

	1	10	20	30	40
QUERY	H H H M	R K P	I E H T A D I A Y E I S G N S Y E E L L E E A R N I L L E E E G I		
UniRef90_G2SI71		F R E L D H T A D I G I E V W A E S L P E E L F E E R A A W G L F A I L L D T			
UniRef90_HOX572		Y E Y L D H T A D V Q L H A W G D T L E E E A F E E Q C A M A M M T D T G T			
UniRef90_H3B8U6		Y E Y L D H T A D V Q L H A W G D T L E E E A Y E Q C A M A M M T D T G T			
UniRef90_G8NB40		K P L E H T A D V G F R L E A E S L E G L F Q A A L Q G L M F L F P P			
UniRef90_Q8TU10		Y E Y L D H T A D I K F L A Y G N T L L K E V F E N A A L A M F N D T G K			
UniRef90_D8THW5	Y K	F E Y L D H T A D V Q L H A W G N N L T E A F E N C A L A M F N D T Y M S P			
UniRef90_W4M2T6	I	Y E P I D H T A D A G M W I Y G R D R A E L F A H A A W A L F E D I S D A			
UniRef90_K7QWC9		R P L E H T A D V G F E L E G E S L E A L F Q A A L L G L L E V M P P			
UniRef90_K7FMG4		Y E Y L D H T A D V Q L H A W G D T L E E E T F E Q A M F G Y M T D T E T			
UniRef90_X0UCD2		F E I I D H T A D V G I V A Y G T D I K E L F S N A A S A L F S I T E P			
UniRef90_D7EBQ0		F E F L D H T A D A Q F R A Y G N T L L E E A F E N A A L A M F N D T D N			
UniRef90_E1YC31		Y K T I D H T A D L G I E V F G S S L K D L F E N A A W A L S D L L T V			
UniRef90_M7TW49		Y E L I E H T A D V G I K A F G G S L S E E C F A N A A K G M F D I L T D			
UniRef90_Q46D27	Q	E Y L D H T A D I K F Q A Y G K T R E E V F E N A A L A M F N D T K K			
UniRef90_Q8ZWP9		Y K Y G E H T A D V L I Q A Y G C T L E E E A F K N A A L A L A D L S S R			
UniRef90_H2U0H5		Y E Y L D H T A D V Q I H S W G D T L E E A F E Q C A M G M M T D T E T			
UniRef90_D6WKY5		Y E Y L D H T A D V Q L H A W G D S L K E A Y E Q A M F G Y M T E I N T			
UniRef90_I3IJN6		Y I L I D H T A D L G I D V F G S T L P E L F T N A A F A M F D I I S R			
UniRef90_X1IDA5		F E I I T D H T A D V G I I A Y G A N I K Q L F S N A A L A L F S I T E P			
UniRef90_G4VQI9		Y E Y L D H T A D V Q L H S W G S N Q T E A F E Q I A M A M F T N Y D S			
UniRef90_K4FRM0		Y E Y L D H T A D V Q L H S W G G T L E E A F E Q V A M S M F D D I E T			
UniRef90_X1C950		Y E I I E H T A D I G I K A F G E N L A E S F E N A A K A M F D L I T D			
UniRef90_S7N6G4		Y E Y L D H T A H V Q F L A W G D T L E E A F E Q A M F G Y M T D T D T			
UniRef90_A8HX36	Y K	F E Y L D H T A D V Q L H A W G S D L G E A F E Q C G L A M F N Y M S P			
UniRef90_D5MN83		F E L F E T T A D V G I M A W G G T P E E L F A N T A R G M M V D S G T			
UniRef90_L0HPQ7		Y E I F D H T A D V G I I V R G K T L E E L F E K A A Y A M F D I L L N			
UniRef90_K4MEK2	N R	F E Y L E H T A D A K F R A Y G K S L E E A F E N A A F A M F N D T S T			
UniRef90_V4YIY8		F E Y L D H T A D V I I H A W G S S L G E A F G R A G Q A L M T D T G R			
UniRef90_H5SNB4		K P L E H T A D V G F L L E A E S L E G L F Q A A L Q G L L Q V M P P			
UniRef90_C9GA7	M	K Y F E T T A D I G I E V A V G K S L E E A F K E G A R G L Y N I M V D			
UniRef90_Q1PY18		Y K L I D H T A D I G I D I F G D T M P Q L F S N A A F A M F D I I S T			
UniRef90_E9HWB6		Y E Y L D H T A D V Q L H A W G D S L E E A F E Q A M F G Y M T E I D K			
UniRef90_UPI000362E865		Y E F F E H T A D V G I I A R G N T L E E A F S N A A K A V F E D T S K			
UniRef90_U6HFF1		L D H T A D V Q L H A W G A D I K E A F E Q V A M A M F T N Y D S			
UniRef90_W8BNK3		Y E Y L D H T A D V Q L H A W G S S L Q E A F E Q A M F G Y M T D L D Y			
UniRef90_D1JEI8		K Y I E H P S D V G F E V I Y G D S L E V L F A N A A I A M Y S L M T D			
UniRef90_W5JKK5		Y E Y L D H T A D V Q L H A W G E T L K E A F E Q A M F G Y M T E L S S			
UniRef90_UPI00021A516C		Y E Y L D H T A D V Q I H S W G D T L S E A F E Q A A V A M M T E I D K			
UniRef90_Q8U0N4	Q W E	H Y E H T A D I G I R G Y G D T L E E A F E A V A L A L F D V I V N			
UniRef90_Q60334	M F N	Y F E T T A D L G V E A K G K S L E E A F K E G A K G L Y N I M D K			
UniRef90_H2C6H1		F E F F D H T A D V G I R A W G K T L E E A F E N S A L A V F E D T S K			
UniRef90_X1KRL9		E H T A D M G I V A Y G K S L A E A F A N A A Y G L F S L I N R			
UniRef90_Q1HPX5		Y E Y L D H T A D V Q L H A W G D S L K E A F E Q A M F G Y M T E L E Y			
UniRef90_N6WLE4		Y E I I E H T A D V G I K A Y G K N I S E A F E N A A K G M F D I L T D			
UniRef90_C4WVK5		Y E Y L D H T A D I Q I H A W G S T L S E A F E Q C A N A M F H Y M T E			
UniRef90_UPI0004701807		Y R V F D H T A D L G I E I F G E T A G M L F A H A A F A L M A D L H L			
UniRef90_X0STL7		Y E E L D H P A D V G L R V R G T S R R E L F E N A A R G M I E L M E T			
UniRef90_T1IFP1		Y E Y L D H T A D V Q L H A W G K S L K E S F E Q C A M A M F T E I E Y			
UniRef90_X1KL25	I	Y K Y I D H T A D L G I E V I Y G K T L E E L F I N I G K A I F E I S G K			
UniRef90_U5EWL4		Y E Y L D H T A D V Q L H A W G E T L K E A F E Q A M F G Y M T E L D T			
UniRef90_A8A8E4		F E Y L P H T A D I L V V G Y G E T L E E A F E N A A K G V F N I I T D			
UniRef90_E5SKN6		Y E H L D H T A D I M L H A W G D N L I E A F E Q A M F A Y L T D L N K			
UniRef90_I7L0H9		F E E L D H T A D V L M R V R G A T L S E V F S D A G R A M F H M Y G P			
UniRef90_L1INZ0		Y E Y L D H T A D V Q F H S W G K T K E E A F E Q A V V C M F S Y I T D			
UniRef90_H1KYP4	N M	F R Y F E T T A D M G I I A E G E T L E E A F S N A A K G L F N L M E N			
UniRef90_E1ZE05		L D H T A D V Q L H A W G A T L T E A F E N V A L C M F N Y M T P			
UniRef90_Q7PYJ8		Y E Y L D H T A D V Q L H A W G E T L Q E A F E Q C G M A M F G Y M T			
UniRef90_B3M0S8		Y E Y L D H T A D V Q L H G W G H S L K E A F E Q A M F G Y M T E L E Y			
UniRef90_X1FVK5		F E I L D H T A D V G I I A Y G N D M K Q A F T N T A K G L F S L I T E			
UniRef90_A3MTM9		F E Y G E H T A D V L V Q A F G C T L E E A F K N A A V A L A D L S E R			
UniRef90_X1M5R7		F E Y L D H T A D V C L R G T G E T V E E A F C E A A R A L F N L M E Q			
UniRef90_B1YCY3		Y R Y G E H T A D V L I Q A Y G C T L E E A F V N A A V A L A E V T S K			
UniRef90_F6DF27		K P L D H T A D V G F D L E A S S L E E L F Q A A L K G L L D V T S P			
UniRef90_UPI0002659450		Y E Y L D H T A D V Q L H A W G D T L K E S F E Q A M F G Y M T E I D K			
UniRef90_C3N5V7		F E F F E H T A D V G I R A Y G K S L E E A F S N A A L G V F E D T S K			
UniRef90_F2NF64		F R S I A H T A D V G F K L Y G E T L A D I F A H A L Y G M M V D R R R			
UniRef90_A8ZUT5		Y R Y L D H T A D L R V E I F G H D L A M L F E N A G F A L F D M L A D			
UniRef90_F0VQP8		F E Y L D H T A D V I H A W G V S L S A A F E N A G K A L M T D T D R			
UniRef90_UPI00046F14BA		F E I I D H T A D V G I I A Y G A D I S Q A F A N A A R A L F S L I T E			
UniRef90_M0B0I3		F E L R D H T A D V A V A A T G G S L E A V F A A V A D G L A A C S T D			
UniRef90_Q16KZ9		Y E Y L D H T A D V Q L H A W G D S L K E A F E Q C G M A M F E L S T V			
UniRef90_B3T4N4		F R L S P T T A D V A I E T W G P D A K D I F L E A I R G L F S V M G T			
UniRef90_E0SQK4		F E F L D H T A D V L V K A W G R T L P E A L S E I A R G M F E I T S K			
UniRef90_F6BF13	M	F K Y F E T T A D M G I I A E G K T L E E A F S N A A K G L F N D I E K			
UniRef90_E3GYA7		F E F I D V T A D A G F H A Y G S T L E E L F E N A A L A L F E I T S K			
UniRef90_B8FJF3		Y T L I D H T A D Y G F T L C A E S P E E L F A N A A L A L T D L M S P			
UniRef90_L0KTE8		Y E Y L D H T A D A K F L A Y G K T L E E A F E N A A L A M F N D T N T			
UniRef90_A8F430	M	Y R E L N H P S D I C Y E L A C D L Q E I F S D L I K I F K S C Y S P			
UniRef90_C3Y972		Y E Y L D H T A D V Q L H S W G S D L K E A F E Q C A V G M M T E I E T			
UniRef90_A1RV54		Y R Y G E H T A D V L I Q A Y G C T L E E A F K N A A I A L A E L T E K			
UniRef90_UPI00016C56C6	M	H L F E H T A D L G L R A T A P T L P L L F A E M A K A M V E E P D G			
UniRef90_F2NNB3	M	I R M L D H T A D V G F E V R A P T R E A L F E T A R E G L L R L M P P			
UniRef90_U5Q204		Y E R L D H T A D V L I K A F G N S I E E C F G N A A Y A M L D D I S T			
UniRef90_T1KRF7		Y E F L D H T A D V Q I H A W G D S L K E A F E Q A A V A M M T D I K S			
UniRef90_U3TE06	W R	H E E H T A D V L V V A Y G R T L E E A F E N A A Q G V Y E D T S R			
UniRef90_X0WIS9	M	Y E F F E H T A D L G L R V R A P D L N G L F R D A A A G L F A M I V E			
UniRef90_E1QU32		Y E Y G E H T A D I A V I A Y G C T L E E A F K N A A A G L T Y Y I D R			
UniRef90_T2MAJ8		Y E Y L D H P A D I Q I H S W G L T L K Q A F E Q Q A I G M M T D L N T			
UniRef90_B5YEN6		Y E L L D H T A D I G I I V I Y G E T K E K A F E A A A E A M F D L M C P			
UniRef90_X1F1I7		F E F K D H T A D V Q V R S W G S L E E A F S Q T A Y S L M A T I T P			
UniRef90_W7L6R9		F E F F D H T A D V G I R A Y G R T L E E A F E N A A L A V F E D T S K			

QUERY	50	60	70	80
UniRef90_G2SI71	V	L	D	T
UniRef90_H0X572	V	A	P	R
UniRef90_H3B8U6	V	E	P	L
UniRef90_G8NB40	K	G	G	G
UniRef90_Q8TU10	V	S	G	E
UniRef90_D8THW5	V	R	P	R
UniRef90_W4M2T6	E	T	I	R
UniRef90_K7QWC9	Q	G	G	R
UniRef90_K7FMG4	V	E	P	L
UniRef90_X0UCD2	E	S	I	E
UniRef90_D7EBQ0	V	S	N	N
UniRef90_E1YC31	D	T	G	N
UniRef90_M7TW49	K	S	A	V
UniRef90_Q46D27	I	S	G	D
UniRef90_Q8ZWP9	V	E	P	K
UniRef90_H2U0H5	V	K	P	L
UniRef90_D6WKY5	V	E	L	K
UniRef90_I3IJN6	V	D	N	T
UniRef90_X1IDA5	G	S	I	G
UniRef90_G4VQI9	V	D	T	S
UniRef90_K4FRM0	V	H	P	T
UniRef90_X1C950	N	S	E	I
UniRef90_S7N6G4	V	E	P	L
UniRef90_A8HX36	V	R	L	R
UniRef90_D5MN83	V	R	S	T
UniRef90_L0HPQ7	A	E	R	I
UniRef90_K4MEK2	V	A	T	G
UniRef90_V4YIY8	V	E	A	R
UniRef90_H5SNB4	H	G	G	R
UniRef90_C9GA7	V	D	K	I
UniRef90_Q1PY18	V	E	K	K
UniRef90_E9HWB6	V	E	I	L
UniRef90_UPI000362E865	V	E	A	K
UniRef90_U6HFF1	I	D	M	T
UniRef90_W8BNK3	V	S	I	E
UniRef90_D1JEI8	V	D	E	D
UniRef90_W5JKK5	V	S	I	N
UniRef90_UPI00021A516C	V	S	P	S
UniRef90_Q8U0N4	V	R	K	I
UniRef90_Q60334	V	D	K	K
UniRef90_H2C6H1	V	K	E	R
UniRef90_X1KRL9	V	K	E	K
UniRef90_Q1HPX5	V	Q	I	K
UniRef90_N6WLE4	K	S	E	I
UniRef90_C4WXX5	V	E	M	K
UniRef90_UPI0004701807	V	H	P	K
UniRef90_X0STL7	V	S	A	C
UniRef90_T1IFP1	V	E	I	K
UniRef90_X1KL25	I	A	L	K
UniRef90_U5EWL4	V	E	M	T
UniRef90_A8A8E4	V	E	P	K
UniRef90_E5SKN6	V	D	A	C
UniRef90_I7L0H9	E	D	R	G
UniRef90_L1NZ0	L	R	A	S
UniRef90_H1KYP4	V	E	K	K
UniRef90_E1ZE05	I	D	P	A
UniRef90_Q7PYJ8	E	L	P	K
UniRef90_B3M0S8	V	S	V	E
UniRef90_X1FVK5	L	D	N	I
UniRef90_A3MTM9	V	E	P	R
UniRef90_X1M5R7	V	A	P	K
UniRef90_B1YCY3	V	E	P	K
UniRef90_F6DF27	Q	G	G	R
UniRef90_UPI0002659450	V	E	K	R
UniRef90_C3N5V7	V	K	P	I
UniRef90_F2NF64	L	R	A	L
UniRef90_A8ZUT5	L	S	G	E
UniRef90_F0VQP8	V	E	P	R
UniRef90_UPI00046F14BA	L	D	D	V
UniRef90_M0B0I3	E	I	P	G
UniRef90_Q16KZ9	D	I	S	K
UniRef90_B3T4N4	V	E	P	R
UniRef90_E0SQK4	I	E	P	T
UniRef90_F6BF13	V	E	K	K
UniRef90_E3GYA7	V	K	D	K
UniRef90_B8FJF3	V	E	P	R
UniRef90_L0KTE8	I	S	H	T
UniRef90_A8F430	E	L	K	N
UniRef90_C3Y972	V	E	P	L
UniRef90_A1RV54	V	E	P	R
UniRef90_UPI00016C56C6	V	R	P	A
UniRef90_F2NNB3	T	Q	G	S
UniRef90_U5Q204	V	S	L	E
UniRef90_T1KRF7	V	S	I	L
UniRef90_U3TE06	V	S	P	K
UniRef90_X0WIS9	Q	P	P	E
UniRef90_E1QU32	V	E	P	R
UniRef90_T2MAJ8	I	E	N	L
UniRef90_B5YEN6	L	E	K	I
UniRef90_X1FI17	I	T	P	K
UniRef90_W7L6R9	V	E	G	R

QUERY	90	100	110	120																																												
UniRef90_G2SI71	KREAGNE	LKVIT	F	R	K	L	R	K	K	E	G	T	E	I	K	A	L	T	Y	H	L	L	K	F	E	R	D	G	D	V	L	K																
UniRef90_H0X572	E	V	Q	A	Q	A	W	G	E	P	I	D	P	S	K	H	T	P	Q	I	G	T	E	V	V	K	A	I	T	T	Y	S	H	G	L	K	L	V	E	R	D	D	E	G	Q	W	P	E
UniRef90_H3B8U6	H	L	L	K	J	Y	R	W	G	E	F	D	S	L	S	K	H	P	Q	G	T	E	V	V	K	A	I	T	T	Y	S	S	A	M	Q	V	H	E	L	E	K	A	E					
UniRef90_G8NB40	K	V	R	S	I	G	W	G	E	F	D	S	L	S	K	H	P	Q	G	T	E	V	V	K	A	I	T	T	Y	S	S	A	M	Q	V	H	E	L	E	K	A	E						
UniRef90_Q8TU10	K	V	R	S	I	G	W	G	E	F	D	S	L	S	K	H	P	Q	G	T	E	V	V	K	A	I	T	T	Y	S	S	A	M	Q	V	H	E	L	E	K	A	E						
UniRef90_D8THW5	K	V	R	S	I	G	W	G	E	F	D	S	L	S	K	H	P	Q	G	T	E	V	V	K	A	I	T	T	Y	S	S	A	M	Q	V	H	E	L	E	K	A	E						
UniRef90_W4M2T6	K	V	R	S	I	G	W	G	E	F	D	S	L	S	K	H	P	Q	G	T	E	V	V	K	A	I	T	T	Y	S	S	A	M	Q	V	H	E	L	E	K	A	E						
UniRef90_K7QWC9	K	V	R	S	I	G	W	G	E	F	D	S	L	S	K	H	P	Q	G	T	E	V	V	K	A	I	T	T	Y	S	S	A	M	Q	V	H	E	L	E	K	A	E						
UniRef90_K7FMG4	K	V	R	S	I	G	W	G	E	F	D	S	L	S	K	H	P	Q	G	T	E	V	V	K	A	I	T	T	Y	S	S	A	M	Q	V	H	E	L	E	K	A	E						
UniRef90_X0UCD2	K	V	R	S	I	G	W	G	E	F	D	S	L	S	K	H	P	Q	G	T	E	V	V	K	A	I	T	T	Y	S	S	A	M	Q	V	H	E	L	E	K	A	E						
UniRef90_D7EBQ0	K	V	R	S	I	G	W	G	E	F	D	S	L	S	K	H	P	Q	G	T	E	V	V	K	A	I	T	T	Y	S	S	A	M	Q	V	H	E	L	E	K	A	E						
UniRef90_E1YC31	K	V	R	S	I	G	W	G	E	F	D	S	L	S	K	H	P	Q	G	T	E	V	V	K	A	I	T	T	Y	S	S	A	M	Q	V	H	E	L	E	K	A	E						
UniRef90_M7TW49	K	V	R	S	I	G	W	G	E	F	D	S	L	S	K	H	P	Q	G	T	E	V	V	K	A	I	T	T	Y	S	S	A	M	Q	V	H	E	L	E	K	A	E						
UniRef90_Q46D27	K	V	R	S	I	G	W	G	E	F	D	S	L	S	K	H	P	Q	G	T	E	V	V	K	A	I	T	T	Y	S	S	A	M	Q	V	H	E	L	E	K	A	E						
UniRef90_Q8ZW9P	K	V	R	S	I	G	W	G	E	F	D	S	L	S	K	H	P	Q	G	T	E	V	V	K	A	I	T	T	Y	S	S	A	M	Q	V	H	E	L	E	K	A	E						
UniRef90_H2U0H5	K	V	R	S	I	G	W	G	E	F	D	S	L	S	K	H	P	Q	G	T	E	V	V	K	A	I	T	T	Y	S	S	A	M	Q	V	H	E	L	E	K	A	E						
UniRef90_D6WKY5	K	V	R	S	I	G	W	G	E	F</																																						

QUERY	T	K	V	V	F	D	T
UniRef90_G2SI71	A	R	I	I	F	D	
UniRef90_H0X572	V	F	V	I	I	D	I
UniRef90_H3B8U6	I	F	V	I	I	D	I
UniRef90_G8NB40	A	Q	V	I	L	D	V
UniRef90_Q8TU10	A	Q	V	V	V	D	I
UniRef90_D8THW5	L	F	V	I	V	D	I
UniRef90_W4M2T6	A	R	V	I	F	D	V
UniRef90_K7QWC9	A	R	V	I	L	D	V
UniRef90_K7FMG4	V	F	V	I	I	D	I
UniRef90_X0UCD2	A	Q	I	I	F	D	V
UniRef90_D7EBQ0	L	Q	V	V	V	D	I
UniRef90_E1YC31	A	K	I	I	F	D	V
UniRef90_M7TW49	G	Q	V	I	F	D	I
UniRef90_Q46D27	A	Q	V	V	V	D	I
UniRef90_Q8ZWP9	V	Q	Y	V	V	D	I
UniRef90_H2U0H5	I	F	A	I	I	D	I
UniRef90_D6WKY5	V	F	V	I	I	D	I
UniRef90_I3IJN6	A	R	V	I	F	D	
UniRef90_X1IDA5	V	Q	I	I	F	D	V
UniRef90_G4VQI9	L	F	V	I	I	D	I
UniRef90_K4FRM0	I	F	V	I	I	D	I
UniRef90_X1C950	A	Q	V	L	F	D	I
UniRef90_S7N6G4							
UniRef90_A8HX36	V	F	V	I	V	D	I
UniRef90_D5MN83	A	R	V	V	F	D	V
UniRef90_L0HPQ7	A	K	V	L	F	D	I
UniRef90_K4MEK2	V	Q	A	T	V	D	
UniRef90_V4YIY8							
UniRef90_H5SNB4	A	Q	V	I	L	D	V
UniRef90_C9RGA7	V	R	Y	I	V	D	
UniRef90_Q1PY18	A	R	V	I	F	D	
UniRef90_E9HWPB6	V	Y	V	I	I	D	I
UniRef90_UPI000362E865	V	R	F	V	V	D	I
UniRef90_U6HFF1	V	F	V	I	I	D	I
UniRef90_W8BNK3	V	F	V	I	I	D	I
UniRef90_D1JEI8	A	R	V	V	L	D	V
UniRef90_W5JJK5	V	F	V	I	I	D	I
UniRef90_UPI00021A516C	V	Y	V	I	I	D	I
UniRef90_Q8U0N4	A	Q	L	V	P	D	I
UniRef90_Q60334	I	R	Y	I	V	D	
UniRef90_H2C6H1	I	T	F	V	V	D	I
UniRef90_X1KRL9	V	Q	V	I	F	D	V
UniRef90_Q1HPX5	V	F	V	I	I	D	I
UniRef90_N6WLE4	V	Q	V	L	F	D	I
UniRef90_C4WXX5	V	F	V	I	L	D	I
UniRef90_UPI0004701807	G	R	V	I	F	D	V
UniRef90_X0STL7	V	T	I	I	F	D	V
UniRef90_T1IFP1	V	F	V	I	I	D	I
UniRef90_X1KL25	A	T	I	I	F	D	V
UniRef90_U5EWL4	V	F	V	I	I	D	I
UniRef90_A8A8E4	V	K	F	V	V	D	I
UniRef90_E5SKN6	I	F	V	V	L	D	I
UniRef90_I7L0H9	V	D	I	I	F	D	I
UniRef90_L1INZ0	I	Y	V	I	V	D	I
UniRef90_H1KYP4	I	K	F	I	V	D	
UniRef90_E1ZE05	V	F	V	I	V	D	I
UniRef90_Q7PYJ8	V	F	V	I	I	D	I
UniRef90_B3M0S8	V	F	V	I	I	D	I
UniRef90_X1FVK5	V	Q	V	L	F	D	I
UniRef90_A3MTM9	L	Q	Y	V	V	D	I
UniRef90_X1M5R7	A	Q	C	V	V	D	I
UniRef90_B1YCY3	V	Q	Y	V	V	D	I
UniRef90_F6DF27	A	R	V	I	L	D	V
UniRef90_UPI0002659450	V	Y	V	I	I	D	I
UniRef90_C3N5V7	I	T	F	V	V	D	I
UniRef90_F2NF64	A	T	V	I	F	D	
UniRef90_A8ZUT5	A	R	V	V	F	D	V
UniRef90_F0VQP8							
UniRef90_UPI00046F14BA	V	Q	V	L	F	D	I
UniRef90_M0B0I3	A	Y	V	V	F	D	I
UniRef90_Q16KZ9	V	F	V	I	I	D	I
UniRef90_B3T4N4	A	Y	V	I	V	D	V
UniRef90_E0SQK4	I	T	V	V	F	D	I
UniRef90_F6BF13	V	K	F	I	V	D	
UniRef90_E3GYA7	A	T	V	I	V	D	I
UniRef90_B8FJF3	C	Q	V	L	C	D	V
UniRef90_L0KTE8	L	R	A	T	V	D	
UniRef90_A8F430	L	K	V	V	F	D	V
UniRef90_C3Y972	V	Y	V	V	L	D	I
UniRef90_A1RV54	L	Q	Y	V	V	D	V
UniRef90_UPI00016C56C6	A	E	V	I	V	D	I
UniRef90_F2NNB3	A	R	V	V	L	D	V
UniRef90_U5Q204	I	T	V	L	F	D	V
UniRef90_T1KRF7	V	Y	V	I	I	D	I
UniRef90_U3TE06	V	Q	F	V	V	D	I
UniRef90_X0WIS9	A	E	L	I	V	D	I
UniRef90_E1QU32	L	T	F	V	V	D	I
UniRef90_T2MAJ8	C	Y	V	I	F	D	I
UniRef90_B5YEN6	I	Q	V	V	F	D	I
UniRef90_X1FI17	I	D	L	V	F	D	I
UniRef90_W7L6R9	L	T	F	V	V	D	I

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UniRef90_A1RWV1	F	E	L	L	P
UniRef90_Q0W861	Y	E	Y	L	E
UniRef90_Q975L0	F	E	F	F	E
UniRef90_L9WU05	F	E	L	R	E
UniRef90_W0JSF7	F	E	L	R	E
UniRef90_W7T159	E	F	Y	E	Y
UniRef90_H5SEQ1	F	E	I	L	D
UniRef90_A4WLW5	Y	K	Y	G	E
UniRef90_W9DQB7	Y	E	Y	L	E
UniRef90_A71998	Y	E	E	L	S
UniRef90_A0A026VU70	Y	E	Y	L	D
UniRef90_F7XPZ9	F	E	F	L	E
UniRef90_Q1AYS5	M	I	R	M	L
UniRef90_Q2LQH9	N	E	F	W	R
UniRef90_E2BMP9	Y	E	Y	L	D
UniRef90_UPI000364CA11	M	F	E	Y	F
UniRef90_A0A023FHE4	Y	E	Y	L	D
UniRef90_Q28777	Y	R	F	I	D
UniRef90_K9Y8S3	F	E	E	I	E
UniRef90_UPI0003B68BB1	Y	E	Y	L	E
UniRef90_D8LYT9	Q	Y	E	Y	L
UniRef90_U6EBH7	F	E	F	F	D
UniRef90_UPI000364C869	F	E	V	L	D
UniRef90_MOM3V6	F	E	L	R	E
UniRef90_UPI000332EF0D	Y	E	Y	L	D
UniRef90_B1L703	R	F	L	E	L
UniRef90_UPI00046D5BFD	W	R	T	L	D
UniRef90_F8A903	Y	E	T	F	E
UniRef90_B9K9M9	M	R	R	P	I
UniRef90_G1Q7X2	Y	E	Y	L	D
UniRef90_J9ENB1	Y	E	Y	L	D
UniRef90_UPI0003812437	F	E	I	L	E
UniRef90_V8NLA4	Y	E	Y	L	D
UniRef90_C1BS64	Y	E	Y	L	D
UniRef90_H5S893	M	F	E	V	F
UniRef90_X1EQ56	F	E	F	F	R
UniRef90_F7PND6					
UniRef90_C7NR04					
UniRef90_M0ENH2	Y	E	L	R	D
UniRef90_B5EGE4	Y	Q	Y	R	D
UniRef90_R7Q3V9	W	E	Y	L	D
UniRef90_A8M9T2	H	P	A	F	E
UniRef90_UPI00035CCD4A	Y	E	R	L	E
UniRef90_UPI0001CB979D	Y	E	Y	L	D
UniRef90_I0I9H1	Y	K	E	I	E
UniRef90_MOC9X4	F	E	L	R	D
UniRef90_Q3A8L1	F	R	L	L	E
UniRef90_H9KNW9	Y	E	Y	L	D
UniRef90_R1FXJ3	W	E			
UniRef90_M1XK16					
UniRef90_A3DNE0	F	D	Y	L	E
UniRef90_F7YV03	M	Y	R	E	L
UniRef90_F6UIF8	Y	E	Y	L	D
UniRef90_A4YCCZ6	F	Q	F	F	D
UniRef90_UPI0003460A60	F	E	E	L	D
UniRef90_M0FEX0	Y	E	L	R	D
UniRef90_G0HKW2	W	E			
UniRef90_S7UT78	Y	Q	I	I	D
UniRef90_R4W915					
UniRef90_D8J298					
UniRef90_D6SR69	W	K	H	L	D
UniRef90_Q647V0	Y	V	Y	I	E
UniRef90_L0JLU8	F	E	L	R	D
UniRef90_UPI0003B707F2	Y	R	A	I	S
UniRef90_G7WNI9	E	Y	L	E	H
UniRef90_T0L7Q8					
UniRef90_Q60CB3					
UniRef90_D6TES7	H	P	W	E	V
UniRef90_F1LGE7	Y	E	Y	L	D
UniRef90_MOIDJ6					
UniRef90_F0LKB9	W	E	H	Y	E
UniRef90_L0HC99	F	T	E	L	S
UniRef90_F7AW07	F	E	Y	L	D
UniRef90_D2RF88	Y	R	F	I	D
UniRef90_Q54BU9	F	E	Y	L	D
UniRef90_Q4JB72	F	E	F	F	D
UniRef90_X6NLP8	E	N	L	D	H
UniRef90_X1ID66	F	E	I	I	E
UniRef90_MOEFX8	Y	E	L	R	D
UniRef90_UPI000374366D	Y	E	F	L	E
UniRef90_G0H493	M	Y	N	Y	F
UniRef90_UPI0002F0C8D2	M	H	E	F	F
UniRef90_K9SZ12	F	E	E	L	E
UniRef90_S5Z697	F	E	L	L	P
UniRef90_B7KD32	F	E	E	I	D
UniRef90_V4JUG7	F	E	F	L	D
UniRef90_H1A8J1	Y	R	E	I	P
UniRef90_J0S061	F				

UniRef90_A0A031LP11	V	S	P	K	E	K	R	E	I	N	V	D	G	I	D	L	E	N	L	L	Y	R	W	L	E	A	L	L	V	F	Y	D	S	E	F	S	K	F	K	V	I	
UniRef90_A1RWV1	V	E	P	L	E	D	R	E	V	V	A	E	G	D	L	E	N	L	L	Y	N	F	W	L	E	N	L	L	V	L	T	D	E	G	F	F	V	S	R	V		
UniRef90_Q0W861	V	K	P	L	E	R	E	V	V	R	L	T	A	E	S	L	E	N	L	L	Y	N	D	W	L	E	S	L	L	Y	L	T	D	E	V	E	F	V	S	R	V	
UniRef90_Q975L0	V	E	P	K	E	M	R	E	V	K	I	D	G	Y	D	L	E	N	L	L	Y	R	W	L	E	S	L	L	V	Y	Y	D	S	E	K	F	Y	V	N	I		
UniRef90_L9WU05	D	E	T	G	D	R	F	S	L	S	V	T	A	E	N	R	E	A	L	L	F	D	Y	L	D	E	L	I	Y	L	R	D	R	V	E	L	P	V	D	N	A	
UniRef90_W0JSF7	E	T	G	G	E	R	F	S	L	S	V	T	A	E	N	L	S	E	A	L	L	F	D	Y	V	D	E	L	I	Y	L	R	D	R	V	E	L	P	V	D	N	A
UniRef90_W7T159	V	D	P	S	Q	T	Q	T	F	E	V	E	G	H	D	L	S	S	L	L	F	A	W	L	D	E	F	L	F	R	F	S	E	A	F	V	C	K	E	A		
UniRef90_H5SEQ1	I	A	P	R	L	A	R	E	V	E	V	H	A	E	G	Y	E	Y	L	L	V	D	L	F	N	E	I	L	Y	L	F	D	A	E	K	L	A	F	G	E	R	
UniRef90_A4WLW5	I	V	P	R	L	V	K	S	L	D	I	E	Y	D	D	L	E	G	L	L	F	K	W	I	D	E	I	L	Y	L	F	D	A	E	K	F	A	I	S	R		
UniRef90_W9DQB7	V	N	N	S	L	S	V	N	I	E	L	S	F	D	L	D	S	L	L	F	E	W	L	S	E	I	L	L	V	F	V	E	V	D	E	L	V	F	Q	C		
UniRef90_W4I998	R	I	G	N	V	T	R	T	I	D	L	C	A	D	D	P	Q	S	L	L	F	E	D	F	L	S	E	V	L	L	V	S	E	V	D	F	R	D	A	R	V	
UniRef90_A0A026VU70	V	Q	I	L	T	Q	V	H	H	V	E	A	E	G	H	D	L	Q	S	L	L	F	H	F	L	D	E	I	L	L	F	M	F	S	A	E	P	F	I	V	N	F
UniRef90_F7XPZ9	I	E	G	G	V	T	K	Y	I	E	L	E	A	P	D	L	E	N	L	L	V	V	D	W	L	S	E	I	L	L	F	L	E	V	E	I	V	E	R	F		
UniRef90_Q1AYS5	E	G	G	A	E	E	R	V	E	L	S	E	A	P	D	L	E	N	L	L	V	R	W	L	S	E	I	L	L	T	F	L	V	Q	E	G	F	V	S	A	R	
UniRef90_Q2LQH9	V	E	T	A	V	S	R	H	L	V	I	E	G	A	D	L	A	D	L	W	V	N	Y	L	R	E	V	L	L	Y	L	W	G	E	S	L	L	M	K	K	V	
UniRef90_E2BMP9	V	Q	I	E	K	T	Y	H	L	E	C	E	G	D	L	E	N	L	L	F	R	F	L	D	E	L	L	I	Y	M	F	C	A	E	F	L	I	A	K	F	C	
UniRef90_UPI000364CA11	I	D	K	K	E	R	E	F	E	V	T	S	E	D	L	L	G	L	L	Y	D	F	L	T	E	L	L	L	I	I	H	D	S	A	E	F	L	J	K	K	Y	
UniRef90_A0A023FHE4	V	D	I	R	A	T	C	D	I	V	A	E	A	E	D	M	V	G	L	L	F	H	F	L	D	E	L	L	L	I	V	F	S	A	E	P	F	I	I	G	F	
UniRef90_Q028777	S	G	I																																							

[illegible]

UniRef90_A0A031LP11	L	E	F	V	V	D	I
UniRef90_A1RWV1	V	E	Y	V	P	D	I
UniRef90_Q0W861	A	Q	V	L	L	D	I
UniRef90_Q975L0	L	T	F	V	V	D	I
UniRef90_L9WU05	A	Y	V	V	F	D	V
UniRef90_W0JSF7	A	Y	V	V	F	D	V
UniRef90_W7TI59	L	Y	V	I	I	D	I
UniRef90_H5SEQ1	G	E	V	Y	L	D	I
UniRef90_A4WLW5	L	Q	F	V	V	D	I
UniRef90_W9DQB7	I	Q	A	T	V	D	I
UniRef90_A7I998	L	D	I	L	F	D	V
UniRef90_A0A026VU70	V	F	V	I	V	D	I
UniRef90_F7XPZ9	L	Q	V	T	V	D	I
UniRef90_Q1AYS5	A	R	V	I	L	D	V
UniRef90_Q2LQH9	G	R	V	I	F	D	V
UniRef90_E2BMP9	L	F	V	I	V	D	I
UniRef90_UPI000364CA11	I	R	Y	I	V	D	I
UniRef90_A0A023FHE4	V	F	V	I	I	D	I
UniRef90_Q28777	A	F	V	V	V	D	I
UniRef90_K9Y8S3	V	T	I	V	L	D	V
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UniRef90_U6EBH7	L	Q	V	I	L	D	I
UniRef90_UPI000364C869	T	Q	V	Y	F	D	I
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UniRef90_UPI000332EF0D	V	F	V	I	I	D	I
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UniRef90_UPI00046D5BFD	V	R	V	V	F	D	V
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UniRef90_X1EQ56	I	D	I	V	Y	D	I
UniRef90_F7PND6	A	Y	V	V	L	D	V
UniRef90_C7NR04	A	Y	V	V	F	D	V
UniRef90_M0ENH2	A	Y	V	V	F	D	V
UniRef90_B5EGE4	A	T	V	V	L	D	V
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UniRef90_A8M9T2	V	Q	F	V	V	D	I
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UniRef90_UPI0001CB979D	C	Y	V	I	I	D	I
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UniRef90_H9KNW9	I	E	V	I	V	D	I
UniRef90_R1FXJ3	L	L	V	I	V	D	I
UniRef90_M1XKI6	A	Y	V	V	F	D	V
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UniRef90_F7YV03	L	K	V	V	F	D	I
UniRef90_F6UIF8	V	F	V	I	M	D	I
UniRef90_A4YCZ6	I	T	F	V	V	D	I
UniRef90_UPI0003460A60	A	T	L	V	I	D	V
UniRef90_M0FEX0	A	Y	V	V	F	D	V
UniRef90_G0HKW2	A	Q	L	V	P	D	I
UniRef90_S7UT78	A	R	V	V	F	D	I
UniRef90_R4W915	A	Y	V	V	F	D	V
UniRef90_D8J298	A	Y	V	V	L	D	V
UniRef90_D6SR69	A	T	C	I	V	D	V
UniRef90_Q647V0	A	R	V	V	L	D	V
UniRef90_L0JLU8	A	Y	V	V	F	D	V
UniRef90_UPI0003B707F2	T	I	V	I	F	D	I
UniRef90_G7WNI9	A	Q	V	V	L	D	V
UniRef90_T0L7Q8	A	K	V	I	L	D	I
UniRef90_Q60CB3	A	Q	C	V	V	D	V
UniRef90_D6TES7	A	R	I	I	F	D	I
UniRef90_F1LGE7	I	Y	V	I	V	D	I
UniRef90_M0IDJ6	A	Y	V	V	F	D	V
UniRef90_F0LKB9	V	Q	L	V	P	D	I
UniRef90_L0HC99	L	D	I	L	L	D	V
UniRef90_F7AW07	I	F	V	I	V	D	I
UniRef90_D2RF88	A	Y	V	V	V	D	I
UniRef90_Q54BU9	I	H	V	I	V	D	I
UniRef90_Q4JB72	L	R	F	V	V	D	I
UniRef90_X6NLP8	V	W	V	V	V	D	I
UniRef90_X1ID66	A	Q	I	I	F	D	I
UniRef90_M0EFX8	A	Y	V	V	F	D	V
UniRef90_UPI000374366D	A	T	V	I	L	D	I
UniRef90_G0H493	T	Q	F	I	V	D	I
UniRef90_UPI0002F0C8D2	A	E	V	I	V	D	I
UniRef90_K9SZ12	A	T	L	V	L	D	V
UniRef90_S5Z697	V	E	Y	T	P	D	I
UniRef90_B7KD32	V	T	I	V	L	D	V
UniRef90_V4JUG7	L	R	F	V	V	D	I
UniRef90_H1A8J1	T	E	I	V	F	D	V
UniRef90_J0S061	S	E	I	L	F	D	V
UniRef90_E8R4V4	A	R	F	I	L	D	I
UniRef90_F4B8G1	I	T	F	V	V	D	I
UniRef90_K7IUQ3	L	F	V	I	V	D	I

	1			10		20		30		40
UniRef90_C1BP71				Y E Y L D H T A D V Q I H A W S S T L R E A I C E A A L G Y M T D L S A						
UniRef90_M0PAL1	H V P			Y E L R D H T A D V A V E A T A P T L S E E L F A S V A D G L T A C E T V						
UniRef90_F8D658				Y E L R D H T A D V A V A T A G D S L S E E V F A S V A D G L A A S C						
UniRef90_F2L4W8				Y Q Y G E T A D V L V V A Y G C T L E E A F K N A A I A T A D I T E R						
UniRef90_K6TZ48				F E F F D V T A D V G F R A H G K N L D D A F Q N A A I A T F E V M T D						
UniRef90_E4U6L0				R M L E H T A D V G F E V E A D S L A G V F E A A A D A L F E G G L P						
UniRef90_C6A4R1				W E H Y E H T A D I G I R G Y G D T L E E A F A V A T A L F D V M G V D						
UniRef90_F6D4W8				F E F F D V T A D V G Y T A Y G N T L S E A F G N A A L A M F E D T S K						
UniRef90_M0NJS3				E H T A D I A V E A T A P T L A A L F E A A V A D G L T A C E A V						
UniRef90_C1MQ19				Y E Y K D H T A D I Q I H A W G A T V E E C F A R A A L G M F D Y M T P						
UniRef90_E8N406				F E E I E H T A D W S L R V W A P D L P T F F K Q A A T G M L H L M G V						
UniRef90_E8WMM5				I A H A D T A F D A W A P T L E E L F Q D A A R A M V E N L P D						
UniRef90_K2R2L1	N K			F E F F D V T A D V G F R A C G K D M D E A F Q N A A L A T F E D T S Q						
UniRef90_UPI0003B559F2				Y E T F E H G A D I G I R G I G K T L E E A F I N A A K A L F S L M V L						
UniRef90_F2KRY4				Y R F L D H T A D I A F E V F G S S I E E L I E N A T L A F F A Y S E K						
UniRef90_M0AHF1				F E L R D H T A D I A V E A S G E S I T D V F A S V A D G L A A S C P						
UniRef90_X0T6U1				F R E I E H T A D W E L E V W A P D I L E L L K E A A L G M F T L S G S						
UniRef90_Q3IP68				Y E L R D H T A D I A V A T A G A T L D A V F A A V A D G L S A E T W P						
UniRef90_F8AH06				W E H Y E H T A D I G I R G Y G D T L E E A F E A V A L A L F D V M V D						
UniRef90_M0ACJ6				D H T A D I A V E A T G D S I T D V F A S V A D G L A A S C D						
UniRef90_G4RKQ4				Y L Y G E H T A D I L I R A Y G C T L D E A F K N A A L G I M Y D T S A						
UniRef90_L0AJ36				F E L R K H T A D V A V E A T G N T L D E A F A A V A D G L T A S C E T I						
UniRef90_M0H438				E H T A D V A V E A A G D S L G D V F A A V A N G L T A C D E V						
UniRef90_B3LAA1	Y Q			Y E Y V D H P A D V I L H S Y G K T L K E C F E S I C V S M F N N L N E						
UniRef90_L9X0I9				D H T A D I G V E A T G E S L E A V F A A I A D G L A A E S I P						
UniRef90_M0MAR6				F E L R D H T A D I A V A A T G E T L E G V F A A V A D G L A S V D D A						
UniRef90_D3SXW0				F E L R D H T A D I G V E A T G E S L A D V F A S L A D G L A A S C P						
UniRef90_V4XV55				D H T A D V A I A A T G T D L G A T F A A C A D G M T A A M C D						
UniRef90_D5VQT5	M F			K Y F F E T T A D L G V E A L G E S L E E A F K E A A K A L Y N I M D K						
UniRef90_D8F3A0				F E V L D H T A D L G L I V N G A D L K S L F Q N A A H A M L Q I M Q P						
UniRef90_D7AJB0				Y R Y L P D T A D V A F E A W G E T R E E M F C A A A D A M V D D L A S						
UniRef90_B9XIT9				A D I A F R A M G R S L E E V F V S A A D A M I D N L D S						
UniRef90_D6CJZ1				F E L I E H T A D I G I R V F A R S R E E L E A N S A E G L F S D L L K						
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UniRef90_A2SPP9				F E E L E H T A D I R M R I S A P D L S S L F S A L A K I L Y G A Y P L						
UniRef90_I5B1H7				F E E M E H T A D C A L H V W G Q N L N E L L L N A A R G M N S D L S S						
UniRef90_M0CKF8				F E L R E H T A D V A V E A T G E S L D A V F G A V A D G M A A A M C P						
UniRef90_D3S2W0	M Y			R F V I E H T A D I A F E V E A E S L E E L F I D A A N A F Y E A F D L						
UniRef90_Q2JQD3				W D H F E H M A D V G V R G Y G A T P E E A F A Q A A L A I T A V I T S						
UniRef90_L9Z3S4				Y E L R D H T A D V A V A T A G D S L A N V F A A V A N G L A S C D E I						
UniRef90_D3E0N0				F E Y F E V T A D I G F Y A Y G N T L E E A Y E N A A L A M F T D I D K						
UniRef90_K9XIK5				Y E Y L E D I A D I A F H A W G K N L E Q L E I A G D A M I E N I D A						
UniRef90_A6LM88	M Y			R E I N H T A D V A Y E I E A N S F L E I L N D I L N I L K E N Y L P						
UniRef90_L0DLK5				E I F D H T A D V G L K V R G N D L N D L F R T A A Q G V F D Y I V V						
UniRef90_A6UT99	M Y			E Y F E T M A D M G I I A K G N T L N E A F S E S A K A L M V D I N T						
UniRef90_UPI0003B4DF35				Y E T F E H G A D I G I R G Y G K T L E E A F S N L I K A L F S L I G E						
UniRef90_G0EEE9				F E F E E H T A D V I I R A Y G R T L E E T I A N A A R A V F E D T S K						
UniRef90_N6UU39	M F			D Y F E T T A D I G V I A K G K S L E E A F R E A A K G L Y N I M D K						
UniRef90_K2AFH5	Q			F E Q L P H T A D I Q I R V Y G A S L K E L F R H A V I G M F Q V V G P						
UniRef90_M9SFR8				Y E V L D H T A D L M I R G Y G S T L E E C Y A N L A Y G M F D D L S G						
UniRef90_L0A933				Y E F L D H T S D V L I K A I G N S L N E S F E Q A A I A V Y E D T N K						
UniRef90_E7QOD8				E H T A D I G V E A T G E T I S D A F A A V A D G M A A C D D I						
UniRef90_I0A2P9				Y S F E E H T S D V I I V A R G K T L E R A F E Y I A K G L M E I M S Q						
UniRef90_K8F5E8	N Q			Y E Y K D H T A D I Q I L K S W G D S I T T A F A W S A L G M F D Y M T P						
UniRef90_UPI0003010DE8				Y E F L E D T A D I A F R A T G K D L A E L F K A A G D A M I E N L D A						
UniRef90_A5GA02				Y R Y L E H V A D V A F E A F G D T I E E L F V A A G D A M V E E L A S						
UniRef90_F4G1N2				F E F F D H T A D L G I H A W G D T L E E A F V N S A A L A V F E D T S K						
UniRef90_F8AKL0	M			F E Y F E T M A D M G I I A R G D T L E E A F K E S A K A L M V N L N T						
UniRef90_D9Q337				Y D F L D H T A D V L I E A R G R T K E E A L E Q A G L A I M T D T S K						
UniRef90_X1BLA5				V Q V R S W G P S L E E A F S Q T A Y S L M T T I T P						
UniRef90_N0BIP7				Y R L I N H T A D I A F E A Y G Y S L E E L F E N A T R A F Y D A F A V						
UniRef90_F4BX73				F E Y L E H T A D V K F R A Y G T T P D Q M L S N A A A L F G A M G Q						
UniRef90_UPI000364D370				W Q H F P H E A D M G V R G H G E T L A A A F E Q A G L A L T A V I T D						
UniRef90_K1XDV6				F E V L E H T A D K I K V Y G K T L E E L F C A N A V N G M F Q A I G P						
UniRef90_Q8TYR4				W E E I E H T A D A A F R V W A D T P E D L L V I E A A K A L F D L I T D						
UniRef90_J3JF65				F E L R D H T A D V A V E A T A S D L A G L F G A L A D G L A A C E S I						
UniRef90_E0UGJ2				F E E I E H T A D W A Y R V W G S N L E E L F I R A A Q G L Y Y L A G A						
UniRef90_UPI0001FE385F				L D H T A D I Q L R G D S L E A E A F V Q V V Y A M Y T D K A D						
UniRef90_A2BK67				Y A H A P A D V I I V A K G R T L E E A F E Q A A L G V Y E D T S K						
UniRef90_L0IDS9				Y E L R P H T A D I A V A T A G R T L S A V F E A T A D G L A A C D E L						
UniRef90_M1Z058				W E H F P H D A D M G V R G I G P T L E T A F E Q A G A L A L T A V V I T D						
UniRef90_B7IDD2	M			R E I D H T A D I A F E I V N D T F L G L L E D I L K I I H D T Y K V						
UniRef90_H8I7A8				F Y E L E H T A D A F E I A Y G R T V D E A F E N S A L A M A S L M A T						
UniRef90_B9LZC1				Y H Y L E H T A D T A F E A S G T L E E V F T A A A D A L L N T M T E						
UniRef90_K0NSA8	Q			K L I D H T A D F G I Q V I A E N K K T L F V N A A L A M F D L I A D						
UniRef90_L9X8F8				F E L R D H T A D V G V A T A G E R L E D V F A A V A D G L A A A S C P						
UniRef90_H5SI63				F E Y F E V T A E V G I R A W G S T L S E A F A E A A R A L F E L M V D						
UniRef90_UPI000471B1FD				E V I E H T A D R A I K V W S D H L E G L E S Q A A A G M Y A L M D I						
UniRef90_I7IH17				Y R Y I D H P S D V V I E A S G K T L N E A L A H A A T A M F N M C D L						
UniRef90_H1XTW5				F R Q I E H T A D L G L E V F G K T I S E L F I N A H A G F Y E L L S Q						
UniRef90_UPI00037A355F				W E H F P H Q A D V G V R G I G P T L A A A F E Q T A R A M T A V V I T D						
UniRef90_V5AAZ8				D H T A D V A V E A T A G S L G D T F A A A V A A G L T A C A S V						
UniRef90_B9LQH9				E H T A D I A V E A T A P T L A A L F E S V G D G L T A C E T I						
UniRef90_UPI0003EBDFB6				Y E Y L D H T A D V Q I H S W G D S L E E A F E Q C A M G M M T D T E T						
UniRef90_F2U008				Y E Y L D H T A D I Q V H A W G D S L K E S F E Q A M G M T E L D K						
UniRef90_B5YH50				Y K V I D V A G D V G I R A E G A S L E E C F I N S A F G L Y S L I T D						
UniRef90_UPI00047E8AA5				W E L F P H V A D M G V R G Y G R T L E E A F S H A A A E A L T A V I C						
UniRef90_D5BYM5				Y Q F L D E V A D M V E F R A W G Q D L A E V F S S A A A D A M I E D L N S						
UniRef90_G3J0Z5				W E H F E H D A D I G I R G I A P T L E Q A F E Q A A V A M T A V V T P						
UniRef90_K0INA3				Y C F L D H M T D A V I E A Y G E T L E E A F E N A A K G L N D D L K T						
UniRef90_X0SGQ2				W R E I D H T A D S G I E V W A D N L K E L L L E A S A F Y Q L S T P						
UniRef90_W7AYZ0	N Y K			Y E Y L D H T A D I L H S Y G D N L K E A F E S V C I S L F N Y M C D						

UniRef90_C1BP71	V	P	T	A	S	E	D	L	I	L	K	A	Q	G	H	D	L	E	A	S	L	L	L	Y	N	F	L	D	E	C	L	Y	H	F	H	A	E	E	V	F	V	A	C				
UniRef90_M0PAL1	P	E	T	G	E	R	F	A	V	S	V	D	A	E	S	N	R	D	A	L	L	L	F	D	Y	L	D	Q	E	V	L	I	Y	E	R	D	V	R	E	L	V	D	N	R	D	H	
UniRef90_F8D658	E	I	P	G	E	R	F	S	F	S	V	D	A	E	S	N	R	D	A	L	L	L	F	D	Y	L	D	Q	E	V	L	I	Y	E	R	D	V	R	E	L	V	D	N	R	D	H	
UniRef90_F2L4W8	V	A	P	V	I	E	R	K	I	L	E	V	E	S	H	D	L	E	G	L	L	L	Y	S	W	L	D	S	E	V	L	I	Y	L	F	D	D	E	G	K	F	A	V	E	L		
UniRef90_K6TZ48	T	S	K	V	V	K	R	E	I	M	V	E	S	E	D	E	K	A	L	L	L	Y	D	W	L	D	S	E	V	L	I	Y	L	F	D	D	E	G	L	V	F	S	Q	F	T		
UniRef90_E4U6L0	R	R	G	R	R	T	E	R	I	L	A	L	V	T	A	P	D	L	E	T	L	M	V	R	W	L	D	S	E	V	L	I	Y	R	V	T	R	G	E	V	P	V	R	T			
UniRef90_C6A4R1	V	R	K	V	I	D	R	R	E	I	L	E	V	E	S	E	D	L	Y	A	L	L	Y	S	W	L	D	S	E	V	L	I	Y	L	H	D	T	E	F	G	D	F	E	V	I		
UniRef90_F6D4W8	V	K	P	K	V	I	T	K	H	L	K	V	E	S	E	D	E	K	A	L	L	L	Y	D	W	L	D	S	E	V	L	I	F	V	H	D	T	E	Y	F	E	V	K	I			
UniRef90_M0NJS3	P	D	A	G	D	R	F	E	L	S	V	T	A	E	S	R	E	A	L	L	L	F	D	Y	L	D	Q	E	V	L	I	Y	E	R	D	V	R	L	V	D	H	R	C				
UniRef90_C1MQ19	L	S	E	G	A	S	R	A	R	D	E	G	A	H	D	A	H	S	L	L	F	A	F	L	D	D	E	L	L	I	Y	F	H	F	H	T	S	M	L	V	T	R	W				
UniRef90_E8N406	E	S	L	D	I	V	P	A	V	L	S	V	E	G	D	D	P	E	A	L	L	F	A	F	L	D	T	E	L	L	I	Y	F	L	L	L	E	K	S	K	V	P	F	H	L		
UniRef90_E8WMM5	L	R	P	A	Q	T	L	E	V	K	L	E	Q	E	N	D	E	M	L	L	L	F	D	F	L	D	S	E	V	L	I	Y	F	K	D	A	R	L	K	V	P	T	E	F	V		
UniRef90_K2R2L1	I	K	P	A	V	K	R	E	I	L	E	A	E	D	E	K	A	L	L	L	Y	D	W	L	D	S	E	V	L	I	Y	L	H	D	E	G	L	V	F	S	R	F					
UniRef90_UPI0003B559F2	N	L	K	E	D	I	V	R	P	E	V	K	V	S	A	E	T	L	E	E	L	F	I	E	W	L	D	S	E	V	L	I	N	K	L	S	E	A	G	M	E	N	L	V	F	K	C
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UniRef90_M0AHF1	S	A	G	E	R	F	S	L	S	V	T	A	E	N	R	E	A	L	L	L	F	D	Y	L	D	S	E	V	L	I	Y	L	R	D	R	A	E	L	P	V	D	H					
UniRef90_X0T6U1	D	R	P	R	L	T	R	E	F	S	V	T	A	A	V	D	P	E	G	L	L	V	S	F	L	D	S	E	V	L	I	Y	Y	A	E	L											

[illegible]

UniRef90_C1BP71	M	F	V	I	V	D	I
UniRef90_M0PAL1	A	Y	V	V	F	D	V
UniRef90_F8D658	A	Y	V	V	F	D	V
UniRef90_F2L4W8	V	Q	F	V	V	D	I
UniRef90_K6TZ48	L	Q	V	I	L	D	
UniRef90_E4U6L0	A	R	V	I	L	D	V
UniRef90_C6A4R1	T	Q	L	V	P	D	I
UniRef90_F6D4W8	V	R	V	I	L	D	I
UniRef90_M0NJS3	A	Y	V	V	F	D	V
UniRef90_C1MQ19	V	F	V	I	V	D	I
UniRef90_E8N406	A	T	I	T	F	D	V
UniRef90_E8WMM5	A	T	V	V	L	D	V
UniRef90_K2R2L1	L	Q	V	I	L	D	
UniRef90_UPI0003B559F2	A	Q	C	V	V	D	V
UniRef90_F2KRY4	A	F	V	V	V	D	I
UniRef90_M0AHF1	A	Y	V	V	F	D	V
UniRef90_X0T6U1	V	R	I	V			
UniRef90_Q3IP68	A	Y	V	V	F	D	V
UniRef90_F8AH06	A	Q	L	V	P	D	I
UniRef90_M0ACJ6	A	Y	V	V	F	D	V
UniRef90_G4RKQ4	L	Q	F	V	V	D	I
UniRef90_L0AJ36	A	Y	V	V	F	D	V
UniRef90_M0H438	A	Y	V	V	F	D	V
UniRef90_B3LAA1	A	F	V	L	V	D	I
UniRef90_L9X0I9	A	Y	V	V	F	D	V
UniRef90_M0MAR6	A	Y	V	V	F	D	V
UniRef90_D3SXW0	A	Y	V	V	F	D	V
UniRef90_V4XV55	A	Y	V	V	L	D	V
UniRef90_D5VQT5	V	K	Y	I	V	D	
UniRef90_D8F3A0	A	R	I	I	F	D	
UniRef90_D7AJB0	A	R	V	V	L	D	I
UniRef90_B9XIT9	A	S	V	I	L	D	I
UniRef90_D6CJZ1	A	E	V	I	F	D	V
UniRef90_A0B8X4	M	Q	V	V	L	D	V
UniRef90_A2SPP9	L	I	I	I	F	D	I
UniRef90_I5B1H7	A	T	V	V	F	D	V
UniRef90_M0CKF8	A	Y	V	V	F	D	V
UniRef90_D3S2W0	A	F	V	I	I	D	I
UniRef90_Q2JQD3	A	Q	C	V	V	D	V
UniRef90_L9Z3S4	A	Y	V	V	F	D	V
UniRef90_D3E0N0	L	R	A	I	L	D	
UniRef90_K9XIK5	A	T	V	I	L	D	I
UniRef90_A6LM88	L	K	V	V	F	D	I
UniRef90_L0DLK5	A	E	M	I	L	D	I
UniRef90_A6UT99	I	R	F	I	V	D	
UniRef90_UPI0003B4DF35	A	Q	C	V	V	D	V
UniRef90_G0EEE9	L	R	F	A	V	D	I
UniRef90_N6UU39	I	R	Y	I	V	D	
UniRef90_K2AFH5	A	D	I	V	F	D	I
UniRef90_M9SFR8	V	T	V	L	F	D	V
UniRef90_L0A933	I	Y	F	V	V	D	I
UniRef90_E7QOD8	A	H	V	V	F	D	V
UniRef90_I0A2P9	L	K	I	T	V	D	I
UniRef90_K8F5E8	V	Y	V	I	V	D	I
UniRef90_UPI0003010DE8	S	M	I	I	L	D	I
UniRef90_A5GA02	A	V	V	I	L	D	I
UniRef90_F4G1N2	I	T	F	V	V	D	I
UniRef90_F8AKL0	I	K	Y	I	V	D	
UniRef90_D9Q337	L	R	F	V	V	D	I
UniRef90_X1BLA5	L	D	I	V	F	D	I
UniRef90_N0BIP7	A	F	V	V	V	D	I
UniRef90_F4BX73	I	Q	V	V	L	D	V
UniRef90_UPI000364D370	A	Q	C	V	V	D	I
UniRef90_K1XDV6	T	D	I	V	F	D	I
UniRef90_Q8TYR4	A	E	Y	V	V	D	
UniRef90_J3JF65	G	Y	V	V	F	D	V
UniRef90_E0UGJ2	V	T	L	V	L	D	V
UniRef90_UPI0001FE385F	I	Y	V	I	V	D	I
UniRef90_A2BK67	V	Q	F	V	V	D	I
UniRef90_L0IDS9	A	Y	V	V	F	D	V
UniRef90_M1Z058	A	Q	C	V	V	D	V
UniRef90_B7IDD2	I	K	V	V	F	D	I
UniRef90_H8I7A8	A	Q	V	V	L	D	I
UniRef90_B9LZC1	A	C	V	V	L	D	V
UniRef90_K0NSA8	S	R	I	I	F	D	I
UniRef90_L9X8F8	A	Y	V	V	F	D	V
UniRef90_H5SI63	V	E	C	V	L	D	I
UniRef90_UPI000471B1FD	T	T	I	V	F	D	V
UniRef90_I7IH17	L	M	I	L	V	D	I
UniRef90_H1XTW5	A	T	I	I	F	D	I
UniRef90_UPI00037A355F	A	Q	C	V	V	D	V
UniRef90_V5AAZ8	A	Y	V	V	F	D	V
UniRef90_B9LQH9	A	Y	V	V	F	D	V
UniRef90_UPI0003EBDFB6	V	Y	V	I	L	D	I
UniRef90_F2U008	A	E	I	I	F	D	I
UniRef90_B5YH50	A	Q	C	V	V	D	V
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UniRef90_D5BYM5	A	Q	C	V	V	D	V
UniRef90_G3J0Z5	V	K	F	L	L	D	
UniRef90_K0INA3	A	M	V	I	F	D	I
UniRef90_X0SGQ2	V	Y	V	L	V	D	I
UniRef90_W7AYZ0	V	Y	V	L	V	D	I

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UniRef90_UPI00047CE710		Y E	L L	E D T A D I	A F R A W G K D	L P E I F K A A G D A M I E N L E S
UniRef90_G2DFV8		W E	H F Y	H V A D I	G V R G S G Y T L	A E A F E Q A A L A M T A V I D T
UniRef90_L8GUG4					W G E S L	K Q A Y E Q A A V V G M M T D L D T
UniRef90_MOL309		F E	L R D	H T A D V A	V A A T G G T	L E E V F A A V A D G L A T D E V P
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UniRef90_I3IQ67		Y E	Y L E	D I A D T A	F K A W G K D	L E E T F I S A A N A M V E D L D S
UniRef90_F0T9Y9		Y E	F F D	V T A D V G	F K A Y G D T I	D V A F S N A A I A M F E D T S K
UniRef90_B6YVC7		W E	H Y E	H T A D I G	I R G Y G E T L	E E A F E A V A L A L F D V M V D
UniRef90_B8BWG5		Y E	Y L D	H T A D I L	H S W G N D	L S A S L S N L A V C M F Y I T S I
UniRef90_B9L4B2		Y E	Y L D	H E A D I G	L E A T G A S L	E E A L R D G V R G L L A L L E T
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UniRef90_UPI000371517F		W E	H F S	H V A D V G	I R G I G S S P	E E A F A Q A A L T A V I T D P S L
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UniRef90_D9PU95		F E	F F D	V T A D A G	Y W A Y G R T	P E E V F E N A A L A M F E I M S L
UniRef90_A6USG6	M	Y T	Y F E	T M A D I G	I I A V G T N L	E E S F Q N S A K G L F N L M V D
UniRef90_F0Y5Z8		W E	H L D	H T A D V Q	E H A W G A D M	D A A L A N L G M C F F D Y V T D
UniRef90_A9UT18			L D	H T A D I Q	V H A W G Q T	L K D S F E Q A M F G Y M T E L D A
UniRef90_L9XRM5		F E	L R D	H T A D V A	V A A T G H S	L E A V F A A V A D G L A A D E I P
UniRef90_D5U229		F E	F L E	H T A D V Y	V R A Y G G S I	I E L F E N S G L A L F E D T S K
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UniRef90_UPI00035E719F		Y R	Y L D	D V A D L A	F E A K A E K L	E D L F R A V S K A M I L N L E E
UniRef90_Q9TZN1		F E	Y L D	H P A D I Q	L H S W G S T M	E E A F E A C M F G Y M T D L A K
UniRef90_Q01FD4		Y E	Y K D	H T A D I Q	I H A W G D D L	A E A Y A W A A L G M F D Y M T P
UniRef90_M1VJK6	Q	F T	Y L D	H T A D V M	I H A W S S S L	P G A F A Q C L L G L Y G V
UniRef90_K6UMA1	Y	Q	Y E	Y L D H	P A D V I L	H S Y G K T L R E C F E S A C I S M F N N L N K
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UniRef90_W4XML0					G P T	L K D S F E A V V Q A M M T D I Q H
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UniRef90_C1EJH0	Q	Y E	Y K D	H T A D I Q	I H S W G D S M	E E C F A W A A L A M F N Y M T P
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UniRef90_H1YXW6		F E	E L D	H T A D Y M	F R C S G T Y D	E L F T S A A K A M F T L M F D
UniRef90_I0JXY0	Y	R	W E T	F S H M A D I G	I R G F G N S P	E E A L I A V S L A L I S V I T D
UniRef90_V4X8Z6		Y E	L R D	H T A D V A	V I E A T A P T	L S A V F A A V A D G L T A E S V P
UniRef90_I3L7E1						A M F G Y M T D T G T
UniRef90_UPI00035C2372	M	N	Q	Y V K H T A D V	E I E V S G R T L	Q E L F T K S L E A M C D C K T I
UniRef90_I0AJ01			Y I S H T A D I	A F D V I E A D S I	E E L F I E S F K G W L E E I T K	
UniRef90_W0DF89		Y E	I L D	D T A D A G	I R V R A K S L	E E L F C K A I L A F N E I T D I
UniRef90_B3T9X5	M	R	K I T E	H T A D A G	I E V E A A S L	P E A F H E V S L A F T E I V N L
UniRef90_L9W7X1		F E	L R D	H T A D I A	V A A T G D T L	E A V F A A V A N G L A A D D V P
UniRef90_E4XF86		F E	H L D	H T A D I Q	I H S W G R T L	E E A F E S A V L G M F D Y S V P
UniRef90_X1NH93		F E	L L D	H T A D I G	I S Y G N T I	E D L F C N T A I A M M A D L D K
UniRef90_A5FR48		Y K	L I Q	H T A D V G	I V A Q G A S M	G D A F G F A A S G L F S I T D T
UniRef90_H0Q378		W E	T F E	H E A D I G	L R G T G A T L	A E A F V G A A T A L T A D P A T
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UniRef90_Q12U03		Y E	Y L E	H T A D A K	F R A Y G K T K	E E A F A N A A E A M F N V M I N
UniRef90_Q74MG0	Y	C	F E	Y L D H T A D V	M I K A Y G R N L	K H A F Y S A A A G M L H L I Y D
UniRef90_Q3Z8A0		Y	K L M Q	H T A D T G	I A Q G A D L S	A A F A F S A S G L F S L I T D
UniRef90_K2F9B0		Y	K I L E	D V A D V C	F E E A Y A P N	L M L F K H A A L A I M V N T K T
UniRef90_A0A024WJX0	Y	E	Y K Y L	D H T A D I	L H S S G K N L	R E C F E S I C I C M F D N L N S
UniRef90_A8USW5		Y E	T I D	D T A D A G	I R V R A E S L	E E L F C R A L L A F N E I T D I
UniRef90_D5E9W6		Y E	Y I E	H T A D A R	F K A F G S T A	E E A F A N A A E A M F N D T S G
UniRef90_D2BHQ8		Y	K L I Q	H T A D T G	L A Q G A N L S	D A F A F M A S G L F T D T S T
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UniRef90_U6P5F2		Y	R Y L E	H P A D V Q	V H S W G P D L	A S A L A Q A V Y G Y M T D L E Y
UniRef90_E4NR27		F E	L R D	H T A D V A	V A A S A P T	R S A L F A A V A D G L A A D E I P
UniRef90_H8GJP2		W E	H F D	H D A D M G	I R G I A P T	L A G S F E Q A A L A L T A V T D
UniRef90_G2MK74		F E	L R D	H T A D V A	V K A S G D S L	G E T F A A V A D G L A A M N D
UniRef90_U3A4P8				H T A D V A	V E A H G D T L	G D C F A A V A N G M M C D E I P
UniRef90_Q2FUK8		F E	E R D	H T A D I L	M H I R A A D T I	G L F T D A G H A L M K T M G P
UniRef90_Q21RQ1	Y	N	H	W E H F E	H G A D I G	V R G I G A T K A G A F E Q A A L A L T A V I T D
UniRef90_G0QEW3			Y E I M Q	H P A D A K	F R A S G E T K	E E A F S E A V R A F A D I V G G
UniRef90_I7A1D4			F K F I E	H T A D V A	A E I T G K S I	T E I F L A A F E A W K E T V I E
UniRef90_V4HNE8		F R	L R E	H T A D V A	V I E A S A P T	L G A T F A A V A D G L A A C D D A
UniRef90_L9WJ73		F E	L R A	H T A D V A	V A A T G E T L	E D V F A A V A D G L A A A S C D
UniRef90_Q0A7W2				H D A D V R	V C G W G P T	P E A A F E Q A A V A L T R V V T P
UniRef90_UPI0003633727		W E	H F A	H E A D M G	I R G I A P T	L E Q A F E Q A A L A M T A V I T D
UniRef90_Q3SGD7			E Q F S	H E A D I G	V R G I G S P	D L A A A F E Q V A V A M T A V I T R
UniRef90_O59205		W E	H Y E	H T A D I G	I R G Y G D S L	E E A F E A V A I A L F D V M N K
UniRef90_A0A016THR7		Y R	Y L E	H P A D V Q	V H A W G P D L	A K A V A Q A V T A M M T E L D K
UniRef90_D1CED9		Y E	Y F D	H D A D V G	I V G R G S S L	E S A F E S A A K A M F A V M E A
UniRef90_H5SPL8		F G	Y F D	H D A D I G	I E G R G R S L	E E A F V E A A R A M F S D L S K
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UniRef90_A0A059MHR3		Y	R S V P	H T A D L R	I E A W A P T R	D E C I A Q A V R G A F A D I S S
UniRef90_G4SW50		W E	H F E	H K A D I G	I R G I A P T	L A A A F E Q A A L A M T S V I D L
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UniRef90_Q2KKU1						L E E A F E Q C A M G M F T D T E T
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UniRef90_UPI00047CE710	I	E	P	R	Q	T	R	N	I	S	L	E	N	E	D	L	L	L	F	N	F	I	Q	E	L	I	Y	Y	K	D	S	E	Q	L	D	G	K	H			
UniRef90_G2DFV8	V	A	G	S	E	D	I	E	V	N	V	S	A	G	H	E	D	S	L	L	T	E	N	F	L	N	A	L	F	F	T	R	F	Q	V	K	I	D	F	H	
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UniRef90_MOL309	E	G	T	A	G	E	R	F	R	V	S	V	T	A	E	S	R	E	A	L	L	F	D	F	L	D	E	L	L	F	F	T	R	A	A	L	P	V	D	F	H
UniRef90_O27635	V	E	A	G	A	E	R	R	V	S	V	T	A	E	S	R	E	A	L	L	F	D	F	L	D	E	L	L	F	F	T	R	A	A	L	P	V	D	F	H	
UniRef90_UPI0004637A6C	V	T	P	Q	E	P	V	P	I	S	C	I	T	A	P	S	G	E	S	L	L	F	D	F	L	N	A	L	F	F	T	R	F	S	L	Q	L	D	F	H	
UniRef90_I3IQ67	I	Q	L	Q	E	K	R	E	I	Q	L	E	N	E	E	L	D	M	L	L	F	N	F	L	Q	E	F	I	Y	Y	K	D	A	E	Q	L	I	V	R	T	
UniRef90_FOT9Y9	V	E	H	R	I	L	E	I	K	I	E	A	E	D	E	C	S	T	L	L	F	E	W	L	S	E	L	L	F	H	D	T	E	F	S	K	I	N	V		
UniRef90_B6YVC7	V	E	P	K	E	V	R	E	L	E	V	E	A	E	D	M	D	G	L	V	F																				
UniRef90_B8BWG5	N	L	I	A	T	N	P	S	Q	C	L	E	A	G	H	D	R	S	L	V	Y	S	F	L	D	E	W	L	F	N	F	D	T	G	F	V	A	K	E		
UniRef90_B9L4B2	V	E	P	R	Q	A	N	P	V	P	I	T	A	S	D	P	G	S	L	L	F	D	F	L	N	A	V	L	A	A	V	D	T	G	M	F	F	R	D	F	
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UniRef90_UPI000471A482	V	N	P	K	I	A	V	L	L	K	Q	A	P	D	E	L	L	L	F	V	E	G	L	N	A	V	L	A	A	V	D	T	G	M	F	F	R	D	F		
UniRef90_UPI000371517F	V	E	P	R	E	I	R	L	S	Q	C	A	A	P	F	M	E	L	L	L	F	D	W	L	N	A	V	L	A	A	V	D	T	G	M	F	F	R	D	F	
UniRef90_UPI00045E9106	D	A	I	K	P	S	R	S	L	S	I	T	A	A	D	P	D	I	L	L	F	D	W	L	N	A	V	L	A	A	V	D	T	G	M	F	F	R	D	F	
UniRef90_D9UP95	V	H	K	A	E	S	R	R	V	E	L	I	K	S	E	D	M	V	S	L	L	F	D	W	L	N	A	V	L	A	A	V	D	T	G	M	F	F	R	D	F
UniRef90_A6USG6	V	K	I	Q	K	F	E	F	E	L	E	I	K	S	E	D	M	V	S	L	L	F	D	W	L	N	A	V	L	A	A	V	D	T	G	M	F	F	R	D	F
UniRef90_F0Y5Z8	V	D	P	D	C	A	Q	A	F	E	V	T	G	V	D	M	H	K	F	V	F	R	F	L	D	E	L	L	F	R	F	A	A	G	V	A	C	R	S	V	
UniRef90_A9UT18	I	E	I	D	D	S	Q	E	F	S	V	E	G	H	D	R	S	L	L	F	A	L	L</																		

[illegible]

UniRef90_UPI00047CE710	A	M	V	I	L	D	I
UniRef90_G2DFV8	A	Q	C	V	V	D	V
UniRef90_L8GUG4	V	F	V	I	I	D	I
UniRef90_M0L309	A	Y	V	V	F	D	V
UniRef90_O27635	A	R	V	I	L	D	
UniRef90_UPI0004637A6C	A	Q	C	V	V	D	V
UniRef90_I3IQ67	T	L	V	I	L	D	V
UniRef90_F0T9Y9	L	Q	V	I	L	D	I
UniRef90_B6YVC7	V	Q	L	V	P	D	
UniRef90_B8BWG5	V	Y	V	V	V	D	I
UniRef90_B9L4B2	L	R	C	V	L	D	
UniRef90_I4CB95	A	H	I	V	F	D	I
UniRef90_UPI000471A482	A	A	C	I	V	D	V
UniRef90_UPI000371517F	A	Q	C	V	V	D	V
UniRef90_UPI00045E9106	A	Q	C	I	V	D	V
UniRef90_D9PU95	A	R	V	I	L	D	
UniRef90_A6USG6	V	E	F	I	V	D	
UniRef90_F0Y5Z8	L	F	V	I	V	D	I
UniRef90_A9UTI8	V	Y	V	I	L	D	I
UniRef90_L9XRM5	A	Y	V	V	F	D	V
UniRef90_D5U229	A	Y	F	V	L	D	I
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UniRef90_R9SJ29	L R V I L D
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UniRef90_U6IIR5	
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UniRef90_Q8SWC1	L Y C I F D V
UniRef90_V6DIL0	V T L G F D I
UniRef90_W7T6T0	C A V T I D V
UniRef90_UPI0003B42B06	L E V I M D V
UniRef90_F4PXC3	I F V I V D I
UniRef90_UPI0003637F2E	A K V T F D I
UniRef90_UPI00036AF503	
UniRef90_B8D5T4	A Y F V L D I
UniRef90_T1AFA0	A R V I V D I
UniRef90_Q2T5P0	A E C V V D V
UniRef90_X0ZW57	G R I I F D V
UniRef90_A7HL64	V R M V F D V
UniRef90_T1ELH7	V F V I I D I
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UniRef90_C1LH48	L F V I I D I
UniRef90_F8C3I1	V Q C V V D V
UniRef90_A9A300	R F L L D
UniRef90_U6GT19	
UniRef90_K0BAL4	R F L L D
UniRef90_D3SLK8	A E V I F D I
UniRef90_W0K056	A Y V V F D V
UniRef90_A4RS97	L F V I V D I
UniRef90_UPI0003673A54	A Q C V L D I
UniRef90_S0AQS9	A I L V L D V
UniRef90_UPI000252ABD4	
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UniRef90_UPI00035A18CD	I F V I I D I
UniRef90_L1LA06	
UniRef90_B3S1I0	C Y V I V D I
UniRef90_K2BT36	A R C V V D V
UniRef90_H5X6R9	C S V T I D V
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UniRef90_D8PG41	A R V V L D V
UniRef90_UPI000366A92E	A R V I V D V
UniRef90_K1QTH1	V F V I I D I
UniRef90_X1PJW3	V Q I L F D I
UniRef90_F9CYZ6	R F L L D
UniRef90_B7PHX9	V F V I I D I
UniRef90_S6C9Q9	
UniRef90_UPI000371C1E7	A E V V L D I
UniRef90_T1CTU0	A R V I V D I
UniRef90_X1U6V2	
UniRef90_UPI000376F937	A K C V V D V
UniRef90_X0ZCP4	A Q V I F D I
UniRef90_D9PK20	A Q V I F D
UniRef90_UPI00036DC54E	A R C I I D V
UniRef90_I7MPE2	A S C V V D V
UniRef90_G0QB72	L S A V L D
UniRef90_T1JD31	L Y
UniRef90_X1EL83	V Q V L F D I
UniRef90_V6KUP8	C G V T V D V
UniRef90_H9UC64	L K V V F D I
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UniRef90_Q39V78	A T V V L D I
UniRef90_V4AFH2	I F V V I D I
UniRef90_X0TJEO	
UniRef90_I7ALL4	S Y C I F D I
UniRef90_F8E6H3	A V V I L D

1 10 20 30 40

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UniRef90_R1G929 Y E Y L D H T A D V Q I H C W G N S W E T A F E A A G L A L F D Y M T P

UniRef90_E0S5V6 E F L D H L A D I Q M H C T A T S L P A L Y E V A V K G M M A V R I P

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UniRef90_K1LTB4 F E Y L D H T A D V I V H A F G T S L E S L F S F L V F G L F H Y M V D

UniRef90_X1IXJ5 E H T A D I A V A A A A D S L G G V F G A V A D G M A A D D V

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UniRef90_F4F2N8 H R G V P H T A D L R I E A W A P S R E A C I A E A V A A L V E S F A

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UniRef90_J4D9V1 F E I V D T T A D V G L K V Y G K D R E E F I K N L L E S F Y L C F D

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UniRef90_UPI00047E1BC6 Y E Y L E H Q A D I G I R A W G A D Y A E A L A E A L R A L G A L T V

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UniRef90_H8HRH2 F E E I D H T A D I A F A V K G E D L E E Q L H Y H A L A A L A F Y E P Q

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UniRef90_D6YUX1

UniRef90_D6Y497

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UniRef90_W8T7F1	L P E S F E R R I C V E S M D Y T C L L V D F L	S E V L L L T D T H S Y N I F R I V		
UniRef90_I4BXK7	L K P Q D E D T I K I E S M D L L E L F V S W L	S E N E L L Y L I D V R F Y P R D V		
UniRef90_Q97A49	V G K L K E K R K I I R G N T P E D I M V N L L	S E R V L L F Y V D T Y Y F R A T C		
UniRef90_Q1D199	E A P L P Q P S V A L I V A A D T E A L L V D W L	S E N E L I A R S D L A K D L V V D		
UniRef90_V6ARD2	V D I K H Q K V L K V T G K D L R Y L L Y N W L	S E E I L I L I T E G F A T R T I		
UniRef90_Q2IPJ0	I D G E E E R L A V R G G P G L A G T A V A L L	S E R E L L W R F S A R R I P A A V		
UniRef90_Q4UD44	V E P K H L K T I E V T G K G L I K L Y H L L	S E L L C Y L Y S G D Y F I A E F		
UniRef90_Q9HKC1	V S E N R K M H E V I T G K T P E D I M V N L L	S R V L Y L L D T Y Y I Y S D G		
UniRef90_UPI00035C37AA	E V I G N G T L V I E L S A E S E M E L W F K F L	S N E I V F F M D K N E A P T H V		
UniRef90_I0RUR2	A S P L R T V T S E V P A T T D D R L V A A L	S E L I Y L L D E G V V P L S A		
UniRef90_UPI0003729090	V E P K E Q R Q V E V P I P D K E L L L R W L	S E L L Y L K E A E F I P C K A		
UniRef90_A0A023G873	V E I R A T C D I C A A E A D M V G L F H F L	S E L L Y V F S A E P F I I G R		
UniRef90_B8GGW2	C Q G G D H E C I T V S A E A D Q V A L M Q E F L	S E V L Y L T E V A E C H I V K V		
UniRef90_I6UKC5	E A G E T A G R V E I S E G S C E M N M V A L L	T Y F I L M Y G E G L V V V K V		
UniRef90_UPI00036FAA36	A E Q T D S A S F E V S E D T D E D L L V T V L	S E V I Y L L M D T A D V P L R A		
UniRef90_D2EGR4	V N R T K K I N F T I H S K S L D L V D V F I	N K I V F Y K D Y K N L D K K L		
UniRef90_X1UKD8	L D S I D E V D T E L V A P D L E T L L V E W L	S E L I Y L F D A E		
UniRef90_L8PSQ5	V R P T S M E R V R L A E D S D E G L L T A L	S E V V F R L D V G R V P V D L		
UniRef90_F8GI6B	V Q P D I T V T I E F E E S D E L A L V V W L	S E L L G M V F S H F Y I R R Q		
UniRef90_W9DNP7	G D P V S T V E F E V G G E T D E D L L V G V L	S E V I N R M D S G Q V P V T S		
UniRef90_X7Z7R1	A T A Q Q T R R R R I T A N R D D L L V A A L	S E E V Y L L E T G Q A P A D L		
UniRef90_UPI000237B2FB	E E A E S T R T A E F D G T D E Q L L L A V L	S E I I Y L L D E G T V P L G I		
UniRef90_E1RHR5	E R E D S V K I K L E A G D S E T L L Y D L L	S E L L F L S E V E R V V F D H		
UniRef90_X1VMD3	K N L K E N F K I K L E A D D L E G L	S E L L Y I G E T R L V I		
UniRef90_E9CG81	T D K A D I F	S E L L V V K T I E M I E F D A		
UniRef90_UPI000345F1EF	P P A T T T V E R D L E G A T D A D L L A A V I	S E V V Y L L E R G L L P A A T		
UniRef90_UPI000047EC15B	V A A Q E T V E I A C Q A A D D E L L L A A W L	S E N A I V S E M A V R F G R F H V		
UniRef90_C1DIO1	V A P R E A L E I E C A A P D L E L L L V D W L	S E N A L V F E M T R R L L E S R F		
UniRef90_T0MEP6	M G N N I I R T V K I E K E T L D D I F I E L L	S E N D I L L F Y M E T E N I L F R V		
UniRef90_C7DGM2	P R K K I E F S F T E S A Q S L E N L L W F V L	S E S D R G M L P K Q A		
UniRef90_D1FJP6		S E D L S S L L F H F L D E F L F M F S A E P F I E F		
UniRef90_R1G929	V E K K E S K Q F V I E G K N I L E I L Y N V L	S E V F Y K D K F A V R D I		
UniRef90_M2W6V9	D P V V G S V P I R A Q G H D L Y S L Y K F L	S E L C Y F Q Y G A N Y I		
UniRef90_E0S5V6	P A A G G T G R V E L Q G S S E M N M V G L L	S E L Y F I D E G L V V S E V		
UniRef90_T0NBG6	Q P G R S R K E I I A E T G N E L I L Y T I L	S R V L Y Y F E E G L I P G E T		
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UniRef90_M0E1M6	P A A G E R F E F A V E A E G R E A L L F D Y L	S E L I Y E R D V R L V		
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UniRef90_P9WQ02	A H A V H T R L R L T A D R D D L L V A V L	S E E V I Y L L D T G E T P V D L		
UniRef90_S3BS92	A T A E A T R A V R V T E H G D A E V L A A L	S E E V V F R L E V G E V P V D V		
UniRef90_F8K0I2	A R P S R E H L V E L G G A G R E D R L V A L	S E V V Y R L D S G E V V A T		
UniRef90_UPI0003B5A616	L S K I A R H E L E V K A E N R E L F R E W L	S E I L Y Q I E R L F V S F R I		
UniRef90_UPI00045E5D02	L R P E Q V V T F E F D E A D P E L A L V T W L	S E L L A E A Q S R R L A L R F		
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UniRef90_UPI0003670021	A Q P A N E Q V Y H A P A D E D A D L L V T I L	S E E V I F R M E T G E L P L R T		
UniRef90_X0TCL7	V V P K T R I Q V S V G A S S L E F L L V E W L	S E L I Y S Q K D		
UniRef90_K1LTLB	A K A D Q I Q Q F S L D S V D I T A L L V E F L	S E N E V L Y S H T K A V F L K V L		
UniRef90_X1IXJ5		S E L I F L V D S E N F V V K L V L		
UniRef90_T0YMP7	V S D T N R V V V R V R A D S M K V L L W R F L	S E L Q S K S D V H Y A V I S L		
UniRef90_U6MPTH9	L V L R L R A E A A A N C D P Q Q Q Q Q Q Q	S E Q Q Q Q Q Q Q Q Q Q Q Q		
UniRef90_B0R5M9	P A T G A Q L T V S E R A E S R E A A L Y D Y L	S E R L L Y E R D Q Q G V L P V D N		
UniRef90_B9Z817	D L A A L R			

		90	100	110	120																																								
UniRef90_Q6KZS7	E	I	N	D	M	E	L	N	G	I	K	G	F	Y	L	K	G	D	E	I	K	A	V	T	Y	Y	D	L	E	I	R	P	E	D	G	F									
UniRef90_W8T7F1	E	I	E	S	S	R	L	E	A	V	I	H	G	R	R	E	E	F	D	E	D	E	I	K	A	V	T	Y	H	E	A	E	V	V	K	N	Q	G	N	Y	E				
UniRef90_I4BXK7	S	I	D	L	Q	G	M	R	L	S	V	N	G	N	L	C	I	P	V	R	A	I	K	A	V	T	Y	G	S	A	E	I	T	T	K	P	T	W	R						
UniRef90_Q97A49	K	L	D	V	I	Y	L	Y	G	S	E	I	P	E	E	V	E	Y	R	N	V	I	K	A	V	T	Y	G	S	E	I	A	V	K	P	E	D	G	F						
UniRef90_Q1D199	E	L	Q	E	R	S	L	R	A	E	I	R	G	V	S	P	P	V	K	T	A	V	K	A	A	T	F	H	G	L	E	L	H	E	H	D	D	G	F	T					
UniRef90_V6ARD2	D	L	E	N	E	E	Y	G	E	P	L	D	F	K	K	H	R	F	K	V	E	I	K	S	P	T	F	H	A	M	E	I	V	R	N	G	G								
UniRef90_Q2IPJ0	E	V	E	A	V	V	I	G	F	A	R	W	D	P	N	L	H	A	D	G	A	D	V	K	A	V	T	W	H	A	A	R	L	E	P	E	G	G	W	V					
UniRef90_Q4UD44	K	I	K	A	I	A	L	G	D	Y	Y	D	K	N	I	H	K	C	G	T	E	I	K	A	I	T	M	H	H	L	S	I	K												
UniRef90_Q9HKC1	E	L	D	A	Y	F	Y	G	S	E	I	P	E	G	I	E	Y	R	N	V	I	K	A	V	T	Y	S	D	L	A	V	K	P	E	E	G	Y								
UniRef90_UPI00035C37AA	T	L	K	E	Y	H	L	G	A	T	V	V	P	D	S	K	R	K	Q	D	I	K	A	F	T	L	H	D	F									G	F	Q					
UniRef90_I0RUR2	E	V	D	T	M	R	L	T	M	P	V	A	S	L	S	D	V	I	G	A	V	P	K	A	V	A	L	S	G	L	E	F	N	H	S	G	N	E	W	R					
UniRef90_UPI0003729090	S	V	E	G	E	R	L	S	E	K	I	V	L	L	H	H							I	K	A	V	T	H	H	M	V	R	I	E	E	V	D	G	W	L	K				
UniRef90_A0A023G873	K	V	E																																										
UniRef90_B8GGW2	S	L	S	A	I	L	T	G	E	P	F	D	Q	A	L	H	A						G	S	E	V	K	G	I	S	F	Y	G	L	S	I	E	T	V	E	N	A	Y	Q	
UniRef90_I6UKC5	T	L	E	N	G	H	L	T	C	D	Y	D	G	S	R	C	Q	G	L	C	E	I	K	A	V	T	L	C	G	L	R	V	I	E	K	D	G	V	I	F	H				
UniRef90_UPI00036FAA36	R	L	D	E	E	G	Y	D	H	F	D	V	T	G	E	L	V	G	A	V	P	K	A	V	S	L	H	G	L	R	F	D	D	R	P	D	G	W	F						
UniRef90_D2EGR4	N	L	K	C	Q	A	D	C	E	K	I	E	N	L	K	D	R	F	L	V	D	V	K	A	A	T	L	H	E	L	E	I	K	K	E	K	G	L	I	K					
UniRef90_X1UKD8																																													
UniRef90_L8PSQ5	E	A	D	A	T	D	G	D	L	D	V	R	L	A	L	A	E	L	D	V	E	V	K	G	V	S	W	H	G	L	R	F	G	P	D	P	Y	G	W	S					
UniRef90_F8GIB6	E	N	R	G	K	A	L	G	E	K	W	R	D	G	L	E	R	G	V	E	V	K	G	A	T	L	T	M	L	A	V	K	Q	I	G	P	I	W	E						
UniRef90_W9DNP7	T	V	R	A	G	S	R	G	L	D	V	C	G	M	A	E	L	A	K	T	E	P	K	P	T	A	L	H	G	L	Q	L	R	K	G	P	N	Y	W	S					
UniRef90_X7Z7R1	R	L	S	E	A	D	G	S	V	D	M	T	L	E	M	A	Q	V	G	A	V	P	K	A	V	S	L	N	D	L	C	L	V	R	D	E	H	G	W	Q					
UniRef90_UPI000237B2FB	R	V	R	P	R	A	T	G	I	A	L	E	L	A	E	I	I	G	A	A	P	K	A	V	S	L	N	E	L	Q	I	E	H	D	P	R	G	W	H						
UniRef90_E1RHR5	S	L	E	A	V	A	S	G	E	K	F	D	M	E	R	H	R	G	G	T	E	I	K	G	V	S	R	Y	G	T	E	I	R	Q	E	D	G	K	F	L					
UniRef90_X1VMD3																																													
UniRef90_E9CG81	K	I	K	A	I	G	R	G	E	T	F	D	K	A	K	H	G	Q	G	T	E	V	K	A	I	T	Y	S	N	M	Q	I	H	Q	D	P	G	K	C	D					
UniRef90_UPI000345F1EF	E	V	L	A	T	P	T	G	L	R	A	R	F	S	M	E	P	V	I	G	A	V	P	K	A	V	S	L	H	R	L	R	C	E	R	G	D	E	G	W	W				
UniRef90_UPI00047EC15B	D	L	Q	G	D	R	L	G	E	P	I	S	V	E	R	H	E	P	A	V	E	V	K	G	A	T	Y	T	A	L	R	V	A	R	D	D	E	G	W	L					
UniRef90_C1DI01	E	V	R	A	T	V	R	G	E	P	V	D	V	A	R	H	Q	P	A	A	E	V	K	G	V	S	F	C	E	L	K	V	R	A	D	G	R	W	L						
UniRef90_T0MEP6	T	L	S	S	K	R	L	T	A	T	L	Y	P	E	N	C	P	E	Y	R	H	L	I	K	A	V	T	Y	Y	N	L	E	I	T	S	E	D	G	F						
UniRef90_C7DGM2	K	V	K	I	R	K	Y	G	K	D	I	R	A	E	C	T	V	L	L	V	E	V	K	G	V	S	P	S	M	K	I	T	S	H	G	D	S	Y	S						
UniRef90_D1FPJ6	K	I	K	A	V	G	F	G	E	T	F	T	I	G	K	H	P	Q	G	A	D	V	K	A	I	T	Y	S	N	M	Q	I	H	E	N	E	D	K	V	E					
UniRef90_R1G929	R	V	K	N	E	V	Y	G	E	K	Y	D	K	E	K	H	G	F	K	K	E	V	K	A	V	T	L	H	D	I	N	I	T	K	I	K	T	Y	W	S					
UniRef90_M2W6V9																																													
UniRef90_E0S5V6	S	V	Q	D	G	H	L	F	C	D	Y	S	V	A	S	G	Q	S	L	C	E	I	K	A	V	T	L	C	G	L	K	I	F	E	E	N	V	I	F	H					
UniRef90_T0NBG6	Q	V	L	L	T	G	Y	R	I	C	N	S	R	F	R	Y	D	Y	V	I	K	A	P	T	F	H	R	L	V	L	R	P	A	E	G					Y					
UniRef90_UPI000364806E	E	I	R	D	D	G	A	G	L	H	V	R	W	Q	E	L	I	G	A	V	P	K	A	I	S	L	H	E	L	R	F	G	P	E	G	P	R	W	S						
UniRef90_X0XE08	D	I	D	E	K	K	L	S	A	K	A	R	E	N	K	N	R	L	K	T	E	I	K	A	A	T	Y	H	D	L	N	I	R	E	S	D	E	G	C	S					
UniRef90_M0E1M6																																													
UniRef90_UPI000364502D	E	V	W	A	T	T	A	G	L	R	L	R	S	G	L	V	A	V	G	A	V	P	K	A	V	S	L	H	E	L	R	C	E	R	R	G	A	Q	W	W					
UniRef90_P9WQ02	R	L	R	D	V	D	G	G	V	D	V	T	S	T	L	V	Q	V	G	A	V	P	K	A	V	S	L	N	E	L	R	F	S	Q	G	R	H	G	W	R					
UniRef90_S3BS92	E	T	S	G	G	A	L	D	V	R	L	S	V	A	G	P	V	T	G	A	V	P	K	A	V	S	W	N	E	L	R	F	A	D	A	H	G	W	S						
UniRef90_F8K0I2	E	V	T	W	L	P	E	G	L	R	V	R	L	A	M	A	V	T	G	A	V	P	K	A	V	T	W	H	R	L	E	F	G	G	S	P	G	W	R						
UniRef90_UPI0003B5A616	N	L	K	A	T	A	I	G	E	L	I	D	Y	R	R	H	S	I	K	R	E	L	K	S	I	T	Y	Y	K	L	Q	I	S	E	H	D	G	H	L	I					
UniRef90_UPI00045E5D02	R	L	R	G	E	A	W	G	O	P	W	T	D	G	M	E	R	G	V	E	V	K	G	A	T	L	T	Q	L	S	L	T	P	Q	D	G	G	W	Q						
UniRef90_U1P110	E	Q	D	H	W	M	A	A	S	A	R	P	L	Q	D	V	J	A	R	D	V	K	A	V	T	Y	S	Q	M	R	I	E	Q	T	E	S	G	W	M						
UniRef90_Q4N0U7	V	I	R	V	I	V	L	G	D	Y	Y	N	K	N	K	H	K	C	G	T	E	I	K	A	I	T	M	H	H	L	S	F	K												
UniRef90_UPI0003670021	E	V	D	G	L	H	V	R	W	T	I	D	A	D	A	V	E	V	G	A	V	P	K	A	I	S	L	H	E	L	R	F	G	P	D	G	P	R	W	S					
UniRef90_X0TCL7																																													
UniRef90_K1LTB4	E	I	D	E	H	K	L	T	A	K	I	F	G	I	R	V	E	D	D	D	I	K	A	V	T	Y	H	E	A	D	V	I	I	N	E	S	G	F	E						
UniRef90_X1IXJ5	S	I	K	N	T	S	L	T	A	E	I	D	D	V	K	N	Y	T	N	L	D	L	K	A	S	T	Y	H	E	M	Y	I	K	K	T	K	K	G	W	E					
UniRef90_T0YMP7	S	I	K	A	Q	R	L	D	C	R	L	D	M	N	E	D	S	R	L	E	A	K	G	V	S	K	Y	D	L	D	I	G	K	R	A	G	R	F	A						
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UniRef90_B0R5M9	R	V	T	A	S	A	R	G	V	P	L	D	A									V	H	A	R	D	L	K	A	V	T	Y	S	E	M	Q	V	R	E	H	P	D	D	W	A
UniRef90_B9Z817	Q	R	D	G	S	R	W	G	O	P	W	T	A	E	L	E	R	G	V	E	V	K	G	A	T	L	T	Q	L	S	L	T	P	Q	D	D	G	W	R						
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A E A | L V | D

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9 9 9 8 2 2 8
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