRef90_UPI0003644D39	S	Q	G	T	V	Y	G	L	T	Q	T	N	V	C	A	E	P	G	D	S	G	G	S	F	I	S	G	N	Q	A	L	G	L	T	S	G	G	S	G				
UniRef90_D9W9G2	G	N	G	D	L	V	N	G	L	L	Q	T	N	V	C	A	E	P	G	D	S	G	G	A	M	F	A	E	D	A	L	G	L	T	S	G	G	S	G				
UniRef90_A4X936	A	E	G	T	V	R	G	L	L	T	R	T	N	V	C	A	E	P	G	D	S	G	G	S	L	F	S	G	S	T	A	L	G	L	T	S	G	G	S	G			
UniRef90_R1ICF8	A	E	G	T	V	T	G	L	T	R	T	S	A	C	A	E	P	G	D	S	G	G	P	Y	L	S	G	N	Q	A	L	G	L	T	S	G	G	S	G				
UniRef90_Q1D164	S	V	G	P	T	V	T	G	L	H	K	T	N	A	C	A	D	G	G	D	S	G	G	S	V	I	S	G	N	Q	A	L	G	L	T	S	G	G	V	A	G		
UniRef90_F3NEN5	P	E	G	T	V	T	G	L	T	E	T	D	V	C	A	E	P	G	D	S	G	G	P	L	F	S	D	G	L	A	L	G	L	T	S	G	G	S	G				
UniRef90_UPI0004767288	P	S	G	T	V	S	G	L	T	R	T	T	D	V	C	A	E	P	G	D	S	G	G	S	F	I	S	G	N	Q	A	L	G	L	T	S	G	G	S	G			
UniRef90_UPI000345930D	S	G	D	L	V	N	G	L	T	R	T	T	A	C	A	E	P	G	D	S	G	G	S	W	L	A	G	T	Q	A	L	G	L	T	S	G	G	S	G				
UniRef90_UPI000422AE0E	Q	Q	G	P	T	V	Y	G	T	T	Q	T	S	A	C	A	Q	G	G	D	S	G	G	S	F	I	T	G	D	Q	A	L	G	L	T	S	G	G	S	G			
UniRef90_F3NER1	P	E	G	T	V	T	G	L	T	Q	T	D	V	C	A	E	P	G	D	S	G	G	S	L	F	S	D	G	S	A	L	G	L	T	S	G	G	S	G				
UniRef90_R1CBQ3	G	E	K	E	L	K	L	I	Q	T	D	V	A	I	N	P	G	N	S	G	G	A	L	V	N	G	E	I	I	G	I	N	S	V	K	L	T						
UniRef90_K6W5M8	R	N	K	K	T	I	T	G	L	T	Q	T	D	A	C	S	A	K	G	D	S	G	G	A	W	M	A	G	N	Q	A	L	G	L	T	S	G	G	N	G			
UniRef90_D9XN22	G	G	G	T	V	Y	G	L	F	R	T	T	I	C	S	A	E	P	G	D	S	G	G	P	A	F	S	G	T	A	L	G	L	T	S	G	G	S	G				
UniRef90_UPI00034C2584	P	Q	G	T	V	H	G	L	T	R	T	N	V	C	A	E	P	G	D	S	G	G	P	F	V	S	G	T	Q	A	L	G	L	T	S	G	G	S	G				
UniRef90_H8MK66	S	A	G	P	T	V	Y	G	L	T	A	S	S	A	C	A	E	P	G	D	S	G	G	S	W	L	S	G	N	Q	A	L	G	L	T	S	G	A	G	G			
UniRef90_V6JHK7	P	E	G	T	V	S	G	L	T	R	T	T	V	C	A	E	P	G	D	S	G	G	S	Y	I	S	G	S	Q	A	L	G	L	T	S	G	G	S	G				
UniRef90_UPI00039E847D	P	Q	G	T	I	S	G	L	T	Q	T	T	V	C	A	E	P	G	D	S	G	G	S	A	I	S	G	S	Q	A	L	G	L	T	S	G	G	S	G				
UniRef90_H6LA07	L	G	N	R	S	I	E	S	F	I	Q	T	D	A	A	V	N	P	G	N	S	G	G	A	L	V	N	A	G	K	L	V	G	I	N	T	A	I	A	T			
UniRef90_D6X979	P	E	G	T	V	T	G	L	T	E	T	T	V	C	A	E	P	G	D	S	G	G	P	L	F	S	E	G	L	A	L	G	L	T	S	G	G	D	G				
UniRef90_A5EY82	G	E	T	Y	T	F	F	L	I	Q	T	D	A	A	I	N	P	G	N	S	G	G	P	L	F	N	G	E	V	I	G	I	N	T	S	Q	I	Y	T				
UniRef90_D8I1H2	A	Q	G	A	V	Y	Q	M	T	R	T	N	V	C	A	E	P	G	D	S	G	G	S	F	I	T	G	D	Q	A	L	G	L	T	S	G	G	W	G				
UniRef90_I3Y6P3	E	N	T	Y	V	F	F	I	Q	T	D	V	A	I	N	P	G	N	S	G	G	P	L	F	N	N	G	E	V	V	G	I	N	S	Q	I	Y	T					
UniRef90_UPI00037DDA2B	L	A	N	E	T	Y	V	F	F	I	Q	T	D	V	A	I	N	P	G	N	S	G	G	P	L	F	N	N	G	E	V	V	G	I	N	S	Q	I	Y	T			
UniRef90_B3QU21	H	D	S	F	G	V	E	T	F	L	Q	T	D	A	V	I	N	P	G	N	S	G	G	A	L	V	N	N	G	Q	L	I	G	I	N	T	A	I	S	R			
UniRef90_UPI00036F88C1	P	E	G	T	V	Y	G	L	F	R	A	T	L	C	V	E	N	P	G	D	S	G	A	S	A	Y	S	G	M	G	T	A	L	G	L	T	S	G	S	P			
UniRef90_R5E418	P	D	E	Q	F	V	P	F	I	Q	T	D	V	A	V	N	P	G	N	S	G	G	P	L	F	N	M	G	E	V	I	G	I	N	S	Q	I	Y	T				
UniRef90_W6EEV9	V	G	L	N	Q	Y	E	N	F	I	Q	T	D	A	S	I	N	P	G	N	S	G	G	A	L	V	S	R	G	A	L	I	G	I	N	S	A	I	S	K			
UniRef90_Q7NWC9	P	D	E	S	A	V	Q	F	F	I	Q	T	D	A	A	V	N	P	G	N	S	G	G	P	L	F	N	K	G	E	V	V	G	I	N	S	Q	I	Y	T			
UniRef90_A3Y8F6	D	N	T	Y	V	P	F	F	I	Q	T	D	V	A	I	N	P	G	N	S	G	G	P	L	F	N	D	G	E	V	I	G	I	N	S	Q	I	Y	T				
UniRef90_C3X651	L	G	I	N	I	Y	E	N	F	I	Q	T	D	A	A	I	N	P	G	N	S	G	G	A	L	I	D	T	G	N	L	L	G	I	N	S	A	I	S	R			
UniRef90_A8GM89	D	T	D	N	I	V	D	N	F	I	Q	T	D	A	A	I	N	P	G	N	S	G	G	P	M	F	N	L	D	Q	V	I	G	I	N	T	A	I	S	P			
UniRef90_D9QQ40	R	Q	G	R	V	Y	K	N	M	I	Q	T	D	A	A	I	N	P	G	N	S	G	G	P	L	N	E	G	Q	V	I	G	I	N	T	A	I	S	R				
UniRef90_B5E9X7	G	P	N	E	N	Y	V	P	F	I	Q	T	D	A	S	I	N	P	G	N	S	G	G	P	L	F	N	T	G	E	V	I	G	I	N	T	A	I	V				
UniRef90_K2GIX5	P	N	E	N	Y	V	P	F	I	Q	T	D	V	A	I	N	P	G	N	S	G	G	P	L	F	N	D	G	E	V	V	G	I	N	S	Q	I	S	Q				
UniRef90_Q6SHZ8	V	G	I	N	E	Y	E	N	F	I	Q	T	D	V	A	I	N	P	G	N	S	G	G	P	L	V	S	R	G	E	V	I	G	I	N	S	Q	I	S	R			
UniRef90_U5NEC8	R	D	T	G	D	Y	L	P	F	I	Q	T	D	V	A	I	N	P	G	N	S	G	G	P	L	I	N	R	G	E	V	V	G	I	N	S	Q	I	S	R			
UniRef90_C5BRN2	E	R	N	E	N	Y	V	P	F	I	Q	T	D	V	A	I	N	P	G	N	S	G	G	P	L	F	N	D	G	K	V	V	G	I	N	T	A	I	Y	T			
UniRef90_D2QXG2	G	M	M	R	H	E	E	F	L	Q	T	D	A	A	I	N	P	G	N	S	G	G	P	L	V	N	R	G	K	V	V	G	I	N	T								



QUERY	N	C	S	S	G	G	T	T	F	F	Q	P	V	T	E	A	L	V	A	Y	G	V	S	V	Y			
UniRef90_G2NVV3	N	C	S	S	G	G	T	T	F	F	Q	P	V	T	E	A	L	V	A	Y	G	V	S	V	Y			
UniRef90_S2YGX7	N	C	T	S	G	G	T	T	F	F	Q	P	V	V	T	E	A	L	N	A	Y	G	V	S	V	Y		
UniRef90_M3E632	D	C	T	S	G	G	T	T	F	F	Q	P	V	V	N	T	E	L	S	T	F	G	A	V	S	V	Y	
UniRef90_J1RWT9	D	C	T	K	G	G	E	T	F	F	Q	P	V	V	N	P	E	A	L	S	Q	Y	G	A	V	S	V	Y
UniRef90_K4RC81	N	C	R	T	S	G	G	T	T	F	F	Q	P	V	V	P	E	A	L	K	A	Y	G	A	V	S	V	Y
UniRef90_S3Z8X1	D	C	S	S	G	G	E	T	F	F	Q	P	V	V	P	E	A	L	S	A	F	G	A	V	S	V	Y	
UniRef90_UPI000287EF6E	N	C	S	S	G	G	T	T	F	F	Q	P	V	V	V	E	A	L	N	A	Y	G	V	S	V	Y		
UniRef90_E9UNN3	D	C	S	S	G	G	T	T	F	F	Q	P	V	V	R	E	A	L	V	R	A	Y	G	V	S	V	Y	
UniRef90_D7C0Z0	D	C	T	A	G	G	T	T	F	F	Q	P	V	V	N	P	E	A	L	E	A	Y	G	A	V	S	V	Y
UniRef90_UPI00047B9AE8	D	C	T	S	G	G	E	T	F	F	Q	P	V	V	G	P	E	A	L	S	A	F	G	A	V	S	V	Y
UniRef90_UPI00038097C0	N	C	T	S	G	G	T	T	F	F	Q	P	V	V	T	E	A	L	S	A	Y	G	V	S	V	Y		
UniRef90_D2PZH7	N	C	S	S	G	G	E	T	F	F	Q	P	V	V	N	E	I	L	S	G	A	Y	G	A	V	S	V	Y
UniRef90_UPI000377C8DC	D	C	T	R	G	G	T	T	F	F	Q	P	V	I	N	P	E	A	L	S	T	Y	G	L	T	L	L	
UniRef90_UPI0004653651	N	C	S	S	Q	G	G	T	T	F	F	Q	P	V	V	N	P	E	A	L	Q	A	Y	G	L	T	L	L
UniRef90_UPI000475A26C	D	C	T	A	G	G	T	T	F	F	Q	P	V	L	T	K	A	L	N	A	Y	G	V	S	V	Y		
UniRef90_UPI0003456024	N	C	T	S	G	G	T	T	F	F	Q	P	V	N	P	E	A	L	E	A	Y	G	V	S	V	Y		
UniRef90_UPI0003644D39	D	C	T	W	G	G	T	T	F	F	Q	P	V	V	N	E	A	L	N	A	Y	G	L	S	L	L		
UniRef90_D9W9G2	D	C	T	Q	G	G	E	T	F	F	Q	P	V	T	G	A	L											
UniRef90_A4X936	N	C	T	R	G	G	T	T	F	F	Q	P	V	V	E	A	L	N	V	Y	G	V	N	V	Y			
UniRef90_R1ICF8	D	C	T	F	G	G	T	T	F	F	Q	P	V	I	N	P	E	A	L	R	A	Y	Q	L	K	L	F	
UniRef90_Q1D164	T	C	A	E	N	G	N	Q	T	F	F	Q	P	V	N	P	E	A	L	G	A	Y						
UniRef90_F3NEN5	D	C	E	S	G	G	T	T	F	F	Q	P	V	L	R	T	A	M	S	A	L	G	V	R	L	L	L	
UniRef90_UPI0004767288	D	C	T	Y	G	G	T	T	F	F	Q	P	V	N	E	A	L	N	A	Y	G	L	S	L	L	L	L	
UniRef90_UPI000345930D	N	C	R	S	G	G	T	T	F	F	Q	P	V	N	P	E	A	L	S	Q	W	G	L	T	L	L	L	
UniRef90_UPI000422AE0E	N	C	A	T	G	G	R	T	F	F	A	P	V	N	N	P	E	A	L	S	A	Y	G					

	1	10	20	30	40
UniRef90_E3DUC8			D N K K A Y I T N N	H V V E G A N K	
UniRef90_L0GZ59			S H D G D V L T N A H V V E G A S K E		
UniRef90_E2PI48		S D D G G L	N F G S G F I I S K D G Y I L T N T H V V T G M G S T		
UniRef90_C7LVS1			S L G S G F I I D G K S L V L T N A H V V T E G A S T		
UniRef90_UPI00036EB445			T G S G F I V S N D G Y I L T N A H V V K G A D E		
UniRef90_B8FZQ6			S L G S G F I M S E A G Y V L T N N H V I E G A D E		
UniRef90_E1VHD6			S L G S G F I I S D D G Y I L T N N H V I E G A D E		
UniRef90_B5JX04			G S G F I I S K D G Y I L T N T H V V N G M N N		
UniRef90_X2HAE5			V L G S G F I I S E D G Y I L T N N H V V A K S N G		
UniRef90_F4GXH8			L L G S G F I I D P T G Y I V T N N H V I R K A D R		
UniRef90_UPI0004715D16			T G S G F I W D D R G H V V T N Y H V I Q Q A D R		
UniRef90_D0LRW9	V R G G D R Y I S S G S A C	S	I G F A V Q G G F V T A G H C G A A G K E		
UniRef90_U2AE12			V L G S G F I L S A D G Y V M T N A H V I E D A S E		
UniRef90_C5CSF1			S M G S G F I S P D G Y V L T N N H V V D G A D E		
UniRef90_UPI000427D55C			G S G F I F S E D G Y I L T N Y H V I N G A R Q		
UniRef90_F4A4B1			G T A F F V T T D G Y M L T N H V V A G A D K		
UniRef90_UPI0002886F59			S L G S G F V I D P S G L I T N N H V I A D A N D		
UniRef90_UPI00036D1857			L L G S G V I V S P E G H I L T N N H V I E D A D D		
UniRef90_UPI0003084151		R M G	T G S G F I I N K S G L I M T N S H V V N G A D V		
UniRef90_A6C1C4			T G S G V I Y G N K A Y I V T N Y H V I K G A N E		
UniRef90_D5DMF5			L L G S G F V W N D K G Y I V T N Y H V I R S A E S		
UniRef90_I0ETE5			I L G S G F V S Q D G Y I L T N A H V V A D A A D		
UniRef90_K8YVK1			I L G S G V I Y G N T A F I V T N N H V I E G A Q E		
UniRef90_UPI00035D77FB		G G G Q P A G	L L G S G V I I N A K G Y V L T N N H V I D E A D K		
UniRef90_UPI00047B2C20			M G T G V V V D E R G Y I T N N H V I E G V R R		
UniRef90_S6FG70	G D A P R Q V N G		G S G V I Y G N K V F I V T N N H V I D G A S K		
UniRef90_A4A2C2			G S G I I F N S D G Y I L T N Y H V I S G A Q K		
UniRef90_C2Y313			S L G S G V I V S E D G Y V L T N H V I D G A D E		
UniRef90_UPI0002896624			L L G S G V I L S K T G Y I L T N T H V I E D A A S		
UniRef90_UPI00028A2965			L L G S G V I F D R K G Y V I T N Q H V I E G A D S		
UniRef90_F4GIN4			V L G S G F I I S Q D G Y V M T N A H V V A E A D T		
UniRef90_UPI0003614C3B			T G S G F I W D E A G H V V T N F H V I A G A N E		
UniRef90_Q1LKM7			V L G S G F I I S A D G Y V L T N A H V V D G A D E		
UniRef90_UPI00047EFD6F			T G S G V I I S P D G Y I V T N N H V V N G A D E		
UniRef90_W0V311			I L G S G F I I N E D G Y I L T N Y H V V E G A K E		
UniRef90_H1HM53			S L G S G F I I D K E G I I T N N H V V Q S A E G		
UniRef90_L1QJ72			G S G V I I A S N G Y I V T N N H V I D K A D K		
UniRef90_UPI000365815E			G S G V I I A S S G Q I L T N S H V V D G A D Q		
UniRef90_UPI000401CD3A	G D R I S Q G R Q R V	G S	G S G F I I S P D G Y I V T N N H V I A G A D V		
UniRef90_D7DWV4			S L G S G F I I V D K D G V I L T N A H V V D G A S R		
UniRef90_Q30ZT6			T G S G V I A N G K A Y I L T N N H V V E G A S K		
UniRef90_A0A024IN79			L L G S G F V Y S A D G Y I V T S S H V V E N M D E		
UniRef90_M5PEH3			V L G S G V I F R K D G Y I V T N N H V I D G A K E		
UniRef90_R5QNK8			S L G S G F V V D A A G I V T N N H V I D G A D E		
UniRef90_UPI0003792793			G S G F V I E K S G I L T N S H V V N G A D K		
UniRef90_UPI0003731792			T G S G V I Y N G T A Y V V T N H V I D G A S G		
UniRef90_UPI000382DC5D			S G S G V I I S P D G Y I V T N N H V V E N A S K		
UniRef90_I4X2U9	E F H G G G G S Q S	S	G S G F I I N A N G Q I L T N S H V V N G A D T		
UniRef90_E4TN08			S L G S G V V V D A E G Y V L T N H V I A Q A D E		
UniRef90_UPI000409E285			S A G F N V T N D G T P G F L T A G H C G V A E S		
UniRef90_U5T6B9			G S G V I Y T S N G Y V I T N L H V V E G A E D		
UniRef90_L1KPW1	G G D A I F G G G A R C	S	L L G S G V I V T S D G Y I L T N N H V V D K A D A		
UniRef90_UPI00036CC4CB			L L G S G V L V D P S G I V T N N H V V Q D A D Q		
UniRef90_B3EE13	G D P F F G P R Q R S S		L L G S G V I V S K N G Y I V T N N H V I E N A E E		
UniRef90_UPI000364F9B8	G N Q F K Q N R V Q R S		L L G S G V I V D G D T A Y V V T N N H V I D G A D K		
UniRef90_A8EWJ3			L L G S G F I I S K D G Y I V T N N H V V A G A E A		
UniRef90_D4YIN5			L L G S G F I I S D G Y I L T N E H V I E G A T E		
UniRef90_T0IKN8			S L L G S G F F I S E D G Y I L T N N H V V A E A A D		
UniRef90_A5D127			S L L G S G F V I D P Q G Y I V T N N H V I E G A D D		
UniRef90_UPI00047B9D35			T G S G F I W D G A G H V V T N F H V I Q G A S E		
UniRef90_W6RDE0	R G G P G M D N D R P R R S		L L G S G F V I S D D G Y I V T N N H V I E G A D E		
UniRef90_T0JB33	P G Q P G M G P R T R Q G		V L G S G F I V S Q D G Y V L T N A H V V A G E D E		
UniRef90_K2HCQ8			S L L G S G V I Y G D K A Y I V T N H V V E D A T E		
UniRef90_N6Y8C6			I L G S G V I L N P Q G Y V T N N H V I S G A D S		
UniRef90_UPI0004759EB2			L L G S G F I S D G S A Y I V T N N H V I D G A D E		
UniRef90_UPI0002559BC0			T G S G F I I S S D G N I L T N A H V V E G S T T		
UniRef90_U5UM99			L L G S G V I D A E Q G Y I L T N F H V I Q R A D E		
UniRef90_Q10UW0			A G S G F I V S P D G V I L T N A H V V Q Q A D E		
UniRef90_B8GPA5			S I L G S G F F I S D D G Y V V T N E H V V G E A T E		
UniRef90_UPI00036D543B			V L G S G F V I D P K G L I L T N A H V V D T A D V		
UniRef90_H1XQQ5			G S G F I V D K K G Y I V T N A H V V A N R T K		
UniRef90_B7KDS2			L L G S G F F I S D D G F I L T N N H V I S E S T D		
UniRef90_F9MW98			G S G V I I R S D G Y I V T N N H V V D G A T K		
UniRef90_M1L2M8			S L L G S G F I V D A D G I L T N N R H V V G D A A T		
UniRef90_R6ETN9			G S G F I I N S D G Y I L T N Y H V V Q N A Q S		
UniRef90_F0G3H5			S L L G S G V I D A K A G L V L T N N H V I Q R A D E		
UniRef90_W6NAF5			G T G F I V S K D G Y I V T N E H V I H G A E K		
UniRef90_I1YJE8			G S G F I V D S N G I I L T N A H V V K G A D K		
UniRef90_B8D072			G S G V I Y G D T A F I V T N N H V I E G A K Q		
UniRef90_A0YKV5			T G S G F I W N S Q G H I I T N F H V I Q N A S G		
UniRef90_X2GU44			S L L G S G F V V S D D G V I I T N N H V I E N A D E		
UniRef90_UPI000477B042		G T N C	S L L G S G F P G T R N G A K V L T A G H C V E G N P D		
UniRef90_K0K475			G S G V I I S A D G Y I V T N N H V V D E A T R		
UniRef90_R7JKY7			T G T G V I I D S G G Y I V T N N H V I E D H E E		
UniRef90_C0GIA9			G S G F I I D A K G Y I V T N N H V I D G A Q K		
UniRef90_I4D2D7			T G S G F I W D R Q G H I I T N Y H A L Q G A S A		
UniRef90_I2K8A3	T G P N Q R V I S		T G S G V I I S G D G Y I I T N N H V I E R A E T		
UniRef90_I3ZAG7			L L G S G F I V S G D G L V L T N A H V V A H A S E		
UniRef90_C9YEC2			T G T G F V D D K T S Y I L T N S H V V E S G T E		
UniRef90_R5YE81	Y K N G K I I S		S L L G S G F I V D A A G Y I V T N N H V I Q D A D E		
UniRef90_G2TDA3					

		50	60	70	80																																						
UniRef90_E3DUC8	L	T	V	T	L	Y	N	G	K	E	T	A	K	L	V	G	S	D	A	K	R	S	D	L	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_L0GZ59	I	I	V	R	T	A	N	D	R	K	R	E	F	V	A	K	L	V	G	S	D	A	K	R	S	D	L	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F
UniRef90_E2PI48	I	K	V	L	L	N	D	K	R	E	F	T	A	K	L	V	G	S	D	A	K	R	S	D	L	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F		
UniRef90_C7LVS1	I	R	V	R	L	L	N	D	K	R	E	F	T	A	K	L	V	G	S	D	A	K	R	S	D	L	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F	
UniRef90_UPI00036EB445	V	V	V	K	L	L	N	D	K	R	T	F	T	A	K	L	V	G	A	D	A	R	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F		
UniRef90_B8FZQ6	I	T	V	S	L	S	D	G	R	N	L	E	A	K	L	V	G	S	D	A	R	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_E1VHD6	I	R	V	A	L	H	D	G	R	E	L	L	A	S	V	I	G	T	D	P	E	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_B5JX04	V	V	V	K	L	N	D	R	S	E	Y	L	A	E	V	I	G	S	D	A	D	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_X2HAE5	I	K	V	L	L	N	D	K	R	E	F	Q	A	K	L	V	G	A	D	A	Q	S	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_F4GXH8	I	F	V	T	M	T	S	G	K	E	Y	K	A	E	L	I	G	T	D	P	R	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_UPI0004715D16	I	T	V	T	L	Q	D	N	T	V	L	S	A	H	A	V	G	H	D	D	R	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_D0LRW9	I	F	V	L	T	Q	D	G	T	K	W	P	A	S	V	V	G	A	A	P	D	K	D	M	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_U2AE12	I	F	V	L	T	A	G	W	A	R	M	G	M	V	Q	A	S	A	S	F	P	G	H	D	Y	A	V	V	R	V	D	A	G	F	S	P	V	Y	A	G			
UniRef90_C5CSF1	I	L	V	T	L	T	D	K	R	E	F	K	A	K	L	T	G	A	D	K	R	S	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_UPI000427D55C	V	K	V	K	L	S	D	G	R	E	F	A	A	R	V	V	G	S	D	E	Q	S	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_F4A4B1	I	S	V	L	L	N	N	G	K	E	I	P	A	K	V	V	G	S	D	E	S	A	M	D	L	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F		
UniRef90_UPI0002886F59	I	T	V	T	L	N	D	R	T	E	L	D	V	T	L	V	G	S	D	E	R	S	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_UPI00036D1857	I	T	V	T	L	E	T	D	G	K	L	K	A	Q	I	V	G	T	D	S	K	V	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_UPI0003084151	I	E	V	V	L	S	D	G	R	K	A	M	A	K	V	I	G	T	D	S	K	V	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_A6C1C4	V	K	V	T	L	N	D	G	R	E	F	T	A	S	D	I	R	T	D	P	R	S	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_D5DMF5	I	L	K	V	T	L	S	D	G	R	E	F	T	A	S	D	I	R	T	D	P	R	S	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F		
UniRef90_I0ETE5	I	L	K	V	T	L	S	D	G	R	E	F	T	A	S	D	I	R	T	D	P	R	S	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F		
UniRef90_K8YVK1	A	Q	V	T	L	T	D	R	S	T	Y	K	A	L	L	R	G	F	D	P	D	K	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_UPI00035D77FB	V	T	V	K	F	T	D	K	R	E	F	K	A	K	V	I	G	S	D	K	R	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_UPI00047B2C20	L	E	V	S	L	P	D	G	T	K	I	P	A	K	L	V	G	S	D	I	W	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_S6FG70	I	T	V	K	L	Q	D	G	R	E	F	K	A	K	L	V	G	A	D	E	L	S	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_A4A2C2	I	Q	V	T	L	H	D	G	T	T	Y	V	A	Q	L	I	A	F	D	E	K	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_C2Y313	I	E	V	K	L	N	N	G	K	N	L	I	A	K	V	V	A	G	F	D	E	K	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F		
UniRef90_UPI0002896624	I	T	V	T	L	S	N	K	K	E	V	A	A	K	V	V	N	Y	D	S	S	M	D	L	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_UPI00028A2965	I	Q	V	A	L	R	D	G	R	E	T	L	A	E	V	I	G	T	D	P	E	S	D	L	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_F4GIN4	L	S	V	R	L	H	D	G	T	S	V	P	A	R	L	V	G	M	D	Q	E	N	D	L	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_UPI0003614C3B	T	T	V	L	L	S	D	G	R	E	A	S	A	E	I	V	G	E	D	F	L	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_Q1LKM7	I	Y	V	T	L	P	D	K	R	E	F	K	A	K	L	V	G	A	D	K	R	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_UPI00047EFD6F	A	T	V	K	L	A	D	G	R	D	Y	K	A	A	L	V	G	A	S	Q	V	H	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_W0V311	V	Y	V	T	L	T	D	K	R	E	F	K	A	K	V	I	G	A	D	A	R	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_H1HM53	L	T	V	T	L	N	D	N	R	E	F	S	A	R	I	V	I	G	N	D	E	A	Q	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F		
UniRef90_L1QJ72	V	T	V	T	L	S	D	N	R	E	V	K	A	S	I	V	I	G	N	D	E	A	Q	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F		
UniRef90_UPI000365815E	I	F	V	K	L	T	N	G	K	E	Y	E	A	K	V	I	G	T	D	P	T	S	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_UPI000401CD3A	I	E	V	V	L	D	D	K	R	K	F	E	A	R	V	I	G	T	D	P	T	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_D7DWV4	V	T	V	T	L	K	D	G	R	T	F	D	G	K	V	L	G	T	D	P	V	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_Q30ZT6	V	S	V	N	S	A	K	G	E	P	F	E	A	T	V	V	G	T	D	S	E	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_A0A024IN79	V	T	V	K	L	P	D	R	R	E	F	Q	A	R	V	L	G	T	D	P	M	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_M5PEH3	L	T	V	S	L	S	D	G	R	E	F	E	G	K	L	V	G	K	D	S	L	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_R5QNK8	V	M	V	T	M	N	G	G	K	A	L	K	G	K	V	V	G	K	D	P	K	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_UPI0003792793	L	I	V	S	L	A	D	G	R	S	L	K	G	K	V	V	G	A	D	A	S	K	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F		
UniRef90_UPI0003731792	I	T	V	N	F	N	D	G	S	R	L	T	A	E	L	V	G	K	D	A	S	K	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F		
UniRef90_UPI000382DC5D	V	T	V	T	L	K	D	G	R	V	E	E	G	K	V	R	G	F	D	E	V	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_I4X2U9	I	E	V	T	L	S	D	G	S	K	V	E	A	T	V	I	G	T	D	P	W	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_E4TN08	L	E	V	V	L	H	D	N	R	S	Y	T	A	K	V	I	G	A	D	P	N	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_UPI000409E285	V	T	V	R	L	K	D	G	R	T	F	D	G	R	V	I	G	E	D	P	V	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_U5T6B9	I	T	V	A	F	N	D	G	R	E	I	S	A	E	L	V	I	G	E	D	P	E	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F		
UniRef90_L1KPW1	E	W	S	E	E	G	G	A	P	I	L	G	T	V	D	A	A	T	F	P	G	G	D	F	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_UPI00036CC4CB	I	T	V	T	T	S	D	R	K	V	E	P	A	S	L	V	G	Q	D	P	K	S	D	L	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F			
UniRef90_B3EE13	I	Y	I	R	T	S	D	N	R	K	I	E	A	K	I	V	I	G	T	D	P	K	T	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F		
UniRef90_UPI000364F9B8	V	K	V	A	L	S	D	G	R	E	F	T	S	K	V	L	I	G	K	D	E	T	L	D	V	A	V	L	E	I	S	S	D	N	V	D	K	V	A	S	F		
UniRef90_A8EWJ3	I	T	V	T	G	D	D																																				

[illegible]



UniRef90_E3DUC8	D	Q	G	T	V	E	M	N	V	L	130	Q	T	D	A	A	I	N	P	G	N	S	G	G	P	L	I	S	S	G	Q	V	V	G	V	I	N	S	L	K	V	S		
UniRef90_L0GZ59	E	N				Y	V	P	F	I		Q	T	D	V	A	I	N	P	G	N	S	G	G	P	L	F	F	N	D	G	Q	V	V	G	V	I	N	S	Q	I	S	R	
UniRef90_E2P148	P	N	E	S	Y	T	P	F	I			Q	T	D	V	A	I	N	P	G	N	S	G	G	P	L	F	F	N	K	G	Q	V	V	G	V	I	N	S	Q	I	S	R	
UniRef90_C7LV51	K	Q	G		T	F	T	D	F	I		Q	T	D	A	A	I	N	P	G	N	S	G	G	P	L	F	M	N	A	G	E	L	V	G	I	N	T	A	I	Y	A		
UniRef90_UPI00036EB445				E	T	Y	V	P	F	I		Q	T	D	V	P	I	N	P	G	N	S	G	G	P	L	F	F	N	M	G	E	V	V	G	I	N	T	Q	I	S	R		
UniRef90_B8FZQ6	S	G	E	S	T	L	Y	N	M	L		Q	T	D	A	A	I	N	P	G	N	S	G	G	P	L	F	V	N	S	G	E	I	I	G	I	N	S	A	K	Y	A		
UniRef90_E1VHD6	S	N	I	S	N	F	V	D	F	I		Q	T	D	A	A	I	N	P	G	N	S	G	G	A	L	V	V	N	A	G	D	L	I	G	I	N	T	A	I	S	Q		
UniRef90_B5JX04	L	P	N	E	N	Y	V	P	F	I		Q	T	D	V	A	I	N	P	G	N	S	G	G	P	L	F	F	N	D	G	E	V	V	G	V	I	N	S	Q	I	S	R	
UniRef90_X2HAE5	E	N			Y	T	P	F	I			Q	T	D	V	A	I	N	P	G	N	S	G	G	P	L	F	F	N	K	G	Q	V	V	G	V	I	N	S	Q	I	S	R	
UniRef90_F4GXH8	D	T	G	D	Y	L	P	F	I			Q	T	D	V	A	I	N	P	G	N	S	G	G	P	L	I	F	N	D	A	G	Q	V	V	G	V	I	N	S	I	I	S	Q
UniRef90_UPI0004715D16	G	P			Y	D	D	F	I			Q	T	D	A	P	I	N	K	G	N	S	G	G	P	L	F	F	N	D	G	N	V	I	G	V	I	N	T	A	I	S	P	
UniRef90_D0LRW9	V	T	E	R	T	I	Y	D	V	I		Q	T	D	A	A	I	N	P	G	N	S	G	G	P	L	F	L	S	A	G	L	L	I	G	V	I	N	T	A	I	S	P	
UniRef90_U2AE12	G	T	G		T	V	S	G	L	A		R	G	S	A			E	G	D	S	G	G	S	V	V	I	S	G	D	Q	A	Q	G	V	I	N	T	S	G	R	V	K	
UniRef90_C5CSF1	D	T	G	D	L	V	P	L	I			Q	T	D	V	A	I	N	P	G	N	S	G	G	P	L	F	V	I	N	R	G	E	V	V	G	I	N	S	Q	I	S	A	
UniRef90_UPI000427D55C	A	Q	Q	Q	Y	V	P	F	I			Q	T	D	V	A	I	N	P	G	N	S	G	G	P	L	L	L	N	T	H	G	E	V	V	G	I	N	S	Q	I	S	A	
UniRef90_F4A4B1	E	G	Q	N			Q	N	F	I		Q	T	D	A	A	I	N	P	G	N	S	G	G	A	L	V	V	N	T	Q	G	Q	V	I	G	I	N	S	A	K	I	G	
UniRef90_UPI0002886F59			R	E	T	S	V	P	F	I		Q	T	D	V	A	L	I	N	P	G	N	S	G	G	P	L	F	F	N	Q	G	E	V	I	G	I	N	S	R	I	S	G	
UniRef90_UPI00036D1857	G	P			Y	D	N	Y	I			Q	T	D	A	A	I																											

UniRef90\_E3DUC8 E N G V E S L G F A I P S N D V 180  
UniRef90\_L0GZ59 T G G F M G L S F A I P I D V A M D  
UniRef90\_E2P148 S G G F M G L S F A I P I D V A M N  
UniRef90\_C7LVS1 E A E G I G F A I P I N K A  
UniRef90\_UPI00036EB445 S G G Y Q G V S F A I P I D V A M E A  
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UniRef90\_B5JX04 T G G Y M G L S F A V P I D V A M D  
UniRef90\_X2HAE5 S G G F M G L S F A I P I D V A M N  
UniRef90\_F4GXH8 S G G F M G L S L A I P I D E A M R  
UniRef90\_UPI0004715D16 S G G S V G I G F S I P S N E A  
UniRef90\_D0LRW9 S G A Y A G I G F A V P V D T V  
UniRef90\_U2AE12 D C N G G S F V Y Q P V N P I L S A Y G L S L  
UniRef90\_C5CSF1 S G G Y M G I S F S I P I D E A I L R  
UniRef90\_UPI000427D55C S G G Y M G V S F A I P I D L A M G A  
UniRef90\_F4A4B1 G S Q V E G L G F A I P I N A V  
UniRef90\_UPI0002886F59 T G G Y M G L S F S L P L D A M D I Y  
UniRef90\_UPI00036D1857 S G G S I G I G F A T P A A T V M  
UniRef90\_UPI0003084151 S G G S M G I G F A I P I S T A  
UniRef90\_A6C1C4 S G G Y D G V G F A I P V N M A  
UniRef90\_D5DMF5 Q E A V E G I G L A I P I N M A L E R Y G  
UniRef90\_I0ETE5 T G G N H G I G F A I P S N M V  
UniRef90\_K8YVK1 S G A S A G I G F A I P V D T  
UniRef90\_UPI00035D77FB T G G F M G L S F A I P I D V A M R  
UniRef90\_UPI00047B2C20 T N A V E G I G L A I P I N Y A  
UniRef90\_S6FG70 S G G N A G I A F A I P S N M A N S  
UniRef90\_A4A2C2 R V G A Q G I G F A I P V D T V M D  
UniRef90\_C2Y313 Q Q A V E G L G F A I P I N I A  
UniRef90\_UPI0002896624 G N G V E G M G F S I P I D L I  
UniRef90\_UPI00028A2965 T G G S Q G V G F A I P M S T I L D D L  
UniRef90\_F4GIN4 S S G A Q G I S F A I P I D T A I A A  
UniRef90\_UPI0003614C3B S G G S Q G I G F A L P V N I V  
UniRef90\_Q1LKM7 S G G Y M G I S F A T P I D E A M R  
UniRef90\_UPI00047EFD6F S G A S A G I G F A V P V D T V M R  
UniRef90\_W0V311 S G G Y N G L S F A V P I D E A M R  
UniRef90\_H1HM53 T G S Y S G Y G F A I P V V D D L K Q Y G  
UniRef90\_L1QJ72 D G A E G I G F A I P I N D V  
UniRef90\_UPI000365815E S G G S V G I G F A I P A N  
UniRef90\_UPI000401CD3A T G Q F A G Y S F A V P V V D D L L K Y G  
UniRef90\_D7DWW4 G A Q G L G F A I P I N T V  
UniRef90\_Q30ZT6 S G Q G I G F A V P S N L A  
UniRef90\_A0A024IN79 T G G Y Q G L A F S I P I D V A L K  
UniRef90\_M5PEH3 E T G V E G I G F A I P S N D V  
UniRef90\_R5QNK8 S G G S V G I A F A V P S N M A  
UniRef90\_UPI0003792793 A S G V E G M G F A I P I N T V  
UniRef90\_UPI0003731792 S G G S I G I G F S V P S T I A  
UniRef90\_UPI000382DC5D D A M G I G F A I P I N K A  
UniRef90\_I4X2U9 T S S V E G I G F S I P I N S A M  
UniRef90\_E4TN08 P T G S A G Y S F A V P V N D L K E Y G V  
UniRef90\_UPI000409E285 G A Q G L G F A I P I S T A  
UniRef90\_U5T6B9 S G G N I G I G F A V P M N M A  
UniRef90\_L1KPW1 D C T V G E G T F F Q P V T T A L A A V G A T I  
UniRef90\_UPI00036CC4CB T G R F Q G Y S F A I P I N L V  
UniRef90\_B3EE13 T G G F E G I G F A V P S N M A Q K V L N  
UniRef90\_UPI000364F9B8 S G G S I G I G F A I P S N M V  
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[illegible]



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UniRef90\_G9EKX6 S G S S A G I G F A V P A S I A

UniRef90\_L0WAZ7 D G N W Q G I G F A T P V N S V

UniRef90\_R5A113 S S N A E G L G F A I P I N V A

UniRef90\_G0GCK1 T G G N V G L G F A I P I N M A

UniRef90\_UPI0004651D2E A G G N V G I G F A V P A N L V

UniRef90\_A0A021XAW5 G G G S N G V G F A I P A N M A

UniRef90\_UPI0003609A51 S G G S L G I G F A I P A N M A

UniRef90\_UPI00034CEF7B T G S Y A G Y S F A

UniRef90\_E8R1M3 T G F N Q G I G L A I P A S V V

UniRef90\_F8DFV6 Q T S V E G M G F A I P A N D V V N

UniRef90\_B5JNU7 D G A S I G I G F A V P V N L A

UniRef90\_C3XG52 T G G N H I G L G F A I P S E M V

UniRef90\_X1JEB4 A V G V E G M G Y A I S I N E A

UniRef90\_Q07XR5 D N G G N G I S F A I P I K L A

UniRef90\_I0KFM9 T G Y Y S G Y G F A V P V S L V

UniRef90\_C4UMQ6 G G G N I G I G F A I P S N M A

UniRef90\_R9PHZ9 N G G N I G I G F A I P S N M A

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UniRef90\_UPI00037302CF T G G F Q G L G F A I P S N N I V Q

UniRef90\_C0E9Y8 G A D Y E G I G F A I P M N D A L T K Y G

UniRef90\_C6Q0Q6 S A E G I G F A V P I N I V

UniRef90\_E2CP12 S G G S N G I G F A I P S N L A

UniRef90\_K8ZJA7 M A G N I G L G L A I P I N D V

UniRef90\_R5RFJ2 N T S V E G M G F A L P I N Q A M K

UniRef90\_UPI0003A00DA3 D V G V E G I G F A I P I S K A

UniRef90\_UPI0004661BB8 S T E V E G M G Y A I P I N L A

UniRef90\_A5GVF9 A G P G A G L G F A I P I N L A L

UniRef90\_S5DPN6 D V G A E G L G F A V P S N

UniRef90\_K6YGU2 N G G N V G I G F A I P S N Q A

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UniRef90\_UPI00042448DB T G A S V G I G F A I P I D T A E K

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UniRef90\_E8WZT1 A D Q S A G I G F A I P I N T A

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UniRef90\_E0RSE8 T G G S I G L G F A I P I N N V

UniRef90\_D3P7K0 T G G S V G I G F A I P S S L A

UniRef90\_S4G1H7 T A G S I G I G F A I P A N L V

UniRef90\_Q5WAI6 S G G A E G L G F A I P S S I V L E Q Y G

UniRef90\_R2SQX0 D I S V E G M G F A I P S N D V

UniRef90\_A5ETZ2 S G G N V G I G F A V S S N M A

UniRef90\_D8IGB4 D G T S E G M G F S I P S N E V V R V I N

UniRef90\_UPI00036419FA D A Q G I G F A I P T S T I

UniRef90\_K0DBT5 G T S V E G M G F A I P S D Q V V N

UniRef90\_K0K2F7 G S G T C T S Y F Y P I N R I L Q A E A F T L

UniRef90\_A6EAU5 T G T N E G Y G F A I P V N L A

UniRef90\_W5TVJ5 S G G S V G L G F A I P V D L V

UniRef90\_K2A7N7 D Q S G Q L I G F A I P I D A

UniRef90\_Q6S127 S G G D Q G V G F A V P S N L A

UniRef90\_C0XIM5 Q T S V E G M G F A I P S N E V

UniRef90\_R6SCM9 S T S V E G M G F A I P S N E V V S



	1	10	20	30	40
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UniRef90_S1QWX6			S E G S G V I Y G K H A Y I V T N N H V V D E G Q N A		
UniRef90_R5DI75			S A G T G Y V I R S D G V I L T G S H V V D D E A K E		
UniRef90_A9W921		G E R G A	G A G S G F I I S A D G Y V T N N H V V D D K A K T		
UniRef90_UPI00036B4984			S L G S G V I K G G K A R I I T N A H V V Q G S K H		
UniRef90_F5XXH4			L V G S G V V I V D K G V I L T N L H V V S R D A Q S		
UniRef90_D0ZBV8			L G S G V I I N A D G Y V L T N N H V V S R D A Q S		
UniRef90_UPI000374EFC1			G T G F V W D R D G H L V T N N H V V A N G G E		
UniRef90_U5ECY6			T G S G V I D G A G Y V V T N N H V V S M A A T		
UniRef90_UPI0004250114				F V I D K S G Y I M T N N H V V S L A A K	
UniRef90_D7FK95			T G S G F V W D D Q G N I V T N F H V I R E A Q S		
UniRef90_T0USH0			G S G V I D G K E A Y I V T N N H V V D D G A K K		
UniRef90_G9AIC3			G S G F F I S A D G Y A V T N N H V V D H A K S		
UniRef90_R7GMJ7		W Y G S Q V S S G A	G S G V I M S S D G Y I I T C A H V V S G A S T		
UniRef90_B1XYG7	V L G G A E V S Q G		A G S G F V W D N A G H V V T N F H V V K G A R R		
UniRef90_A9D3K3			S L G S G V I D A D E G I I T N N H V I E G A D D		
UniRef90_UPI00028806CB			L V G S G V V Y D K K G W V V T N Y H V L E E G D A		
UniRef90_K1JYD5			T L G S G V L V S S D G F V L T N Y H V V A S I Q G		
UniRef90_R7JXZ7				V A Q D D S N L Y I A T N N H V V Q N A T S	
UniRef90_R7MJJ1			T G T G I V M T A D G Y I I T N A H V I G K A V D		
UniRef90_E1IC92			S Q G S G F I Y D D Q G Y I V T N N H V V D A D A D T		
UniRef90_UPI0002001E0C			G S G I V I D A K G L V L T N A H V V D D G A D R		
UniRef90_F4H195			G S G V I I D D D G H V V T N N H V V A G A Q K		
UniRef90_E6UBU0			G S G I I L S T D G Y I V S N A H V V D K A K G		
UniRef90_I0QZD9		G D S T Q N Q L Q I R T	L G S G V I M N D K G Y I L T N K H V I N N A D Q		
UniRef90_M4XLF9			L G S G V I M S S D G Y I L T N R H V I E D A D Q		
UniRef90_Q1PW98			L G S G I I V D E R G Y I V T N N H V I S D Y S E		
UniRef90_A6C000			T G S G V I V R G E G Y I V T N R H V V R D G T S		
UniRef90_UPI0002375534			I G T G V V I V D K G V I L T N L H V V A G A D R		
UniRef90_C7XXI2			S E G S G V I S G G S A Y I V T N N H V V S G S N A		
UniRef90_UPI00034B3DC0			G S G L L L G R E G R I I T N A H V V E G A D G		
UniRef90_A4FN85			S E G T G V V L T A D G Y V L T N N H V V A D Q G E		
UniRef90_R0G2X6			S E G S G V I S G N T A Y I V T N N H V V S G S N S		
UniRef90_UPI00029A8613			G S G F I I T P D G F A V T N S H V V G G R T S		
UniRef90_Q2RKI5		G D Q F N T G Q V Q R A	L G S G F I I S S D G Y I L T N Q H V V E G A R Q		
UniRef90_UPI00020D9B9F	R S G T S S T G Q L S T A S		E G S G V I A N G Q A Y I A T N N H V I D G A S K		
UniRef90_D9UZY7	I A D G D A I S N G S S R C		L G S G F N V T R G G E P F L L T A G H C T N L G G T		
UniRef90_UPI0002196C8C			S E G S G V V D N G S A Y I V T N N H V V S G S S S		
UniRef90_UPI00040A74F9			G S G F I V S D D G Y I M T N H V V E G P A E Q		
UniRef90_W4Y9S5			S N G S G F I V S P D G L I L T N A H V V A G K Q S		
UniRef90_E2CM14			S Q G S G F F I S D D G Y V V T N H H V I D K G T E		
UniRef90_D0L8U8			T G S G F V I S P Q G Y I L T N N H V I S M A A T		
UniRef90_H2CBR0			G T G F V I S E D G Y V C H H V V A G A F D R		
UniRef90_I7KIS3			G S G V I D G D A Y V V T N N H V V D G G V T S		
UniRef90_I9WME4			T G T G F V W D G A G H V V T N T H V V A G N A A S		
UniRef90_S9R2S0			G S G W I W D G S G H V V T N A H V I A G A S A		
UniRef90_T0HWU1			S L G S G F I I S A D G Y I V T N N H V I G E I E S		
UniRef90_F7ZYY3			L G S G V L I D D Q G H I V T N N H V V A G A D T		
UniRef90_UPI00035CDBA4		G D A F G Q P S E R S S	L G S G V I V S P E G I V V T N T H V I R G R T E		
UniRef90_H3KH35			L G S G V I V S K D G H V L T N Y H V V E E A P N		
UniRef90_U1H4S3			G S G F F I S A D G Y A V T N N H V V D G A D K		
UniRef90_F3ZYE1				D G Y I V T N N H V V E G A D S	
UniRef90_E8PQ79			T G S G F F V D L K G Y I L T N Y H V V Q G A E R		
UniRef90_K2EKT7			G S G F I I T S D G M I I T N K H V V T D K D E		
UniRef90_D4W996			G S G I I Y G D T A Y I V T N Q H V V T S G D Y		
UniRef90_UPI0002DA6B69			G S G I I V G K N Y L I A T N Y H V V E G A D T		
UniRef90_R6N7L4			G S G I I S E D G Y I L T N N H V I A E A T K		
UniRef90_UPI0003684DE1			G S G V I D G D S A Y L V T N T H V I E G A K Q		
UniRef90_UPI0003739171			T G S G F I I R S N G L I L T N A H V V G G A D T		
UniRef90_F8IFW2	V S G G K P T S S D A E E D		I G T G F L I D H N G D L L T N A H V V G S A T T		
UniRef90_R7HUB4				I S D D E L I V T N N H V I S D A K K	
UniRef90_B3DVQ7			S L G S G I I L S S D G N I L T N A H V L K N A R E		
UniRef90_K1YPR2			V G S G V V N A E K G L I V T N A H V V Q D Q K A		
UniRef90_R6P0N9			A G S G V I I S E D G Y I V T N N H V I D G A E K		
UniRef90_U1EG59			S E G S G V I D G N T A Y V V T N N H V V D G Q Q G		
UniRef90_I4YVA6			G S G V L I S P D G L L T N S H V V M Q G G R E		
UniRef90_F7UZC7			S L G S G V V L T Q D G Y I I T N N H V V E G G D A		
UniRef90_W4VC24			V G S G V I V T P N G Y I L T N H H V A G G K S K		
UniRef90_UPI0004238A97			I G T G F V F D P R G Y I L T N E H V V H G A S Q		
UniRef90_UPI00030495F1			I G S G V I L N R Q G D I V T N Y H V V A N A H A		
UniRef90_A9CJM8			G S G F F I S E D G Y V V T N N H V V D D G S A		
UniRef90_A0A014NNM0			T L G S G V I M D N R G Y I L T N R H V I N D A D Q		
UniRef90_K8PMV9			I G S G V V V G D S I Y I F T N A H V V D Q D E K		
UniRef90_K0JRX7		G A N V A G	V G S G V V I E G G Y I L T N D H V V A P A A K		
UniRef90_T1ACM8			L G S G V I I N A R G Y V L T N D H V I R H A T K		
UniRef90_G2T444		G G T Q T Q Q S T S C	G S I I V Q D A D N L Y I A T N N H V V E G A D S		
UniRef90_UPI0002FAD745			L G S G V I V S D K G Y I I T N F H V V A Q A D Q		
UniRef90_R5RLE0				V A Q D S K N I Y I A T N N H V V G T A D A N S	
UniRef90_UPI0001DD0EE6	G G Q P T T R E G Q S		L G S G F I V S A D G Y V V T N N H V V G T V I E		
UniRef90_B4R7W8	G G L P G F A V P V Q R G		A G S G F I I S A D G Y I V T N N H V V E G A Q E		
UniRef90_UPI0003787522			L G S G V I M S A R G F V L T N Y H V I A D A D Q		
UniRef90_W9FVX8	I Y P G M T F N N T T R W C		S V G Y G A R D S A K Q Y L V T A G H C V T N T L		
UniRef90_R7N7L1			S S G S G I I V G S E L L I V T N Y H V V E S A D T		
UniRef90_T0F9G0				D G F L A T N S H V I S G A K K	
UniRef90_A0A037NU31			V G S G V V Y G D T L Y I V T N A H V V I S G D K E N		
UniRef90_UPI000248CAF7		G G A V G	L G S G V I A G D Q V R I V T N N H V V E G F Q Q		
UniRef90_R6LUH9			S S G T G F I I G S E L L I A T N N H V I D G A K T		
UniRef90_A3WPY9			L G S G V I I D A D G Y V V T N N H V I D D A S E		
UniRef90_UPI0002E201F5			L G S G V I I D K Q G H I V T N Y H V I N G A E K		
UniRef90_UPI000329A179			L G S G I I I D A K G Y V L T N N H V V S D A Q K		
UniRef90_UPI00042B68EC			G S G V V W D E Q G H I V T N Y H V I G N S V N		
UniRef90_R6VDN3	Y Y Q G Q D E V S A		G T G F I V I G K N D I I A T N N H V V D G A K A		

		50	60	70	80																																								
UniRef90_UPI000423AAFO	V	S	L	T	M	D	G	K	T	V	P	A	T	V	V	G	T	D	K	K	T	D	L	A	V	L	L	K	I	K	D	G	A	A	Y	P	H	V	D	F					
UniRef90_S1QWX6	L	Q	V	L	L	A	D	G	T	K	V	D	A	S	E	V	G	T	D	S	Y	T	D	L	A	V	L	L	K	I	A	S	D	K	V	S	T	V	A	T	F				
UniRef90_R5DI75	I	D	V	T	T	S	D	G	K	V	I	D	A	S	E	V	G	T	D	S	Y	T	D	L	A	V	L	L	K	I	A	S	D	K	V	S	T	V	A	T	F				
UniRef90_A9W921	V	Q	V	T	L	D	D	N	R	T	L	D	A	K	V	I	G	K	D	G	N	N	D	I	A	V	L	L	K	I	T	E	S	P	K	S	R	L	R	T	I	A	F		
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UniRef90_F5XXH4	V	K	V	V	F	H	D	G	L	E	A	T	A	S	I	T	G	A	Q	P	E	N	D	L	A	V	L	L	K	I	A	S	D	K	V	S	T	V	A	T	F				
UniRef90_D0ZBV8	I	R	V	Q	L	E	D	G	R	E	Y	S	A	R	L	I	G	R	D	A	A	S	D	I	A	V	L	L	K	I	Q	L	I	D	A	R	H	L	T	A	I	P	L		
UniRef90_UPI000374EFC1	I	A	V	R	F	A	S	G	E	V	A	R	V	D	L	I	G	T	A	P	N	Y	D	L	A	V	L	L	K	I	R	S	V	R	E	L	T	P	A	Q	I	P	L		
UniRef90_U5ECY6	I	Q	V	Q	F	S	D	G	T	R	V	P	A	Q	L	I	V	G	R	D	P	K	T	D	L	A	V	L	L	K	I	K	V	E	A	K	N	L	T	V	A	N			
UniRef90_UPI0004250114	L	E	V	V	F	A	D	K	H	R	V	P	A	R	L	I	V	G	R	D	P	K	T	D	L	A	V	L	L	K	I	K	V	D	D	V	R	N	L	V	A	K	M		
UniRef90_D7FK95	A	Q	V	R	L	G	T	Q	R	T	F	Q	A	Q	V	K	G	Y	D	P	D	K	D	V	A	V	L	L	K	I	D	A	P	S	E	L	L	L	L	L	L	L	L		
UniRef90_T0USH0	L	E	V	M	L	S	D	G	S	K	I	T	G	D	L	I	V	G	K	D	P	T	Y	S	D	L	A	V	L	L	K	I	V	S	S	D	K	I	S	T	V	A	E	F	
UniRef90_G9AIC3	L	E	V	M	T	N	D	G	R	S	Y	E	A	K	V	V	G	T	D	P	K	T	D	L	A	V	L	L	K	I	K	V	D	G	R	D	F	P	H	V	R	E	F		
UniRef90_R7GMJ7	I	K	V	T	T	S	D	N	K	T	Y	D	A	T	L	V	G	T	Y	S	D	N	D	I	A	V	L	L	K	I	N	A	T	N	L	K	P	A	T	F	L	L	L		
UniRef90_B1XYG7	V	F	V	Q	L	D	A	G	S	K	P	L	E	A	E	P	V	G	G	A	P	E	Y	D	L	A	V	L	L	K	I	R	L	K	R	V	P	A	N	L	L	L	L		
UniRef90_A9D3K3	L	E	V	N	F	A	D	G	S	K	L	E	A	E	L	V	G	A	D	P	E	Y	D	L	A	V	L	L	K	I	K	V	E	P	D	K	P	L	T	E	V	E	F		
UniRef90_UPI00028806CB	F	D	V	I	L	S	N	G	T	K	K	K	A	E	L	V	G	S	D	R	L	A	D	L	A	V	L	L	K	I	V	D	S	E	G	I	D	T	V	V	E	F	L		
UniRef90_K1JYD5	L	Y	V	G	L	P	D	S	G	Q	A	E	A	V	L	V	G	S	D	P	E	T	D	L	A	V	L	L	K	I	S	G	E	S	G	L	P	F	I	A	T	L	L		
UniRef90_R7JXZ7	V	S	V	K	F	N	D	S	T	Y	T	A	S	V	K	V	G	T	D	T	D	S	D	L	A	V	L	L	K	I	P	M	K	D	L	I	K	V	A	T	L	L	L		
UniRef90_R7MJJ1	V	S	V	V	F	S	D	K	S	E	L	E	A	K	I	V	G	Y	D	T	E	S	D	I	A	V	L	L	K	I	K	V	D	A	D	N	L	T	P	A	T	F	L		
UniRef90_E1IC92	L	Q	V	R	F	Y	D	G	T	S	M	A	R	L	I	V	G	T	D	P	D	S	D	L	A	V	L	L	K	I	V	A	E	L	L	L	L	L	L	L	L	L	L		
UniRef90_UPI0002001E0C	L	V	E	V	S	L	P	D	G	R	E	L	E	G	R	V	L	G	A	D	A	I	T	D	L	A	V	L	L	K	I	P	V	G	A	G	V	K	A	A	P	L	L	L	
UniRef90_F4H195	V	Q	V	T	V	T	D	G	R	L	F	E	A	T	V	V	G	T	D	P	T	T	D	L	A	V	L	L	K	I	R	I	E	D	A	P	D	D	L	L	L	L	L	L	
UniRef90_E6UBU0	I	K	A	V	L	S	D	G	R	E	Y	A	A	E	L	V	I	G	S	D	S	P	R	T	D	L	A	V	L	L	K	I	P	A	T	D	L	I	P	A	E	L	L	L	
UniRef90_I0QZD9	I	I	V	A	L	Q	D	G	R	V	F	D	A	L	L	V	G	S	D	S	L	T	D	L	A	V	L	L	K	I	D	A	T	N	L	P	V	I	L	L	L	L	L		
UniRef90_M4XLF9	I	I	V	A	L	Q	N	G	A	S	T	N	V	K	L	V	G	D	S	L	T	D	L	A	V	L	L	K	I	E	G	E	N	L	P	T	I	P	Q	N	L	L	L		
UniRef90_Q1PW98	I	T	V	V	T	Y	N	E	E	Q	Y	H	D	T	L	I	G	D	P	N	T	D	L	A	V	L	L	K	I	I	D	G	E	G	F	M	P	A	L	L	L	L	L		
UniRef90_A6C000	I	S	I	S	L	H	D	G	R	V	I	H	P	Q	K	W	E	D	K	D	T	D	L	A	V	L	L	K	I	I	G	I	T	D	V	T	P	A	D	W	L	L	L		
UniRef90_UPI0002375534	I	A	I	T	F	H	D	G	L	E	T	T	A	S	I	T	G	A	Q	P	E	N	D	L	A	V	L	L	K	I	Q	I	S	A	A	N	V	K	T	V	A	S	F		
UniRef90_C7XXI2	L	K	V	I	M	S	N	G	K	E	V	S	A	K	I	V	G	T	D	S	T	T	D	L	A	V	L	L	K	I	R	I	S	A	A	G	N	W	S	T	P	L	L	L	L
UniRef90_UPI00034B3DC0	V	E	V	A	L	R	D	G	Q	I	V	A	G	T	V	V	G	T	D	R	V	T	D	L	A	V	L	L	K	I	Q	I	S	A	A	G	N	W	S	T	P	L	L	L	L
UniRef90_A4FN85	I	T	V	T	L	S	D	G	R	K	T	S	A	K	V	V	G	T	A	P	S	Y	D	L	A	V	L	L	K	I	L	D	Q	V	D	G	L	V	P	A	Q	L	L	L	
UniRef90_R0G2X6	L	E	V	I	M	S	N	G	K	K	L	P	A	K	I	V	G	T	D	S	V	T	D	L	A	V	L	L	K	I	N	S	A	P	V	T	T	V	A	S	F	L	L	L	
UniRef90_UPI00029A8613	L	V	A	L	T	T	D	G	R	L	A	C	A	K	V	V	G	T	D	S	P	S	T	D	L	A	V	L	L	K	I	R	L	A	G	R	D	L	P	Y	V	P	L	L	L
UniRef90_Q2RKI5	V	K	V	T	I	V	G	D	K	P	L	N	A	Q	L	V	I	G	A	D	S	S	L	D	L	A	V	L	L	K	I	V	D	A	G	K	P	L	P	Y	L	A	L	L	
UniRef90_UPI00020D9B9F	I	Q	V	L	L	H	N	G	K	L	D	A	T	L	V	V	G	H	D	A	M	T	D	L	A	V	L	L	K	I	D	A	A	N	I	S	T	V	A	S	F	L	L	L	
UniRef90_D9UZY7	W	S	G	D	D	V	S	G	A	E	I	L	V	E	S	D	C	H	A	V	T	D	L	A	V	L	L	K	I	T	R	P	N	G	T	G	P	G	E	I	N	T	L	L	
UniRef90_UPI0002196C8C	L	E	V	V	L	S	N	G	Q	K	K	E	A	K	L	V	V	G	H	D	A	V	T	D	L	A	V	L	L	K	I	I	N	G	N	G	V	N	R	V	A	N	F	L	L
UniRef90_UPI00040A74F9	L	E	V	L	F	N	D	G	E	V	A	T	A	D	V	V	G	S	D	P	D	S	D	V	L	A	V	L	L	K	I	D	G	E	D	H	P	A	M	V	L	L	L		
UniRef90_W4Y9S5	V	K	V	K	L	Y	D	G	R	L	V	D	A	G	K	V	V	A	V	D	P	V	S	D	L	A	V	L	L	K	I	D	T	K	D	P	L	P	V	M	R	M	L	L	
UniRef90_E2CM14	F	T	V	I	G	H	D	G	K	E	Y	E	A	R	L	I	G	A	D	A	R	T	D	L	A	V	L	L	K	I	D	T	D	E	E	F	T	Y	V	K	F	L	L		
UniRef90_D0L8U8	L	E	V	V	F	F	D	R	Q	R	E	V	P	A	R	V	V	G	S	D	A	P	K	T	D	L	A	V	L	L	K	I	V	D	N	V	A	N	L	V	V	A	K	L	
UniRef90_H2CBR0	V	R	V	R	I	H	E	R	E	Y	E	A	K	I	V	V	G	S	D	A	L	T	D	I	A	V	L	L	K	I	E	G	A	K	G	L	K	P	V	I	Q	F	L	L	
UniRef90_I7KIS3	L	E	V	M	L	S	N	G	D	K	V	K	G	T	L	V	G	K	D	A	Y	S	D	L	A	V	L	L	K	I	P	S	K	E	V	T	K	V	A	E	F	L	L	L	
UniRef90_I9WME4	V	S	V	R	M	S	D	G	E	V	V	S	A	T	L	V	G	L	A	P	S	Y	D	L	A	V	L	L	K	I	R	L	G	R	V	T	K	M	P	P	P	L	L	L	
UniRef90_S9R2S0	A	L	V	T	L	A	D	G	R	S	F	D	A	R	L	V	G	A	D	P	R	H	D	L	A	V	L	L	K	I	R	I	E	G	E	D	L	P	A	P	L	T	L	L	
UniRef90_T0HWU1	I	T	V	I	M	P	D	G	T	E	Y	P	A	K	L	I	G	K	D	A	Q	S	D	L	A	V	L	L	K	I	S	A	N	K	A	L	P	F	V	K	F	L	L		
UniRef90_F7ZY33	V	A	V	T	L	T	D	G	R	I	F	S	A	D	V	V	T	G	D	P	T	T	D	L	A	V	L	L	K	I	R	L	V	D	L	L	L	L	L	L	L	L	L		
UniRef90_UPI00035CDBA4	I	R	I	A	L	A	D	K	R	E	F	D	A	K	V	L	T	Q	D	D	K	T	D	I	A	V	L	L	K	I	R	I	E	N	G	D	H	L	L	L	L	L	L		
UniRef90_H3KH35	L	H	V	A	L	P	D	G	R	T	F	E	A	T	L	A	G	G	D	A	E	T	D	L	A	V	L	L	K	I	V	I	K	G	E	D	L	P	V	I	L	L	L		
UniRef90_U1H4S3	V	E	V	T	T	D	D	G	K	T	F	S	A	K	I	V	G	T	D	P	R	T	D	L	A	V	L	L	K	I	K	V	E	G	G	S	N	F	Q	F	A	K	L	L	
UniRef90_F3ZYE1	V	T	V	L	L	G	G	E	V	P	A	K	I	V	V	G	T	D	R	D	S	D	L	A	V	L	L	K	I	K	V	E	D	K	N										

	90	100	110	120
UniRef90_UPI000423AAFO	A T	A T P R V I	G E W V I A V	G N P F G V T A G I V
UniRef90_S1QWX6	G D S D S L K V	G P A V I	A I G N P F G V T A G I V	S S G L V N S R G R D I G A
UniRef90_R5D175	G D S	S D P A V I	G Q K V L A I	G N P F G V T A G I V
UniRef90_A9W921	G K S	A P R V I	G D W V V A I	G N P F G V T A G I V
UniRef90_UPI00036B4984	G D S T K L R E G E T V I A	G L G N P L	G N F S D S L G T A G I V	S S G L V N S R G R D I G A
UniRef90_F5XXH4	I A A T M R S T A D L A P	G D K V L A V	G F S D F G L T A G I V	S S G L V N S R G R D I G A
UniRef90_D0ZBV8	A D S D K L R V G D F A V	A V	G N P F G L T A G I V	S S G L V N S R G R D I G A
UniRef90_UPI000374EFC1	V A L G S S T D L K V I	G Q S A F A I	G N P F G L T A G I V	S S G L V N S R G R D I G A
UniRef90_U5ECY6	L G K S A D	L K V I	G D D V L A V	G S P L G V T S G I V
UniRef90_UPI0004250114	G D S D	D L Q V I	G Q E V I A F	G S P L G V T S G I V
UniRef90_T7FK95	R P I A L G V S N T	L K V I	G Q L A L A I	G N P F G L T A G I V
UniRef90_D0USH0	A D S N	S L T V I	G E K A I A I	G S P L G V T A G I V
UniRef90_G9AIC3	D	Q R P R V	G N W V I A I	G N P Y G V T A G I V
UniRef90_R7GMJ7	A N S D K L V I Q Q S T Y A	V G N P E	E G T F S D S I T S G I V	S S G L V N S R G R D I G A
UniRef90_B1XYG7	R P V P L G S S R D L R I	G Q T V Y A I	G N P F G L T A G I V	S S G L V N S R G R D I G A
UniRef90_A9D3K3	G D S D R M R I G D W V M A	I G N P F G	L G G T V T A G I V	S S G L V N S R G R D I G A
UniRef90_UPI00028806CB	G D S D S L K A	G Q T A I A I	G N P L G V T A G I V	S S G L V N S R G R D I G A
UniRef90_K1JYD5	G D	T S K L K V	G Q S V L A I	G N P F T V T A G I V
UniRef90_R7JXZ7	G D S T K V K I G E	Q S I A I G N	A L G Y G T S V T A G I V	S S G L V N S R G R D I G A
UniRef90_R7MJJ1	G N S D	E L E V I	G E L V I A I	G N P L G V T S G I V
UniRef90_E1IC92	A P L V L A D S R G V A V	G Q M A V A I	G N P F G L T A G I V	S S G L V N S R G R D I G A
UniRef90_UPI0002001E0C	G D S E A L E V G D W A I	A L	G T P Y G L T A G I V	S S G L V N S R G R D I G A
UniRef90_F4H195	R A A A L G D S S K V V V	G Q S V M A V	G N P L G V T T G I V	S S G L V N S R G R D I G A
UniRef90_E6UBU0	C D S D Q V K L G E D V V	I G T P A	G Y R H S I T T K G V V	S S G L V N S R G R D I G A
UniRef90_I0QZD9	P I N A K R M P	R V	G D V V M A I	G N P F T V T A G I V
UniRef90_M4XLF9	P E R K	L Q V I	G D V V L A I	G N P L S I T T Q G I V
UniRef90_Q1PW98	R F G N P E E V	Q V I	G D W V I A I	G N P F F G F Q Q G I V
UniRef90_A6C000	G D S D K L D	I G H M V L A	M G S P F F G L T A G I V	S S G L V N S R G R D I G A
UniRef90_UPI0002375534	F A A P L R S T Q D L R P	G H V V A V	G F P F G L T A G I V	S S G L V N S R G R D I G A
UniRef90_C7XXI2	G N	S S N D I E A	G Q D V L A I	G S P M G V T K G I V
UniRef90_UPI00034B3DC0	P L G R S S V A V V	P G Q W A I A	G N P L G L D N G I V	S S G L V N S R G R D I G A
UniRef90_A4FN85	G	K S S A L K V I	G Q P V V A I	G S P L G V T S G I V
UniRef90_R0G2X6	G D S D N I K V G E T A L A	I G S L G S	E Y A T S L T T Q G I V	S S G L V N S R G R D I G A
UniRef90_UPI00029A8613	G D S Q L L R V G Q L V I	A M G S P L	G L Q S T V T S G I V	S S G L V N S R G R D I G A
UniRef90_Q2RKI5	G D T N K V R V G D W A V	A I G N S	P D G L D H T V T A G I V	S S G L V N S R G R D I G A
UniRef90_UPI00020D9B9F	A D S D K L N	V	Q T V L A I	G S P L G V T Q G I V
UniRef90_D9UZY7	G Q A I T A A A D P T V	G E Q M E K Q	G S T T G G S G E I V	S S G L V N S R G R D I G A
UniRef90_UPI0002196C8C	G N S D	D L K V	G Q T A L A I	G A P L L G L T A G I V
UniRef90_UPI00040A74F9	L A D S	D Q M A V	G D P V L A I	G A P L L G L T A G I V
UniRef90_W4Y9S5	G N S	S A A R P	G E W V I A	M G S P L S N G I V
UniRef90_E2CM14	A D	D A P H V	G E W V V A I	G N P F G V T A G I V
UniRef90_D0L8U8	G N S	G D L Q I	G E E V V A F	G S P L G L N S G I V
UniRef90_H2CBR0	G D S S K V Q V G D W A V	A I G N	P L G L N S G I V	S S G L V N S R G R D I G A
UniRef90_I7KIS3	G D S S K L T V G E P A I	A I G S L G S	E Y A N S A T E G I V	S S G L V N S R G R D I G A
UniRef90_I9WME4	L A I G S	S E D L K V	G Q S T F A I	G N P F G L T D T G I V
UniRef90_S9R2S0	A P	K P P A R V	G S R V L A I	G N P F F G L T A G I V
UniRef90_T0HWU1	G D S	S K A R V	G D W V L A I	G N P F G V T A G I V
UniRef90_F7ZYY3	S P A A L G V I S A D V E V	G E S V M A V	G N P L G L Q N G I V	S S G L V N S R G R D I G A
UniRef90_UPI00035CDBA4	P T L E L E D S D T L E V	G D M V L A I	G N P F F G V T S G I V	S S G L V N S R G R D I G A
UniRef90_H3KH35	E L G D S R E L K I	G Q V V L A I	G N P F T V T M G I V	S S G L V N S R G R D I G A
UniRef90_U1H4S3	S D T K	P R	G D W V L A V	G N P F G V T A G I V
UniRef90_F3ZYE1	G D S S K T Q T G E I V V	A I G N	P L G V T M G I V	S S G L V N S R G R D I G A
UniRef90_E8PQ79	G D S D	R V L V	G Q K A I A I	G N P F G L E F T V T A G I V
UniRef90_K2EKT7	G D S D A L K I G	Q T V I A	I G N S L G	E F S N T V S K G I V
UniRef90_D4W996	G S T E	D L K V	G Q T V I A I	G N P L G L N S G I V
UniRef90_UPI0002DA6B69	S V A K I G S S D D L K V	G E Q V I A I	G N A L G V T T G I V	S S G L V N S R G R D

UniRef90\_UPI000423AAFO G P Y D D F L 130 Q D A P V N R G N S 140 G G P T F N G G Q V V G V N T A I S P 150 160  
UniRef90\_S1QWX6 S G Q E V N I N A I Q T D A A I N P G N S G G P L I N A G Q V V G V N S T S S S  
UniRef90\_R5DI75 A K G R I Q T D A A I N P G N S G G P L L N A G Q V V G V N S Q S I Y N  
UniRef90\_A9W921 G P Y D D F L Q T D A A I N K G N S G G P T F N G G E V V G V N T A I S P  
UniRef90\_UPI00036B4984 G V Y D W E E E V I Q T D A A I N P G N S G G A L V N D G E V V G V N S M K V A  
UniRef90\_F5XXH4 P E G Q E M S N L I Q F D A A A N S G N S G G P L V T N K G E V V G V N T A I L N  
UniRef90\_D0ZBV8 L E G P E N F I Q T D A A I N S G N S G G A L V N K G E L I G V N T A I A P  
UniRef90\_UPI000374EFC1 H G G R E I A N V I Q T D A A I N P G N S G G P L L S A G R L I G V N T A I S P  
UniRef90\_U5ECY6 S D T N A V I D A V I Q T D A A I N P G N S G G A L V D D G R V V G V N T A I S E M  
UniRef90\_UPI0004250114 S D T D A V L N A I Q T D A A I N P G N S G G P L V D D G R V V G V N T A A G S M  
UniRef90\_D7FK95 P S G R P I S N V I Q T D A A I N P G N S G G P L L D S G R I I G M N T A I S P  
UniRef90\_T0USH0 Q N D N V S T N A I Q T D A A I N P G N S G G A L V N E G Q V I G V N S S K I S  
UniRef90\_G9AIC3 G P Y D D F I Q T D A A I N R G N S G G P A F D N G D V I G V N T A I S P  
UniRef90\_R7GMJ7 S S K T I S I S V I Q T D A A V S P G N S G G G L F N G G D L I G V N A K S S  
UniRef90\_B1XYG7 A N F R E V V G V I Q T D A A I N P G N S G G P L L S A G R L I G V N A I R S A  
UniRef90\_A9D3K3 G P Y D N F I Q T D A A I N R G N S G G P L F N N G E V I G V N T A I S P  
UniRef90\_UPI00028806CB G E Y E W E L N M I Q T D A A I N F G N S G G A L V N E G K V V G V N S M K V S  
UniRef90\_K1JYD5 L G L N S Y E D F I Q T D A A I N Q G N S G G A L V N T G E L I G V N T A I F S  
UniRef90\_R7JXZ7 A S E D V N M K L L Q T D A A I N P G N S G G A L V D D G K V I G V N S A K Y S  
UniRef90\_R7MJJ1 N E K Q M K L I Q T D A A I N S G N S G G P L L S C G Q V I G V N S A K S S  
UniRef90\_E1IC92 P S R E I L P N I I Q T D A A I N P G N S G G P L L N N G E V I G V N T A I A G  
UniRef90\_UPI0002001E0C G F S D K R L E L I Q T D A A I N P G N S G G P L L N D G E V V G V N T L V R  
UniRef90\_F4H195 S A Q D T V T N A I Q T D A A V P G N S G G P L F D A G R V I G V N S S I S Q  
UniRef90\_E6UBU0 E N S N R S V S C Q V D A A I N P G N S G G A M F N M G Q V I G V N T S S K L A  
UniRef90\_I0QZD9 P S G R Q N F L Q T D A A I N Q G N S G G A L V N S G E L I G V N T L S F D  
UniRef90\_M4XLF9 E S G R Q N F L Q T D V S I N Q G N S G G A L I N A G E L I G V N F G K N T  
UniRef90\_Q1PW98 A L P F L Y E D F F Q T D A A I N P G N S G G P L V N R G E V I G V N T A I A T  
UniRef90\_A6C000 G S G S E V Q N F L Q T D A A I N P G N S G G P L I D E G K I I G V N T A I S N  
UniRef90\_UPI0002375534 P E G R Q L S N L I Q F D A A A N P G N S G G P L V T D G E V V G V N T A I L N  
UniRef90\_C7XXI2 K S G A A A T S V I Q T D A A I N S G N S G G P L L N A G Q V I G V N S M K L A  
UniRef90\_UPI00034B3DC0 G I P D K R V T F I Q T D A A I N P G N S G G P L L N D G E V I G V N T A I  
UniRef90\_A4FN85 S G D N V V Y N G I Q T D A A I N P G N S G G P L V N D G Q V I G V N S S I G S  
UniRef90\_R0G2X6 G Q G T G E A T V I Q T D A A I N A G N S G G P L I N A G Q V I G V N S M K G S  
UniRef90\_UPI00029A8613 G D G R L I D N I I Q H A P I N P G N S G G P L V S R G R V V G V N T A I A  
UniRef90\_Q2RKI5 Q N R H Y E N L L Q T D A A I N P G N S G G P L L N K G E V I G V N T A V  
UniRef90\_UPI00020D9B9F E N G Q S Y G G V I Q T D A A I N P G N S G G P L L N A G Q V V G V N S M K S  
UniRef90\_D9UZY7 D V G V L N H E F G T T A Q T D H G D S G G P A Y D G S T G L G T L S G G D T  
UniRef90\_UPI0002196C8C A S T E N G Q Q V I Q T D A A I N P G N S G G P L L N A G Q V V G V N S M K S S  
UniRef90\_UPI00040A74F9 G E I E S V M A A I Q T D A A I N P G N S G G P L T D A G Q V I G V N T A T V S  
UniRef90\_W4Y9S5 L G L N K S I D Y I Q T D A A I N V G N S G G P L V N D G E A I G V N T M R V T  
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UniRef90\_UPI00037F3E9B F V L D R E G H I L T N N H V V E G G G T  
UniRef90\_UPI000372F278 S E G S G V I S G G Y A Y I L T N N H V V A D S D E  
UniRef90\_W0FE48 R S G V G S G I V L D D R G H I L T N N H V V A G A E R  
UniRef90\_UPI0003608D7C G T G L F L T P D G Y V L T N R H V V R G S R K  
UniRef90\_Q1DFJ8 S G V A E Q S T G T G F V L D K R G H I L T N N H V V Q P A E E  
UniRef90\_UPI000364B8F9 T G S G G I I S D D G Y I L T N N H V V D T A T S  
UniRef90\_R7A4V2 S N G S G G F I I E S N G L I V T N A H V V T N S A K  
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UniRef90\_UPI000405AD27 D G Q I L T N S H V V Q A A E Q  
UniRef90\_UPI000346DBB4 V G S G G I I L S P D G Y V L T N N H V V N G G A R  
UniRef90\_H5TRG7 T G T G F V L D G R G H I L T N N H V V E G S D T  
UniRef90\_D6EW44 I G S G G F V V S K A G Y V I T N D H V V E G S D T  
UniRef90\_R4LNZ9 S D G S V L S T G T G F V Y S K D G Y V L T N A H V V S S G N N  
UniRef90\_R6D745 G F Q S A G S G G V I D E S H G Y V V T N Q H V I A S A S K  
UniRef90\_J0VQR8 L G S G G V I I D E S G L I V T N Y H V I A N S Q E  
UniRef90\_A0A023HY65 T G T G V I T D A R G Y I L T N N H V I E G A T S  
UniRef90\_K0PV70 L L G G D S Y E G N G L R C S L G F N A V D A G A P V N I S A G H C D A S V A N  
UniRef90\_E9SYX6 S L G S G G V I G A D G L I L T N N H V I A S D G T  
UniRef90\_I0HAN4 V G T G F F I D N S G D I A T N N H V V N G Q S S  
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UniRef90\_Q2W8Q8 G S G G F V L R E D G Y I V T N Q H V I A A A G Q  
UniRef90\_UPI0003B34A3D S G A A E A G T G T G F V L D D R G H I L T N N H V V A A G G A  
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[illegible]

	90	100	110	120																																		
UniRef90_R6W8P5	K[V]A	L	G	N	S	D	Q	L	Q	V	G	E	S	V	I	A	I	G	N	A	L	G	Y	G	Q	S	V	I	T	S	G	I	V	S	A	T	G	R
UniRef90_V5BRK1		P	I	N	K	A	R	N	P	A	H	V	G	D	V	L	A	I	V	G	N	P	L	T	V	T	Q	G	I	L	S	A	T	G	R	V	S	L
UniRef90_E6S802		L	R	L	G	A	S	S	T	P	K	V	V	G	D	V	L	A	I	V	G	N	P	L	T	V	T	Q	G	I	L	S	A	T	G	R	V	S
UniRef90_C1FH34		P	L	G	K	S	S	T	L	L	V	G	Q	K	W	F	A	I	V	G	N	P	L	T	V	T	Q	G	I	L	S	A	T	G	R	V	S	
UniRef90_U1WHC8	T	P	I	E	L	G	D	S	D	L	R	P	G	E	F	V	V	A	I	V	G	N	P	L	T	V	T	Q	G	I	L	S	A	T	G	R	V	
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UniRef90_E0IFA9	P	T	V	Q	L	G	D	S	D	K	L	N	A	G	D	M	V	A	I	V	G	N	P	L	T	V	T	Q	G	I	L	S	A	T	G	R	V	
UniRef90_F7RZL1				V	N	E	S	Y	T	P	R	A	G	D	V	V	A	I	V	G	N	P	L	T	V	T	Q	G	I	L	S	A	T	G	R	V	S	
UniRef90_E8TP45	G	D	S	D	A	M	Q	P	Y	A	W	T	I	A	I	G	S	P	F	G	L	G	G	T	V	T	Q	G	I	L	S	A	T	G	R	V		
UniRef90_X1KMQ4				T	I	G	D	A	S	K	L	K	L	G	D	W	L	V	A	I	V	G	N	P	L	T	V	T	Q	G	I	L	S	A	T	G	R	V
UniRef90_C6LEC6	G	D	S	D	E	I	G	K	S	S	E	I	Q	V	Q	V	G	E	L	A	I	V	G	N	P	L	T	V	T	Q	G	I	L	S	A	T	G	R
UniRef90_E6UFR5				E	I	G	K	S	S	E	I	Q	V	Q	V	G	E	L	A	I	V	G	N	P	L	T	V	T	Q	G	I	L	S	A	T	G	R	V
UniRef90_U5WBA3				Q	L	G	D	S	D	S	I	A	V	G	D	P	V	L	A	F	G	S	P	L	T	V	T	Q	G	I	L	S	A	T	G	R	V	
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UniRef90_UPI0003739334	G	N	S	D																																		
UniRef90_V9GNG2				A	S	A	Q	E	A	I	V	G	E	T	V	L	A	I	V	G	N	P	L	T	V	T	Q	G	I	L	S	A	T	G	R	V	S	
UniRef90_W8C2G7				M	T	L	G	Q	S	S	T	L	R	S	G	E	W	V	V	A	I	V	G	N	P	L	T	V	T	Q	G	I	L	S	A	T	G	R
UniRef90_I0V4J1	G	R	S	D																																		
UniRef90_D7N564	G	D	S	S	T	L	Q	I	G	Q	T	A	I	A	G	N	I	D	I	A	I	V	G	N	P	L	T	V	T</									



[illegible]

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UniRef90\_V5BRK1 G E T P E G L G F A I P V E L A

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UniRef90\_C1FH34 S G A S A G V G F A L P V D N V

UniRef90\_G1WHC8 S G S S S G V G F A I P V N Y A I N

UniRef90\_UPI0003834F71 T A G I S F A I P S D K I

UniRef90\_E0IFA9 E S E A Q Q I G F A I P S S T

UniRef90\_F7RZL1 S R G S Q G I Y F A

UniRef90\_E8TP45 S G G S I G L G F A V P S R T A

UniRef90\_X1KMQ4

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UniRef90\_W8C2G7 T A G I S F A I P I D Y V

UniRef90\_I0V4J1 P S Q S G G I G F A I P I D Q A

UniRef90\_D7N564 S A E G L G F S I P I N T V

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UniRef90\_U2YUA3 S G T S A G V G F A V P A Q T V

UniRef90\_F0X1T9 G S V G I S F A I P A D V A

UniRef90\_K2FQGG A E G A N N I A F S I P I N T V K E A L N V

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UniRef90\_D9VXW5 Q S G S I G L G F A I P V N Q

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UniRef90\_F4LQ35 S G G S Q G L G F A I P I N N V

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UniRef90\_UPI000470EAF7 S P G G G

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UniRef90\_D9USW7 Q A G S V G L G F A I P V N Q A

UniRef90\_UPI000477C631 R D G N I G L G F A I T A D T V

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UniRef90_M0QER6			T G S G I V L S A D G Y V L T N Q H V V S A A N T		
UniRef90_R7WLC2			S T G S G V V I D G A G Y V V T N N H V I S A A A T		
UniRef90_UPI00046EC93C		T G G Q V Q	G L G S G A L Y D D Q G H V I T N N H V V A P A D T		
UniRef90_W1NQM7			T G S G F V W D K M G H I V T N N Y H V V A S K L A T		
UniRef90_J2DIK0			S L G S G F L I S A D G Y I V T N N H V V S A G D S		
UniRef90_R6NI28			S G T Y T Y I I T C A H V I S D G V K		
UniRef90_UPI00047579EE			T G S G F A I D Q Q G H V V T N A H V V E G A T D		
UniRef90_K3ZIK2			S L G S G T I I D P D G T I L T C A H V V A D F Q S		
UniRef90_A1SFZ1		S A E Y E G Q R G G A	T G S G F V L D R Q G H V I T N N H V V A D A D E		
UniRef90_C0XQ63			T G S G I I S A D G Y V L T N N H V V A E G A E		
UniRef90_E0TCS6			S L G S G F I I D P S G I V V T N N H V I K G A A V		
UniRef90_F5Z2J3			H L V T N N H V V G D V D P		
UniRef90_UPI000363B07B			G T G F Y I G S S G W L T N N Y H V I G G A Q S		
UniRef90_D8TNN1			G S G F V W D D K G H V V T N Y H V I R G A D E		
UniRef90_V6JU15			T L G S G V Y D D K G H I V T N A H V I R S E K T		
UniRef90_UPI00036487BC			F V L D K Q G H I L T N N H V V D P A G S		
UniRef90_M5UQL4			A G S G V V I A G D R W V L T N R H V I K G A D Q		
UniRef90_Q9LA06			S E G S G V I S G D A Y V V T N Y H V I A G N S S		
UniRef90_V9XKS3			G S G V V L S S D G L I L T N N H V V A G G A Q		
UniRef90_UPI0003755E47			T H G S G V I I R S N G W I V T N A H V V D G M Q N		
UniRef90_S3ANB1			G S G V I F D K D G N I V T N Y H V I E N C K		
UniRef90_Q176F7		G Q P I T V S N	G S G F I I E Q D G L I L T N A H V V K P N A M		
UniRef90_UPI00037BA867			G S G S I I S P D G L V L T N H V V A G T T T		
UniRef90_M5X1A6			T G S G F I W D K F G H I V T N Y H V I A K L A T		
UniRef90_R7Y0T9			I I L T S D G T I L T N N H V I A V A G E		
UniRef90_V9IRD8			G T G V I V Q S D G L I L T N A H V V K D M A Q		
UniRef90_C6D4T2			G T G V I M K A D G W I L T N A H V V K D L T N		
UniRef90_M3F9N2			G S G F L I N N Q G D I L T N G H V V L D A S Y		
UniRef90_UPI0003828CEE			T G T G I V L D T R G H I L T N N H V V Q P A G E		
UniRef90_UPI00032B05F7		P L F G R N R P V S	S S G S G F I T S E A G L I V T N A H V V S S S N A		
UniRef90_N0DXP4			S G T S E G T G S G W V L D D Q G H I V T N N H V V A D A A D		
UniRef90_H6LKH5			V G S G F I L T S D G Y I A T N Q H V V A S D G T S		
UniRef90_UPI00036A1E77			G S G G R R S T G S G V I R K D G L V V T N H V V A G K A T R		
UniRef90_A0A031JSG3			R I S A G S G V V D A T R G L V V T N H V V E N A R T		
UniRef90_UPI00035FC591			G S G F I T S A D G K V V T N Y H V I R G G D S		
UniRef90_H1Y7L6			A G S G F A V S A D G Y I V T N N H V I S G A D S		
UniRef90_E0RGU4		V A G G D R Y N L A H	G T G V I I R T D G W I V T N A H V I E G L G D		
UniRef90_D3VDG7			L G S G V I M S D K G Y I L T N K H V I N K A G S		
UniRef90_UPI00021957DD			S E G S G V V S N G T A D I V T N Y H V I E S S A K		
UniRef90_A6WC12		E I R T G S G	L G S G V V L D E E G N I V T N A H V V G T A T E		
UniRef90_UPI0002E30DF6			N G Q V D L G T G F F L T S S G E L V T N D H V I Y G A N H		
UniRef90_J2K2U3		T A G G E S	T G T G F V V T S S G E I V T N N H V V A G A R T		
UniRef90_UPI00035F3C04			A G S A V T F T D D G F L T S A H V V A G A D S		
UniRef90_Q9SEL7			T G S G F V W D K L G H I V T N Y H V I A K L A T		
UniRef90_R6YIN7			G S G F I D D Q A I Y I A T N N H V V E G S T E		
UniRef90_B9XRC3			L G S G F I I N E N G Y L I T N F H V I E G E T Q		
UniRef90_UPI0000E0E5CA			S S R E R T N L G S G V I M T Q D G Y I L T C H H V I N N A S S		
UniRef90_UPI0003A8C81D			S N G S G F L V S E D G Y I L T N A H V I T T D I N		
UniRef90_A7H8S5		R R G	L G S G V V L A P D G W I L T N A H V V A G G P G		
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UniRef90_I2B4N1			L G S G V I I D A K G Y V L T N N H V I S Q A N K		
UniRef90_I7GGA6			V G T G F V L S P N G E V L T N Y H V V Q G A N T		
UniRef90_X4ZS54			G S G V I L T S G G W I V T N A H V I Q S M Q K		
UniRef90_UPI0003785176			Y V V T N D H V V S A E D D G		
UniRef90_UPI00036D942A		N T R A G	L G S G I V Y D K Q G H I V T N A H V V G S F K T		
UniRef90_Q09BV8			L G S G F I I H P D G Y I L T S D H V V E G A S E		
UniRef90_W5W016			G S G I V V T S D G T I L T N N H V I A G G G Q		
UniRef90_UPI000360EDD8			T G T G F V Y D K Q G H I L T N N H V V A G A E		
UniRef90_UPI0003B5DEC5			G S G I L D E E G H V L T N T H V V G G A T E		
UniRef90_D3F3T2		T P T G A E G	L G S G F V I D A A G R I A T N A H V V R A A K T		
UniRef90_X8CNP5					
UniRef90_R5SAU6		D S Q L S D G L S C	G T G C I I D K S G V I L T S A H V V D V G N A		
UniRef90_A4YXM2			G S G F F I S R D G Y L L T N R H V V N D S K F		
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UniRef90_V6DHH8		E P Y K S P A Q A E S T	G S A F F I D K E G Y L M T N A H V V D Q A K S		
UniRef90_G5AKG0			G S G F I V S E D G L I V T N A H V V T N K H R		
UniRef90_A0A024YMH3			F V L T A D G E I A T N N H V V V D G A T Q		
UniRef90_D9WXS9		D S N A G S S T	G S G V I I T G D G E I V T N N H V V S G A S Q		
UniRef90_D5PFA5			G S G I V L S A D G L I L T N N H V V A A A A K		
UniRef90_A0A010DHJ0					
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UniRef90_UPI00030A9B93			L G S G F L F E N K G T V V T N A H V V A G Y T E		
UniRef90_E6PFP8			G S G F V Y D T K G D I V T N A H V V G N I T K		
UniRef90_H5XR87			G S A V V Y A D D G Y L L T N A H V V G R A R H		
UniRef90_S4MK82		D S S A G S A T	G S G V I I T S G G E V V T N N H V V S G A S Q		
UniRef90_I2GBE0			A G T G F L L T A D G Y F I T S N H V V Q E A D S		
UniRef90_P83105			G S G F I V S E D G L I L T N A H V V R N Q Q W		
UniRef90_D2QZF1			S T G T G F L I S E A G Y V M T N N H V I E G E G K		
UniRef90_I0HG12			I I R S D G Y I L T N N H V I S V A A E		
UniRef90_T1VSQ7			G S G V I L S S D G L I L T N N H V V G A Q G A Q		
UniRef90_UPI00031B18D8			F V Y D K E G H I L T N N H V V A N G S E		
UniRef90_UPI00031BC709			G S G S I V D A S G L I L T N A H V V G E E R V		
UniRef90_F4FAE6			T G S G F A V D S E Q H I L T N D H I L A K G G P		
UniRef90_UPI00016C42CB		D G G G C	G S G V L I D P E G Y A L T N F H V V Q T G P		
UniRef90_UPI00036E89B7			S T G S G F I I S D R G Y A V T S L H V V K G A E E		
UniRef90_L8TQX4			L G S G V V Y S E D G L V L T N E H V I R G N T R		
UniRef90_U1NIB9			N D N H V I T N A H V V G E A T T		
UniRef90_UPI0003685C68			F I Y D K Q G H I L T N N H V V A G G G K		
UniRef90_J9C1A0					
UniRef90_M0L4S5			D D H V V T N A H V V R D A D D		
UniRef90_M4K909			G S G S I F T N D G M I L T N N H V V G G G A K		

	50	60	70	80																																											
UniRef90_M0QER6	I	Q	V	T	S	D	G	A	T	H	T	A	T	V	T	G	A	S	P	S	Y	D	L	A	V	I	K	L	A	N	A	S	G	L	T	P	A	A	L								
UniRef90_R7WLC2	I	L	A	V	T	F	S	K	N	G	S	K	T	R	A	E	K	I	V	G	R	D	P	S	K	T	D	I	L	A	V	I	K	L	A	A	D	N	L	T	V	A	P	D	G	E	L
UniRef90_UPI00046EC93C	I	L	A	V	T	M	K	N	G	S	K	T	R	A	E	K	I	V	G	R	D	P	S	K	T	D	I	L	A	V	I	K	L	A	A	D	N	L	T	V	A	P	D	G	E	L	
UniRef90_W1NQM7	D	S	E	G	L	T	Q	R	K	C	K	V	F	E	G	K	L	I	G	F	D	A	A	A	T	D	L	L	A	V	L	K	V	D	E	P	K	K	P	L	P	D	G	E	L		
UniRef90_J2DIK0	I	T	V	T	L	T	N	K	E	E	Y	P	A	K	L	I	G	F	D	A	A	A	T	D	L	L	A	V	L	K	V	D	E	P	K	K	P	L	P	D	G	E	L				
UniRef90_R6NI28	I	K	V	Q	T	H	D	N	K	E	Y	D	A	D	V	V	G	F	D	A	K	R	T	D	I	L	A	V	L	K	R	I	K	V	T	G	L	K	A	A	E	K	F				
UniRef90_UPI00047579EE	V	S	L	V	T	L	S	N	G	R	S	V	D	A	R	I	I	G	V	D	A	D	N	D	I	L	A	V	L	K	V	L	S	G	N	E	P	K	K	P	L	P	D	G	E	L	
UniRef90_K3ZIK2	V	S	V	T	L	Q	D	G	R	E	F	E	A	V	V	L	N	A	D	R	H	S	D	I	L	A	V	L	K	S	K	T	P	L	P	A	A	R	L	L	L	L	L	L			
UniRef90_A1SZF1	I	Q	I	V	D	Q	D	G	N	R	Y	P	A	T	V	V	G	R	S	P	V	Y	D	I	L	A	V	L	Y	S	P	K	A	K	G	L	T	P	A	A	R	L	L				
UniRef90_C0XQ63	I	V	A	V	T	L	N	D	G	T	H	P	A	T	Y	V	A	S	D	V	N	T	D	V	L	A	V	L	K	I	E	G	V	E	N	L	P	V	I	R	F	F	F				
UniRef90_E0TCS6	I	T	V	T	L	E	N	G	A	E	Y	K	A	V	P	R	G	V	D	L	E	T	D	L	A	V	L	K	R	V	D	R	G	N	L	E	P	L	R	L	L	L	L				
UniRef90_F5Z2J3	I	R	V	R	F	A	G	A	P	E	T	Q	A	L	V	V	G	S	D	P	L	T	D	I	L	A	V	L	K	R	V	D	R	A	G	N	L	E	P	L	R	L	L				
UniRef90_UPI000363B07B	V	R	V	R	L	P	T	G	R	E	L	V	A	Q	V	A	R	A	D	A	A	R	K	D	I	L	A	V	L	K	T	E	A	P	G	V	R	P	M	P	L	L	L	L			
UniRef90_D8TNN1	V	K	V	T	L	L	D	Q	S	T	Y	S	A	R	V	V	G	D	A	A	D	K	D	V	L	A	V	L	K	T	Q	G	L	P	S	E	K	L	R	H	L	L	L				
UniRef90_V6JU15	F	K	V	T	T	A	N	N	E	E	L	T	A	R	L	V	Y	S	Y	P	E	Q	D	L	A	V	I	K	L	D	G	L	P	S	E	K	V	P	A	G	L	L	L				
UniRef90_UPI00036487BC	I	S	V	T	F	S	D	G	E	T	A	R	A	R	L	V	G	K	D	A	S	G	Y	T	D	L	A	V	V	Q	V	T	G	V	S	N	L	K	P	L	P	L	L	L			
UniRef90_M5UQL4	I	V	M	R	T	S	D	G	R	R	W	A	P	K	I	L	M	D	A	S	T	D	V	L	A	V	I	M	K	L	S	S	E	H	V												



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UniRef90\_W1NQM7  
UniRef90\_J2DIK0  
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UniRef90\_E0TCS6  
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UniRef90\_U1NIB9  
UniRef90\_UPI0003685C68  
UniRef90\_J9C1A0  
UniRef90\_M0L4S5  
UniRef90\_M4K909

	130	140	150	160
UniRef90_M0QER6	G G G V T V Y N G L	Q T D T P I	N P G N S S G G P L V N N G Q V V V	G V I N S A A S G
UniRef90_R7WLC2	S G G I G T V I D A I	Q T D A A I	N H G N S S G G A L V N D A G R V V	G V I N T A M S D
UniRef90_UPI00046EC93C	E N I G T I T N A I	Q T D A A I	N P G N S S G G A L V N D A G R F I	G V I N T A A A S
UniRef90_W1NQM7	P S G R P I R G A I	Q T D A A I	N A G N S S G G P L I D S G H V I	G V I N T A R R G
UniRef90_J2DIK0	G T G Y T Y D K F I	Q T D A S I	N Q G N S S G G M F D R G N Q V V I	G V I N S Q I S P
UniRef90_R6NI28	E I G Y T M K C I	Q H S A A I	N P G N S S G G M L V N A G Q V V I	G V I N S Q K I A
UniRef90_UPI00047579EE	G D N G N R Q T A I	Q T D A A I	N P G N S S G G P L V N A G Q V V I	G V I N T A A T A T
UniRef90_K3ZIK2	G L G G L R R E Y L	Q T D C A I	N Q G N S S G G P L V N D G E I V I	G V I N V M K V R
UniRef90_A1SFZ1	G D D S S Y I N A V	Q T D A A I	N P G N S S G G P L V N D R G Q V V I	G V I N S A I A T
UniRef90_C0XQ63	A Q G G G E S S L I	Q T D A A I	N P G N S S G G P L V N D R G N L V I	G V M N S V I A G
UniRef90_E0TCS6	G L Y D D F L I	Q T D A A I	N Q G N S S G G P L F N R G E V V I	G V I N S I I S Q
UniRef90_F5Z2J3	A D G R S V Y D V I	Q T D C A I	N P G N S S G G P L V N D D G H V I	G V I N T M G I A
UniRef90_UPI000363B07B	G G V R M V R D F L	Q S D V A I	L P G S S G G P L L D S G Q V V I	G V I T V A G L G
UniRef90_D8TNN1	S T V T I K G L V	Q T D A A I	N P G N S S G G V L L S A G R V V I	G I N T A I A D
UniRef90_V6JU15	G T G A T I A N M V	Q T D A A I	N P G N S S G G A L V N D G Q V V I	G I N T L A A G
UniRef90_UPI00036487BC	G G D I S Y V D A L	Q T D A P I	N P G N S S G G P L V N S K A R V I	G I N S A I G A
UniRef90_M5UQL4	G E E R I S L D F F	Q T D A A I	N P G N S S G G P L V N R G E V I	G I N T A I A S
UniRef90_Q9LA06	N G Q T T N I N A I	Q T D A A I	N P G N S S G G A L I N E G Q V I	G I T Q S K I G
UniRef90_V9XK53	S G D N A V I R D A I	Q T D A A I	N P G N S S G G A L V N D E G R L V I	G I N T A I A G
UniRef90_UPI0003755E47	T D A R Y R L I	Q T D A S I	N P G N S S G G P L V N R G E I L I	G I N S M K Y A
UniRef90_S3ANB1	G E I A V Y A N L I	Q V D A A I	N P G N S S G G A L V N S N G K L V I	G I C L F S S
UniRef90_Q176F7	G L R G K D I N Y I	Q T D A A I	T F G N S S G G P L V N D N G E A I	G I N S M K V I
UniRef90_UPI00037BA867	S Q D G S L I D A I	Q T D A A I	N P G N S S G G P L V N D N G N L I	G M N S V I A T
UniRef90_M5X1A6	P D G K A I R G A I	Q T D A A I	N S G N S S G G P L I D S G H I I	G V I N T A R K G
UniRef90_R7Y0T9	G G N S T T Y P A I	Q T D A A I	N P G N S S G G P L V D T G A V V I	G I N S S I Q S
UniRef90_V9IRD8	T Y R R L L I	Q T D A A I	N P G N S S G G A L V N K G E V V I	G I N S L K L S
UniRef90_C6D4T2	S D Q F E Y Y T N L Y	Q T D A A I	N P G N S S G G P L V N M G E V I	G I N S M K F V
UniRef90_U3F9N2	G G D A E Y I V D A L	Q T D A P I	A Q G S S G G P L I D T G K I L I	G I N S I I I E
UniRef90_UPI0003828CEE	G S R D S D M D Y I	Q T D A I	N Y G N S S G G P L V N D G E V I	G I N T L K V
UniRef90_N6DXP4	G S D T S F I N A I	Q T D A A I	N P G N S S G G P L I N A G E V I	G V I N S G S T G
UniRef90_H0LKH5	E N G L A E D L I	Q T D A S I	N S G N S S G G P L I D A G K V I	G I N T Y K L T
UniRef90_UPI00036A1E77	L D G E N V G E L V	R W D A V I	F P G N S S G G P L V I D N G G I I	G I N E V G I G
UniRef90_A0A031JSG3	P S E G G P R Y V	Q T D A P I	N P G N S S G G P L I N R G E A I	G V I N S A I I
UniRef90_UPI00035FC591	S G P Y V D Y L	Q T D A V I	N R G N S S G G P L Y N T G D V I	A V I N S A I S P
UniRef90_H1Y7L6	N G D T I N Y	R I S I P V	N P G N S S G G P V L S K G N V I	G I I S A R A S
UniRef90_E0RGU4	A Y R L I	Q S D T A I	N P G N S S G G P L V N K G E V I	G I N T M K F S
UniRef90_D3VDG7	P T R R Q Y F L	Q T D A S I	N Q G N S S G G A L V N T G E L V I	G I N T K S E F
UniRef90_UPI00021957DD	S E T N N H T S V I	Q T D A A I	N Q G N S S G G A L I N S G Q V I	G I A S S K I I
UniRef90_A6WC12	S P G A T L P G T I	Q T S A A I	N P G N S S G G A L V D D G E V I	P T L A A S Q
UniRef90_UPI0002E30DF6	G Q R Q Y P N L I	Q T S A A I	N P G N S S G G P L L N K G Q V V I	G I N T A V I S T
UniRef90_J2K2U3	G S S K T S Y K A I	Q T D A S L	N P G N S S G G A L I N Q G Q I	G I N S A S G S
UniRef90_UPI00035F3C04	R D G R Q V R D V I	Q T D A A L	N P G N S S G G A L A D S Q	G R V I G V N T
UniRef90_Q9SEL7	P N G K S I S E A I	Q T D A D I	N S G N S S G G P L L D S G H T I	G I N T A R K G
UniRef90_R6YIN7	S D K T T T M K L I	Q T D A A I	N P G N S S G G A L V S Q G Q V I	G I N S S K F A
UniRef90_B9XRC3	E L Q G E L Y M	Q T T A Q I	N P G N S S G G P L F N R G E V V I	G I T N M K I T
UniRef90_UPI0000E0E5CA	N G L A N Y V D F I	Q T D A V I	N Q G N S S G G A L V N S E G Y L V I	G I N T N A N F K
UniRef90_UPI0003A8C81D	Q S G K L L D N M I	Q T D A S L	N P G N S S G G P L I D N G S V I	G I N T F K A
UniRef90_A7H8S5	A R G E V L E G L V	Q T D A A V	N P G N S S G G P L V D A	
UniRef90_UPI0003B46E11	P A G A T L T D C I	Q T S A D I	N P G N S S G G A L V N D N Q V I	G I P T L A A V
UniRef90_I2B4N1	L E G L E N F I	Q T D A S I	N R G N S S G G A L V N N G E L I	G I N T A A S V
UniRef90_I7GGA6	G T K D E L T G L I	E F A A P V	R A G D S S G G P V V D N G G Q V V I	G V I T T A A S

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UniRef90\_U1NIB9  
UniRef90\_UPI0003685C68  
UniRef90\_J9C1A0  
UniRef90\_M0L4S5  
UniRef90\_M4K909

G P Q A Y G L G F A I P V N T A  
S G G S V G L G F A I P I D D V  
L S G G E G I G F A I P A N Q A  
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S G G N V G I G F A I P S E Q A  
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G G D A I F T G R A R C S L G F N V T G N G D P G I L T A D H C A A A G R Q  
G V C S F G F N A V D D G A V N V T A G H C D E G G S T  
S T G S G F V I E G D Y V V T N N H V V A E P L E E  
L G G G S G I L N T A A A C T V T A V G R P T S G S H A V T A G H C G R P G Q R  
T G S G I M I G R D G F I L T N N H V I R G G K Y  
I G S A V V I G D G L A V T N N C H V I R G G K Y  
G Q R T G S G T G F F I D R E G T L V T N H V I K E A R R  
P G T P V Y V G N S L C T V A T G H D S A G R A V A I T A G H C G A V G Q S  
A V Q T G T G H G T G F S I T K E G Q I L T N E H V V R D A L E  
S G R Q S S I G S G F Q V D A S G L A V T N Y H V I S G T Y R  
S T G S G F L V S A D G L A I T N Y H V V S D A A R  
I G G G S G I I V D N Q Y C T V T T I G H D S G R L V G L T A G H C G E A G S Q  
G T G F A I S E D G Y I M T N N H V V E D Q M F  
G S G F V I S R N K I L T N A H V V A D H T R  
Y G G A H I D T S V G G C T D G F S W Y S G S T R Y M L T A G H C T T L G G S  
I T S Q N A S A A G T G M V L N A S G E V L T N N H V I A N A D A  
I G G G S G I V I D N F E C T V T T V G H D G G R L V G L T A G H C G D A G A S  
F V T N S H V V E G F R Q  
T G Q A G L G A G I V W R A D G I V L T N H V L G S R S  
S G R G E Q G T G T G F V L D D R G N I L T N N H V V R P A G D  
S D G Q R V I A G S G F V V D D A G R I I T N F H V V A M A S  
T S N P C S G S G F V I S G R R I I T N H V V T G A T F  
Y S G D N R Q I A V G S G F V A F D S S L L I T N Y H V I E G G A Y  
L R P G L S I H V D V T A G T L G A F V T Y D G A R H V L S N H H V L D G G S D  
G T G F I I G K N Q F L T N A H V V S N E R R  
P G T P L Y N Q D T M C T L T A A G T D A G R K V G L T A G H C G N V G D S  
T T S M S T G F V T L D N G K Q C L L T N A H S V E H A A V  
S T G S A F M I G D G K L L T N A H C V E H D T Q  
G T R F G S L G S S V V I G P E E L V T N C H V L K S G K S  
V F D N N S G C S L T A I G H D N G R L V G L T A G H C A P T G A R  
V L G M G Y G A Q T S V C S I G F G F N A A G D D A I S A G H C S Q D G D L  
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G F V T F D A G N H C I L T N A H S V D N A A V  
S A G R G S G T G V V W Q I G G V V L T N D H V V A G A G G  
G A G V I I K A E G L I V T S N H V I R G A E T  
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L R G G S I L Q G S N G N C T G G F M V R A T S K V I G I V T A G H C P D N W Q P  
V E G I S P A D G R R Y L C T T G F T V T D G V R Y G V T T A A H C V D D L V  
G Q K I F N G S G C I I S G N R I L T N A H I V R D N T F  
Y F N F S Y C T V A Y S F T E D G S S Y A V T A S H C G K P G D L  
V Y P G H Q I S S A G A S S S L G Y A V S Y N G K N G F V M S G H G S D V  
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V L T A D H V I Q R D E H  
V V G G F S E G S G F A V K E N V V L T N F H V I E F E P S  
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I G T A F L I S A D G L A L T A Y H V V F Q A K N  
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	50	60	70	80
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G P V R L G D S D G L V V G Q L V V A V G N P L G V T A G V V S G L G R S L P A  
N G T T T L K L G A P K I E D N L T V Y G Y P L G G D K L S T T R G I V S R M E  
G H A R I T G V I G A P Q P F N V C K A G R T T G F T C G P T L L V N G S R S Y  
G K L P Y A Q E Q V V V L G Y P M G G N S L S I T Q G V L S R I E H I R Y T  
G D A D T L R V I G Q L V V A V G N P L G L A G S V T A G V V S A L G R S L P T  
G S A K D L V P G Q T A I V I G S P F G V S V G V I S G K G F T A Q I  
G D L P D L Q D T I T V V G F P T G G S N I C V T Q G V V S R I D L Q P Y  
G D S S K V A V I G D Q I L G L G N A G G R G G D P V A A G T V T A L D Q S I T S  
D D V W L G N D N Q I L K G Q P I M R I G Q T T G V T S G K I R S T N T S A K I  
P K A Q P G P G D E V T V I G N P L W Y S H I V A K G E V  
G S A R L T P G Q K L T A I L G A P S G I F S V A A S A R D I P R N D  
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G R A R I T G V I G T P R P Y A T V C K S G R T T G Y T C G P T L S K S R V D T I  
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E E T P L K P G L A I A I G N P Y G Y D A S V S T G V I S A L G R V L R G  
D T V T I T R A A A A K V N A Q V L R M G S T T G L H Q G R V T A R G  
S T L T V T G T A A P V A G A P V C K S G Q S S Y F T C G I V A A D R V E V S A  
G D S E Q A I V G D E V I A I G P A L G L A G T V T Q G I I S A M D R S A K I  
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E P L P L G D S E K V V V G E H A V S I G N P L G L E H T L T D G L I S S R R V  
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I D E P A V G D E V A V A G Y P F G R P A R V A A S G P L T I S T  
Y G S S I L F A G A Q S V G G R I C H R G V N T G N S C G V V S S T R Y S F P N  
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G D L P E I K D E V I V Y G F P E G G D K L S I T E G V V S R I E H T K Y  
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L D L S V N A T I Q E T A T V L A A G Y P F G N P A I T I T Q G S V S I R  
K T E P R V G Q L A L A V I G R P S T V I Q A G I I N A I G G P V P T  
G D S K K L N P A D E L L A I G F P F G G G L V G E S T V N K G S L A  
R Q D R P L R S G D E V V V I G F P L S L S R E P N V T A G V V S A L N G M  
T Q L D L D P S L A K I G T E I R V V I G N D N G E K A G I I S R I D R N A P D  
R R A P T R L G E D I V A I G Y P L A L S D S V K I T T G N V N A L  
M E A N L A T T E E L P Q Q L C K L G R I T G E T C G T H G T P E K S G L N A  
G H L P V T G A S S V A E G M W L C K V G V A T G R S C G R V V I E A S S S  
A T A R P A V G D A A L A I G N G G D F T G R L T A L D A E A  
L L G L P N G V I S S P T L G Q N V Q K T G C E S E K T T G K I T Y I S V S I M S



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