

1 10 20 30 40  
QUERY H M S E W K A R R F W A S V G I H K E E G D G G F A V L L D D E R R P L R T P G K Q A L  
UniRef90\_A4EPD7 M S E W K Q K R F W K E V S T V V V E E E G D G G F A V L L D D G R R K G L V K T T P A K T A L  
UniRef90\_A3JX19 M S E W A L K R F F W K D D A T V I E P S Q G D D G G Y E A V I N L D D G R R K L K T T P P A G K T P L  
UniRef90\_H2LD10 A S T E R L K R F F Y Q D V S I S Q S E E G G F E I I N L D D H R K K L K T T P Q G G K L F  
UniRef90\_H3B4X7 T Q R K K F Y Q E N V S I S Q S E E G G F E I I N L D D H R K K L K T T P Q G G K L F  
UniRef90\_J0BAR6 Q M K K P L P K R F Y T E V S I S Q S E E G G F E I I R L D D G R K M V V R T P P A K A Q V L  
UniRef90\_K21YU1 M S E W K A K R F W K E T T V A E A H V E E G G F A I I R L D D G R R V R T P P A K A P L  
UniRef90\_A3VF97 M S D W A P K R F W K G T R A D A C D G G G Y T I V Y L D T R T V V R T P A K A A F  
UniRef90\_L0NED9 Q M K R P L P K R F Y K Q V S V G E D E D A G F A I V L L D D G R P V R T P P A K N A T L  
UniRef90\_A3VYV4 M S E W K A K R F W K E A G V V G E D D A G F A V R L D D G R V V R T P P A K A T L L  
UniRef90\_A3PGP2 M A G W G A K R F W K E A S V V A E E P G G G F A V V L D D G R G V R T P P A K S P L L  
UniRef90\_S9R4P9 M S E W A P K R F Y D H A T V E P V G A G G W T I H L D D A R P L L R T P P A K S P L  
UniRef90\_U4PTJ9 Q M Q K P L P K R F Y K D V T V G E A E E G G F T I V L L D D G K P L R T P P A K K P L  
UniRef90\_T0K8A6 M K R F Y K D V T V V P G E E G G L G V V Q L D D G R P V R T P P A R A L L L  
UniRef90\_UPI0004269F6D M S T W T A K R F W K V A E A A P E E G G G G F E I V R L D D G R P V R T P P A K A P L  
UniRef90\_B5X6N9 T E R K K F Y E D V A S H G E G G G F E I N V L D D R R R K L K T T P P A G G K L F  
UniRef90\_D3NWH4 M K R F Y K A A G V I G E T E G G G F Q V I E L D D G R P V R T P P A K A P L  
UniRef90\_Q2CBL7 M S E W K A K R F W T A A H V A E R E D D G G F A I V L L D D G R R V R T P P A K S P L L  
UniRef90\_Q0FIH2 M S E W A P R R F Y E T A T A T A T Q V E G G G H G I A L L D D G R R V M T P P A K S P L  
UniRef90\_Q2W2L6 M S S K S I K R F Y K E S A A E L R D D G G G F A I V L L D D G K P I K T P P G G R S P L L  
UniRef90\_A3SK08 M S E W K A R R F W K D S S V I E S A E D D G G T V I H L D D G R P V R T P P A K R S L  
UniRef90\_B9JFK1 Q M K K P L P K R F Y K D V T V G I R E S E G E D G H V I E L D D G K V V K T P P A R R S L  
UniRef90\_A3V4J6 M S D W K P K R F W K A A T P Q A C D G G G F T I V L L D D G R P V R T P P A K A A L  
UniRef90\_UPI0003F092AA A E R K R F Y K N V T I T Q G E G G F E I N L D D H R K L K T P P A K A K L F  
UniRef90\_F8JIE7 L A K P L P R R F Y K E V I T G D T A P F S V V L L D D G R P I K T P P K K R A L L  
UniRef90\_U4V1Y6 M T E W K L K R F W T E A S V S E T E G G Y A V V L L D D G R G V R T P P A K T S L  
UniRef90\_UPI000379B268 Q M K K P L P K R F Y K D V S V S E A Q G G G F V V E L D D G R K A V R T P P A R N A L L  
UniRef90\_A0A017HGL1 M S D W K A K R F W K A A S A A P A E A G G G W Q V V L D D G R P V R T P P A K A A L  
UniRef90\_A3X423 M S E W K Q K R F W K E A K A V E V E G G G F S V H L D D G R G L K T P P A K T S L  
UniRef90\_A6U890 Q M Q K P L P K R F Y K Q A S A A P E E D D G G Y A V L L D D G R P V R T P P A K R P F  
UniRef90\_W6VWS8 Q M H K P L P K R F Y K E V S V A E G E G G H A I H L D D G R L V R T P P A K N G L  
UniRef90\_A0A058ZME0 M S D W K A K R F W E K A D A T Q V E G G G F S V T L D D G R A I K T P P A K S P L  
UniRef90\_UPI00046AACC1 M S E W K A K R F W K M A T V A E R A D D G G F A V V L D D G R S V R T P P A K Q V L L  
UniRef90\_A8LM89 M S G W A A K R F W K E T D I V E A E R T G F E V R L D D G R S V R T P P K T L L  
UniRef90\_S4R8K2 S L A E K K R F Y N D V S I T H G E G G G F E V N L D D R R K L R T P P Q G K L F  
UniRef90\_A6FLR2 M S E W K A K R F W K T A E V D A R D D G G F A V R L D D G R P V R T P P A K A P L  
UniRef90\_J0QSM0 L S Q P L P K R F Y G Q V K I A C E I G G G F T I V L L D D E R P V K T P P A R R H F  
UniRef90\_Q4V7H3 E R K K F Y E N V S I S H G E G G G F E I N L D D R R K L K T P P Q G K L F  
UniRef90\_A9DU60 M S D W K A K R F W K D A D V I E V D D G G G F T V E L D D G R R V R T P P A K R P L  
UniRef90\_UPI000464819A M S E W K A K R F W T Q A Q V V A E D G G G F T V V E L D D T R P V R T P P A K A P L  
UniRef90\_J2APC4 Q M K K P L P K R F Y Q T V S V V P H E E A F A I A L D D G K A V R T P P A R Q V L  
UniRef90\_UPI0002EA0088 Q P L P K R F Y R E V K T V C E D D G G F S I F L D D G S S V R T P P A R R H F  
UniRef90\_W81166 Q M L K P L P K R F Y K D V S I T S E D D G G H S V L L D D G R P V R T P P A K N L L  
UniRef90\_UPI0002378A7F M S D W K P K R F W T S G A V V E I D N G Y T V A L D D G R R V R T P P A K A A L  
UniRef90\_S9RFH2 M S E W A A K R F W E N V T A D E V E G G G F A V H L D D G R P V R T P P K A P V L  
UniRef90\_B7QX43 M S E W K Q K R F W K E V T V A D E T E G G G F A V E L D D G R R I K T P P K A A P L  
UniRef90\_G8AKP3 M K R F Y K T A S V D A A G G G F E V R L D D N R P I R S T P A K A P L  
UniRef90\_W8RS41 M T E W K A K R F W K Q A T V T R D A D G G W Q V L L D D G R S I K T P P A K A A M  
UniRef90\_UPI0004691C3B M S D W K A K R F W K E A Q V T D A E G G G F A V L L D D G R S I K T P P A K R S L  
UniRef90\_A0A059IRN5 M A E W A P K R F W K E A A V A D L P E G G F A V R L D D G R S V R T P P G K A P L  
UniRef90\_A3JN54 M S E W A A K R F W K T V E I S E N D Q G G F G L L D D G R S V R T P P L K T A L  
UniRef90\_J0YS29 Q P L P K R F Y R E V T I A C E N D K G G F S L L D D G C P I K T P A K R H F  
UniRef90\_X6KWZ9 M S E W A P K R F W K E A D V R P E G E S W T V T L D D G R G I K T P A K A A L  
UniRef90\_V9L5H6 R K K F Y K N V S I S Q G E G G F E I N L D D H R K L K T P P Q G K L F  
UniRef90\_E6YI97 Q S L P K R F Y K E K V D V I C K E E G K F S I L L D D G R Q L K T P P A K R D F  
UniRef90\_UPI00047C01E9 L P K R F Y K R A E A V E T P Y G F E L R L D D G R A A R T P P A K R P L  
UniRef90\_DOCUP3 M S D W K P K R F W T E S A V A V D D G Y T V E L D D G R R V R T P P A K A A L  
UniRef90\_Q5LW25 M S D W K P K R F W K Q A A V A E T A E G Y A V E L D D G R P V R T P P A K A P L  
UniRef90\_UPI0004664D31 Q M K T P L P K R F Y T A A S V V P V E N A F A V H L D D G K S V R T P P G K A L L  
UniRef90\_UPI00046A2861 M S D W K A K R F W K E A T V E Q A E E G F E V R L D D G R P V R T P P A K R S L  
UniRef90\_UPI0003F05D22 Q M S F R I K R F Y K N V S T Q N D S I F E I N L D D N R K L K T P P M G N I F  
UniRef90\_A0A021X3Q9 Q M K R P L P K R F Y K E V S T D K V E E G H R I L L D D G R P V R T P P G K K L L  
UniRef90\_K2AV69 M S A W K A K R F W K Q A V A E A C D D G G F T V K L D D G R A V R T P P A R A L  
UniRef90\_T0HJS4 M K R F Y K D V T I V E G R D G L A I E L D D G R A V R T P P A R A P L  
UniRef90\_M9RT10 M S N W V A K R F W T D V N V I E I D G G G F A V H L D A R P V R T P P A K A A L  
UniRef90\_UPI00031C13A9 Q L K R Q L P K R F Y K E A S V A Q A Q E G F A V H L D G K S V R T P P A R A L L  
UniRef90\_E3EYP0 M A D W A P K R F W K Q A T I S Q Q G E A W A V L L D D S R T L R T P P A K A H L  
UniRef90\_A3SSY3 M S D W K A K R F W K E A A V V A E E G G Y T V E L D D G R G I K T P P A K R A L  
UniRef90\_UPI0003605B90 L P K R F Y K V S T R P S D D G V E I T L D D G R P V R T P P A K R P L  
UniRef90\_B6AVG1 M S D W K M K R F W K V A A A V E V E G G G F T V H L D D G R A I K T P P G K A H L  
UniRef90\_K2Q0H8 Q M K R P L P K R F Y E S V G I E T R D D G G F S I T L D D G K P V K T P S K N L L  
UniRef90\_UPI000468B90E S E W K A K R F W K E A K A E Q S D D G G F T V S L D D G R P V R T P P A K Q A L  
UniRef90\_UPI000255A689 M S D W K P R V F W T R S E A V P T E G G Y T V Q L D D G R P V R T P P A K A P L  
UniRef90\_UPI00037BB998 S G W A L K R F W D A A T V A E T E A G W A I L L D D G R P V R T P S K A P L  
UniRef90\_UPI0002F17874 M S G W A Q K R F W K A V T V A E A A E G F E V R L D D G R A V R T P P A K A P L  
UniRef90\_J2CZ94 M K R F Y K D V T V E P A E A G F A I R L D D G R A V R T P P A R A E L  
UniRef90\_M3J7J5 M R T P L P K R F Y E K A E V A E T E G G G F T V H L D D G R P V R T P P A R A V L  
UniRef90\_C7D6Y6 M S E W K Q K R F W T A V A K Q V E G G W V R L D D S R A L R T P P V K S A L  
UniRef90\_W9H7S2 M K R F Y K E V T V A K E T E A G H E V R L D D G R P L R T P P A K A P L  
UniRef90\_I1ASE8 M S E W T P R R F Y E Q A T P T E T S S G Y G I A L D D G H R V M T P G K S A L  
UniRef90\_F7ZL73 M S E W K A K R F W K A A A V D E T A E G G F G I S L D D G R P V R T P P A K R S L  
UniRef90\_K2H9X0 M T E W A P K R F W T A A R I V R T E D G H A V F L D D D R P L R T P P A G A P L  
UniRef90\_G2T6N4 L S A Q L R R R F Y T T A T V G A A E G G F T L L L D D G K A V H T P G K R P L  
UniRef90\_S5XY26 M A E W A A K R F W K A A G V S R P E G G G W T V V L D D D K P L R T P P G K H P L  
UniRef90\_W5NSW7 A E R K K F Y Q N V S I S Q G E G G G F E I N L D D H R K L R T P P Q G K L F  
UniRef90\_Q1GJZ0 M S E W K Q K R F W K A V S V E E D D S G F A V A L D D G R R V R T P P A K T A L  
UniRef90\_A0A017HSS8 M S G W T P K R F W T E V A V V P E G E D F A V T L D D G R P V R T P P L K A Q L  
UniRef90\_UPI00011SRM8 Q M R T P L P K R F Y S Q A G V V Q E A E G F A V T L D D G K P V R T P P G R N L  
UniRef90\_UPI00037DCAFA Q M L K P L P K R F Y T T V S I G P V E G G Y A I L L D D G R T V R T P P A K Q P L  
UniRef90\_M5GEK0 N R A E A T M K R F W K S V D V K Q D P E T L A I T L D K R P L K T P P L G K P L  
UniRef90\_UPI0004692E49 W K A K R F W K E A S V V P E A E G F A V R L D D G R E V R T P P A K R A L  
UniRef90\_Q0G6Y4 M R R D L P K R F Y E E A A L G S A E T G Y Q V L L D D G R P V R T P P A K K A L

QUERY	R	L	P	T	E	A	L	A	L	A	L	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V		
UniRef90_A4EPD7	V	V	P	S	T	R	E	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_A3JXJ9	V	V	P	T	E	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_H2LDI0	T	V	P	N	E	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_H3B4X7	T	V	P	S	E	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_J0BAR6	A	V	P	T	R	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_K21YU1	I	V	P	T	R	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_A3VF97	I	V	P	S	R	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_L0NED9	I	A	V	P	T	R	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V
UniRef90_A3VYV4	I	V	P	T	R	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_A3PGP2	I	L	P	T	P	L	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V
UniRef90_S9R4P9	V	V	P	T	P	L	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V
UniRef90_U4PTJ9	V	V	P	S	R	S	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_T0K8A6	A	L	P	T	P	L	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V
UniRef90_UPI0004269F6D	I	V	P	T	H	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_B5X6N9	T	A	P	N	Q	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_D3NWH4	V	L	P	S	R	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_Q2CBL7	T	L	P	T	R	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_Q0FIH2	V	V	P	T	R	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_Q2W2L6	S	V	P	A	K	P	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_A3SK08	I	L	P	T	E	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_B9JFK1	A	V	P	T	E	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_A3V4J6	I	V	P	T	L	P	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_UPI0003F092AA	T	V	P	N	E	L	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V
UniRef90_F8JIE7	A	L	P	T	H	E	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_U4V1Y6	V	L	P	T	V	E	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_UPI000379B268	A	L	P	T	R	K	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_A0A017HGL1	V	L	P	T	R	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_A3X423	I	L	P	S	R	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_A6U890	A	V	P	S	E	K	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_W6VVS8	V	A	P	T	A	R	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_A0A058ZME0	V	M	P	S	M	A	M	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_UPI00046AACC1	Q	V	P	T	R	A	M	A	E	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_A8LM89	V	V	P	S	R	G	F	A	E	R	I	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_S4R8K2	A	V	P	S	E	S	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_A6FLR2	V	V	P	T	Q	D	M	A	R	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_J0QSM0	H	V	P	T	E	A	F	A	E	L	V	V	K	E	F	E	S	Q	K	Q	V	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V			
UniRef90_Q4V7H3	A	V	P	S	E	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_A9DU60	T	L	P	T	R	A	M	A	E	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_UPI000464819A	V	V	P	T	R	E	M	A	Q	E	I	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_J2APC4	A	L	P	N	E	V	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_UPI0002EA0088	L	V	P	T	E	A	F	A	R	L	V	A	H	E	F	E	N	Q	T	E	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V				
UniRef90_W8I166	A	V	P	T	L	K	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_UPI0002378A7F	V	L	P	T	H	A	M	A	Q	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_S9RFH2	V	V	P	T	R	A	M	A	E	A	M	K	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_B7QX43	V	V	P	S	R	A	M	A	D	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_G8AKP3	V	F	A	S	W	P	L	A	Q	A	V	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_W8RS41	I	L	P	S	E	D	M	A	Q	A	V	A	L	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_UPI0004691C3B	I	L	P	T	R	A	M	A	Q	A	V	A	L	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A	L	I	E	K	V	
UniRef90_A0A059IRN5	S	V	P	T	R	A	L	A	L	A	L	A	A	E	E	W	Q	A	V	Q	E	E	G	V	I	D	P	N	A	M	P	L	T	R	S	S	A	N	S	A						

QUERY UniRef90\_A4EPD7 UniRef90\_A3JX19 UniRef90\_H2LD10 UniRef90\_H3B4X7 UniRef90\_J0BAR6 UniRef90\_K21YU1 UniRef90\_A3VF97 UniRef90\_L0NED9 UniRef90\_A3VYV4 UniRef90\_A3PGP2 UniRef90\_S9R4P9 UniRef90\_U4PTJ9 UniRef90\_T0K8A6 UniRef90\_UPI0004269F6D UniRef90\_B5X6N9 UniRef90\_D3NWH4 UniRef90\_Q2CBL7 UniRef90\_Q0FIH2 UniRef90\_Q2W2L6 UniRef90\_A3SK08 UniRef90\_B9JFK1 UniRef90\_A3V4J6 UniRef90\_UPI0003F092AA UniRef90\_F8JIE7 UniRef90\_U4V1Y6 UniRef90\_UPI000379B268 UniRef90\_A0A017HGL1 UniRef90\_A3X423 UniRef90\_A6U890 UniRef90\_W6VWS8 UniRef90\_A0A058ZME0 UniRef90\_UPI00046AACC1 UniRef90\_A8LM89 UniRef90\_S4R8K2 UniRef90\_A6FLR2 UniRef90\_J0QSM0 UniRef90\_Q4V7H3 UniRef90\_A9DU60 UniRef90\_UPI000464819A UniRef90\_J2APC4 UniRef90\_UPI0002EA0088 UniRef90\_W81166 UniRef90\_UPI0002378A7F UniRef90\_S9RFH2 UniRef90\_B7QX43 UniRef90\_G8AKP3 UniRef90\_W8RS41 UniRef90\_UPI0004691C3B UniRef90\_A0A059IRN5 UniRef90\_A3JN54 UniRef90\_J0YS29 UniRef90\_X6KWZ9 UniRef90\_V9L5H6 UniRef90\_E6YI97 UniRef90\_UPI00047C01E9 UniRef90\_DOCUP3 UniRef90\_Q5LW25 UniRef90\_UPI0004664D31 UniRef90\_UPI00046A2861 UniRef90\_UPI0003F05D22 UniRef90\_A0A021X3Q9 UniRef90\_K2AV69 UniRef90\_T0HJS4 UniRef90\_M9RT10 UniRef90\_UPI00031C13A9 UniRef90\_E3EYP0 UniRef90\_A3SSY3 UniRef90\_UPI0003605B90 UniRef90\_B6AVG1 UniRef90\_K2Q0H8 UniRef90\_UPI000468B90E UniRef90\_UPI000255A689 UniRef90\_UPI00037BB998 UniRef90\_UPI0002F17874 UniRef90\_J2C294 UniRef90\_M3J7J5 UniRef90\_C7D6Y6 UniRef90\_W9H7S2 UniRef90\_I1ASE8 UniRef90\_F7ZL73 UniRef90\_K2H9X0 UniRef90\_G2T6N4 UniRef90\_S5XY26 UniRef90\_W5NSW7 UniRef90\_Q1GJZ0 UniRef90\_A0A017HSS8 UniRef90\_A0A011SRM8 UniRef90\_UPI00037DCAFA UniRef90\_M5GEK0 UniRef90\_UPI0004692E49 UniRef90\_Q0G6Y4

A P Q F D A V A A 90 G D Y G G T D L L L S Y R A D A P E A L V R A Q A E G W D  
A N Q H E E V A A N M L A A D Y G G D S D L L L C C C Y R R A D A P P Q E A L V M R R Q N N E T W D P  
A T Q N K R A E V A A D S M L A A K F L L E T D L L L C C C Y R R A D D E P A G L V L V M R R Q N N E S W D P  
T T Q N K R A E V A A D S M L A A K F L L E T D L L L C C C Y R R A D D E P A G L V L V M R R Q N N E S W D P  
T D R K D K I F E N D I L R F F S S S D L L L C C C Y R R A D D E P P P G L M E L L Q K Q N E W D P P  
U N I R E F 9 0 \_ H 2 L D 1 0  
T A N A Q A E V A F E D I L R F F S S S D L L L C C C Y R R A A A E E P P R E L L V E R Q Q A E W D P P  
U N I R E F 9 0 \_ H 3 B 4 X 7  
A I Q H A E V A D L L A A Y G G D S D L L L C C C Y R R A A D T P A E E L V A R Q Q A E E A W D P P  
U N I R E F 9 0 \_ J 0 B A R 6  
R L Q H A E V A D L L A A Y G G D S D L L L C C C Y R R A A D T P A E E L V A R Q Q A E E A W D P P  
U N I R E F 9 0 \_ K 2 1 Y U 1  
A L D P Q A E V F E D I L R F F S S S D L L L C C C Y R R A A D A S P E E E L V A R R Q Q A E G W D P P  
U N I R E F 9 0 \_ A 3 V F 9 7  
A L D P Q A E V F E D I L R F F S S S D L L L C C C Y R R A A D A S P E E E L V A R R Q Q A E G W D P P  
U N I R E F 9 0 \_ L 0 N E D 9  
A L D P Q A E V F E D I L R F F S S S D L L L C C C Y R R A A D A S P E E E L V A R R Q Q A E G W D P P  
U N I R E F 9 0 \_ A 3 V Y V 4  
A P Q F D E V T E M L A A Y G G D S D L L L C C C Y R R A D A T P A E E A L V A R R Q Q A E G W D P P  
U N I R E F 9 0 \_ A 3 P G P 2  
A P Q F D E V T E M L A A Y G G D S D L L L C C C Y R R A D A T P A E E A L V A R R Q Q A E G W D P P  
U N I R E F 9 0 \_ S 9 R 4 P 9  
A P Q F D E V T E M L A A Y G G D S D L L L C C C Y R R A D A T P A E E A L V A R R Q Q A E G W D P P  
U N I R E F 9 0 \_ U 4 P T J 9  
A N D T Q A V F E D I L R F F S S S D L L L C C C Y R R A G E P E A L V A R R Q Q T D H W D P P  
U N I R E F 9 0 \_ T 0 K 8 A 6  
A P N H V A F A Q G V A R Y G G S D L L L C C C Y R R A D A E G P E E A L V A R R Q Q A A A W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 4 2 6 9 F 6 D  
A K Q H A E V A D M V A D Y G G D S D L L L C C C Y R R A D A E P P E A L V A R R Q Q A E W A W D P P  
U N I R E F 9 0 \_ B 5 X 6 N 9  
T R S K K D Q M I T A A L K Y L E T D T T V C C C C Y R R V E P P S L V E R Q Q A E W D P P  
U N I R E F 9 0 \_ D 3 N W H 4  
P A K R P D I V G A V S A Y A G T D L L L C C C Y R R A D A E H P Q P L V E R Q Q A R L W Q P P  
U N I R E F 9 0 \_ Q 2 C B L 7  
A P Q F D E V A A M L A A Y G G D S D L L L C C C Y R R A D A D A P E A L V A R Q Q A E A W D P P  
U N I R E F 9 0 \_ Q 0 F I H 2  
T P Q R A A V A D M L A A Y G G D S D L L L C C C Y R R A D A D A P E A L V A R Q Q A E A W D P P  
U N I R E F 9 0 \_ Q 2 W 2 L 6  
G P E R P H I T G Q L M N Y A G T D L L L C C C Y R R A D E T P G D L V A R Q Q T A A W Q P P  
U N I R E F 9 0 \_ A 3 S K 0 8  
A V I Q K D E V A E M I A A Y G G D S D L L L C C C Y R R A D S Q P P T E L V E R Q Q S A A W D P P  
U N I R E F 9 0 \_ B 9 J F K 1  
A T D P Q A E V F E D I L R F F S S S D L L L C C C Y R R A D S Q P P T E L V E R Q Q S E R W D P P  
U N I R E F 9 0 \_ A 3 V 4 J 6  
R T Q R A E V I G L L S E Y G G S D L L L C C C Y R R A P A P D G L V M R Q R Q Q V W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 3 F 0 9 2 A A  
A T N K K D Q L I R A A M K F L E T D T T I C C C C Y R R E E P P E L V E L Q K N E W D P P  
U N I R E F 9 0 \_ F 8 J I E 7  
T D Q L D A V A D D I L A A Y A G T D L L L C C C Y R R A D A P V E L V T Q R Q Q A E A W D P P  
U N I R E F 9 0 \_ U 4 V 1 Y 6  
T H Q F D A V V N L L A E Y A G T D L L L C C C Y R R A D A P V E L V T Q R Q Q A E A W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 3 7 9 B 2 6 8  
S T A T R A E V A F E D I L R F F S S S D L L L C C C Y R R A E G P E E L V A R R Q Q T K L W D P P  
U N I R E F 9 0 \_ A 0 A 0 1 7 H G L 1  
T A T R A E V A F E D I L R F F S S S D L L L C C C Y R R A E G P E E L V A R R Q Q T K L W D P P  
U N I R E F 9 0 \_ A 3 X 4 2 3  
A N Q H G E V A D M L A A Y G G D S D L L L C C C Y R R A E S P Q E L V A R R Q Q A D H W D P P  
U N I R E F 9 0 \_ A 6 U 8 9 0  
A L E E R Q A V F D D I L R F F S S S D L L L C C C Y R R A D S P K E L V A R Q Q N D Q W N P P  
U N I R E F 9 0 \_ W 6 V W S 8  
A V D R Q A V F E D I L R F F S S S D L L L C C C Y R R A E A P P E N L V A R Q Q N D Q W N P P  
U N I R E F 9 0 \_ A 0 A 0 5 8 Z M E 0  
T P Q F A E V A D L I A A Y G G S D L L L C C C Y R R A D S G P D T L V K R Q K D R W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 4 6 A A C C 1  
T I Q H A E V A E M L A A Y G G T D L L L C C C Y R R A T D S G P D T L V A R Q Q A E S W D P P  
U N I R E F 9 0 \_ A 8 L M 8 9  
T P Q H A E V A E M L A A Y G G T D L L L C C C Y R R A T D S G P D T L V A R Q Q A E S W D P P  
U N I R E F 9 0 \_ S 4 R 8 K 2  
T H R P E Q L A S A A L K Y L D T D T I C C C C Y R R M E E P P A L V S L Q Q Q G E W D P P  
U N I R E F 9 0 \_ A 6 F L R 2  
R H Q H S E V A Q M L A D Y G G A D L L C C C C Y R R A Q T P V E L I R R Q Q S E A W D P P  
U N I R E F 9 0 \_ J 0 Q S M 0  
A D D M Q V I F E D L L R F V A C C D M V F Y R A Q T P K E L V R K Q Q S K Q W D P P  
U N I R E F 9 0 \_ Q 4 V 7 H 3  
T R N K E Q L I K P A L K F L E T D T I C C C C Y R R V E D P P G L V E L Q K N E W D P P  
U N I R E F 9 0 \_ A 9 D U 6 0  
A V I Q K D E V V A M L A A Y G G D S D L L L C C C C Y R R A D N P E E L M A R Q Q A A E W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 4 6 4 8 1 9 A  
S V I Q H A E V A D L I A A Y G G D A D L L L C C C C Y R R A A A P A E L V A R Q Q A D G W D P P  
U N I R E F 9 0 \_ J 2 A P C 4  
A T D T Q A V L E D I L R F F S S S D L L L C C C C Y R R A A S P Q E L V V K R Q T E R W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 2 E A 0 0 8 8  
A K D V Q A I F E D I L R F V A C C D M I F Y R A Q T S P K E L V V K R Q Q A E K W D P P  
U N I R E F 9 0 \_ W 8 1 1 6 6  
A K D Q R S V F E D I L R F A G T D L L L C C C C Y R R A S T P P E G L V G R Q N A V W N P P  
U N I R E F 9 0 \_ U P I 0 0 0 2 3 7 8 A 7 F  
Q H Q H G E V A D M L A A Y G G D S D L L L C C C C Y R R A T H P E A L Q N R Q A N D W D P P  
U N I R E F 9 0 \_ S 9 R F H 2  
A T Q H A E V V D M L A A Y G G D S D L L L C C C C Y R R A D S P P E G L V R K Q Q A E S W D P P  
U N I R E F 9 0 \_ B 7 Q X 4 3  
S H Q H G E V S D M L A A Y G G D S D L L L C C C C Y R R A D S P P A E L V A R Q Q A E S W D P P  
U N I R E F 9 0 \_ G 8 A K P 3  
G K G R A A I V D G V A A Y A E T D L L L C C C C Y R R A D E H P R N L V E R Q Q A Q R W Q P P  
U N I R E F 9 0 \_ W 8 R S 4 1  
A T Q H A E V A E M L A A Y G G D S D L L L C C C C Y R R A D H P P D E L V A R Q T A D W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 4 6 9 1 C 3 B  
L I Q H G E V A D M L A A Y G G D S D L L L C C C C Y R R A D T P P E E L V A R Q Q E A Q W D P P  
U N I R E F 9 0 \_ A 0 A 0 5 9 I R N 5  
T P R F D D V A R M L A A Y A D A D L L L C C C C Y R R A E S P E A L V A R Q Q A A G W D P P  
U N I R E F 9 0 \_ A 3 J N 5 4  
S T Q H S E V A N L I A D Y A D S D L L L C C C C Y R R A Q T P A E L V Q R Q Q C C E Q W D P P  
U N I R E F 9 0 \_ J 0 Y S 2 9  
A D D M Q V I F E D I L R F V A C C D M I F Y R A Q T P K E L V V K R Q Q S E K W D F  
U N I R E F 9 0 \_ X 6 K W Z 9  
L P Q R A A V A E M L A A Y G G D S D L L L C C C C Y R R A E A P D E L V A R Q Q A A H W D P P  
U N I R E F 9 0 \_ V 9 L 5 H 6  
T Q T R E Q L I R S A L K F L D T D T V C C C C Y R R E E P P G L V E L Q K N E W D P P  
U N I R E F 9 0 \_ E 6 Y I 9 7  
I D N M Q I I F E D L L R F V A C C D M I F Y R A Q T P K E L V V K R Q Q S E K W D F  
U N I R E F 9 0 \_ U P I 0 0 0 4 7 C 0 1 E 9  
A D E M E A V R G E I A A Y A G T D L L V F Y R A G E P E E L V E R Q R R A W D P P  
U N I R E F 9 0 \_ D O C U P 3  
R H Q H A E V A D M L A A Y G G D S E L L L C C C C Y R R A T Y P Q E L V A R Q Q A E S W D P P  
U N I R E F 9 0 \_ Q 5 L W 2 5  
R I Q Q A E V A D M L A A Y G G D S D L L L C C C C Y R R A D S P A E L V E L Q Q A Q T W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 4 6 6 4 D 3 1  
A S D P Q A V L E D V L R F A S S D L L L C C C C Y R R A D S P Q G L V D R Q N V H W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 4 6 A 2 8 6 1  
V G Q H A E V A D M L A A Y G G D S D L L L C C C C Y R R A D D R P A E L V A R Q Q A L W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 3 F 0 5 D 2 2  
A Q N K E T I K T I L H Y L K T D T V C C C C Y R R E E P P E F Y A L Q Q K E W D P P  
U N I R E F 9 0 \_ A 0 A 0 2 1 X 3 Q 9  
A E N F D A V F D E I V R F A G T D M L C C C C Y R R A D S P A G L V E R Q R E G W D P P  
U N I R E F 9 0 \_ K 2 A V 6 9  
S E Q F A E V A D L I A A Y A G S D L L L C C C C Y R R A T G P A E L I A R Q Q A A A W D P P  
U N I R E F 9 0 \_ T 0 H J S 4  
A P N P E F A A G I A R Y A G S D L L L C C C C Y R R A D G P D A L V A R Q Q A A A W D P P  
U N I R E F 9 0 \_ M 9 R T 1 0  
A T Q F G E V A T M L A A Y G G S D L L L C C C C Y R R A E N P E G L V A R Q Q T E G W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 3 1 C 1 3 A 9  
A V D P Q A V L E D I L R F A S S D L L L C C C C Y R R A D S P E K L V A R Q Q A E A W D G  
U N I R E F 9 0 \_ E 3 E Y P 0  
G E K R D A V V A E I A G Y G G T D M L C C C C Y R R E E S D A L A Q H Q A A Q W D P P  
U N I R E F 9 0 \_ A 3 S S Y 3  
A L Q H A E V A D M L A A Y G G D C D L L L C C C C Y R R A D S P A E L V A R Q Q A E Q W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 3 6 0 5 B 9 0  
T D A R E A V A A D I A A F A G T D M L C C C C Y R R A D M P P A E L V A R Q Q R E V W D P P  
U N I R E F 9 0 \_ B 6 A V G 1  
T P Q F D V A D M L G E Y A G T D L L L C C C C Y R R A S P P A E L V A R Q Q E A A W D P P  
U N I R E F 9 0 \_ K 2 Q 0 H 8  
S N S L D A V F D E I V R F A G T D L L L C C C C Y R R A D G Q P R E L I D R Q S A A W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 4 6 8 B 9 0 E  
A V I Q H A E V A D M L A A Y G G D S D L L L C C C C Y R R A D G Q P R E L I A R Q Q A E H W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 2 5 5 A 6 8 9  
S V I Q R A E V A E M L A E Y G G D A D L L L C C C C Y R R A E S P A E L V A R Q Q Q A W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 3 7 B B 9 9 8  
A P E T A A V A D M L A E Y G A T D L L L C C C C Y R R A D T P A E L V A R Q Q G A G W Q P P  
U N I R E F 9 0 \_ U P I 0 0 0 2 F 1 7 8 7 4  
T H Q H S E V A A M L A E Y G G D S D L L L C C C C Y R R A D S P V E L V A R Q Q A A A W D P P  
U N I R E F 9 0 \_ J 2 C 2 9 4  
V D N R A K F A A D I A E Y G G T D M L C C C C Y R R A E G P E V F V A R Q Q A A A W D P P  
U N I R E F 9 0 \_ M 3 J 7 J 5  
A Q D P Q A V F E D I L R F A G T D M I C C C C Y R R A A S P K E L V A R Q Q T E Q W D P P  
U N I R E F 9 0 \_ C 7 D 6 Y 6  
T P Q Q A E V A D M L A E Y G G T D L L L C C C C Y R R A D A P Q Q S L V D R Q A E G W D P P  
U N I R E F 9 0 \_ W 9 H 7 S 2  
P A Q R D E I V K A V A A Y G A T D L L L C C C C Y R R A D A Q P Q S L A E R Q A T V W Q P P  
U N I R E F 9 0 \_ I 1 A S E 8  
A P Q K D A V A Q M L A A Y G G D S D L L L C C C C Y R R A A E P D A L V R R Q A D L W D P P  
U N I R E F 9 0 \_ F 7 Z L 7 3  
A V I Q H A E V A D M L A A Y G G D S D L L L C C C C Y R R A E Y P P T L V A R Q Q A A Q W D P P  
U N I R E F 9 0 \_ K 2 H 9 X 0  
T P Q R A A V A L L E Y G A T D L L L C C C C Y R R A D G P P T L V A R Q Q A A A W D P P  
U N I R E F 9 0 \_ G 2 T 6 N 4  
A A R P A L E E D L L R Y G G S D L L L C C C C Y R R A E R P R E L V E R Q Q H R A W Q P P  
U N I R E F 9 0 \_ S 5 X Y 2 6  
A P Q F D A V A D M L G A Y G G D S D L L L C C C C Y R R A D A P A G L V A R Q Q A E H W D P P  
U N I R E F 9 0 \_ W 5 N S W 7  
T Q D K D Q L I R A A V K F L D T D T V C C C C Y R R V E E P E T L V A E L Q R N E W D P P  
U N I R E F 9 0 \_ Q 1 G J Z 0  
A V I Q F A E V A D M L A E Y G G D S D L L L C C C C Y R R A E S P E G L V A R Q Q S E S W D A  
U N I R E F 9 0 \_ A 0 A 0 1 7 H S S 8  
R A Q R D E V V E M L A S Y G A S D L L L C C C C Y R R A E G P D K L I A R Q Q A G W D P P  
U N I R E F 9 0 \_ A 0 A 0 1 1 S R M 8  
A S D P Q A V L E D I L R F A S S D M L C C C C Y R R A E G P Q G L V E R Q Q N T H W D P P  
U N I R E F 9 0 \_ U P I 0 0 0 3 7 D C A F A  
A K D R A V F D D I L N F A G T D L L L C C C C Y R R A S E P E G L V A R Q Q A E G W D P P  
U N I R E F 9 0 \_ M 5 G E K 0  
E N V H A Q V R D A L L K Y F D T D T I C C C C Y R R H R E H H P S L V R L Q Q D A H W K P P  
U N I R E F 9 0 \_ U P I 0 0 0 4 6 9 2 E 4 9  
A I Q H G E V A D M L A Y G G D S D L L L C C C C Y R R A E H P Q P D A L I A R Q Q A T L W D P P  
U N I R E F 9 0 \_ Q 0 G 6 Y 4  
A L D P K P V L A E V P R Y A E T D L L L F Y R A G H P D S L V E R Q R E R W D P P





QUERY UniRef90\_A4EPD7 UniRef90\_A3JX19 UniRef90\_H2LD10 UniRef90\_H3B4X7 UniRef90\_J0BAR6 UniRef90\_K21YU1 UniRef90\_A3VF97 UniRef90\_L0NED9 UniRef90\_A3VYV4 UniRef90\_A3PGP2 UniRef90\_S9R4P9 UniRef90\_U4PTJ9 UniRef90\_T0K8A6 UniRef90\_UPI0004269F6D UniRef90\_B5X6N9 UniRef90\_D3NWH4 UniRef90\_Q2CBL7 UniRef90\_Q0FIH2 UniRef90\_Q2W2L6 UniRef90\_A3SK08 UniRef90\_B9JFK1 UniRef90\_A3V4J6 UniRef90\_UPI0003F092AA UniRef90\_F8JIE7 UniRef90\_U4V1Y6 UniRef90\_UPI000379B268 UniRef90\_A0A017HGL1 UniRef90\_A3X423 UniRef90\_A6U890 UniRef90\_W6VVS8 UniRef90\_A0A058ZME0 UniRef90\_UPI00046AACC1 UniRef90\_A8LM89 UniRef90\_S4R8K2 UniRef90\_A6FLR2 UniRef90\_J0QSM0 UniRef90\_Q4V7H3 UniRef90\_A9DU60 UniRef90\_UPI000464819A UniRef90\_J2APC4 UniRef90\_UPI0002EA0088 UniRef90\_W81166 UniRef90\_UPI0002378A7F UniRef90\_S9RFH2 UniRef90\_B7QX43 UniRef90\_G8AKP3 UniRef90\_W8RS41 UniRef90\_UPI0004691C3B UniRef90\_A0A059IRN5 UniRef90\_A3JN54 UniRef90\_J0YS29 UniRef90\_X6KWZ9 UniRef90\_V9L5H6 UniRef90\_E6YI97 UniRef90\_UPI00047C01E9 UniRef90\_DOCUP3 UniRef90\_Q5LW25 UniRef90\_UPI0004664D31 UniRef90\_UPI00046A2861 UniRef90\_UPI0003F05D22 UniRef90\_A0A021X3Q9 UniRef90\_K2AV69 UniRef90\_T0HJS4 UniRef90\_M9RT10 UniRef90\_UPI00031C13A9 UniRef90\_E3EYP0 UniRef90\_A3SSY3 UniRef90\_UPI0003605B90 UniRef90\_B6AVG1 UniRef90\_K2Q0H8 UniRef90\_UPI000468B90E UniRef90\_UPI000255A689 UniRef90\_UPI00037BB998 UniRef90\_UPI0002F17874 UniRef90\_J2CZ94 UniRef90\_M3J7J5 UniRef90\_C7D6Y6 UniRef90\_W9H7S2 UniRef90\_I1ASE8 UniRef90\_F7ZL73 UniRef90\_K2H9X0 UniRef90\_G2T6N4 UniRef90\_S5XY26 UniRef90\_W5NSW7 UniRef90\_Q1GJZ0 UniRef90\_A0A017HSS8 UniRef90\_A0A011SRM8 UniRef90\_UPI00037DCAFA UniRef90\_M5GEK0 UniRef90\_UPI0004692E49 UniRef90\_Q0G6Y4

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

QUERY  
UniRef90\_A4EPD7  
UniRef90\_A3JX19  
UniRef90\_H2LD10  
UniRef90\_H3B4X7  
UniRef90\_J0BAR6  
UniRef90\_K21YU1  
UniRef90\_A3VF97  
UniRef90\_L0NED9  
UniRef90\_A3VYV4  
UniRef90\_A3PGP2  
UniRef90\_S9R4P9  
UniRef90\_U4PTJ9  
UniRef90\_T0K8A6  
UniRef90\_UPI0004269F6D  
UniRef90\_B5X6N9  
UniRef90\_D3NWH4  
UniRef90\_Q2CBL7  
UniRef90\_Q0FIH2  
UniRef90\_Q2W2L6  
UniRef90\_A3SK08  
UniRef90\_B9JFK1  
UniRef90\_A3V4J6  
UniRef90\_UPI0003F092AA  
UniRef90\_F8JIE7  
UniRef90\_U4V1Y6  
UniRef90\_UPI000379B268  
UniRef90\_A0A017HGL1  
UniRef90\_A3X423  
UniRef90\_A6U890  
UniRef90\_W6VWS8  
UniRef90\_A0A058ZME0  
UniRef90\_UPI00046AACC1  
UniRef90\_A8LM89  
UniRef90\_S4R8K2  
UniRef90\_A6FLR2  
UniRef90\_J0QSM0  
UniRef90\_Q4V7H3  
UniRef90\_A9DU60  
UniRef90\_UPI000464819A  
UniRef90\_J2APC4  
UniRef90\_UPI0002EA0088  
UniRef90\_W81166  
UniRef90\_UPI0002378A7F  
UniRef90\_S9RFH2  
UniRef90\_B7QX43  
UniRef90\_G8AKP3  
UniRef90\_W8RS41  
UniRef90\_UPI0004691C3B  
UniRef90\_A0A059IRN5  
UniRef90\_A3JN54  
UniRef90\_J0YS29  
UniRef90\_X6KWZ9  
UniRef90\_V9L5H6  
UniRef90\_E6YI97  
UniRef90\_UPI00047C01E9  
UniRef90\_D0CUP3  
UniRef90\_Q5LW25  
UniRef90\_UPI0004664D31  
UniRef90\_UPI00046A2861  
UniRef90\_UPI0003F05D22  
UniRef90\_A0A021X3Q9  
UniRef90\_K2AV69  
UniRef90\_T0HJS4  
UniRef90\_M9RT10  
UniRef90\_UPI00031C13A9  
UniRef90\_E3EYP0  
UniRef90\_A3SSY3  
UniRef90\_UPI0003605B90  
UniRef90\_B6AVG1  
UniRef90\_K2Q0H8  
UniRef90\_UPI000468B90E  
UniRef90\_UPI000255A689  
UniRef90\_UPI00037BB998  
UniRef90\_UPI0002F17874  
UniRef90\_J2CZ94  
UniRef90\_M3J7J5  
UniRef90\_C7D6Y6  
UniRef90\_V9H7S2  
UniRef90\_I1ASE8  
UniRef90\_F7ZL73  
UniRef90\_K2H9X0  
UniRef90\_G2T6N4  
UniRef90\_S5XY26  
UniRef90\_W5NSW7  
UniRef90\_Q1GJZ0  
UniRef90\_A0A017HSS8  
UniRef90\_A0A011SRM8  
UniRef90\_UPI00037DCAFA  
UniRef90\_M5GEK0  
UniRef90\_UPI0004692E49  
UniRef90\_Q0G6Y4

210 220 230  
E E F Q A E R W G R D E E A E A Q A A S R L A A M R D S E R F W H L T R  
E A W Q E E E Q W G V D E E A A T E V A A A T K E R Q A F L H A K R R F F D F S L S R  
E T W Q E E E Q W G V D E E A A A E D Y D A A L K R N R A F M H A A A R F H M Q L S S  
E E Y Q I E S H W G N V E W A H E Y D L Q E L Q A F R T A A A G L F V H L C  
E A Y Q I E S H W G N V E W A H E Y D L Q E L Q A F R T A A A G L F V H L C  
E D W T I E E R W G R D E E A E S E S A E I K R Q S F V H A A E L F Y R L L S  
L Y Q I E E Q W G E D E E A T E H A A L K R Q A F L D A A A L F F R L L A  
N W Q A E L W G E D E E A T E H A A L K R Q A F L D A A A L F F R L L A  
D W T A E E H W G V D A E A S E L R R R R R H E F F G A S V A A F E S L L R  
E T W Q A E E Q W G K D E E A A E E M A A R K Q S D F L H A K R F Y D L S R  
S W Q I E E Q W G A D E E A A E I E A F R R T A F L Q A A R F Y A L C C  
E T W Q E E E Q W G V D E E A H A T A E R K R A A F H H A R R F F A L C K  
D W T A E E Q W G E D E E A L E R R A V R L I D M R A A V N V L E  
R W Q V E L W G E D A E A A A R S S R R Q S E F S M A R A F C G M T R  
D I W Q Q E E Q W G Q D A E A A N E D A M R K R Q A F V H A K V F F D L V R  
E F F Q I E G H W G N V E W A H D V D L Y E L R S R T A A A L F V H F S  
E T Y Q I E E Q W G E D A E A T K R R A N V R A E I A A C R R F V D L L R  
E E W Q I E E Q W G E D D E A S A F A A R K R A D F L A A A R F L R L L A R  
S W Q E E L W G V D E E A S D V A E R K R A A F L H A A H R F Y R L C  
E T Y Q I E E L W G E D W E A A D R R A E L R G D I D A A A R F R D L  
D W T I E E Q W G E D E E A S E L A A T K Q R A F L H A A R L Y Q L S R  
E D W T I E E Q W G H D E E A D H R R A Q R F E F Q A A T D V F S A L R R  
D W Q T S Q W G V D E D A A A A A V K R A A F L H A E R F Y H L S R  
E E Y Q I S K W G N I K W A H N Y E L Q E L R A R T A A G L F V H L C C  
E D Y Q I S L W G E D S E A L A R R R G R R A E F D A A V R F L T L C C R  
M W Q I E E Q W G E D E E A T E V A E I K A N S M R H A G R F F A M S  
D W T I E E H W G V D E E A E A L A R L R F I D F L S A T R F W A L  
E E W Q I E E Q W G V D D E A E A L A Q R K R A A F L D A A A R F W L L  
E T W Q E E E Q W G V D E E A Q E A A G L K R V A F L H A K S F Y D L C  
D W T I E E H W G T D D E A F R R R E L R W Q E M L A A A V V L D  
D W T N E H W G T D A E A E H R R A K R L E E M R A A E T F L A L  
E T W Q E E Q W G E D E E A T A L A E S K R L E F L H A A S F Y E L A Q  
E W Q E E E Q W G E D D A T A L A E I K R E A D F L H A K R M F D L A Q  
E W Q I E S Q W G E D E E A E A R I A V K R A D Y L R A K R I F D L S S  
E E F Q I A R W G N V E W A H D D L Q V R A R T A A G A L F V C L S S  
Q W A E L W G V D E E A Q A A E Q A A L K E S D F L A A K R F H D L S  
D W M M E Q W G I D K E I I V R R S H K K T E F N A A V T I A T V C C C  
E E Y Q I Q R W G N V E W A H D D L Q E L R S R T A A G T L F V H L C C  
N W Q A E E Q W G R D D V A E A E A E I K R Q A F L H A C A M L V L S K  
E A W Q A E H W G A D D E A T E H A A I K Q V G F L H A K R F F D L S  
D W T I E E H W G S D E E A T Q R R A K R F E D F K A A T D F F A L  
D W M I E E Q W G D E E A T T H R A Y K K A E F E A A T I V A T C  
E D W Q I E H W G T D E E A F K R R E G R W Q E M Q A A T A V L D A L R  
L W Q I E E Q W G H D D E A H A A A E V K K A A F L H A K R F F D I S  
D W Q M A Q W G A D E D A A S A Q A A L K K R D L L R A E V F Y H L  
L W Q E E E Q W G K D E A S A T A E L K R L A F M H A K R F Y D F S  
T F Q I E A W G E D P E A T K R R A A L R V D I A A C R R F V D L L R  
D W Q I E E Q W G R D E E A D A M A A H K A G Q F S H A A W F W H L A  
I W Q I E E Q W G V D D E A E A L T S L K K S S F Q H A E R M F T L C C  
V W Q E E A W G I D E E A M E R T E N R K A A F H H A A N F H A M L Q  
N W Q S E E Q W G N D D E A D S V A A L K Q R S F L H A C E F F Q L  
D W M I E E Q W S T D K E A M A H R T H K R V E F N A A  
S W Q E E E Q W G V D E E A A E V A G L K R A E F L H A A H F H A L S  
Q Y Q I E E R W G S V E W A H D Y D L H E L C A R A S A G L F V H L C C  
D W T M E H W G K D E E I I R R A Y K K V E F D A A A T V I A V C C  
D F N I S Q W G E D F E A R Q R R E A R Q K E F N A A C L V L R  
E W Q A E E Q W G D D E D A A Q V A A T K K A A F L H A K N F Y D L S  
T W Q E E Q W G P D D E A R A L A A V K R A A F L H A K A A Y D I S  
D W Q I E E H W G Q D S E A V A R R A F R H R D M M A A V A L L I E  
E W Q A E E Q W G V D D E A E E M A A L K K A S F L H A N T M F T L C R  
T Y Q T Q R W G R V E W S H D D E A D L K A R V A A T L F V H L A  
D W Q I E H W G T D E E A F R R R E L R A E M D V A A A V L A  
E T W Q N E L W G V D D Q A A V L E S L K R Q A L T E A A R F F V L C  
Q W Q S E E Q W G E D S D A A A R N L R R A G E F S T A G A F C T M S R  
E T W Q A E Q W G A D D D A A Q V A E I K R A A F V H A A D F Y Q M A  
D W Q I E H W G Q D A E A V A R R N S R K R D M M A A V D L L  
N W Q I A Q W G E D E E A A E M T R T K A A S F L S A A Q L Y A V S R  
E W Q A E Q W G N D D E A D A L A A V K K T S F L H A K L M F D L S  
D W N I K L W G A D A E A M A R R D R R E T D M R A A A Q L  
E R Y Q E E Q W G L D E E A E D M A R I K G E A F E H A Y D F L Q K S R  
D W T I E H W G S D A E A E A R R E T R  
N W Q A E E Q W G R D D A E A L A A V K E Q S F M H A S R M F M L S R  
E T W Q E E Q W G A D E E A Q A V A A L K R R V A F E D A R Q F V S L  
D W Q A E E Q W G E D E E A A E H A R L K R A A F L D A A R F L R L  
E R W Q E E Q W G E D E E A Q A A A E V K R Q E F L H A K R F F D F S  
E R W Q A E Q W G E D A E A L A R S A H R A G E F F A T G R A F C A M A R  
D W T V E H W G E D A E A Q A R R K T R L G E M M I A A R V L Q  
E T W Q E D Q W G R D D T A H A E A E I K R E A F E H A Y R F F Q M V R  
E T F Q I E E Q W G E D R E A M I R R A N L K A D I I A T R Y L D L V R  
C W Q E E T W G V D E E A Q A L A L H K R A A F L H A H R F F V L S  
E W Q A E E W G S D E E A E A A A A V K E A A F V H A K Q V F E L S R  
E T W Q S E E Q W G V D D E A A R Q V A I R R Q A F M D A R F  
D S Y Q M E Q W G E D A E A V A R R D H L R D E I L A V I G R F L V L  
E E F Q A E E Q W G R D E A D A S A L G R L E A M K V A E Q L W H L S R  
E E Y Q L S A W K N V P W R V M A L A V T L Q P V P S G T L F V H L C  
E R W Q E E L W G P D D E A Q A I E A Q K Q A F E H A A A F Y A  
D F Q I E E W G E D E E A A E A A R R R A L L D A A R F  
D W Q V E H W G Q D A E A V A R R S Q R H R D F R A A E L L Q  
D W Q I E H W G T D D E A F Q R R E N R W R D M Q A A T A T L D A L R  
V N S Q I E R W G E V E D S H D  
E W Q A E E Q W G A D D Q A E E L A A L K K E S F L H A S R M F T L C R  
D W N A E R W G E D E E A Q L V S R R R K A D F E T A A L F M



UniRef90\_A4EN88 1 MS D W Q P K R F W K Q A E V C E G G F T V K L D G R R L V R T P A K A A 40  
UniRef90\_UPI0003B447BF MS S W A P K R F W K Q A E V V A A E H G F T V S L D D G R R G L K R T T P A K A A F  
UniRef90\_UPI0003D0FB12 A E R K R F Y K R V V G I S R K Q E G G G Y A V N L D D Q R R K L L K R T P P Q G K L F  
UniRef90\_UPI0004623684 N R A E V T L K R F W K S V G I S D K Q Q G G Y A V I V N L D D Q R R K L L K R T P P Q G G N R P M  
UniRef90\_M1PDG4 Q S L P L K R F Y K K A V D A R Y E R R G G N Y F I L L D D G S P V L K R T T P A R R R C L  
UniRef90\_UPI00035A1A2C L K K R F Y R Q A T I A T S D E D E F I N L D D G R K L L R T T P P H A R K N I F  
UniRef90\_W6RCJ1 Q M K K P L P K R F Y K T V T V G E T D E C Y F S I L L D D G K K A I V R T T P A K S A L L  
UniRef90\_A0A037ZGY4 M S E W A P K R F W D K A A T A E T E G G F T V E L D D G R P V V R T T P A K S A L L  
UniRef90\_A7SDZ9 E R K R F Y K S A G S V E E T E G G Q I L T V D D E R K V V R T T P A R N N W L  
UniRef90\_F8ES96 K R K R F Y K E A S V E K A K L G F A V L K L D D N R Q V V M T T P A R N N P L  
UniRef90\_K8PJC2 P L R K R F Y T S A G V A E G P D G F T V L K L D D G K P I V R T T P G R N N P L  
UniRef90\_C8S4Y3 W V A K R F Y K Q A T A E P V G A A F T V R N L D D G R A V L R T T P A K T L L  
UniRef90\_K1PFE8 K T G E L K K F Y K N A G I V Q N Q G W F T E V N L D D Q R K L L R T T P T A G N L F  
UniRef90\_W4XT50 M T L N E K K R F Y K N V S I T Q S G S K F E I N L D D Q R K L L R T T P S G Q Q P L  
UniRef90\_H5YJ14 P L R K R F Y K E V G V A E A E D G F A I V L L D D G K K A I R T T P S S G R Q V  
UniRef90\_R7V7B5 P E L K K F Y K N A T I T H A E G G F E V N L D D K R K A I R T T P M G N I F  
UniRef90\_N1MRB2 M K R F Y K D V A V V P S D E H G F A I Q L D D T R P V R T T P A R N N L L  
UniRef90\_UPI0003798D1F Q T R P A L P K R F Y E T A G L I T S K N D E G G F R L N L D D G R P A K T T P A R N N P L  
UniRef90\_UPI0004432720 A E R K K F Y Q N V S I T Q S G E G G Y E I N L D D H R K L K T T P A R N R L F  
UniRef90\_UPI0003A3CA03 Q M L T P L P K R F Y K D V T V A Y E A G G F A I L L D D G K L V N T T P L R N K L  
UniRef90\_A1USS7 L M K R F Y K D V S I T E E R E R G G V S I L L D D G R P I K T T P A K R N H I  
UniRef90\_Q134Y6 A L P K R F Y T E A G L T E A A D G F A I T L D D G R G V K T T P S R N A L  
UniRef90\_V7EN51 M S F W K A K R F W K A A Q A E A C E G G F T V R L D D G R P V V K T T P A K V P L  
UniRef90\_UPI00039D8CAA M K R F Y K D V A T V A G D A D G Y E V Q L D D G R P I K T T P A R A A L  
UniRef90\_J0ZKS9 K R F Y K D N A T V V P T D N G F A V L L D D G K C V K T T P G R K A L  
UniRef90\_I5BUR1 K P L P K R F Y K D V S V T E E D G G F A V R L D D G K V V K T T P G A S A V  
UniRef90\_E3I012 Q K T L K R F Y K D A T V E A E H D G A F Q I H L D D G R T V K T T P A G R A L  
UniRef90\_M7XY18 A E K Q M K R F W K T V G V E A G R P E G F A V L L D D K R T L K T T P G G V P L  
UniRef90\_C5B3B1 T L P K R F Y A Q A G L A E A E G G F R L V L D D G R G A N T T P G R V R P L  
UniRef90\_S9QS84 W A P R R F W T H A A V Q P Q G G G F A I L L D D G R P A R T T P G R A L L  
UniRef90\_UPI0002D5FD2E M K A N L P R R F Y K E A A V E G R A E G F V L V L D D G R P A R T T P G R A L L  
UniRef90\_V4RKH1 L P R R F Y E A V T V E A G E A G H V I R L D S R N V R T T P A R A L L  
UniRef90\_UPI000471B6F9 M K R F Y K T A S L R E V D G S F S V M L D D G R P I K T T P A K A E L L  
UniRef90\_B9QXU9 L P K R F Y K S A E H I L E T E D G F A I H L D D G R P V K T T P A K A S T L  
UniRef90\_K2IFW7 M K R F Y K Q A G I A S A A D G H R V T L D D G K P I R T T P A K A E M  
UniRef90\_V6F7B2 M Q G K T M K R F H K Q A S L A V D G G F A V Q L D D G R G V K T T P V I G R K L  
UniRef90\_K2LBX2 M L T Q S I K R F Y K D A S A D E T G A G W R V L L D D G R A V K T T P A K A D F  
UniRef90\_B0U940 A L P K R F Y A E A G T A E A E D G H R L V L D D G R P A R T T P G R R V V  
UniRef90\_K2LR70 M L T K S I K R F Y K K A E A V A R D E D G W R V H L D D G R S V K S P S A R A E F  
UniRef90\_B6IQX2 M K R V Y R E V G T A A V E G G W E V R L D D G R S V K S P S A R A P L  
UniRef90\_UPI00037C5A39 M R A E L P K K F Y Q T A T V E Q E G E G F A I K L D D G R G V K T T P G R N P L  
UniRef90\_V4BDQ8 K K F Y K N A S I A L S D G W F E I N L D D K R K L V R T T P S G Q L F  
UniRef90\_K2NYZ9 M K R A L P K R F Y K D V S V E E E E G A F S I L L D D G R A V R T T P G A T R V  
UniRef90\_S7QFJ1 N R A Q A T L K R F W K T V D I Q E R D G G L A V T L D D K R A L V R T T P S G N P L  
UniRef90\_D6VAB0 T T P L R K R F Y E S A G V A E T P E G F A V T L D D G K Q V L R T T P G G K R F L  
UniRef90\_UPI00044167D7 N K A E A S L K R F W K T V G V E A E K D G T Y A V T L D D Q R T L R T T P G G N R L  
UniRef90\_Q28UR9 M T E W K A K R F W T E A T V A E A D G G F K V L L D D G R G V N T T P G K L P L  
UniRef90\_H0HVD9 Q M K T Q L P K R F Y N E V S V A P A E G G F G V Y L D D G R P V V K T T P G K A V L  
UniRef90\_UPI0003B5508D Q A T K R F Y K R A E P A E V E G G Y G I F L D D G R P V V K T T P G R Q E L  
UniRef90\_K5XHT7 N R A E A T M K R F W K K V D I E K R G D S L A V T L D D T R P V L K T T P S G T P L  
UniRef90\_X7F4Z2 M S E W A P K R F W T R A E V A E E P Q Q G F A V R L D D G R G V L R T T P A K A P L  
UniRef90\_U5HDV5 R A E K M R R F W K T V S V S P Q P D G Y A V M L D D K R T L K T T P G G T K I  
UniRef90\_UPI00021A7C0D N M A T L R R F Y R K T N I L L C D G K F E I T L D D Q R K L K T T P Q G K I L L  
UniRef90\_Q1QN00 G Q P K R F Y T S A G V R E V P E G F A V L L D D D K P V L R T T P S R N L L  
UniRef90\_B0D3L6 N R A E A T K R F W S T V G V S T Q G D T L A I T L D D G R A L K T T P S G N T L  
UniRef90\_V2XWG6 N R A E Q T M K R F W K H V D I E K R M D G Y V V T L D D K R A L K T T P S G N T L  
UniRef90\_U3KNQ1 T E R K R F Y Q N V S I S Q G E G G F E I N L D D H R K L K T T P Q A K T F  
UniRef90\_UPI00047D7CC9 M R P H L P K R F Y K E V A V A E A E G G Y I I N L D D R A V K T T P S A K T L  
UniRef90\_W1RVY7 M K R F Y T D V T V L P E A S G V G I A L D D G R P V R T T P A R A P L  
UniRef90\_UPI0003B6D42D M S E W K A R R F W K V A D L R T A D A G W E V V L D D R P L K T T P G K Q A L  
UniRef90\_E9FRB1 S Q T R K R F Y K V S V T V Q S N K D F E I I L D D N R K L K T T P A G S V F  
UniRef90\_UPI0003B3D235 M V T Q T I S R F Y K K A D V D D S G A G W R V Q L D D G R S V K T T P A K A D F  
UniRef90\_D8PWR1 N K A E A T M K R F W K D V D V A E S R D G G Y V V T L D D R A L K T T P S G N T L  
UniRef90\_A3TU37 M S E W A P K R F W K T V A V T E S E D G F V V A L D D G R P V L R T T P A K R P L  
UniRef90\_J7Q8Q0 A R A L P K R F Y K E A V A A P A E G G Y G I F L D D G R P V V N T T P A R R P L  
UniRef90\_Q1YNH4 L P K R F Y S E V T L A P T D D G F A V L L D D G R P V V K T T P G R R P L  
UniRef90\_UPI0002DE6C23 M K R F Y K T V T T E P T D D G Y A L L L D D G R P V V K T T P M R Q P L  
UniRef90\_UPI000465A75D Q M R T P L P K R F Y K A A S V R Q D A G T F A V E L D D G K Q V R T T P G R A V L  
UniRef90\_A8TZH0 S M K R F Y K T V A V A T A D A G F T V L D S R P V R T T P S G Q R P I  
UniRef90\_TOGCA0 M K R F Y K D A A V A A G D G G Y G I Q L D D G K P V R T T P A R A L L  
UniRef90\_UPI00034A4BF6 Q L P K R F Y K E A S V A E A P D G F A V Q L D D G R S V K T T P T R N P L  
UniRef90\_UPI0003F49DAF N R A E I T L R R F W K T V N I H S E P N G Y L I A L D H R H L R T T P A G T K L  
UniRef90\_M2QBZ4 N R A E V T L K R F W K S V G I E S R D N G L A I T L D D K R P L R T T P G G K P L  
UniRef90\_A8NH50 N K A E I T M K R F W K E V G I G K K G D D F T V T L D D K R A L K T T P S G N T L  
UniRef90\_C0ILU2 R F Y K N V D I H P D K N G Y L I Q L D D N R T I K T T P L L N Q L  
UniRef90\_E0MJS6 S Q L P K R F Y K A V E L G D V D G E W R V L L D D G R P V K T T P G K N F L  
UniRef90\_D8JXV1 L A K P L A R R F Y K E A S T G D V A P F Q I L L D D G R A V K T T P K K R A L  
UniRef90\_UPI0004650950 P K R F Y K E A A V A V V G E G F A V Q L D D G R P V V R T T P G R A V L  
UniRef90\_T2MA33 K R F Y K E V T L K P V Q D G F L I Q L D D K R T I K T T P L G K P L  
UniRef90\_B9JWJ0 Q M K K P L P K R F Y K D V T I A A G Q D G H A V L L D D G K T V K T T P A R N A L  
UniRef90\_B3RMW4 K R F Y K N V I E T I Q G G F L I K L D S K P V K T T R N G Q Q L  
UniRef90\_UPI0003638BD9 M K R F Y K S V S V A E Q H D G F T I T L D D G R P V K T T P G R A Q L  
UniRef90\_X5MFA9 K R F Y K V A A S A K R D D G F A I A L D E R E L K T T P G R R A V  
UniRef90\_UPI000371F37A P L P K R F Y K S V S V E Q P G F A I L L D D G R A I K T T P G K R A L  
UniRef90\_J3HSW0 P L P K R F Y K L A A V A E R E G G F A V E L D D G R G V K T T P A R Q N L  
UniRef90\_E3KYX0 R A E T S L R R F W K T V D V H K Q E D G Y S I R L D L R N L K T T P S G K P L  
UniRef90\_UPI0004410546 N R A E T S M K R F W K T V D V E K K G D A L T V T L D D K R P V L R T T P S G N Q L  
UniRef90\_V5SGS3 P L P K R F Y K S A S V E S R D G G A F A I L L D D G R P V K T T P G K R L L  
UniRef90\_Q29KM5 P K R F Y K K T S V L Y T D G G Y E V V L D H R K L K T T P K G A P F  
UniRef90\_W6KAT8 M F T G P R K R F Y K Q A A G P A S G G Y F I F L D D G R A V K T T P Q G A N L  
UniRef90\_UPI0003C368C7 K R F Y K Q T S V L Y N D S G K Y E V T L D D Q R K L K T T P K G T L F  
UniRef90\_UPI000369824F P L P K R F Y K E A R A A T E G G F R I E L D D G R P V R T T P G R N L V

UniRef90\_A4EN88 T V P T L A M A D A I A A T E W D A Q E E L I D P R T M P V T T R T G A N A A I D K V  
UniRef90\_UPI0003B447BF W V P S R A L A A E A V A A E W D A Q Q D E G K I V R Q L Y A M H L T T S L I C G A N S A L D K V  
UniRef90\_UPI0003D0FB12 A V P S E R A L A A V A V A A E W D A Q Q D D T V L K Q P H A L P M T S L I V N S R A I D D N A P  
UniRef90\_UPI0004623684 L I P P S E Q K V A A A L V A S E W E N Q Q D T V L V L K Q P H A L P M T S L I V N S R A I D D N A F  
UniRef90\_M1PDG4 F V P P K E T V L A A L V V I Q E F D I Q E E V I V I D P V K M P I T T R S L I V N S T V I D D G V  
UniRef90\_UPI00035A1A2C R V P S E P L A L A L V A T E W N S Q Q D K V I D N D R R H N M P H L T T S L I V N S T A I D E N G V  
UniRef90\_W6RCJ1 V V A T K P L A E L L V L E W D A Q Q D D L I V L P S T M P V T T R L V C G N T A I D G V  
UniRef90\_A0A037ZGY4 A L P T R A L A D A L A E W D A Q Q V E K V D P S T M P F T T R S A N T A A V D K V  
UniRef90\_A7SDZ9 V V P N S E K L A A V A M A S E W N M Q T G T K K P A A S M P H L T T S L A N A V I D K P  
UniRef90\_F8ES96 I L P S E R L A A E E V M A A E E W R A Q Q T H E I D D P A A S M P M T S G Y L A N A A I D L V  
UniRef90\_K8PJC2 A A P T T R E L A A E V M A A A E W D A Q Q T D N I D D P M S M P L T T R L A N S V I D D G V  
UniRef90\_C8S4Y3 E V P T L A L A Q E I A A E W D A Q Q G G T I K K R Q A M P F T T R M A N S A L D D K V  
UniRef90\_K1PFE8 Q V P S E P L A L A I A A T E W N S Q Q K E T I K K R Q A M P H L T T L A N S N T V L D N P  
UniRef90\_W4XT50 V I P S E S L A L A V A I A A T E W D T Q H E F I K K Q H A M P H L T T A L L C G N T V L D N P  
UniRef90\_H5YJ14 V I P S E R A L A D A V A A E W A D Q Q N E T I K K M T M P H L T T A L A N T A I V E G V  
UniRef90\_R7V7B5 K V P N E R G L A M A V A A G E W N A Q Q K L I V D K K Y N M H I I T T A L A N T A I D D N P  
UniRef90\_N1MRB2 A L P T P A L A D A V A A E W R A Q Q G E T V D P G A T M P L T T G L L A N T A I D H T  
UniRef90\_UPI0003798D1F S L P T R A L A G E A V A A E W A A Q Q V A S I D D P A T M P L T T T L L A N T S L D D G V  
UniRef90\_UPI0004432720 T V P T R E A L A A V A V A T E W D S Q Q D T I K D F Y T M H L T T T L L A N T S L D D G P  
UniRef90\_UPI0003A3CA03 V L P T E A A A Q I V A D E F A R Q Q D T H I N P A D M P P A T T R L V N T A I D D G V  
UniRef90\_A1USS7 F V P T E A L A A L V A A Q E F K I Q Q E K V I D D P A K M P I T T R L I N S V I D D G I  
UniRef90\_Q134Y6 T A P T R E L A A E A I A A E W Q A Q Q E L I D D P T T M P L T T R L A N S V I D D G V  
UniRef90\_V7EN51 V V P T L E M A Q A I A A E W D A Q Q G E V K P D T M P V T T R A L A N S A I D K I  
UniRef90\_UPI00039D8CAA V L P N A R L A E A I A A E W G A Q Q G D V V D D P R K S M P F T T G L L A N G A I D D Q I  
UniRef90\_J0ZKS9 I V P N Q R D L A T H L S V E F N V Q Q E F F I D D P R K M S I T T R L V N T A I D D G V  
UniRef90\_I5BUR1 R L P N E A T A L L V A A G E Y Q A Q Q G E T H I D D P A S M P V T T R L V N T A I D D G V  
UniRef90\_E3I012 A V P T R G L A D A I A A G E W N E Q Q G E T I A K P H H L F F T T S L A N S A A D D A N  
UniRef90\_M7XY18 L V P K E R L A L C I A A D E W E N Q K S V L I K P H H T L P M T S I L A N A R A I D D N N  
UniRef90\_C5B3B1 V V P D R V L G E A L A A E W E A Q A D V I D D P R T M P L T T R L L A N T A I D D G V  
UniRef90\_S9QS84 L V P T E A F A E A V A A E W N A Q Q G E V L D D P R S M P A T T R L A N T A I D D R V  
UniRef90\_UPI0002D5FD2E A L P T R A A G E A V A A E W A A Q Q E Q I D D P A T M P L T T R L A N S A I D D G V  
UniRef90\_V4RKH1 A L P T S E L A E L V A A E W R A Q Q G E R I D D P S S M P V N R L V N S A L D D G V  
UniRef90\_UPI000471B6F9 H L P N E A L A T A I A A N E W A A Q E E T V N P F T M P F M R Y A A T A A I D D R A V  
UniRef90\_B9QXU9 L L P T E V L G A A V A A E W D A Q Q E K E I V N P A R M P L T T R L A N S A I Q D D A V  
UniRef90\_K2IFW7 V L P T A A L A E A I A A E W Q A Q A E E I R P G D M P L T T Q L A N T A I D D R V  
UniRef90\_V6F7B2 E V P S E R L A L A I A A E W D A Q Q G E E I K P Y T M P L T T M Q L L A T T A I D D R V  
UniRef90\_K2LBX2 L L P S E V L A R E I A A E W D A Q Q G E K V D D P A R M P L T T R L L A N T A I D D R V  
UniRef90\_B0U940 A V P Q P A V A R A L A A E W G A Q A E E V I D D P A R M P L T T R L L A N T A I D D G V  
UniRef90\_K2LR70 V L S A E Q L A H E I A A E W D A Q Q E K V L P T T M P L T T M Q L L A T T A I D D R V  
UniRef90\_B6IQX2 V L P T R A L A E A V A A E W D A Q Q T E T V E P H S M P M M Q L L A S T T V D R I  
UniRef90\_UPI00037C5A39 I L P T P A A A E M V R A E W Q A Q E K V I D D P A K M P V T T R L L A N T V I D D G V  
UniRef90\_V4BDQ8 R V P N E A L A L A V A A E W N A Q Q K V I K R P A N M P H L T T S L C G N T A I D D G P  
UniRef90\_K2NYZ9 L L P S R A A A E L V A S E Y A A Q Q G E I D D P A Q M P V T T R L V N T A I D D G V  
UniRef90\_S7QFJ1 V L P K N K V A T L I A N E W E N Q E T T V L K S H A L P M T S L A N S A I D K D  
UniRef90\_D6VAB0 S A P V R E L A A A M A A E W G A Q Q T D S I D D P L S M P M T S R L A N S A I D D G V  
UniRef90\_UPI00044167D7 L L P K E K V A A L V A A T E W D N Q E T L L K P H A L P M T S L A N S R A I V D K D  
UniRef90\_Q28UR9 V M P T R A M A L A V A A E W N A Q E G E I A P L T M P H T T R S A N S A I E R V  
UniRef90\_H0HVD9 A L P T E A A A L V A E E F A A Q Q E K I D D P S T M P V Y R A L V N T A I D D G V  
UniRef90\_UPI0003B5508D A L P S R L A A D A L A A E W D S Q Q E E Q L E P E A M P L T A L A N T A R D I V  
UniRef90\_K5XHT7 F V P S S K L A T L I A A E W D H Q T T L I K P H A L P M T S L A N S R A I D D G M  
UniRef90\_X7F4Z2 V L P S R A M A E A V A A G E W Q A Q Q E R I D D P L T M P M T S R G A N S A I D D K L  
UniRef90\_U5HDV5 S L P K Q Q L A V A I A A E W E N Q Q L A V L K P H T L P M T S I L A N S R A I D D G T  
UniRef90\_UPI00021A7C0D Q V E S K P L A L A I A A T E W D M Q K D I I D R S S M H L T T A L C G N T V I D N P  
UniRef90\_Q1QN00 A A P A R E I A A S I A A E W Q A Q Q D V I N P M T M P M T S I L A N S R A I D D G V  
UniRef90\_B0D3L6 L L P A N K L A S V I A A E W D N Q E T L L K P H A L P M T S R L A N S R A I V D D L  
UniRef90\_V2XWG6 L L P H A K V A T L V A T E W E N T E M L I K P H A L P M T S L V S R A I D D S L  
UniRef90\_U3KNQ1 T V P S E A L A I A V A A T E F W S Q Q D T I K S Y T M H L T T R V L F T V S D R P  
UniRef90\_UPI00047D7CC9 V F K T K A A A E H V A K E F S S Q R D V L D D P K L M P C F R L S N T A A D G V  
UniRef90\_W1RVY7 L L P T P A L A E A V A A E W R A Q Q G D M I D P A A M P F T T G L A N A A I D H V  
UniRef90\_UPI0003B6D42D I L P T S E G L A R A V A A E W D A Q E Q E I R P Q S T M P L T T R A A N S A I E K V  
UniRef90\_E9FRB1 R V S E P L A L A V A A N E W D A Q Q E K I L V S S M H L T S L V N T A I D D N P  
UniRef90\_UPI0003B3D235 L L P S E V L A R E I A A E W D A Q Q E K I L P H T M P I M Q R A A T A I D R V  
UniRef90\_D8PWR1 L L P K F A V A S L I A A E W E S Q S T V L K P H A L P L T S L A N S R A I D A F  
UniRef90\_A3TU37 V V P T R A L A E A V A A E W E A Q Q E D V L D P P R T M P L T T R G A N S A I D D K V  
UniRef90\_J7Q8Q0 V A P S L P L A E A I A A E W A K Q Q E T I D P A T M P L T K L M N T A L D G V  
UniRef90\_Q1YNH4 A V P M Q R A A E V V A A E W G A Q Q R E R I D D P A T M P M T R L V N T V V E A I  
UniRef90\_UPI0002DE6C23 V L P T L A M A Q V V A A E W D G Q G D E I V I A S M P H T G F A N A A I D D Q V  
UniRef90\_UPI000465A75D A L P T E A A A R L V A D E F D A Q Q T E E I N P F D M P V L R I A N T A I D D G V  
UniRef90\_A8TZH0 I L P G R V L A D A I A A E W D G Q Q G E T I D V I S M P M M G F A N A A I D D R V  
UniRef90\_TOGCA0 A L P N V A L A Q A V A A E W R A Q Q G D S V D D P R S M P F T T R G L A N A A I D D R I  
UniRef90\_UPI00034A4BF6 A A P T R A L A E I I A A E W Q A Q T D L I D D P A T M P L T T R L A N S V I D D G V  
UniRef90\_UPI0003F49DAF V T P K E R L A V L I A N E W E N Q D E V L K Q H A L P V T S L A N S R A I D D G L  
UniRef90\_M2QBZ4 L L P Q H K V A A L I A T E W E N Q E T L L K P H A L P V T S L A S R A I D A F  
UniRef90\_A8NH50 L L P S N K V A A L I A A E W D H Q E T L L K P H A L P M T S I V S R A I D D S L  
UniRef90\_C0ILU2 C P T K R L A V A I A A E W F M Q T E V I D D Q H N M P L T A I C G N T A I D D G P  
UniRef90\_E0MJS6 A V D N K P I M E R L A A E W N A Q Q E R I D P L T M P M T R L V N T A I D D G V  
UniRef90\_D8JXV1 A V P T K A L A L A I A D E W Q A Q V D T I D P S R M P L T T R F A N T A I D A V  
UniRef90\_UPI0004650950 A L P T E A L A K L V A D E F A A Q Q D E H I V P I S M P V L R L A N S A I D D G V  
UniRef90\_T2MA33 L V P C E P L G L A V A A E W H M Q Q D S D I N T S V M P L T T V I C G N T A I D D N P  
UniRef90\_B9JWJ0 V L P T E P L A A L V A A G E W Q G Q Q G E F I D P A T M P V T T R L V N T A L D A V  
UniRef90\_B3RMW4 I V P N E L L A V A V A A T E W A V Q Q K K I A P H N M P L T T V M C G N T A L D R P  
UniRef90\_UPI0003638BD9 L L P T R A L A D A V A A E W D A Q A D D D K P D D M H Q T R L L A N T A L D R V  
UniRef90\_X5MFA9 R V P S A E L G E A V A A E W E A Q A S H I D P S T M P R T R I A N T A I D D R V  
UniRef90\_UPI000371F37A V V P A E A L A D A I A A E W A E Q Q E R I D D P A T M P L T T R I A N S A I D A V  
UniRef90\_J3HSW0 L L P T H A A A Q I A D E F T A Q Q E K E D P S S M P A T T R L A N T A I D D G I  
UniRef90\_E3KYX0 L L P K T K L A T L I A R E W D E Q R K I L K Q H S L P M T S L A S R A I D D G L  
UniRef90\_UPI0004410546 L V P P H K V A T L I A S E W E N Q Q T L L K P H A L P M T S L A N T A I D A M  
UniRef90\_V5SGS3 A V S V I A L A E A V A A E W E A Q Q E R I D D P A T M P L T T R L A N S A I D A V  
UniRef90\_Q29KM5 T V K S E P L A I A V A A T E F D S Q R D E H I E R S R M H L S A L T C F T A I D N P  
UniRef90\_W6KAT8 D V P S E A L A Q A I A T E W E A Q Q E D E I R P H T M P L M R L T C G T A I D R L  
UniRef90\_UPI0003C368C7 T V K S E P L A I A V A A T E F W A Q Q E H I E R A K M H L S A L T C F T A I D N P  
UniRef90\_UPI000369824F A V A S A P L A Q A L A Q E W D A Q R A F I D P V T M P I T R L A N S A I D D G V



UniRef90\_A4EN88 R T Q R S E V I I A L L A E Y G D S D L L L 100 Y R A A E G P E G L I Q R R Q A E G W D P  
UniRef90\_UPI0003B447BF I P Q F T A V A D M L A G V G G S D L L L Y R A E E P Q E T L I A E R Q Q A A A Q W D P P  
UniRef90\_UPI0003D0FB12 T Q D D K R N E V I Q A A A V K Y F F E T D T T I F Y H A E E P A T A L V V K L L Q R Q E E H W N P P  
UniRef90\_UPI0004623684 R D D M Q A E I F E D L L L R F V F A E C D M I L Y R A Q T E P P K E L V V K R M Q C E E Q W D F P  
UniRef90\_UPI00035A1A2C H R T R Q E A Q L V T E T I I L R H F L S E T D T T I C C C Y R A L T D A P P Q A L E V K R M E R K E F W D P P  
UniRef90\_W6RCJ1 A P D K Q A V F E D I L L F L S S E T D T T I C C C Y R A T D D P Q Q E L A E R Q Q E A E W A P P  
UniRef90\_A0A037ZGY4 T P Q H A E V A D M L A A Y F G E T D T L L Y R A T D D P Q Q E L A E R Q Q E A E W A P P  
UniRef90\_A7SDZ9 S E S K D Q R I E D I L E J F L Y E T D T V T R F P A S D D P D D N L V E Q R Q K E T E W G P P  
UniRef90\_F8ES96 P K N Y D D F I L G L R Q F A Y E S D T V T C C Y L Y R A S D T P Q Q N L L A Q R Q A A E L W D P P  
UniRef90\_K8PJC2 V K D V Q T V A D D A A K Y F E T D L L F Y R A N G F P D A L L I A R Q Q A A E H W D P P  
UniRef90\_C8S4Y3 A P Q F R A E V A G L I A A Y F G A S D T L L C C Y R A N T E P P E K L L A E R Q Q A A A W D P P  
UniRef90\_K1PFE8 M Q R R G A D I V R G L V L H F L E T D T I L Y R S T E P P Q E F L E L Q Q K Q E W D P P  
UniRef90\_W4XT50 T H R K A Q I I R A M L H F L E T D T I C C Y R A L E D P P E L V A M E Q D E K W E P P  
UniRef90\_H5YJ14 V D R V D V T D D G L A K Y L L Q S D T L L F Y R A G H P P E G L V A R E Q A A H W D A  
UniRef90\_R7V7B5 T H R R D Q V I D D G L E Y L L Q S D T D T L F Y R A G H P P E G L V A R E Q A A H W D A  
UniRef90\_N1MRB2 V P N H V S F A A G I A R Y A G Q S D L L L C C Y R A A H A P P Q T L V E R Q Q A A A W D P P  
UniRef90\_UPI0003798D1F A P R R E A V I D D L S A Y A G T D T L V C C Y R A A A D P P E T L V E A D Q A R N E W D P P  
UniRef90\_UPI0004432720 S Q N K D Q L I H A S M K F L D T D T V C C Y R A R A E P P E T L V E L Q Q K N E W D P P  
UniRef90\_UPI0003A3CA03 A A E T Q A V L E E I L R F A G T D T L L C C Y R A A D T P P K E L V D R Q Q E H W D P P  
UniRef90\_A1USS7 A D N M Q V I F E D I L R F V A C D M I F Y R A S T P K E L A K R Q C E H W D F P  
UniRef90\_Q134Y6 V G R V E A V R D D V A K Y F G S D L L L C C Y R A S H P P E E L I A R E A Q H W D P P  
UniRef90\_V7EN51 V P Q R A A V V I E T V A A Y G G S D L L L C C Y R A A V G P P E A L I A R E Q A A G W D P P  
UniRef90\_UPI00039D8CAA V P N R E S F A A S I A R Y F G E S D L L L F Y R A T S G P P A E L I A R E E T S A W N P P  
UniRef90\_J0ZKS9 A D N R E A V E E D I L R F L A S D L L F Y R A T S P P K E L V D R Q Q K L W D P P  
UniRef90\_I5BUR1 A V H A Q A V L E D V L R Y A T A G D L L V C C Y R A A P S P P E R L V T L Q Q A E A W D P P  
UniRef90\_E3I012 A P R E A E V V D E I V S F A A S D L L C C C Y R A E P F P P A A L A T R Q Q A A W N P P  
UniRef90\_M7XY18 E S T R K D V V A Y L L R Y L A D T D T V C C C Y R A E F F P Q R L V K L Q Q E A H W K P P  
UniRef90\_C5B3B1 V E R R A A V A E D L A A F A G T D L L V C C Y R A A G A P P E R L V A V Q S E A W D P P  
UniRef90\_S9QS84 A H H H D A V V I E T V A A Y A G G T D L L L C C C Y R A E R P S L V A R Q R E G W D P P  
UniRef90\_UPI0002D5FD2E A R E M A A V A A D V V K Y A G S D L L L C C C Y R A E R G P P E R L V A R Q R E L W D P P  
UniRef90\_V4RKH1 A V S A D A V R E D V V R F L D S D L L L C C C Y R A T D S P P E R L V E W Q N A A W D P P  
UniRef90\_UPI000471B6F9 T P Q R E A V L K E I A G F G E T D L L L C C C Y R A T Y P P E N S L V E A Q K H A W D P P  
UniRef90\_B9QXU9 A N R F G E V A D D I T G F A A N D A L V C C C C Y R A T D D P P E N S L C D T Q R R V W D P P  
UniRef90\_K2IFW7 S K E R A A V I E E L V G Y A E T D L L L C C C Y R A E E P P E D L V A R Q V A T W Q P P  
UniRef90\_V6F7B2 G P E R A A V I T D Q M I Y A A A T D L L L C C C C Y R A E S P P S D L V A V Q T K T W Q P P  
UniRef90\_K2LBX2 R P N R D A V I A E L T G Y G R S D L L L C C C C Y R A S F P P S D L I E R Q Q A K T W Q P P  
UniRef90\_B0U940 A E R R E A V V I Q D I A A Y A G S D L L L C C C Y R A S G F P A R L V A S Q A A A W D P P  
UniRef90\_K2LR70 R P H R F G V I A E L T G F A G S D L L L C C C C Y R A S F P P D D L V A R Q Q E E A W Q P P  
UniRef90\_B6IQX2 V P Q R A A I V D G V A A Y A G T D L L L C C C C Y R A D H P P R S L V A R Q Q E E A W Q P P  
UniRef90\_UPI00037C5A39 A Q N A D A V F E E I L A Y A G N D M L C C C C Y R A E S P P E E L V A R Q A E R W D P P  
UniRef90\_V4BDQ8 Q K S R E T L T Q G I I H F L E T D T I C C C C Y R A L Q P S P P E R L V A Q L Q M E A W D P P  
UniRef90\_K2NYZ9 A I H T Q P V V I E D V L Y A T S D L L L C C C C Y R A P S P P E R L V A M Q A E A W D P P  
UniRef90\_S7QFJ1 P K S R T E I R E A L I K Y L D T D T V C C C C Y R F H Q L E P P E A L A R L Q K A H W D P P  
UniRef90\_D6VAB0 A D D V A A V R D D I A K Y F F T D T L L F Y R A S F P P E E L I A R Q Q A E H W D P P  
UniRef90\_UPI00044167D7 P E T R K Q V R S S L K Y F E T D T I F H H E T E P P A L V E L Q Q K H W H P P  
UniRef90\_Q28UR9 T P Q L A D V S D M L L G Y A E T D L L L C C C C Y R A E G P D A L T Q R Q A A E W D P P  
UniRef90\_H0HVD9 A A D P A A V R D D I V A F A S S T D L L C C C C Y R A S A P P V I G L V E R Q Q A K A W D P P  
UniRef90\_UPI0003B5508D A P K R P E V V D E I V A Y A S E T D L L I C C C C Y R A S Y P D S L V R R Q Q E V W Q P P  
UniRef90\_K5XHT7 A S T R A E V Q E T L L N Y L D T D T I C C C C Y R W E D S T P Q L E R L Q Q A E H W D P P  
UniRef90\_X7F4Z2 S V Q H A E V A D M L A E Y G D A D T D T I C C C C Y R R A D A P A E L V A R Q Q A A W D P P  
UniRef90\_U5HDV5 P D V R A E V V A N L R Y L E D T D T V C C C C Y R H E E A P D H L V T L Q Q D A H W N P P  
UniRef90\_UPI00021A7C0D N N H K Q D M A N Y I V N C L E M D T V L F H S Y E N E E L Y K I Q T E N W D P P  
UniRef90\_Q1QN00 A G R V D A V V A D I V K Y F G S D L L L F Y R A G H P P D A L V T R E A A H W D P P  
UniRef90\_B0D3L6 E H T R Q E V R K A L V A Y L D T D T I F R A N N Y P P L E K L Q T Q H W E P P  
UniRef90\_V2XWG6 A E S R E T V S K A L L E Y M D T D T I C C C C Y R Q D Y P E H L V A M Q T E H W D P P  
UniRef90\_U3KNQ1 G P Q K D Q L T Q A A I K F L D T D T I C C C C Y R K V I E P E T L V E L Q Q R N E W D P P  
UniRef90\_UPI00047D7CC9 S Q D M Q A V K E D I L R F C G T D L L L C C C C Y R A D T P P E E L V K R Q R A V W D G P  
UniRef90\_W1R1VY7 A P D P S A F A D G I A R Y A Q S D L L L C C C C Y R A D A P E T L A L L R Q A A A W D P P  
UniRef90\_UPI0003B6D42D R P Q F A G V I A C H L A E Y A G T D L L S Y R A T D P Q E L V V D L Q Q A Q G W D P P  
UniRef90\_E9FRB1 N K L R Q D I V C H I L T Y A L D N D T L L C C C C Y R A A F P E D L I E R Q Q A K A W Q P P  
UniRef90\_UPI0003B3D235 R P N R P T V V A E L T G Y G R S D L L L C C C C Y R A A F P E D L I E R Q Q A K A W Q P P  
UniRef90\_D8PWR1 A T E R A Q V V Q G L L D Y I H T D T I C C C C Y R H Q D E S P H Q L V T L Q Q K Q H W D P P  
UniRef90\_A3TU37 A L Q H A E V A G M L A A Y G D S D L L L C C C C Y R A D S P A G L V A R Q Q A E G W D P P  
UniRef90\_J7Q8Q0 A G Q M A E V E A E I V K Y A A S D L L L C C C C Y R A G A P E G L A A Q S S A W D P P  
UniRef90\_Q1YNH4 A D D P I P V R D D I L A R Y I E T D L L F Y R A G T P P E R L V A R Q Q E L W D P P  
UniRef90\_UPI0002DE6C23 A A Q R Q R F V D D I A A Y G E S D T L L C C C C Y R A D P G D P L A E R Q Q K D W E P P  
UniRef90\_UPI000465A75D S T D T Q A V L E D I L R Y S S T D L L V C C C C Y R A D G P E S L V E R Q S E A W D G P  
UniRef90\_A8TZH0 A P Q R D Y V V G E V A G Y G G S D L L L C C C C Y R A D D P P V L T A R Q E T A W S P P  
UniRef90\_TOGCA0 A P D R E A F A A G I A R Y A E T D L L L F Y R A D D G P E A L A A R Q A A A W D R P P  
UniRef90\_UPI00034A4BF6 T G R E D A V T D D V A K Y F S S D L L L F Y R A S H P P E A L V A R E A E H W D P P  
UniRef90\_UPI0003F49DAF R D D R V E V D A L M K Y L E T D T I L F P Q S E P P A L V R M Q Q A H W Q P P  
UniRef90\_M2QBZ4 T D E R S E V R S L L K Y L D T D T I F H H E T E P P A L V T L Q E A H W K P P  
UniRef90\_A8NH50 A E D R Q E V E K T L L N Y L E T D T V C C C C Y R F F H D D P P E L H R L Q T K Y W V P P  
UniRef90\_COILU2 T N I T E E L V D E I L N F F H T D T I C C C C Y R A L T E P P E A L M W L Q R K E T W T P P  
UniRef90\_E0MJS6 A T E M Q A V R E D I I R F A G T D M L C C C C Y R A G Q P P D D L I E I L Q R A T W D P P  
UniRef90\_D8JXV1 S E T L D A V A A D I V A Y A G S D L L V C C C C Y R A E T P D D E L V A L Q S R D W N P P  
UniRef90\_UPI0004650950 L P E M R A V L V E D V K Y A S S D L L L C C C C Y R A D G P P E R L V E R Q S K T W D P P  
UniRef90\_T2MA33 S I T K S D L V N G M L R Y F Q T D T I C C C C Y R A A D Q P P E E L V E L Q A R E W V P P  
UniRef90\_B9JWJ0 S A N T Q S E V L D D I V R F C G N D M L C C C C Y R A D A P Q E L V E R Q S A K W D P P  
UniRef90\_B3RMW4 R N D N L R V T A Q I M E Y L A T D T I C C C C Y R A T E P P N D L V A V Q N H Y W N P P  
UniRef90\_UPI0003638BD9 A L R H E D P I V V E V A A F A G T D L L C C C C Y R A D E P P A E L V A A Q D A Q W N P P  
UniRef90\_X5MFA9 A L D N G P A I D E I V G Y A G T D L L V C C C C Y R A D D P P E E L V A L Q Q Q A W D P P  
UniRef90\_UPI000371F37A S A R M A E V V G D V V A F A S S D L L L C C C C Y R A E S P P E T L V R Q Q A S A W D P P  
UniRef90\_J3HSW0 V N D P Q A E V L E D V L R F A S S D M L C C C C Y R A G S P P E R L V R R Q T D A W D P P  
UniRef90\_E3KYX0 S E E R D A V V D D L M R Y L D T D T I C C C C Y R Q E S K P R V L A E M Q K T H W A P P  
UniRef90\_UPI0004410546 A E E R A E V R D T L K Y L D T D T I C C C C Y R F H A D E P P P V V R L Q N E A W D P P  
UniRef90\_V5SGS3 S D K M H E V A D D I L A A F A S D L L L C C C C Y R A E A P P E G L V R R Q A E W D P P  
UniRef90\_Q29KM5 N N N K L D M V N Y L L N Y M P T D T V L F Q Y D D E R D L K E L Q K N E W D P P  
UniRef90\_W6KAT8 P Q V R S E V I D Q L V Q Y A G T D L L C C C C Y R A E A P S D L V E R Q Q N E T W N P P  
UniRef90\_UPI0003C368C7 N N H T K D M V N Y L L N Y I P T D T I L F Q Y D D E R D L H D L Q R N E W D P P  
UniRef90\_UPI000369824F A S A M T E V G D E I V R Y A G S D L L L C C C C Y R V D T P A A L V A L H A E L W D P P

UniRef90\_A4EN88  
UniRef90\_UPI0003B447BF  
UniRef90\_UPI0003D0FB12  
UniRef90\_UPI0004623684  
UniRef90\_M1PDG4  
UniRef90\_UPI00035A1A2C  
UniRef90\_W6RCJ1  
UniRef90\_A0A037ZGY4  
UniRef90\_A7SDZ9  
UniRef90\_F8ES96  
UniRef90\_K8PJC2  
UniRef90\_C8S4Y3  
UniRef90\_K1PFE8  
UniRef90\_W4XT50  
UniRef90\_H5YJ14  
UniRef90\_R7V7B5  
UniRef90\_N1MRB2  
UniRef90\_UPI0003798D1F  
UniRef90\_UPI0004432720  
UniRef90\_UPI0003A3CA03  
UniRef90\_A1USS7  
UniRef90\_Q134Y6  
UniRef90\_V7EN51  
UniRef90\_UPI00039D8CAA  
UniRef90\_J0ZKS9  
UniRef90\_I5BUR1  
UniRef90\_E3I012  
UniRef90\_M7XY18  
UniRef90\_C5B3B1  
UniRef90\_S9QS84  
UniRef90\_UPI0002D5FD2E  
UniRef90\_V4RKH1  
UniRef90\_UPI000471B6F9  
UniRef90\_B9QXU9  
UniRef90\_K2IFW7  
UniRef90\_V6F7B2  
UniRef90\_K2LBX2  
UniRef90\_B0U940  
UniRef90\_K2LR70  
UniRef90\_B6IQX2  
UniRef90\_UPI00037C5A39  
UniRef90\_V4BDQ8  
UniRef90\_K2NYZ9  
UniRef90\_S7QFJ1  
UniRef90\_D6VAB0  
UniRef90\_UPI00044167D7  
UniRef90\_Q28UR9  
UniRef90\_H0HVD9  
UniRef90\_UPI0003B5508D  
UniRef90\_K5XHT7  
UniRef90\_X7F4Z2  
UniRef90\_U5HDV5  
UniRef90\_UPI00021A7C0D  
UniRef90\_Q1QN00  
UniRef90\_B0D3L6  
UniRef90\_V2XWG6  
UniRef90\_U3KNQ1  
UniRef90\_UPI00047D7CC9  
UniRef90\_W1RVY7  
UniRef90\_UPI0003B6D42D  
UniRef90\_E9FRB1  
UniRef90\_UPI0003B3D235  
UniRef90\_D8PWR1  
UniRef90\_A3TU37  
UniRef90\_J7Q8Q0  
UniRef90\_Q1YNH4  
UniRef90\_UPI0002DE6C23  
UniRef90\_UPI000465A75D  
UniRef90\_A8TZH0  
UniRef90\_T0GCA0  
UniRef90\_UPI00034A4BF6  
UniRef90\_UPI0003F49DAF  
UniRef90\_M2QBZ4  
UniRef90\_A8NH50  
UniRef90\_C0ILU2  
UniRef90\_E0MJS6  
UniRef90\_D8JXV1  
UniRef90\_UPI0004650950  
UniRef90\_T2MA33  
UniRef90\_B9JWJ0  
UniRef90\_B3RMW4  
UniRef90\_UPI0003638BD9  
UniRef90\_X5MFA9  
UniRef90\_UPI000371F37A  
UniRef90\_J3HSW0  
UniRef90\_E3KYX0  
UniRef90\_UPI0004410546  
UniRef90\_V5SGS3  
UniRef90\_Q29KM5  
UniRef90\_W6KAT8  
UniRef90\_UPI0003C368C7  
UniRef90\_UPI000369824F

130 140 150 160  
M L D W A A D T L G A R L F V T G E G V M H V T Q K P D V L S K L T T E V A T F D  
L L V W T K V H F G A D L T V T T H G I M P V E Q P P E Q S L R G L S S S A V L H A L T N  
M I E W A E K K R Y N V T I G S S T S L T G P T Q P V I E T M K K F F E H L A S Q F N S  
L L D W A E K K T F Y G V D I V S S T S L V V V P S Q P P E T M K K F F E H L A S Q F N S  
L L D W I E E K L G A R F N L A E S G L M Y I E Q P P R E V L Q A V S R R A H L L R R I S S  
L L Q W A A D R Y G L E A I T P T C A P P I V S P R E A S S K S E L R R A H L L R R I S S  
V L D W A G N S L G A R F I L T I E G V M H H R D Q Q P P R E A S S A F S L R R A H H D  
Y L A R A A D E F A A P L A V T A G I V P V T Q P P T Q S L H N L L A A Q V L H C P  
L L S W F S S R R F G V S V P S C E G L I L A T P L E P E T D V N K L K G A A L S V N N  
L L E W A E R R F D I H F H R I V G I L L A T Q Q Q P P E T A V A N A A R A S A L L P K A C  
V L R W A A D D L G A H F I L T A E G V I H H V T Q Q P P E T A V A N A A R A S A L L P K A C  
L L A W S A S L L E A P L I T T A G V L M H V E Q P P H A S T L A R L T A R K V V Q N S T N  
V L K W F R S S Y Q V E L D S T T A G V L M H V E Q P P H A S T L A R L T A R K V V Q N S T N  
M L D W I N K K Y E V D I N S T T S I T G P V I P P Q E E T Y R N L E H H L H S  
V L F W A A E T L G A H F I L T S E G V M H V T Q P P E E T A V Q A A R A A L L P Q S F D N  
I L N W I M E R Y H I Y L E A T T E G F G V P T V P P E T E T R E I F R Q A H L L P G S F D N  
L L D W A R A R Y D I A F V V T Q G I L P V D Q P P A Q S T L A A R L D R A A V I A A F D  
L L D W A R E T L G A R L L L S T S E N I M H G V D Q P P A P S T K V A A L L R S I A A S V D  
V I E W A E K R Y D V K L G S S T G V M H G P D Q P P A K T V K E A F L S H L L R M V D S  
L L D W A A T L G A N F E V T E G L M H V A Q Q P P R E A L A A F G A N Y L L R K I S  
L L D W A E E K I G A R F N I A E E G V M H I S Q Q P P W E P A I H A V S A N Y L L R K I S  
V L F W A A D E F G A H F I L A E G V I V H V A Q Q P P P A I A A A R G A M P Q K I S D  
L L D W A A E A L G A R L R V T T A E G V M H V A Q Q D A A A L A R L T A R V I E A F T D  
L L E W A M R R K D V T F H V T H G I V P V E D Q P P A H T A I L E Q L G A V L L A A L I D S  
I I D W F E R R K W Y H F V L S E G V I M H V D Q Q P P R D A I L T Y G R L L Y A A L I S  
V L D W A Q Q H M G A H F V L A E E G V T H V A Q Q P P R E A I A A V I S A Y L L R A Q K N  
L L A F I R E K Y G A T F E V A E G V G H V A Q Q P P P A S I L E A I G R S A N A V I E A V D  
L L D W V E K T Y D V K V N L Y E G V I L N T K Q P P D A S I L E A I G R S A N A V I E A V D  
L V A W V A E T L G A R L N L A E E G V M H V E Q Q P P E G S V A A L L R A A R V I E A V D  
V L A W A A R R F G A E L R L A E E G V M P F V A Q Q P P A A S L G R L A R V I E A A M D  
L L A W A R E A L G A R F V L V E G V M P F V A Q Q P P A A S L S A T A A A V I E A A R F D  
P L A W A R E S L G L D L R L A A G I V H V A Q Q P P Q T L E R G A S G I V V A R Y E  
L V E W A K A Y D A K L R V T T E G V G Y V A Q Q D Q A L L N M G S V V I E E D S  
V V E W A G D Q L S G R F V L J E G I M H T P Q Q D Q A L L T A F R T R I L G E D S  
L L D W A N E T F E A P F Q V T A G I M P A R Q Q P P E A L L G V R R A R L L D T L S  
L L D W C H L D A G L T V T T G V V A I D Q Q P P A A L L A A L R A R L L D D G Y F D  
L L D W S K D H L G V L T V T T E G V M P I T Q Q D H A L L R L Q R A R H V I E A V D  
V L D W A R D E L G A L I V L S E G V M H V A Q Q P P A G A S L E A V I R Q R A V I E A V D  
L L D W A H H E L G V L L K V T T E G V M P V A Q Q S D E A L L A R I R R A V I E A Q D  
L L D W V A S R Y D A M L P T T G I V H R P Q Q S D E A L L A R I R R A V I E A Q D  
V L D W M A E E F G A R F V L V I E G I M F S E Q P T E S I L A A F R R S E I D R H A  
V I K W A T H R F G I E V K P T E Y T M S L P E V G S R I E S K D I T R H L L R S Y S  
L L D W I Q S V I T G A Q F I L A E G V I V H V E Q Q S R I L A A I S T Y L L R Q R D  
L L D W A R A T F D V P I H T A F F S V L S S T Q P P P E T T E K A L A N V L L A E L D  
A L R W A D E L G A H F I L A E G V L M H V K Q P P P A V K A A R Q A L P S E T  
L L D W A R S T F G V E I H A F D S G L L A G P P P E T V K A K F D E I M Q S L D  
M L D W G A E A L D A R L L E P R T G V M W V S Q E P P T A I K A L D E T D L R Q I G  
V L D W A Q R A L G A R L L L A E E G V L H V E Q P P R R A L D A V L G R H L A R Q D  
L L D W A G S S L G A P L E V T T G I Q V V E Q P P S R D S R Q N L R A R A V I E A Y D  
L F E W V E K T F A V Q L S K N T S I L F N E Q P R D T R V K L L G N V L K A N F D  
L L D W A A G R F G A R L E P R T G L M H A P Q D A D A L A R L R A E V H A L Y D  
L L D W V R K T Y D V E L I K Y E G I L N T K Q P D P T I V K L L G G V V A D Y D  
L L Q W F C D K Y G V N L V K T Q S I E A P T V S S E T K T V L T R H L M S Y N  
V L F W A A E T L G A H F I L T E G V V H V R Q P P E D Q A L A V A R A A L P S D  
L L S W A R E T F G I Q L N I S G S I V L S V P Q P P E T K K I V E R V L E S L D  
I L A W I R R S F G A R V N K S D S I L F D G Q P P E D T K T K L A N V L A G F D  
V I E W A E N R Y G V E I G S S T S I M G P S P P A R T H K V L A N H L A S Y N  
P L D W A E N L L S A Q F T I E G V I H V S Q Q P P R E T I A A Y G A Q L N A I D  
L L D W A R Q R Y D V T F T L T R G I I P V D Q P P A D S I A R L S A A V L A I D  
I I D W A E R H D A R L A V T A G V M P V A Q Q D P A V L G R L H Q D R V H A G L D  
L L D W F N Q R Y G T N V E S S A I T G P C L P I E A R D V L K H L H S Y D  
L L D W V A Q E L G I E L V T T E G V M P V S Q N E D A L A G I Q S L I D G F D  
L L D W A R K T Y G V D V R K A E S L F M S S T Q P P E T A D N R L A K A V L D E L D  
L L D W A E E A L G A R L M P R A G V M H H E P Q N P E T A L K R L S A A V H A L L G  
L V A F A R E K L G A K F A L A E G V M F T E Q P P Q A A L D A F A R A L R A Y A  
V L D W A R D S F G A R Y L L T E G V M H V A Q Q P P Q A A L A A F K R S L A G I D  
V L A W A E N R Y D I K I R V A G I I H Q P Q S P H S L S R L P V E A M D  
I I D W A R A S L G A R F V L A E G V M H V D Q Q P P R E A I G A I G H L M R E E  
L R G W A E A T F G A R L L P T V G V M P V A Q Q S P S E T L A A L G R T V E A V N  
L L D W A R A R Y D V T F R V T Q G V I H V A Q Q S P S E T L A R L G A A V A F D  
V L F W A K D V L G A H F I L S E G V I H V G Q Q S P E P A I E A A R A A L P S D  
L L F D W L R N E L G V H V Q A T S E G L I P A R Q S Y E T L A R L R I V I E E F M D  
L L E W A C S E F G V D I Q T S D S L L L F T S Q P P P E T L Q K F D K V M A F D  
L I D W A R S A L G L E I A V S N S V L S P N Q P P R K T I E E A S K L T R A L D N  
I H E W F S K K F N V E V N A S S D L F G L Y Q P P H T I S T M K N F L M K A I E  
L L D W A E T A L D T R L L A E G I M H V A Q Q P P R E S I A A F G H H V K A I E  
I V A W A D A T L D A R F R V V I P G V V H V E Q Q S S E A L A A V I G H A L T P H D  
V L E W A K T A L G A R F Y L A E G V M H V A Q Q P P A E T L D A I R N W L M Q R E N  
I I N W F S H G I S V V S T S S L F M E L K Q P D L S I S K I K D H L M N L N  
V L G W L A D T H G A R V L Q T S S G I I Y Q Q P P S D A I E A F E R A L Q R Y D  
L L D W M N D R F Q V R L S C S T S F T G A D H S P A V K N A Q Q D E V S R G L D  
Y L A W A T E R Y G A L K S T A G I M P V S Q Q D A D A L E K F A A V V R G Y D  
L L E W F A E A T G A R L K A T S G I I H V Q Q D D E A L R Q V A L L L K E V D  
V L A W A R E E L E A E F K L Q K G L M P I E Q P P R E A L Q A L G R A L L G A L D  
I I D W A T A L N A R F V L A E G V M H V A Q Q P P R E A L G A F G V H L L G A F D  
L L V W L Q E A Y G I H L R V H D S I V Y S K Q S P E T H S K L R A L V A Q F D  
L L D W V R S E F D V E I K T F D S I L F H P Q P A E T K E K F S K L S E F D  
P L A W A R D A L G A G I T V Q A G L I M P V D Q P P A E A L A S V R G A L A P D  
V I E W F N Q R F G T N L Q V Q M N I T P P T T D E D R V K V A K H F Q S Y N  
L L D W L E A T Y G A L K T T S G I I A P Q D S K E P L S N L R S A M E P L G S  
L I E W F N E R Y G T Q L K K T M D I T P P T V S P R T E K M K I S K Y L L S H S  
V L A W A R E R F G A I F M L S E G V V H V V Q P P R T L E L L A G A L L P D D

UniRef90\_A4EN88  
UniRef90\_UPI0003B447BF  
UniRef90\_UPI0003D0FB12  
UniRef90\_UPI0004623684  
UniRef90\_M1PDG4  
UniRef90\_UPI00035A1A2C  
UniRef90\_W6RCJ1  
UniRef90\_A0A037ZGY4  
UniRef90\_A7SDZ9  
UniRef90\_F8ES96  
UniRef90\_K8PJC2  
UniRef90\_C8S4Y3  
UniRef90\_K1PFE8  
UniRef90\_W4XT50  
UniRef90\_H5YJ14  
UniRef90\_R7V7B5  
UniRef90\_N1MRB2  
UniRef90\_UPI0003798D1F  
UniRef90\_UPI0004432720  
UniRef90\_UPI0003A3CA03  
UniRef90\_A1USS7  
UniRef90\_Q134Y6  
UniRef90\_V7EN51  
UniRef90\_UPI00039D8CAA  
UniRef90\_J0ZKS9  
UniRef90\_I5BUR1  
UniRef90\_E3I012  
UniRef90\_M7XY18  
UniRef90\_C5B3B1  
UniRef90\_S9QS84  
UniRef90\_UPI0002D5FD2E  
UniRef90\_V4RKH1  
UniRef90\_UPI000471B6F9  
UniRef90\_B9QXU9  
UniRef90\_K2IFW7  
UniRef90\_V6F7B2  
UniRef90\_K2LBX2  
UniRef90\_B0U940  
UniRef90\_K2LR70  
UniRef90\_B6IQX2  
UniRef90\_UPI00037C5A39  
UniRef90\_V4BDQ8  
UniRef90\_K2NYZ9  
UniRef90\_S7QFJ1  
UniRef90\_D6VAB0  
UniRef90\_UPI00044167D7  
UniRef90\_Q28UR9  
UniRef90\_H0HVD9  
UniRef90\_UPI0003B5508D  
UniRef90\_K5XHT7  
UniRef90\_X7F4Z2  
UniRef90\_U5HDV5  
UniRef90\_UPI00021A7C0D  
UniRef90\_Q1QN00  
UniRef90\_B0D3L6  
UniRef90\_V2XWG6  
UniRef90\_U3KNQ1  
UniRef90\_UPI00047D7CC9  
UniRef90\_W1R1VY7  
UniRef90\_UPI0003B6D42D  
UniRef90\_E9FRB1  
UniRef90\_UPI0003B3D235  
UniRef90\_D8PWR1  
UniRef90\_A3TU37  
UniRef90\_J7Q8Q0  
UniRef90\_Q1YNH4  
UniRef90\_UPI0002DE6C23  
UniRef90\_UPI000465A75D  
UniRef90\_A8TZH0  
UniRef90\_T0GCA0  
UniRef90\_UPI00034A4BF6  
UniRef90\_UPI0003F49DAF  
UniRef90\_M2QBZ4  
UniRef90\_A8NH50  
UniRef90\_C0ILU2  
UniRef90\_E0MJS6  
UniRef90\_D8JXV1  
UniRef90\_UPI0004650950  
UniRef90\_T2MA33  
UniRef90\_B9JWJ0  
UniRef90\_B3RMW4  
UniRef90\_UPI0003638BD9  
UniRef90\_X5MFA9  
UniRef90\_UPI000371F37A  
UniRef90\_J3HSW0  
UniRef90\_E3KYX0  
UniRef90\_UPI0004410546  
UniRef90\_V5SGS3  
UniRef90\_Q29KM5  
UniRef90\_W6KAT8  
UniRef90\_UPI0003C368C7  
UniRef90\_UPI000369824F

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



UniRef90\_A4EN88 E H W Q I E Q W G A D E E A A A A E L T K K T A F Q D A A R F Y Q L S  
UniRef90\_UPI0003B447BF E A W Q I E L W G A D E E A A E S E A Y K R G S V L Q A A R F F A L C  
UniRef90\_UPI0003D0FB12 E E Y Q I Q R W G K V E D W A H D F D L H E L R R A R T A A V L F T H L C  
UniRef90\_UPI0004623684 V N S Q I E L W G E V E D T H D V D Y H M R R Q L G S A A C L L A  
UniRef90\_M1PDG4 E D W T M E Q W G I D E E V M T R R A Y K N S E F K A A A  
UniRef90\_UPI00035A1A2C Q Y F Q T S R W G S V E W H H D V E L Y E L R R L S A A A L F L H W C  
UniRef90\_W6RCJ1 E D W T I E H W G S D E E S E R R E K R F E D F N A A A D V F  
UniRef90\_A0A037ZGY4 E E W Q I E Q W G R D E E A D A L A D S K F A E L Q H S V R F A E L  
UniRef90\_A7SDZ9 L E F Q I G R W G S V E W A H D D L M E L R C R L A A A A L F Y H L C  
UniRef90\_F8ES96 Q I W Q T E Q W G E D E L A T R A L M V R R R D F L A A A R F F N L  
UniRef90\_K8PJC2 E D W N R E K W G A D E E V D A R R A S K F R D F E A A A K V L R  
UniRef90\_C8S4Y3 E R W Q A E L W G E D E E A A Q S E G L R H A A L T H A G R F Y G L C  
UniRef90\_K1PFE8 T L Y Q T K I W G N V Q W H H D D I Y Q L Q S R V A A A L F V H W C  
UniRef90\_W4XT50 T E F Q I D K W G S V E W A H D T E A D T K S R V A A A V L F T H L  
UniRef90\_H5YJ14 E D W N A E K W G V D E E A A G L R A A R L R D F E A A V A V L T  
UniRef90\_R7V7B5 L D F Q T E K W G N V E W H H D D L Y E Y R A R L A S A A L F V Y L N  
UniRef90\_N1MRB2 D A W Q V E Q W G E D A Q A A R T T Q R A A D F S T A G A F C A M S R  
UniRef90\_UPI0003798D1F E A Y Q A S V W G S D A E A E A R H V L R K H E F E A A A T L A K L  
UniRef90\_UPI0004432720 E E Y Q  
UniRef90\_UPI0003A3CA03 E D W T I E Q W G E D E E A Q A R R A W R E R E I R A A D A L V R  
UniRef90\_A1USS7 E D W T I E Q W K V D E E A M I R R A Y K K V E F D A A V T M M T  
UniRef90\_Q134Y6 E D W N I A R W G L D E E V A A R R A R E I E F K A A A Q V L J A L T R  
UniRef90\_V7EN51 E T W Q V E Q W G E D E E A A S E A A R H A G F M D A A R F Y A L C  
UniRef90\_UPI00039D8CAA E A W E V E Q W G E D A E A A A R S A R R R A E F A T A C T F C E L V R  
UniRef90\_J0ZKS9 E D W T I E H W G E D Q E A L K M R S A R R K D F D A A V  
UniRef90\_I5BUR1 E D W N I S L W G E D S E A A Q R R S A R E R D M M S A A T L L  
UniRef90\_E3I012 E A W Q A A Q W G Q D F D A H E R L K R R S D D F D K A S R F F A L A  
UniRef90\_M7XY18 V Q S Q I D R W G E V E D T H D D H Q D V R V R L G S A A L L V A  
UniRef90\_C5B3B1 E T Y Q A S V W G R D A E A E A R L J A H R R T E F E T A A  
UniRef90\_S9QS84 E E F Q A E E W G R V E E A I E M A G L R E R A Y L D A A R L W T L L R  
UniRef90\_UPI0002D5FD2E E E V Q M E I W G E D E E A L A R R A V R W R D F A A A A R M L E  
UniRef90\_V4RKH1 E D W Q I S Q W G E D A E A M R R R Q A R W A E M R A A A L V A R H G R  
UniRef90\_UPI000471B6F9 E T H V I E Q W G E D A E A Q T K R R K N K S E L V A A V N F L E L C  
UniRef90\_B9QXU9 E D F N I E R W G E D A E A K I R A Y K R S E F D A A A L V L A  
UniRef90\_K2IFW7 E T F Q I E Q W G E D E E A R K R R A L L M R D I E A A T L F L S L C R  
UniRef90\_V6F7B2 E A Y Q V A Q W G D D Y E A A D R R A E L Q R D I Q A A A D L L T L  
UniRef90\_K2LBX2 E G Y A M E K W G D D A E A I A R L D R H R A E F L A A G R Y L E L  
UniRef90\_B0U940 E T F Q A S V W G R D E E A E A R R A L R K Q D F L T A A R L V A L T  
UniRef90\_K2LR70 E S Y S I E H W G A D A E A V A R R E R H R A E L L A A G R Y L D L  
UniRef90\_B6IQX2 E S W Q S E T W G V D A E A A A R R A G I R A D L G A T E R F L R L  
UniRef90\_UPI00037C5A39 E D W T I E H W G E D A E A A A R R A K R F E D M K A A H L F V S L  
UniRef90\_V4BDQ8 Q E Y Q S E K W G N V E W H H D L D Q L D L Q R L A S A A L F I H W S  
UniRef90\_K2NYZ9 E D W N I A Q W G E D G E A K L R R A S R E R D M M A S A S L L  
UniRef90\_S7QFJ1 V N S Q I E K W G E V E D S H D V D Y H I R R Q L A S A C L L  
UniRef90\_D6VAB0 E D W N S Q Q W G A D E D V T Q R R A Q R R R D F D A A V K V L E  
UniRef90\_UPI00044167D7 V N S Q I Q R W G E V E D S H D V D Y H D R R H L G S A S V L L  
UniRef90\_Q28UR9 E T W Q M E Q W G A D E E A E D A A A K E A Q L R H A E A F W D L C  
UniRef90\_H0HVD9 E D W Q A E Q W G Q D S E A M A R R A H R K R D M M A A A Q L L E  
UniRef90\_UPI0003B5508D E T Y E M E Q W G W D R E A Q E R R D Y L Q S E L Q N A A R F L E L L K  
UniRef90\_K5XHT7 V K S Q I E R W G E V E D T H D V D Y H D R R H L S S A A L L L  
UniRef90\_X7F4Z2 E T W Q Q E L W G E D E E A M A A E H K R R A F L D A V R F L A L A R  
UniRef90\_U5HDV5 V Q S Q I N R W G E V E D T H D D H Q D V R V R L G S A A L L C  
UniRef90\_UPI00021A7C0D E N Y Q I S H W G S V E W F H D Q N K Y D L Q A R L J A A A L F V H L N  
UniRef90\_Q1QN00 E D W N G E Q W G V D E E V T V R R A A R L A D F R  
UniRef90\_B0D3L6 V N S Q I E R W G E V E D T H D V D Y H D R R Q L A S A A I L L L  
UniRef90\_V2XWG6 V E S Q I Q R W G E V E D T H D V D Q D I R R Q L A S A S C L L  
UniRef90\_U3KNQ1 E E Y Q I Q K W G N V E W A H D Y E L Q E L R A R T A A G L F L H L C  
UniRef90\_UPI00047D7CC9 D D Y T L D Q W G E D D E A K D R R A Y R W A E M D A A D R M M K A L Q  
UniRef90\_W1RVY7 E A W Q S E Q W G E D A E A A R N A L R R R E F S M A G A F C A M N R  
UniRef90\_UPI0003B6D42D E Y F Q I R Q W G E D E E A Q E A A A R L V A M R D A E R L W Q L T R  
UniRef90\_E9FRB1 T N F Q T R Q W G R V E W A H D V D N N V Q S R F A S I L F V H L T  
UniRef90\_UPI0003B3D235 E E Y S I E Q W G D D A E A V E R R D R H R A E I L A T G R Y L E L  
UniRef90\_D8PWR1 V N S Q I Q R W G E V E D T H D V D Y H D R R Q L G S A A C L L  
UniRef90\_A3TU37 E D W Q A E Q W G I D E E A A A A A K R A S F L Q A K R F F D  
UniRef90\_J7Q8Q0 E D W Q M R A W G E D A E A V A R R S A R F Q E F A A A  
UniRef90\_Q1YNH4 E D W N I E Q W G A D D E A S A R R E L R W Q E M Q V A A V L L  
UniRef90\_UPI0002DE6C23 E L W Q E E L W G A D G E  
UniRef90\_UPI000465A75D E D W N I A Q W G E D G E A A R M R A A K K R D M  
UniRef90\_A8TZH0 E A Y Q V E R W G T D R A E A Q R R R I R R A E V A E A A K F V E L L R  
UniRef90\_TOGCA0 E S W Q A E Q W G E D A E A A R A R R R E E F A T N C A F C A L T R  
UniRef90\_UPI00034A4BF6 E D W N I E Q W G L D E E V A S Q R S A R R A E F D  
UniRef90\_UPI0003F49DAF V R S Q I E R W G E V E D T H D D Y Q D I R R A L G S A A C M V  
UniRef90\_M2QBZ4 V N S Q I K R W G E V E D T H D V D H D D R R Q L G S A A C L L  
UniRef90\_A8NH50 V D S Q I E R W G E V E D T H D D Y Q D V R R Q L G S A A L L L  
UniRef90\_C0ILU2 L E F Q I E K W G N V E Y A H D D R Y N Q Q S L L T A V L V F H L S Q  
UniRef90\_E0MSJ6 E D W N I A Q W G Q D Y E A A D R R A A R F I D M E C A C  
UniRef90\_D8JXV1 E D Y Q I S L W G E D A E A T A R R R G R A E F D A A W R W L A L L R  
UniRef90\_UPI0004650950 E R W T S E H W G E D A E A M E R E R R R R D F D A A  
UniRef90\_T2MA33 V E H Q I T K W G N V E F A H E L E K Q N Q T I F L A A G L F Y H F T  
UniRef90\_B9JWJ0 E N W T D E H W G S D M E A E A R R A A R F V D M Q S A Y D V L R A A R  
UniRef90\_B3RMW4 V N Y Q T A K W G N V E W A H D L E V S E L K S K T A A A I F Y Q C  
UniRef90\_UPI0003638BD9 A T H Q E A A W G T D W E V E D K R E K L H A E L V A A A E F L S H L R  
UniRef90\_X5MFA9 E T F Q I N K W G E D Q E A E R A A F H K V E F D A A E V L G L  
UniRef90\_UPI000371F37A E T W Q R E Q W G Y D A E A Q A A A R F A E F S A A S R C L R L  
UniRef90\_J3HSW0 E D W T A E Q W G V D A E A A R R A V R E R E M A A A V K I L L E  
UniRef90\_E3KYX0 V L S Q I A R W G E V E D T H D  
UniRef90\_UPI0004410546 V S S Q I E R W G E V E D S H D V D H H D R R H I G S A A C L L A  
UniRef90\_V5SGS3 E R W Q S D L W G R D A E A E A R M A E R L A E A T A A A R C L R L L R  
UniRef90\_Q29KM5 E E Y Q I K F W G R V E W S H D L S Q Q E L Q A R L J A A V L F V Q L N  
UniRef90\_W6KAT8 E T Y Q M E K W G Q D H E A L A R Q N K L R E D L E S A T R L I T L  
UniRef90\_UPI0003C368C7 E E Y Q L K F W G R V E W A H D L S Q Q E L Q A R L J A A V L F V H L N R  
UniRef90\_UPI000369824F E E V Q E Q L W G T D A E A L V R R A A R Y R D F E A A A R A Y A L

UniRef90\_UPI0004410C88 1 T L K R F W K D A D L Q E Q S H A Y H I T L D K R P L K T P G G N V L L 40  
UniRef90\_Q0FAA9 MT P S F K K R F W K D A R S V V D L N D G Y V V E L D G R R V I R T T P S K E A L L L  
UniRef90\_UPI00037552E9 M S S S L K R F Y K T A S A E Q Q G D D Y I E V T L D G R A L K K T P P E G Q N K L L  
UniRef90\_G4TD85 N R A E Q T S M K R F W K A H V R Q Q G D D Y I E V T L D G R A L K K T P P E G Q N K L L  
UniRef90\_F4R4M4 Q E A E V S M Q R F W K T V D L H P S E D D G F H I R L D D Q R K L L V T P S G N Q L L  
UniRef90\_G1Y4E4 T K R Q Q G G W Q V Q L D A R I L K S T P S A K A D L L  
UniRef90\_F8P6B5 N R A E A T L K R F W K H V G L E K R D N S F A V T L D K R A L I K T P S P A G N T L L  
UniRef90\_H4F5S6 Q M K R R P L P K R F Y T I V S I A A D G D G F A I H L D G K P V K T P A K A G N T L L  
UniRef90\_J9VZD9 N R A E Q T L R R F W K T V N I L S A T S P D D G Y L I T L D H R A L K K T P P S G A K L L  
UniRef90\_UPI0004407FBC N R A E A T L K R F W K T V G L I D A T S D G I A V T L D R R A L K K T P P S G N L L  
UniRef90\_A5PEL8 A M K R F Y K D V S T A K T D L G W T V S L D G R P I K T Q G G Q P Q  
UniRef90\_A9DCN5 H L R K Q L P K R F Y T S A G V K P T G G G F V I A L D G K Q V R S P S G R E L L  
UniRef90\_U1H5B8 H I R T P Q R K R F Y T S A G V T A E G G F S I T L D G K Q V R S P S G R K P I  
UniRef90\_UPI00046CA477 T V K R F Y R K T G V I L E S N G D K Y E I T L D Q K R L K T P L G K V F  
UniRef90\_UPI00036F9FAB A L P K R F Y K Q A D V L E T A D G G F S V A L D G R P A R T P A K A P L  
UniRef90\_R9AGS4 A E S N L K R F W K N A S V K C V E G R Q I V H L D Q R K L R T P A G N V L  
UniRef90\_J6J9S5 P L R K R F Y T D V S V R E T A A G F A I E L D S R P V R T P A R E T L  
UniRef90\_UPI000372D84E M K R F W R E V A I D G D G V I R L D D R P V V R T P G R A L L  
UniRef90\_UPI00040B2F9D N R A E A T L K R F W K T V N L E P Q Q G D S L T V K L D N R A L K T P S G H P L  
UniRef90\_W4KIA5 K R F Y K D V A A E S R R A D G Y A I L L D G R G V L K T P A R K P L  
UniRef90\_UPI0003B4A63B A E R T M K R F W K T A N V I E S N S N G R H I V H L D T R K L R T P A G N V I  
UniRef90\_I4YK23 M K P T L P K R F Y K D A G V E E R D G L F H L T L D G R T A K T P G K Q A L  
UniRef90\_I4YWE5 S G Q R Q R F Y A S V S K E T P E G G F A I L L D D K R L V R T P S A K N L L  
UniRef90\_A3WV/V2 T E R K R F Y Q N V S I S Q E G G F E I N L D H R K L K T P P Q A K V L F  
UniRef90\_M7B576 K R F Y K N V T I T K S N G G F E V N L D R H K L R T P L G N V L  
UniRef90\_T1G625 S T N R K R F Y K D V S V I T K S N G G F E V N L D R H K L R T P L G N V L  
UniRef90\_T1K455 L P K R F Y E T A E V G E S G H G F A V L L D G K S V K T P A R R P L  
UniRef90\_UPI0001D2F00C K K F Y K E A R I C H S D G G F E I N L D N R K L R T P N G N I V  
UniRef90\_H2ZQP5 P K R F Y R Q T G I T S N G K F E I T L D Q R K L K T P K G A P F  
UniRef90\_Q16TS9 N R A Q A T L K R F W K D V G I E V I Q P G H L T V T L D K R P L K T P S G D Q L  
UniRef90\_K5VWK4 E R T L K R F W K D V R L D P R P D G H A V L L D K R T L K T T S N V P L  
UniRef90\_G7EB50 S S L P K R F Y K A V D V A L D E S F A V H L D G R P A R T P A K R T L  
UniRef90\_QOANT6 M K R F Y K E T G T E Q V E G G W R A V L D G R A I R T S A G G R Q Q  
UniRef90\_J2ZNG0 M T E W A A R R F W T D A T A E P M E G G H T V R L D G R A V K T P A K S P L  
UniRef90\_W4HI86 A K R K R F Y Q Q A R I N Q S D G Q Y E V C L D H R K L K T P L G N S V L  
UniRef90\_T1J1S3 L P K R F Y E R A R S V E L K S D D V Y A V L L D G R S I K T P G R K P L  
UniRef90\_G8PPD6 M S G W S A K R F W K S A T V E P C E G G F T V K L D G R A V K T P A K A A L  
UniRef90\_D5AM29 R T A A P V K R F Y R K T G I L R S S E N G R Y E I T L D Q R K L K T P K G A P F  
UniRef90\_B0WBZ8 A T R K R F Y R N T G L L R S S E G K Y E V T L D Q R K L K T P K G N L F  
UniRef90\_D6WNB0 L K R F Y K K A E A G P H E K G H A I L L D G R A V K T P A K E P L  
UniRef90\_A7HWU5 N M A T V K R F Y R R T N L L S S G D K F E V T L D Q R K L K T P Q G R I F  
UniRef90\_F4X763 L P K R F Y D V A S S A P S E G G H A V L L D G R A V K T P G R K P L  
UniRef90\_UPI0003617990 L P K R F Y K E V A L V E D E G G F A I R L D G R P V R T P S R A A L  
UniRef90\_UPI00037FCCE5 K R F Y K E V T Q R M A D D G W T V M L D Y R T L K T P S K R P L  
UniRef90\_M0RHN7 T A L K R F W K Q V S T Q P D T Q T Y E I L L D K R P L K T P G G S K L  
UniRef90\_A0A015IVF1 N R A E R L K S R F W K T V T L Q P T T P G F Q I L L D G R S I K T P G G Q A I  
UniRef90\_V5ER08 N R A E T T L K R F W K T V G V K R Q D G F T V T L D S R P L K T P A G N T L  
UniRef90\_UPI000455D883 T L Q R F W K K V D I A R E N D G L T V T L D K R A L R T T E G A K L  
UniRef90\_X8JUA0 H A K P A L P R R F Y Q E A G F A E G P D G F R L T V V L D Q R N L R T P S K H I V  
UniRef90\_I1BMB3 A E A T L K R F W K T V G I D A R E D G F V V T L D K R P L R T P S G K H L  
UniRef90\_I9WTV8 K K P K R F Y K T V S V S E G E T G W H V E L D G R T P V T P A K R K L  
UniRef90\_UPI0003B5035A K L P K R F Y K A A T V A P V G E G F R I E L D G R P V R T P G R N L I  
UniRef90\_D7A1F0 K K A L P K R F Y K E A T A E A R D G G F A I L L D G R P V K T P A K N A L  
UniRef90\_UPI00035CC067 P K R F Y R N T G V I S S N G R Y E I T L D S R K L K T P K G L P F  
UniRef90\_W5JZ2 T K P L P K R F Y K D V A V G E V E G V L T I L L D G R A V K T P A R N T L  
UniRef90\_UPI0003722CC6 T D Q R M K R F Y K Q A G I E K L E D G W T I V L D G R Q L K T P A K N V L  
UniRef90\_UPI00036C6E92 A T R K R F Y K G T A V I Q N D N K W E V T L D H R R L K T P A N G N V L  
UniRef90\_H9J0X1 L D G R P V V K T P A K N A L  
UniRef90\_T1W972 M K R F Y K Q V S V E P V A G G H A I R L D G R P V K T P A R A D L  
UniRef90\_A5V9V2 Q L P K R F Y T E A G V A E E N G G F A V R L D G R S V K T P S R N A L  
UniRef90\_E6VBZ5 K R F Y K K V T T R E A D D G W T V M L D Y R T L K T P S K R A L  
UniRef90\_Q94BY8 K P K R F Y K E A A E A Q M P G G W T V T L D G R S I K T P A R A A L  
UniRef90\_UPI000359F6G1 K R F Y K E V F T R E A D D G W T V L L D Y R T L K S P S K R P I  
UniRef90\_W1NJP5 L R N R F Y K M V E V A E V P E G G F A I S L D G K A L R T P A R R A L  
UniRef90\_W3RGY6 M K R F Y K Q V T V E A A E G G F A V K L D G R A I R T V G R K R T Q  
UniRef90\_Q2G4E6 N L F S A Q T K K F Y K N V T I F Q E Q P V F Q I L L D Q R K L R T P T G I H F  
UniRef90\_C1L4Z9 S Q V S P K R F Y R N V W V A K T E T G Y E V F L D K S R L R T P G G N I F  
UniRef90\_U6HDZ5 M K R F Y K E V T I A P D A G G W R V L L D G R A I K T A L G K D Q  
UniRef90\_U2YLA7 S G T M G R R F Y K K T H T K P A E D G Y I V M L D G R E L K T P A R K P L  
UniRef90\_A9TW86 P K R K R F Y A S V G V G E A E G G F T V K L D G R P I K T P S G R I V  
UniRef90\_UPI0004108601 M S L S T L R R F Y E A A S A A E S E G G F A V H L D G R P V R T P G G R F L  
UniRef90\_UPI0004647E92 P L R K R F Y Q A A S V D E M P E G G F A V T L D G K P V R T P G K R L L  
UniRef90\_B6JEZ6 L P K R F Y Q S A S V G E A E G G Y A V L L D G R T V K T P A R S I L  
UniRef90\_UPI0004647E92 A T H K R F Y R R T D I V G Q N E K K W E V T L D H R R L K T P N G S V L  
UniRef90\_S4PI60 M K R F Y K D V T V K K S D T G Y Q I C L D G R P V R S P E K A I I  
UniRef90\_G5ZX80 M K R F Y K D A T V T G D S P F G V A L D G R P L R T P A R V P L  
UniRef90\_UPI0003B5FECA N R A E R L K S R F W K T V S L Q A R D S G Y Q I L L D G R P I R T P S G S A I  
UniRef90\_Q4PEA0 P K R F Y E Q V T V E R I P G V Y C V S L D G K L R T R T G K S F L  
UniRef90\_M2XYJ3 N R A E R L K S R F W K S V S L Q R E S D G F Q I L L D N R C L R T P S G Q P I  
UniRef90\_I2G2U4 N R A E A T L K R F W K T V G V E R E R E D A F A V T L D Q R P L R T P G G K H I  
UniRef90\_S8EQB6 P E R K R F Y R S V T V S A A P A G F V I K L D D R Q L R T P A R S L L  
UniRef90\_E9BW81 R F Y K H A R M R P S D D G Y V V M L D R F T L R T P K K N P V  
UniRef90\_D8S9U3 L P K R F Y T A A T A A P A E G G F A V L L D G R A V K T P G K A L  
UniRef90\_U2YUX5 T S E S I K R F Y E K A S V V P C D G G F Q V H L D K R S L K T P K R N T F  
UniRef90\_F2U3P7 M A E P E M K R F Y K E A A V A E T E G G W R V L L D G R P I K T A G G R P Q  
UniRef90\_F2U3P7 M S D T R R K R F Y K E A A A A P S A G E G A V L L D G R G L R T P A K A P L  
UniRef90\_T0INT3 L P K R F Y K K A E A A K V D G G F A I H L D G R A V K T P A K V T L  
UniRef90\_I3TNV1 M R K P L R K R F Y K D A G I A A A E G G F N V T L D G R P I R T P S G R V L  
UniRef90\_E2CP23 K F S T Q V D G F S E P G Y E I L L D K S R L R T P G G N V L  
UniRef90\_M4Z6M8 S I L K S D G K F E I T L D Q R K L K T P K G S P F  
UniRef90\_U6IBC9  
UniRef90\_J3JXB6

UniRef90\_UPI0004410C88 E I P K T K L A T M I A Y E W D N Q E K L V K N P H A L P L T S L A A R A I D D M 80  
UniRef90\_Q0FAA9 K V D F R K I A D Q I A F E W M A Q E K E L V K N P A S E M P L N T R M A A N S T A I V D D K I T V  
UniRef90\_UPI00037552E9 L L P T S M G L A K A I V A A E W D A Q Q E K E L V K K A H S A L P M M T S L I A C T R A I V D D W G T V  
UniRef90\_G4TD85 R V P T A S K L A T A T L I A A N E W D V Q Q D T L L V K K A H S A L P L T S L I A S R S I V D D G M  
UniRef90\_F4R4M4 V I P K I A L A V L V A A R E W A E Q Q R K T L L V K K Q H S A L P L T S L I A S R S I V D D G M  
UniRef90\_G1Y4E4 V L P T E A L A R A L V A A E W D A Q Q E R D T L V M Q P D S M P M M T S L I A S R S I V D D R A M  
UniRef90\_F8P6B5 L L P T E N K L A T A T L I A A D E W E N Q Q E R L L L V M Q P D S M P M M T S L I A S R S I V D D A M  
UniRef90\_H4F5S6 C L P T R E R A A E L V A A E W A F Q Q D Q V L V D P G H T M P V T S L I A S R S I V D D A V  
UniRef90\_J9VZD9 E I P K E R L A A A L I A A N E W E N Q Q D K V L K K Q H A L P V S L I A S R S I V D D G L  
UniRef90\_UPI0004407FBC E I P K H E K R A A L I A A N E W E N Q Q D K V L K K Q H A L P M A T S R A I D D R E  
UniRef90\_A5PEL8 V V P S E A L A E K L A A E W S G Q Q G E T I D D P A A F R F R D M T D Y A I D D V V  
UniRef90\_A9DCN5 E V P F E A L A E A V A A E W S A Q Q G E H I D D P A V M P L L T R R M V N T A I D D E G V  
UniRef90\_U1H5B8 V V P T R T I A D A V A A E W D A Q Q G E T I D D P A V T M P L L T R R M V N T A I D D E G V  
UniRef90\_UPI00046CA477 E V K S K P L A L A I A H E W D S Q Q K D V I N R N L M H L L T R L A S T V I D D N P  
UniRef90\_UPI00036F9FAB A L P T R A L A G E A V A A E W N A Q Q V E V I D D P F H K M P L T T S L I A S R S I V D D G V  
UniRef90\_R9AGS4 D L P K A A L A L L I A H E W Q S Q Q D K L I K P H A L P I L T T S L I A S R S I V D D K C  
UniRef90\_J6J9S5 A L P N G A L A E T V A A E W R A Q Q G E T I D D P A K M P L T T R L L A N V V I D D A V  
UniRef90\_UPI000372D84E A L P S L V E L A D A V A A E W R A Q Q G E M V D D P R A M P L T T R L L A N A A I D D R V  
UniRef90\_UPI00040B2F9D A I A S L R A A C G L E A E W A Q Q G F V D D P M T M P L L T R L L A N A I D D R V  
UniRef90\_W4KIA5 L V P Q Y K V A T L I A S E W E N Q Q T S I L L K H H A L P M T S L L T A R A I D D A M  
UniRef90\_UPI0003B4A63B L L P T Q A L A D A V A A E W R V Q Q G E R I D D P G S M R L T T S L L A N A A I D D R S F  
UniRef90\_I4YK23 D L P S N A L A L I A H E W Q S Q Q D K L I K A H A L P I L T T S L I A S R A L D D S F  
UniRef90\_I4YWE5 A V P S R A L A G A L A E E W Q G Q Q G E I D P S T M P I L T T R I V N S A I D D G V  
UniRef90\_A3WV12 A A P A R A L A E A I A V E W D S Q Q R D V I N P M T M P L L T R L A S T V I D D Q Q  
UniRef90\_M7B576 T V P S E A L A I A V A T E W D S Q Q D T I N K S Y T M H L L T S R A L G W S V D D Q R  
UniRef90\_T1G625 L I P S E P I A L G V A E E W R S Q Q D K T I N K F N M H L L T S L A N M C A D D R N  
UniRef90\_T1K455 Q V P K S H Y L A L M L A E E W A Q Q K D T I K S Y E M H L L T N L V N C A I D D P  
UniRef90\_UPI0001D2F00C A T P W R E L S T A L A A E W A G Q Q E R L D D P V T M P L L T R L L A S T V I D D G V  
UniRef90\_H2ZQP5 K L P T E A L A H S V S I E W N S Q Q K N V L K L D Q M P M T T L C F S A V E N V  
UniRef90\_Q16TS9 F V E S E P L A I A I A T E W D A Q Q K D T L D R S R M H L L T A L L S S R A I D D N  
UniRef90\_K5VWK4 L L P R K H A L A T L I A A E W D N Q Q E T L L K Q H S L P M T S L I A S R A I D D A F  
UniRef90\_G7EB50 L L P R R N L A A A I A A N E W D N Q Q D K V L K P H S L P I T S L L A S R A I D D G M  
UniRef90\_QOANT6 A L P T R A L A E L V A S E W A Q Q G E R I N A P A S F P A T R D L C F V A L D L T I  
UniRef90\_J2ZNG0 V V P T Q A L A S T L A S E W A V Q G E I D P A S F H F R D L L A D F A I D A I  
UniRef90\_W4HI86 I L P S E A M A R A V A A E W A Q Q G E L I A P L S M P V T R S L A N A A I D D K V  
UniRef90\_T1J1S3 E V P K H A L A L A V A Q E W N I Q R N E V I N D P N T M H L L T S L L A C H S A I D A V  
UniRef90\_G8PPD6 V F K D E V I A E G V A A E W E L Q Q E E I D P N G T M H L L T R L L A H S A I D A V  
UniRef90\_D5AM29 V L P T Q A M A E A V A A E W Q A Q Q G A K I D P T T M P V T R S L A N A A I D D K V  
UniRef90\_B0WBZ8 Y V E S E P L A I A V A T E W D A Q Q K E I D D R S S M H L L T A L L S S T V I D D N  
UniRef90\_D6WNB0 S V E S E P L A I A V A T E W D S Q Q K E N I I Q S K M H L L T T L C A S T V I D D N P  
UniRef90\_A7HWU5 A V P V L A R A I A D E W E A Q A E E I D P R A M K L L T K L L A N T A I D L V  
UniRef90\_F4X763 E V N S K P L A L A V A A E W D A Q Q E T I D D R G S M H L L T S L L A C H S A I D D N P  
UniRef90\_UPI0003617990 L L P S D A R L A A A V A A E W H A Q E K V I N P G G I M P L T T R I L A N A A I D A V  
UniRef90\_UPI00037FCCE5 R V S E R R V A E E L A A E W E R Q A T H I D P A T M P M T R L L V N T V L D G V  
UniRef90\_MORHN7 K L Q S L A L A K A I A A E W D C Q Q D G I R P F T M P L M K L A C T A L E R V  
UniRef90\_A0A015VF1 T V P S K L A L L I A G E W S Q N H V L R Q H S L P L T S L I S I S I E R K  
UniRef90\_V5ER08 I I P A N R L A T C I A Q E W S E Q Q K L L K P H T L P L T S L I A S R A I E G C  
UniRef90\_UPI000455D883 E L P T S K A A S L I A F E W E N Q E T V L K P H A L P M T S I A S R A I D D F M  
UniRef90\_X8JUA0 E I P N S H A S L I A I E W E N Q E K L K P H A L P M T S I A S R A I D D G L  
UniRef90\_I1BMB3 Q F P K Q E L A L L T A A E W D A Q T K N L K P H S L P L T S I I A R S F D A F  
UniRef90\_I9WTV8 S L P T R A L A E K V A A E W A Q Q E T V I D D P A R M P L T R L L A N T S I D D G V  
UniRef90\_J7SD65 L L P R N K V A T L I A S E W E N Q E T L L K P H T L P M T S L I A S R A I D D A F  
UniRef90\_UPI0003B5035A A L P T Q A L A V S V A E E W E G Q I E E I D P T M T L T R M A N V A L D D R T  
UniRef90\_D7A1F0 A V P G E A L A Q A L A A E W Q A Q Q G E L I D P M S M P M T R L L A N S A L D D G V  
UniRef90\_UPI00035CC067 A L P T L A A A E A V A A E W Q A Q Q G E Y I D P Q E M P L T R L L H S A L D D G V  
UniRef90\_W5J2Z2 F V E S E P L A I A I A T E W D A Q Q D V I D R S A M H L L T A L L S S T F I D D N P  
UniRef90\_UPI0003722CC6 S A P Y E N L A F A M A G E W A D Q D E V I N P F I M P L T R L L A H V A I D D N M  
UniRef90\_UPI00036C6E92 T L P S E E L A E A V A G E W A D Q I E Y I D V A T M H I T R L L V N V A I D D R T  
UniRef90\_H9J0X1 T V G N E P L A R V V A V E W D S Q N E T I S Q A T M H L T A L L C N T A I D D N P  
UniRef90\_T1W972 I M P T T R V A E L V R D E W A Q Q V D V I D P R T M P V T R L L V N T A I D D G I  
UniRef90\_A5V9V2 T L P T S A L A H A I A A E W D A Q Q A E E I D P R R M P L T R L L A N A A I D D R I  
UniRef90\_E6VBZ5 A A P D R A L A E A I A A E W Q A Q Q E T I D P S T M P L T R L L A N S V I D D G V  
UniRef90\_Q94BY8 K L R S L A L A K A I A A E W E Y Q T E A G I R P F T M P L M R L A C T A L E R V  
UniRef90\_A0A059F6G1 C L P S Q R L A R A I A A E W N D Q G E A I D L V G M H L L T R L L A N T A I E R V  
UniRef90\_W1NJP5 K L P T L S L A K A I A A E W E Y Q Q D G I R P F T M P L M R L A C T A L E R V  
UniRef90\_W3RGY6 A V P R R P I A E A L R D E W D A Q T D V I D D P S R M P L S R L A V N S I A I D D G V  
UniRef90\_Q2G4E6 V V P T H A L A E A M A A E W A G Q Q G E I D P Q A F L F R D M A D Y A I D V V  
UniRef90\_C1L4Z9 H V P N E A L A V A V A H E W D S Q Q D S T I K R Y T M P L T T L C N R A L D T P  
UniRef90\_U6HDZ5 S V P H E G L A L A V A A N E W D S Q Q K E I E R F T L P L T T L C H V I D D N P  
UniRef90\_U2YLA7 V V P N E A L A S A M A A E W A D Q Q G E E I D T T R F L F R D I A D Y A I D L V  
UniRef90\_A9TW86 K V P N A A L A L A I A A E W E W Q Q S G I R P Y T M P M M K L A A D Y A I D Q I  
UniRef90\_UPI0004108601 A I P S R E I A Q A V A A E W E A Q T E T I D P S T M P M T R F A N S V V E A V  
UniRef90\_H8FRS1 L V P A R P I A E A V A A E W D A Q Q E T I L P S T M P L T Q L S S T A L D D R V  
UniRef90\_B6JEZ6 A A P V R T L A D T M A A E W G A Q Q E Q I D P M S M P L T R L L A N S V I D D G V  
UniRef90\_UPI0004647E92 T T P S S L T T A L A E E W G T Q G S E R I N T Q P T M H L T A L L C N T A I D D N P  
UniRef90\_S4PI60 T V N T E P L A R A I A A E W D A Q Q D Y I T Q P T M H L T A L L C N T A I D D N P  
UniRef90\_G5ZX80 T V P T P E L A E A V Q A E W Q A V D E D I Q P E D M P L Y S M A V T V T D R V  
UniRef90\_UPI0003B5FECA A V P T R S L A E A I A G E W Q A Q Q G E K I D P R S L P L T S G F A N A A I D D V  
UniRef90\_Q4PEA0 V I P A N R L A T C I A Q E W C E Q Q K L L K P H T L P L T S L L A A R A L E G C  
UniRef90\_M2XYJ3 E S R C R E L S L V V A S E W E A Q H S R I L P S S M P V T S L L T T S I D L T  
UniRef90\_I2G2U4 V I P K E R L A T C I A Q E W S E Q Q K L L K P H S L P L T S L L A A R A L C R A F  
UniRef90\_S8EQB6 L L P K E K V A T L V A S E W E Y Q E T L L K Q H S L P M T S L L A S R A L D H  
UniRef90\_E9BW81 V L P T K A L A V G V A G E W D S Q R P T I K P H L M P L T A L L S N T A T D H R  
UniRef90\_D8S9U3 S V P T P G L A L A I A A E W W Q T K G I R P F T M P L M K L A A A T T I D R L  
UniRef90\_F2IUX5 V L A S K R L A E A V A A E W A Q Q G V I N P A T M P L T R I L A N A A I D D G V  
UniRef90\_F2U3P7 V V P S E E L A H T V A F E W D V Q G D V I E P S S M N V T L L C N T A I D D N P  
UniRef90\_T0INT3 V V P P A L A E A L A A E W A Q Q E T I D A Q T F H L R D L A D F A I D A V  
UniRef90\_I3TNV1 V V P G R A L A Q L I A D E W A A Q E T H I A P E T M P A T K L L A N V V I D R V  
UniRef90\_E2CP23 L L P T L T L A E A V A A E W E A Q E K E I D P G K M P L T R L L S N S A Q D A V  
UniRef90\_M4Z6M8 V I P A R E L A E A A A A E W Q A Q Q D S I D P A T M P L T R F A N S V V Q S V  
UniRef90\_U6IBC9 C V P H E G L A L A I A Q E W D S Q Q Q N I K R F T L A L T N I C N H V I D D N P  
UniRef90\_J3JXB6 I V D T E P L A L A V A T E W N S Q K G K I V Q S K M H I T T L C N T V L D D N P



UniRef90\_UPI0004410C88 Q S T R A E V R E A L L K Y L D T D S L L C F H E E E P L G L V Q L Q A Q H W Q  
UniRef90\_Q0FAA9 M V N K E A V T E M L S D Y S G S D L L V Y R A V S P Q G L L S Q Q N E I W N P  
UniRef90\_UPI00037552E9 G A A E R P A V E E S I L S A Y A A H D L L V C C C C F Y W D A E E P D A E L L S K Q Q E I W N P  
UniRef90\_G4TD85 A E E R L A V T E E N L S K Y F D T D T I C C C C Y F H A D A E E P D A E Q L L R L Q Q E H W N P  
UniRef90\_F4R4M4 K E D R R D A E I I D S L L N Y L D T D T V C C C C F F E E E K P Q R L V D L Q Q D K H W K P  
UniRef90\_G1Y4E4 G P Q R S A T E I V L A G A A A Y L G G T D L L C C C C F F R A A D D S P P A K V A E L Q Q E R G W Q  
UniRef90\_F8P6B5 G D D R S E V L R A A L T Y L D T D T I C C C C F H A D D S P P P V E L V E L Q Q E K Y W L P  
UniRef90\_H4F5S6 S L N L S E V F D E I V R F A G N D L L C C C C F Y R A D D S P P Q E L V V D R Q A C R W D P  
UniRef90\_J9VZD9 S P T R R P A V T D A L L K Y L E T D T I C C C C F H H D S P P E A L V V R L Q Q D A H W D P  
UniRef90\_UPI0004407FBC R Q T R E E V T A L L L K Y L E T D T I C C C C F H H D S P P E A L V V R L Q Q D A H W Q P  
UniRef90\_A5PEL8 A R D R D S L V E K L L G Y A G E T D T L C C C C F R A E D P E E A L Y R R Q Q E V W E P  
UniRef90\_A9DCN5 S T A R E A V F E E L L R Y L G G T D M L C C C C F Y R A G P E D T L I A R E A E H W D P  
UniRef90\_U1H5B8 I D R V G E V A D D A A K F L G S D L L F Y R A G H P E T L V A R E A E H W D P  
UniRef90\_UPI00046CA477 N K T K Q D I A S E Y I V N F L E T D T L L F Q S A Q E S D E L Y K L Q E Q K W D P  
UniRef90\_UPI00036F9FAB A R E M D A V A A E I V K Y A G S D L L V C C C C F R A A A H P E L L V A R Q T L H W D P  
UniRef90\_R9AGS4 E N E M E N T C A N D E I L K Y F E T D A V C C C C F F Q D E P V D Q L V Q L Q E H W R P  
UniRef90\_J6J9S5 G A A A D E I A E D V A R Y L G S D L L V Y R A D G P P E R L V A R Q Q H A Q W D P  
UniRef90\_UPI000372D84E A P D I E A F A Q G L A A Y A D S D L L Y Y R A G Q P P P E L V A R Q Q S A K W D P  
UniRef90\_UPI00040B2F9D S R E I E A V K D A V A A Y A G S D L L T C C C C Y R A G E P P R L D E R Q R L A W E P  
UniRef90\_W4KIA5 T D T R T E T R A A L L K Y L D T D T I C C C C F H Q D D P P P L V V R L Q Q D E H W I P  
UniRef90\_UPI0003B4A63B G A D R S D F E R L A N F G E T D L L Y Y R A T D P P E E L V A R Q Q A S V W D P  
UniRef90\_I4YK23 K D Q S E R I E D K L I K Y F E T D A T C C C C F Y F E D K P P E S Q L V E L Q Q E K H W R P  
UniRef90\_I4YWE5 S P R Q R D V V D D L V R Y A G S D L V Y Y R A G E P P E R L A A S Q N D A W G P  
UniRef90\_A3WV12 A G R V D V V E D L A K Y L E T D L L F Y R A G H P E L L V A R E S V H W D P  
UniRef90\_M7B576 A L D P G E R I E A Y G R Y L T G L A A R Y R V E P D A G L V E L Q Q K N E W D P  
UniRef90\_T1G625 G K D R D C I I R K M L E Y L S T D T V C C C C F R A D S P K E L V D L Q Q N E K W N G  
UniRef90\_T1K455 E H H K E S L T R S I L V E F L T T D T I C C C C F F R A F R E G P E D L Y K L Q S Q R W D P  
UniRef90\_UPI0001D2F00C A E R M D E V A A D I L V K Y A G S D L L V S Y R F R A G E P P E D L A A Q A E A W D P  
UniRef90\_H2ZQP5 G T V P A E L V S S C L K Y L H T D T L L C R M N E D P P E F D Q L Q T E K W D P  
UniRef90\_Q16TS9 N N Q K A D I V N Y L V N Y A S T D A I L F Q H A S E D P K R S L K E L Q V V I W N P  
UniRef90\_K5VWK4 A D T R V V Y D Q L L K Y F E T D A I C C C C F H H A S E P P A S L V S L Q Q K R H W E P  
UniRef90\_G7EB50 P E Q R K E I G Q G L L K Y L D T D T I C C C C F H E E E P P A L V D L Q Q K R H W L P  
UniRef90\_Q0ANT6 P D A R S A T V J A E V L K Y A E T D L V C C C C F F R A D P P P E L T A S Q A A A W D P  
UniRef90\_J2ZNG0 A P D R H T V I A E L V P Y A E T D L V C C C C Y R A D P P D E A L Y K R Q Q A V W E P  
UniRef90\_W4HI86 R P Q R A E V A D M L A E Y G D S D L L C C C C F Y R A E T P E E L V A R Q Q E A A W D P  
UniRef90\_T1J1S3 M R T T Q S D L V G H V I T R Y L E T D T I C C C C F P Q L E P P E E L A K L Q Q T A K W D P  
UniRef90\_G8PPD6 E E K F A D V A D E I T R Y A G N D H L C C C C F Y R A D S P A E L V G R Q Q T A Q W D P  
UniRef90\_D5AM29 R A Q Q A E V A A L I A A Y G E T D L L C C C C F Y R A S K M P E E L V A R Q Q A A W D R  
UniRef90\_B0WBZ8 S G L K K D L V N Y I V N Y I S T D A I L Y H S H E E Q R L K E L Q Q L A E W S P  
UniRef90\_D6WNB0 N N T K Y D M V D Y I V N Y I L D T D T I L F Q A N E E E D L E L Q Q E K E W D P  
UniRef90\_A7HWU5 A P R R E A V I A E L V N F A A T D L L C C C C F Y R A D A P A A L A A R Q A A A W E P  
UniRef90\_F4X763 H N R T K E D L V N H I V N C L E I D L L F Y R S S E V D E L Y Q L Q I E K W E P  
UniRef90\_UPI0003617990 G D R F A E V A D E I A R Y A G N D A L C C C C F Y R A S S E P E R L T E R Q R Q E I W D P  
UniRef90\_UPI00037FCCE5 A P D P Q E S V A D D L G R Y A E T D L L A Y R A A E P E R L A Q R Q R Q E G W E P  
UniRef90\_M0RHN7 P L T R A K I F E N L M S K F H Q D L V C C C C F C R A S P S D S D L H E R Q Q K E I D P  
UniRef90\_A0A015IVF1 D N M K H D V J N R L L R Y F D N D T I C C C C F H H E E P Y P D S D L V E L Q Q K K Y W L P  
UniRef90\_V5ER08 S D E R K G V E E F L L R Y L E N E T V C C C C F Q N E E Q P E S L V K L Q Q K R H W D P  
UniRef90\_UPI000455D883 S D K N A E L R A S L L D Y L H T D T I C C C C F F Q N D D P P P Q L V E L Q Q T K Y W D P  
UniRef90\_X8JUA0 R D E R Y E D L V A D L L K Y L D T D T I C C C C F H H E S R P P A L V A L Q Q N A S W N P  
UniRef90\_I1BMB3 P T I R D A V I D K L M S Y F D T D S V C C C C F H H E E L P E A L V R L Q Q D A Y W K P  
UniRef90\_I9WTV8 A P R H A A V V E D L C A Y A G E T D L L A Y R A G S D P P E R L V S A Q A A S W D P  
UniRef90\_J7SD65 S D E R R E V R A Q L L K Y F E T D T I C C C C F H H E E P P A L V A L Q Q N A S W N P  
UniRef90\_UPI0003B5035A P D T R D A L J A E V Q K Y A G T D L V C C C C F L A Q G P P T E L R D R Q E G H F R P  
UniRef90\_D7A1F0 A S A M E E V A G E I A R Y A G S D L L C C C C F Y R A D S P E K L V A L Q G A L W D P  
UniRef90\_UPI00035CC067 A G E K A A C V E E V V K Y A G S D L L V C C C C F Y R A A E P D A L V K A Q A E V W D P  
UniRef90\_W5J2Z2 N G Q K H D M V N Y L V N Y I S T D T I L F H S S E E P E L K K L Q T Q E W E P  
UniRef90\_UPI0003722CC6 A Q Y R Q A A A L E I A K Y A S T D L L C C C C F S Y R A E D T V L A A R Q A K A W T P  
UniRef90\_UPI00036C6E92 P L J A R D E M A A E V A R Y A E T D L V C C C C F S H L A E G P T V L R E R Q E A G W A P  
UniRef90\_H9J0X1 G K T S H D I V N Y L L E H Y P T D T L L F Y S E D E E E L R D L Q Q E R K W T P  
UniRef90\_T1W972 A A D P Q A A V F E I L R F S S D M L C C C C F Y R A D S P A N L T L R Q A E Q W D P  
UniRef90\_A5V9V2 A P D P A A F A R G L A A Y A E T D L L C C C C F Y R A D S P A K L V D R Q A A S W D P  
UniRef90\_E6VBZ5 A G R I N A V T D D I A K Y F G S D L L F Y R A E H P E E L I A R E A A H W D P  
UniRef90\_Q94BY8 P L T R S K L E H L S R K I H Q D L V F F R A P E D N D L H D I Q V E S I D P  
UniRef90\_A0A059F6G1 P E A R D E M A D E L A R Y C E T D L L C C C C F H H L A E G P M E L V E R E E A Y W R P  
UniRef90\_W1NJP5 P L T R T K V T E Q L M K K F N Q D L I F C C R A P G D S D L E R Q V E A I D P  
UniRef90\_W3RGY6 T D R C E E V A A D V L K Y L G S D L L F Y R A E G P D G L V A R Q A A W D P  
UniRef90\_Q2G4E6 A Q D P A S V I G E L T P Y A E T D T I C C C C F Y R A E P D E A F A R Q R L M W E P  
UniRef90\_C1L4Z9 A D Q H D I L V G A I M Q Y A D S D T I C C C C F R C Q E P D D L V T V Q S A A W D P  
UniRef90\_U6HDZ5 T E R S K E V I N G I M E Y A D T D T I C C C C F Y R A D E P E E L L V E Q E S Q W G T P  
UniRef90\_U2YLA7 R A D R A A A I D G L L R F A E T D T L C C C C F Y R A D P E E P L F R R Q Q S V W E P  
UniRef90\_A9TW86 P R D R E R V I H T L L K Y F H T D S L C C C C F L R A E D T D P V A E K Q S A V W D P  
UniRef90\_UPI0004108601 V D R V E L V A S D V A K Y F N S D L L F Y R A G A H P E D L V A R E A K R W D P  
UniRef90\_H8FRS1 A P E R E T I T G Y L M A Y A G T D L L C C C C F Y R A E A P A D L A M R Q S R E W Q P  
UniRef90\_B6JEZ6 T E N A V A V R D D A A R Y L G T D L L F Y R A S F P E Q L I A N Q T E H W D P  
UniRef90\_UPI0004647E92 A D R L E E V A A S V A K Y A G S D L L S Y R A E E P A G L V A A Q A E A W D P  
UniRef90\_S4PI60 G K N L H D I A S Y L L D F I A T D T L L F Y S E E E E L R A L Q A E K K W D P  
UniRef90\_G5ZX80 T P Q R Q T L A N E L A A Y L H D D V L R Y R S E E D L D L A A R Q T E K W D P  
UniRef90\_UPI0003B5FECA A A D H A G F A K R L A T Y A E S E L I A Y R A D G P P A S L L V A A Q A T A W D P  
UniRef90\_Q4PEA0 S Q E S S Q I Q T D L L R Y L E N E T V C C C C F F Q E S R P K S L V E L Q Q S L H W D P  
UniRef90\_M2XYJ3 K E H R Q Q F L K L S E F F N T D T I C C C C F R A S S Y P E G L V F R Q K V L W D P  
UniRef90\_I2G2U4 A G E R K A I E G A L T R Y L E N E T V C C C C F F Q E S R P K S L V E L Q Q T Q H W T P  
UniRef90\_S8EQB6 S Q T R A E V R E Q L L R Y L E T D T I C C C C F H Q Q K E P A A L V A K L Q Q D H W R P  
UniRef90\_E9BW81 Q R D R N Q R V I E D L L R F L A T D T V C C C C F R T P D P A A F Q E M Q S T H W D P  
UniRef90\_D8S9U3 P D F R E A N V I E N I L K Y S H A D S L Y C R A G E P E T E P L S H K Q A Q Q W D P  
UniRef90\_F2IUX5 A E R F A A V A D E I A A Y A G N D A L C C C C F Y R A D P P A R L V E R Q T A L W D P  
UniRef90\_F2U3P7 S G M H E D R I D N V E P F M R T D T V C C C C F R E D T S R A L I D M Q S E I W D P  
UniRef90\_T0INT3 A A D R V Q T I R D V M P Y G D T D T L C C C C F Y R A D N P E D A L Y Q R Q I A W E P  
UniRef90\_I3TNV1 V P H R A Q I A E L A P G Y I G T D L V C C C C F Y R A D N P E K E L A A Q A R H W D P  
UniRef90\_E2CP23 T S K F A D V A D E I T R F V G N D A L C C C C F Y R A D G P E T L V T R Q R E L W D P  
UniRef90\_M4Z6M8 V D R T D D V R E D I A K Y L Q S D L L F Y R A G H P E E G L V S R E A E H W D P  
UniRef90\_U6IBC9 T E R K E K I V N G I M E F A D T D T I C C C C F Y R A G V E T P E E L H A A Q E E K W G P  
UniRef90\_J3JXB6 N N T K L D L V N Y L V N C L D T D T V L Y Q A N E D E D L K F Q I T E W D P

UniRef90\_UPI0004410C88  
UniRef90\_Q0FAA9  
UniRef90\_UPI00037552E9  
UniRef90\_G4TD85  
UniRef90\_F4R4M4  
UniRef90\_G1Y4E4  
UniRef90\_F8P6B5  
UniRef90\_H4F5S6  
UniRef90\_J9VZD9  
UniRef90\_UPI0004407FBC  
UniRef90\_A5PEL8  
UniRef90\_A9DCN5  
UniRef90\_U1H5B8  
UniRef90\_UPI00046CA477  
UniRef90\_UPI00036F9FAB  
UniRef90\_R9AGS4  
UniRef90\_J6J9S5  
UniRef90\_UPI000372D84E  
UniRef90\_UPI00040B2F9D  
UniRef90\_W4KIA5  
UniRef90\_UPI0003B4A63B  
UniRef90\_I4YK23  
UniRef90\_I4YWE5  
UniRef90\_A3WV/V2  
UniRef90\_M7B576  
UniRef90\_T1G625  
UniRef90\_T1K455  
UniRef90\_UPI0001D2F00C  
UniRef90\_H2ZQP5  
UniRef90\_Q16TS9  
UniRef90\_K5VWK4  
UniRef90\_G7EB50  
UniRef90\_QOANT6  
UniRef90\_J2ZNG0  
UniRef90\_W4HI86  
UniRef90\_T1J1S3  
UniRef90\_G8PPD6  
UniRef90\_D5AM29  
UniRef90\_B0WBZ8  
UniRef90\_D6WNB0  
UniRef90\_A7HWU5  
UniRef90\_F4X763  
UniRef90\_UPI0003617990  
UniRef90\_UPI00037FCCE5  
UniRef90\_MORHN7  
UniRef90\_A0A015VF1  
UniRef90\_V5ER08  
UniRef90\_UPI000455D883  
UniRef90\_X8JUAO  
UniRef90\_I1BMB3  
UniRef90\_I9WTV8  
UniRef90\_J7SD65  
UniRef90\_UPI0003B5035A  
UniRef90\_D7A1F0  
UniRef90\_UPI00035CC067  
UniRef90\_W5J2Z2  
UniRef90\_UPI0003722CC6  
UniRef90\_UPI00036C6E92  
UniRef90\_H9J0X1  
UniRef90\_T1W972  
UniRef90\_A5V9V2  
UniRef90\_E6VBZ5  
UniRef90\_Q94BY8  
UniRef90\_A0A059F6G1  
UniRef90\_W1NJP5  
UniRef90\_W3RGY6  
UniRef90\_Q2G4E6  
UniRef90\_C1L4Z9  
UniRef90\_U6HDZ5  
UniRef90\_U2YLA7  
UniRef90\_A9TW86  
UniRef90\_UPI0004108601  
UniRef90\_H8FRS1  
UniRef90\_B6JEZ6  
UniRef90\_UPI0004647E92  
UniRef90\_S4PI60  
UniRef90\_G5ZX80  
UniRef90\_UPI0003B5FECA  
UniRef90\_Q4PEAO  
UniRef90\_M2XYJ3  
UniRef90\_I2G2U4  
UniRef90\_S8EQB6  
UniRef90\_E9BW81  
UniRef90\_D8S9U3  
UniRef90\_F2IUX5  
UniRef90\_F2U3P7  
UniRef90\_T0INT3  
UniRef90\_I3TNV1  
UniRef90\_E2CP23  
UniRef90\_M4Z6M8  
UniRef90\_U6IBC9  
UniRef90\_J3JXB6

130 140 150 160  
L L D W A R A E F D A E I R V F T G L V F G S S H P P E T H K K F A E V L S R L D  
I L E W S K D V F L A P M V T T S G L V M H T K Q N N S M N I Y R N E V L K K M N  
U n i R e f 9 0 \_ U P I 0 0 0 4 4 1 0 C 8 8 L L E D W T A L T F D A P L V L T T S G L L L S L G N Q Q S P A E D S L K R A Q L H R N T V Y C T F F S  
U n i R e f 9 0 \_ Q 0 F A A 9 L L E W A R K E I F L D V L V L T F D S G L L L I G N Q Q S P A E D S L K R A Q L H R N T V Y C T F F S  
U n i R e f 9 0 \_ U P I 0 0 0 3 7 5 5 2 E 9 L L E W I S Q T Y S L D N L K I H D S I L F A K Q S P A E D S L K R A Q L H R N T V Y C T F F S  
U n i R e f 9 0 \_ G 4 T D 8 5 L L D W A A L R T Y D A L L K Q T T T D S I L M H R A Q S P A E D S L K R A Q L H R N T V Y C T F F S  
U n i R e f 9 0 \_ F 4 R 4 M 4 L L D W V R S T F E V E L K V F T D S G V L F H S H S P A E D S L K R A Q L H R N T V Y C T F F S  
U n i R e f 9 0 \_ G 1 Y 4 E 4 L L D W A A L R T Y D A L L K Q T T T D S I L M H R A Q S P A E D S L K R A Q L H R N T V Y C T F F S  
U n i R e f 9 0 \_ F 8 P 6 B 5 V L A W V A E A H Q A R F L A E G V I H Q E Q P A E D S L K R A Q L H R N T V Y C T F F S  
U n i R e f 9 0 \_ H 4 F 5 S 6 L Y K W L K E D Y N V E L Q L A Q S G V F G A V K L S P A E D S L K R A Q L H R N T V Y C T F F S  
U n i R e f 9 0 \_ J 9 V Z D 9 L L S W I R D E Y N V D V G V H K S G I L H R P Q I E G T R A R L A T R L E G L D S  
U n i R e f 9 0 \_ U P I 0 0 0 4 4 0 7 F B C L L E G M E A R E G V K L H R T S G I L H R P Q I E G T R A R L A T R L E G L D S  
U n i R e f 9 0 \_ A 5 P E L 8 Y L D W A A Q Q G A R L V L A E G V M H V E Q P A E S I R A R L A T R L E G L D S  
U n i R e f 9 0 \_ A 9 D C N 5 L L F W A A D A L G A H F V M A E G V M H V V G Q P E P A I R A A R A T R L E G L D S  
U n i R e f 9 0 \_ U 1 H 5 B 8 L L I Q W F C D R Y Q V D I V K T R E S I E P P K V I P Q N T K D I T T K Q L S H N  
U n i R e f 9 0 \_ U P I 0 0 0 4 6 C A 4 7 7 V L A S A R Q D L G A R F V L A E G V M F V E Q S P A E S I R A R L A T R L E G L D S  
U n i R e f 9 0 \_ U P I 0 0 0 3 6 F 9 F A B L I E W A S K R Y N T P I K V F E N G V I V C Q P P A E S R R Q R L N E I K Q F D  
U n i R e f 9 0 \_ R 9 A G S 4 V L D W A R D A H G A R F L A E G V V F A S Q P P D T A I A A I R A A L I P K N  
U n i R e f 9 0 \_ J 6 J 9 S 5 L L E W A R D R Y D V H F E P V I A G V I A V A Q P P A A T L V Q R L A T R L E G L D S  
U n i R e f 9 0 \_ U P I 0 0 0 3 7 2 D 8 4 E V L D W V R E R F G V D R V G V T I G V I A V A Q P P A A T L V Q R L A T R L E G L D S  
U n i R e f 9 0 \_ U P I 0 0 0 4 0 B 2 F 9 D L L D W A R S E F N V E I K T F D S V L F H A Q P P K E T T K Q K F D E A V M S K F D  
U n i R e f 9 0 \_ W 4 K I A 5 V L D W A R R R F D L P H L A Q N G V M H V D Q P P R E Q T L D R L L N A A L S A R D  
U n i R e f 9 0 \_ U P I 0 0 0 3 B 4 A 6 3 B I V E W A N K R Y N T P I H V F M P A S K Q P P R E S R K L L H N E I L Q F D  
U n i R e f 9 0 \_ I 4 Y K 2 3 V L D W A R D T H G A R F A L G E G V M H V T Q P P D D A V A A A R R A I L E E V S  
U n i R e f 9 0 \_ I 4 Y W E 5 V L D W A E A L E A R F L L S T S E G I V H V C Q P P D Q A V A A A R R A I L E E V S  
U n i R e f 9 0 \_ A 3 W V / V 2 M I E W A E K R Y N V E I G S S T S I M G P N I P P A R T K D T F T Q Y L L K S S F S  
U n i R e f 9 0 \_ M 7 B 5 7 6 L V D S L E R R F Q V E I P V T T S G L S V P K I P P E N T T H T F T Q Y L L K S S F S  
U n i R e f 9 0 \_ T 1 G 6 2 5 L I H W L K N R Y D G A Q V A P L T E D G V F L P P P P K H T E T T Q R A R L H R S Y A  
U n i R e f 9 0 \_ T 1 K 4 5 5 L L A F A R D R L D G A P L A S T E G I V F V A Q P P Q V T E A V A R A V L S R D Y A  
U n i R e f 9 0 \_ U P I 0 0 0 1 D 2 F 0 0 C M I Q W L K Q R H N V D V T P S S G F A L P V T S G D A E P V L S R Y L L S Y N  
U n i R e f 9 0 \_ H 2 Z Q P 5 V I E W F N K R Y D V L E A T D A L E V P S F A P G T A M N L S R Y L L S Y N  
U n i R e f 9 0 \_ Q 1 6 T S 9 L L T W A R E S F T V E V N V T T G F S V P R Q P P A E T L A A F R K V L S S Q M D  
U n i R e f 9 0 \_ K 5 V W K 4 L I T W V N A T F G T D I A P F T T L M G T K Q S A R T V I V L A K R I E S Y D  
U n i R e f 9 0 \_ G 7 E B 5 0 V L A W A E D S L G A H F V A A T G L M P H Q P P V A L Q R V M Q R A G E L D S  
U n i R e f 9 0 \_ Q O A N T 6 L L R A F E E R L G V R F T R I S G I M H R P Q Q D E T L A R L R G E A C S  
U n i R e f 9 0 \_ J 2 Z N G 0 L L D W A A D T L G A R L E A R T S G I M H A P Q Q D A D S L A R L R A A V L H R L D  
U n i R e f 9 0 \_ W 4 H I 8 6 L V L W F E K R F D V R L D R S S V I G G Q V V S A V T K D I L T R Q L L S Y N  
U n i R e f 9 0 \_ T 1 J 1 S 3 V L G W A E K L L D G R F K L V E G I M H V A Q D E A V T A A Y R A E L D S Y D  
U n i R e f 9 0 \_ G 8 P P D 6 W L D W A D S R Y Q A R L T V T A G V L P V A Q P P E Q A Q A A L A S R V L A S Y D  
U n i R e f 9 0 \_ D 5 A M 2 9 I V D W F N K R Y D V E L I K A T D Q G L E V P S F P P G T A M N I L S S Y N  
U n i R e f 9 0 \_ B 0 W B Z 8 I I D W F N K R F D V S I K K S Q M D A P P A S E K D K A T L S K H L L S H N  
U n i R e f 9 0 \_ D 6 W N B 0 L L A W A A G Q G I R L R V T T G L M H V P Q Q D E A A L D A Y G A S V L A L D  
U n i R e f 9 0 \_ A 7 H W U 5 L V H W A C E D Y N V E I M R T S G I Q A P T V S M E A T K A A L T K H L L S H N  
U n i R e f 9 0 \_ F 4 X 7 6 3 I I G W A E A E L G G R F R L S G G I M H V P Q Q D E A T V A A F R K A L D G F S  
U n i R e f 9 0 \_ U P I 0 0 0 3 6 1 7 9 9 0 V I G W A E A K T G E S V A R G V G V M F V A Q P P A P T V E A L R A L V R A A D  
U n i R e f 9 0 \_ U P I 0 0 0 3 7 F C C E 5 I L D W V Q S E Y G F K P V V Y T S F F G G K Q D D C L A K A I E H V I K E T N D  
U n i R e f 9 0 \_ M O R H N 7 L L D W V Q N T Y N V E I K T T D K I S G L K P P E N T K E K L K N I L I E N F D  
U n i R e f 9 0 \_ A 0 A 0 1 5 V F 1 L L H H V N E A Y G T Q V R P F E G L L G N A H P K G T V E T F K T H L E R L D  
U n i R e f 9 0 \_ V 5 E R 0 8 L L D W A R K T F D I D L Q V S S L L L F S S Q S P E E T A R K L G M E V L A K M D  
U n i R e f 9 0 \_ U P I 0 0 0 4 5 5 D 8 8 3 L L E W V Q S T Y K I K V N I F D S S L L G N T Q S P K E T K E V L M N E V N K L D  
U n i R e f 9 0 \_ X 8 J U A O I I E W T E K A Y D V K I N T T N N I F A I S Q P P N E T K E K L R T V E Q M D  
U n i R e f 9 0 \_ I 1 B M B 3 I L D W A R E T Y F G A R V L S E G V M H V E Q P P D T V R A L R D A V A V S  
U n i R e f 9 0 \_ I 9 W T V 8 L L D W T R T T Y N V D I S T S D S G L L L G P H P P P E T V Q R L A A V A A H D  
U n i R e f 9 0 \_ J 7 S D 6 5 L R D W A S R E H G V L L L P T E G V M N A P Q P P A S I E A I G A F A A G K N  
U n i R e f 9 0 \_ U P I 0 0 0 3 B 5 0 3 5 A L L D W A R E E F G A V F V L S E G V R F V D Q Q P P E R T L E A I A G A L P A D E  
U n i R e f 9 0 \_ D 7 A 1 F 0 Y L T F A H E K F G A R F I C A E G I I F A A Q P P E P S C Q A V H E A V K A T E  
U n i R e f 9 0 \_ U P I 0 0 0 3 5 C C 0 6 7 I I D W C N K R Y E I N L A S T D S L V V P T F A P G T A M N L S R Y F S S Y N  
U n i R e f 9 0 \_ W 5 J 2 Z 2 Y L D W A S A L D A R F D I T E G V V A A E Q P H G S I E A L R R R H A L A L D  
U n i R e f 9 0 \_ U P I 0 0 0 3 7 2 2 C C 6 I R D W A A Q E L D V F L P V I E G V M A S P Q P P T T S L E A A R S H A A K L D  
U n i R e f 9 0 \_ U P I 0 0 0 3 6 C 6 E 9 2 I L D W F Q K T F N V K Q E L A N S I Q P P P V F T E T R A V L A R H F L S Y D  
U n i R e f 9 0 \_ H 9 J 0 X 1 V L D W A A N A L G A R F E V I E G I M P K E Q P P K E A I A A L S G V L R K Y S  
U n i R e f 9 0 \_ T 1 W 9 7 2 L L D W A R D R Y D V H F E T V A G I I H R P Q P D E T V Q R L A A V A A H D  
U n i R e f 9 0 \_ A 5 V 9 V 2 V L Y W A A E A F G A H F L L A Q G I I H A A Q P P E T A I A A A R A A L P A D  
U n i R e f 9 0 \_ E 6 V B Z 5 L L E W I E S E F R V L K P K V Y S I F G G K Q D D K L V K A V E Q V L K K T M D  
U n i R e f 9 0 \_ Q 9 4 B Y 8 V R E W A G O E D I L L V P V I E G L J A S P Q P P D A S L E A A R E Q V L A K D N  
U n i R e f 9 0 \_ A 0 A 0 5 9 F 6 G 1 L F D W I E S E F G F R P V V Y T S L F G G K Q E D G L A S A V E R L L K K T S  
U n i R e f 9 0 \_ W 1 N J P 5 I V R W A A D E L G A R F V L A Q G V V H V A Q P P D H A L T A A R K A M P S D  
U n i R e f 9 0 \_ W 3 R G Y 6 L L A D A E T L G V R F V L R V S G L M H K P Q P P E T L A R K V E L E G L G  
U n i R e f 9 0 \_ Q 2 G 4 E 6 I I E W V R Q R H Q I K P V I T Y S M T S A K L S P L D K E K L I G Y L N S Y N  
U n i R e f 9 0 \_ C 1 L 4 Z 9 V L D F I E N R Y R F P P I T T G F C L H T P P K E S R D F I R R H L S I N  
U n i R e f 9 0 \_ U 6 H D Z 5 L L Q A A E H R H D I H F E R I S G I M H R P Q S P A T R D A L S A F L E T Q D  
U n i R e f 9 0 \_ U 2 Y L A 7 L L D W A E Q E I G E R P A V T S G I F G T Q P S H V L A M E K V L M Q S S  
U n i R e f 9 0 \_ A 9 T W 8 6 V L F W A A D E L L G A H F L L A E G V I V H V R Q P D E A V A A A R A A L P G D  
U n i R e f 9 0 \_ U P I 0 0 0 4 1 0 8 6 0 1 L L D W A A E T L A A F L A S T V S V L A V S Q P P D H A L A A A T H L D A Q D  
U n i R e f 9 0 \_ H 8 F R S 1 V L R W A A D N L G A H F I L G E G V M H V A Q P P A R A V Q A A Q A L P E T  
U n i R e f 9 0 \_ B 6 J E Z 6 L L A F A K E R L G A E L A V T S G V M F V S Q T P E A T A A V A E A V R A E A  
U n i R e f 9 0 \_ U P I 0 0 0 4 6 4 7 E 9 2 V L E W F K R F G V E Q E V S N N L E P P S T T E T R A V L A R H F L S F D  
U n i R e f 9 0 \_ S 4 P I 6 0 W L S W A A E A C G L K L P V T T S G L M P L T A D K A V E Q I I L D R L N P L G  
U n i R e f 9 0 \_ G 5 Z X 8 0 W V E W L A R R Y D V G L T I T T G I M H V A Q P P L A T L R L H T A F A A F T  
U n i R e f 9 0 \_ U P I 0 0 0 3 B 5 F E C A L L S Y I N S T Y N T A I K P F Q G L L G G Q H P H G T L D I F R N H A A L H  
U n i R e f 9 0 \_ Q 4 P E A O L I V F L S E N W N I Q I R T S E D L F G V S Q E R E S L E K I R Q Y L E N Q S  
U n i R e f 9 0 \_ M 2 X Y J 3 L L S Y I N S T Y N T S I T P T F T G L L G G A H A P G T L E T F S H L T K L D  
U n i R e f 9 0 \_ I 2 G 2 U 4 L L D W A Q S T F N T E V S T T D S F L L D P H P V E T Y E K L D N L S E L D  
U n i R e f 9 0 \_ S 8 E Q B 6 L V H W F T K R F G V E L N V S E D L F G G V H P E A T T D R M R D V L K N M N  
U n i R e f 9 0 \_ E 9 B W 8 1 L V E W T E G K I G A K P S V T S G I L I G K Q P P K E V L D A Y K A L E R D F N S  
U n i R e f 9 0 \_ D 8 S 9 U 3 I L E E T G R A L G G R F V L A C G L M P V V Q P P A P L V A G F R A A L E R F S  
U n i R e f 9 0 \_ F 2 I U X 5 I V E W F A M R Y N Q P L M V T Y R L D E V Q S P E A V A I M R R E L G M T  
U n i R e f 9 0 \_ F 2 U 3 P 7 L L T E A E A R Y D V H F A R T S G I L H K P Q P P E T M A R L E A A L S A E A D  
U n i R e f 9 0 \_ T 0 I N T 3 L L D W A R T R Y D I H V L T T G L L A V D Q Q P P A T V E R L T R A I E A A D  
U n i R e f 9 0 \_ I 3 T N V 1 V L N W A G D A L G G V F V L I E G I I H K E Q P P E A L L S S F R T R L D A L S  
U n i R e f 9 0 \_ E 2 C P 2 3 V L D W A R D A L G A H F L L S E G I I H H V T Q P P E A A V Q A A R S A L P T Y  
U n i R e f 9 0 \_ M 4 Z 6 M 8 I L N V I Q T Q Y N F R P P V T T G F D L A F I S P K S R E L I T S H L L S Y N  
U n i R e f 9 0 \_ U 6 I B C 9 V I E W F N K R F N V K L K K S V Q M D V S P V S E E D K T T L I R H L M S Y N  
U n i R e f 9 0 \_ J 3 J X B 6

UniRef90\_UPI0004410C88 P W Q L T A L E R A V Y S S K S L I I 170 180 190 200  
UniRef90\_Q0FAA9 L Y Q L A G M H D L I T T G S S F V I A M A L I S N G H L N N V T S E D A W H A A T V D  
UniRef90\_UPI00037552E9 N W S L A A V L S A L V R T T G K S S L V I G L A L A L V K G R L L N N V D V D K A Q Q A A V L H  
UniRef90\_G4TD85 A M E S M A F L E R A V Y T T T G K S S A L V I A L A L A L V K G R L L N N V D V D K A Q Q A A H V  
UniRef90\_F4R4M4 R L K L L A G F E R A V A H V T T K S S F V I A L A L A L V E G K R L L T D A D D E Q A A S D A S R V E  
UniRef90\_G1Y4E4 D W Q L T A G V Q N A V A L T T G S S L V L G L A L A L F E E G R L L T D A D D E Q A A F E L A J A Q V D  
UniRef90\_F8P6B5 P W E L L A A M E R A V T Y T T S K S S F L I A L A L A L V K K H L L T V E I A A A L A A Q L V D  
UniRef90\_H4F5S6 A F R L S C L H V V T T L A G S S S I L A L A L A F A D G A F D L D A V W S L A H L V D  
UniRef90\_J9VZD9 G W E L L A A F E R A V Y T T K S S F V I A L A L A L C R G R Q L T A H H E A A Q A G H V E  
UniRef90\_UPI0004407FBC E W Q L L A A M E R A T Y T T K S S F V I A L A L A L I R G Q L D A E H Q A A Q A G H V E  
UniRef90\_A5PEL8 P F T L T A L E Q V T L L A A S S L C I G L E A L L Q P G A D G E A L W D A A N L V E  
UniRef90\_A9DCN5 D L Q L T A L H T I T T L T G S S L V L A L A L A E H G H A D E D Q V W A A A H V D  
UniRef90\_U1H5B8 P W S V A A L H V V T T L T G S S A L L A L A L A H G V R D E D Q V W A A A H V  
UniRef90\_UPI00046CA477 D E A G F G F I Y G V D S V K S S V I L T F A A A E R V I T V I E E A V J A L S R V E  
UniRef90\_UPI00036F9FAB A F V L T G A S V V T T L T G S S A L I A V G L A R G R W L T T S L I D A A S W A A A D V D  
UniRef90\_R9AGS4 Q F T L A A F E R I V M H T T G S S F L I G L A V I D R H L L I D Q A A S Q A A H V D  
UniRef90\_J6J9S5 P W R L L A A V H V I T T L T G S S A L L A L A L A E G A I S G L D A A W S A A H L V D  
UniRef90\_UPI000372D84E A F A L V P L S P M V T I T G S S L V G L A L A L A E G A I S D A D D V W N A A H V D  
UniRef90\_UPI00040B2F9D A I R L L A A L E Q I T T L T G S S V F I A L L S L L E K R L L D A D D V W L A A H V  
UniRef90\_W4KIA5 P W Q M A A M E R A T Y T T K S S F I A F A L V H K R I T T A E Q A A W L A T Q V E  
UniRef90\_UPI0003B4A63B D L T L A A F M R T V P L S G S S L V L M L A V D E G A V L T P D A A W E A S T L V D  
UniRef90\_U14YK23 A F T L L A A F E R I V M H T K S S F L I A L A V V D G H V L S I E D A S Q A A R V E  
UniRef90\_U14YWE5 P F A L L A A L H V M T T L S G S S V L I A L A H A A E Q M D V D Q A W A A A H V D  
UniRef90\_A3WVW2 P W M V L G A L H V V T T L T G S S A L L A L A L M R G R L D A G E V W A A A H V  
UniRef90\_M7B576 M W A L Q G L E Y V I T T O L K S S L I L S M G L I D R H I P V I E K A V L L S R L E  
UniRef90\_T1G625 D W S L V G Y E Q A V D C L K S S F V I A T H A V N R E L L S I V Q A V S L S R L E  
UniRef90\_T1K455 L W S L F G I Q S L A E S L K S S V I L A L A V A L D K H P V S D A A V S L S R L E  
UniRef90\_UPI0001D2F00C P F R L L A A L H A M T S L T T G S S I I A L A V A L R E L V I S D E A A W A A H V D  
UniRef90\_H2ZQP5 Y W S V I G F E R M V S T L K S S I L L P L A L I D R E I S V I E E A V S L S R L E  
UniRef90\_Q16TS9 E E A L H G I M Y A V D T L K S S V I L T C A C V D R F I A V E K A V L L S R L E  
UniRef90\_K5VWK4 E W E M A M E R A T Y T T K S S F L I A L A L V K R R R V T A E Q A A Q A S H V E  
UniRef90\_G7EB50 S F T L A A F E R A V L A S K S Y C I A L G L I E G V L S V N E A S D C A H V E  
UniRef90\_QOANT6 D W R L T T L A H V I T A V C A G S S A L L A L Q L L R D G E D D G E Q A F A L S T L E  
UniRef90\_J2ZNG0 D F E L L A L K M L S S L S A S L V I A L E A L I R P G G A D D T L W R A S R L E  
UniRef90\_W4HI86 A F E L L A A F H D L V S L S A S L V I G F A A E R G Q G A P D D L W T A S R L E  
UniRef90\_T1J1S3 F W A L I G M F S A V E T L K S S L V L A L A V V E R R L S C A S A V D L A R L E  
UniRef90\_G8PPD6 A L Q L L A A L H T V T S I C G S S A L L A L A V A E K A F D A D A V W S A A H V D  
UniRef90\_D5AM29 I W E L L A A L H D L V G I T T G S S L V L G L A V A E G E I A A E E A W R L S R I D  
UniRef90\_B0WBZ8 E A A L N G F M F A V D T T K S S V V L T C A C M D R F I L S V I E K A V L L A R L E  
UniRef90\_D6VNB0 F A T I C G N G V Y G V D T L K S S V I L T L A C G V E H F F I T P E K A V L L S R L E  
UniRef90\_A7HWU5 P F R I A G L H N A V T L T G S S A I I G L A V A L G H I G P E A A F E T A R H I D  
UniRef90\_F4X763 F N S I Y G L V Y A M D G L K S S V I L T L A T A A K I L N G S P E A V S L S R L E  
UniRef90\_UPI0003617990 A L E L L A A L H T V T S V T T G S S A V I S L L L A R R N H N S E D L W A A A H V D  
UniRef90\_UPI00037FCCE5 P F R L L A A L H Q V T T L T G S S L L L A L A L A D G F L E I V E R A W A L A H I D  
UniRef90\_MORHN7 D F E L T A I D A M A A S A H S L V I P L G I F R G R L L G I V E E A T E L I S R L E  
UniRef90\_A0A015VF1 S L K L A A F E R A T M I S K S S F L I G L A L V E K K R I S V I E E A S K A S S I V E  
UniRef90\_V5ER08 G F D L A A F E R S V M L T K S S F L I S L G L V S G H L L S V K Q A S E A S E V E  
UniRef90\_UPI000455D883 P W E L A A V M E R A T Y T T K S S F I S L A L L V K G R L L T A E Q A A L A S Q V E  
UniRef90\_X8JUAO Q W E I A A F E R T V T T T K S S F I A L A L V K G R I G V E Q A S Q A A Q V E  
UniRef90\_I1BMB3 A L E L L A A F E K A V M S S K S F L I G F A L V K N G V S V I E N A R A A H V E  
UniRef90\_I9WTV8 P F R L L A G L H T L T T L T G S S L L I A L A V L M R G R L S V A E A W D A A H V  
UniRef90\_J7SD65 H W Q M A A M E R A T Y T T K S S F L I A L A L V M R R I S V E Q A A Q A A H A E  
UniRef90\_UPI0003B5035A D F V L T G L G M A L G L Y G S A V L S M A V A E Q E L T A L D A Y D I S V D  
UniRef90\_D7A1F0 P L R L L A A L N L M T L S G S A V I A L A V A R G R L L T A Q E A W R A A H A D  
UniRef90\_UPI00035CC067 A F A L A S L N V M T S L T G S S A L I A L G V V H G A F D T E A W G A A H V D  
UniRef90\_W5J2Z2 T A A L H G F V F A V D T I K S I I L T M A C V D R H L T T E R A V Q L A R L E  
UniRef90\_UPI0003722CC6 N W R L T G L S S A V P I L S S A I L G F A L L E A E G S G E N L F E A S R L D  
UniRef90\_UPI00036C6E92 D M R L T G L N F G L F G S A V L A L A V E G R I G M S E I A F D L S R I L E  
UniRef90\_H9J0X1 F A A L T A I N F G V E A L K S P I L M L A C M E R R V V P E E A V L L A R L E  
UniRef90\_T1W972 P I E L A S L H T V T S I T T G S S A I A I A F A E G E L S V D D T W R L A H L D  
UniRef90\_A5V9V2 A F H L A A L Q P L V T I T G S S L V I A L A L A A G G R I L D A E Q A F A A H L D  
UniRef90\_E6VBZ5 P W S I G A L H V V T T I T G S S A L L A L A L A H G R L D A D Q V W A A A H V D  
UniRef90\_Q94BY8 D G E L A S I D A L Q A S A H S L V I A L A L I F A C G K L Q D A D A K L I R L E  
UniRef90\_UPI00036F6G1 D F R L T G T L Y A C G L F G S A L L A L A V A E G Q L S A D A F E V S R V D  
UniRef90\_W1NJP5 N C E L A S I D A M A A A A H S L M I S I G I F C G K L E I E E A K L I R L E  
UniRef90\_W3RGY6 P W R V G A L H S V T S L T G S S A L L S L A L M H R D V C D D G A I W S A A H L D  
UniRef90\_Q2G4E6 A F Q L A A L R N T A S L A S L V L S L A T L R P D A D A I W D A A N L D  
UniRef90\_C1L4Z9 I W G L S G I K S C V E N L K S V Y L T L A M L D G F C S A R A V I E L S Q I E  
UniRef90\_U6HDZ5 R W G L A A G L Q T C V E N L K S L W L T L A M V D G F C S A R A V K L S R L E  
UniRef90\_U2YLA7 D F T L A A L N T L A S L A A S L T J I A L A A L E D Q A D A T W D A A N L E  
UniRef90\_A9TW86 D W Q L A A I D W L A G T A R S L I V A L A I A R G R L G I E E A M E V I R L E  
UniRef90\_UPI0004108601 P W S I A A L H V V T T L T G S S A L L A L A L A S R G R L D A D A V W A A H V D  
UniRef90\_H8FRS1 S W R L T A L Q A A A A T G S S L I L A L A L A E E R I L D A E A A W A S Q L D  
UniRef90\_B6JEZ6 P W P V G A F H I V T S I T G S S A L L A L A L Q H K A L T A D A V W Q A A H V D  
UniRef90\_UPI0004647E92 H F R L A A L H A M T T L T G S S P I L M L A C V A L D G E M D A E A W A A A H V  
UniRef90\_S4PI60 F P A L N A M C F G A E A L K S L I M L A C V A D R Y I E A K D A V L L A R L E  
UniRef90\_G5ZX80 D A R F G C L Y R A A T L S G S S V V L G L A F E E G V V N A D D V F E T A F L D  
UniRef90\_UPI0003B5FECA P Y Q L A P L D P I V T I T G S S A V L A L A V A E G E L E A Q Q A A Y D J A H V  
UniRef90\_Q4PEAO P F D L A A F E R S V L T T K S S F L I S V A L V S G K L S V Q Q A A Q A A E V E  
UniRef90\_M2XYJ3 S L F I T A L H S A T S T K S L I I G L A L S E K A I S T R Q A M E A C R C  
UniRef90\_I2G2U4 P F D L A A F E R S V M L S K S F L I S L A L V S G H L N V I E Q A A Q A A E V E  
UniRef90\_S8EQB6 D W E M A M E R A T Y T T K S S F L I A L A L V K R R I T A E Q A A Q A A H A  
UniRef90\_E9BW81 E W T F T G L E T A T L T A K S M V I A A A L G G G Y I D A N Q A T I C A H L E  
UniRef90\_D8S9U3 N W E L S A V D S Q L T A S A R S L V I A L A I I D G R L D A D E K A M K A I R V D  
UniRef90\_F2IUX5 G I E L A A L D T V T S L T G S S A V L A L A L A E G R L T A D A V W T A A H V D  
UniRef90\_F2U3P7 P F E L T A Y E L A A D T A K S A V I A L A L R E G A L N A Q E A T A A A R L E  
UniRef90\_T0INT3 D F A L A A L K M L S S L A A S L T J I A M A A T R P G A D A E A L W N A A N L E  
UniRef90\_I3TNNV1 P W R L A V L H G A V T T A G S S V I G L A L A E A G I D P A E T A Y D A A F A D  
UniRef90\_E2CP23 P L Q L S A L H T A T T L T G S S A V L A Y A L F E K R V T A D E A W K A A F V E  
UniRef90\_M4Z6M8 P W T V A A A H V V T T L T G S S A L L A L A L L H G V R D A D R V W A A A H V  
UniRef90\_U6IBC9 R W G L V G I Q T C V E N L K S L W L T L A M V D G Y I T S K R A V E L S R L E  
UniRef90\_J3JXB6 F A S V N G F L Y G V D T L K S V I L T L A T D R Y L T P E K A V L L S R L E



UniRef90\_UPI0004410C88 V S S Q V Q R W G E V E D S H D V D Q D I R R Q L G S V A C L L T  
UniRef90\_Q0FAA9 E R W Q E M Q W G I D D E A S E A L E K K R K D F E F A Y K F W E  
UniRef90\_UPI00037552E9 E M F Q I E R W G A D E E A E Q R H V N I L T E F R T A M K F L T L S R  
UniRef90\_G4TD85 V N S Q I E R W G E V E D S H D  
UniRef90\_F4R4M4 V L S Q I A R W G E V E D T H D  
UniRef90\_G1Y4E4 E S F Q I E Q W G E D D E A R D R R A S L K A D L A A S L R Y L E F L K  
UniRef90\_F8P6B5 V A S Q I E R W G E V E D S H D V D H D I R R Q L G S A A C L M A  
UniRef90\_H4F5S6 E D W T I E H W G S D  
UniRef90\_J9VZD9 V S S Q I E R W G E V E D T H D D Y Q D I R R A L G S A A C L L  
UniRef90\_UPI0004407FBC V N S Q I E K W G E V E D S H D  
UniRef90\_A5PEL8 E D W Q A D L W G R D E E A E E R R A K R K G D F L A A M E F  
UniRef90\_A9DCN5 E D F N I S Q W G E D H E A A A R K A K R L L E F E A A A L I L  
UniRef90\_U1H5B8 E D W N I E K W G V D E E V A A R R A A R Q V D F K A A A G I L R  
UniRef90\_UPI00046CA477 E E F Q I S H W G N V E W S H D L S K Y D L Q S R L J A A A L F I H L N  
UniRef90\_UPI00036F9FAB E A W N A E L W G A D S E A E A R R D N R R R E M A A A A T M M A L G R  
UniRef90\_R9AGS4 V K S Q I A R W G E V E D S H D D H Q D I R K Q I G S A A  
UniRef90\_J6J9S5 E D W N M E L W G A D A L A L E R R A F R R A E M D A A A T V L  
UniRef90\_UPI000372D84E E D W Q A E L W G E D S L A T Q A R A H K R R E F D A A V C F L S L  
UniRef90\_UPI00040B2F9D E D W N A E L W G V D S E A Q L R R D F R R A D F D A A A L L L  
UniRef90\_W4KIA5 V S S Q I E R W G E V E D S H D V H D V R R H V A S A A C L L S N L  
UniRef90\_UPI0003B4A63B E M W E E Q L W G E D D L A M A N R A L R K A D Y D A A W H F R W L S  
UniRef90\_I4YK23 V L S Q I A R W G E V E D S H D D H H D I R K Q I G S A A  
UniRef90\_I4YWE5 E L Y Q E S V W G E D  
UniRef90\_A3WV12 E D W N S E Q W G V D E E A A V R R A S R L V D F Q A A A T V L R  
UniRef90\_M7B576 E E F Q I Q H W G N V E W A H D Y D L Y E L R A R T A A G L F A H L C  
UniRef90\_T1G625 I Q F Q T S L W G T V E W K H T M D E T E K A R L A A A V L F V H F N  
UniRef90\_T1K455 L E Y Q T S I L W G N V E W A H T I E L M M T R A R V S A A L L F  
UniRef90\_UPI0001D2F00C E D H Q M R A W G A D E E A L A R R A R R F D E M R A A A R I  
UniRef90\_H2ZQP5 Q E Y Q I S K W G N I A W H H D E L V E T R M K T A A A A L F I H M C  
UniRef90\_Q16TS9 E E F Q L G H W G R V E W A H D V N M L D L Q A L S A A I L F V Y F N  
UniRef90\_K5VWK4 V N S Q I E K W G E V E D S H D V D Y H D R R Q L G S A S C L L A  
UniRef90\_G7EB50 V N S Q V E R W G Q V E D T H D D H E D I R T R L G S A A M F L A  
UniRef90\_Q0ANT6 E H F Q I S Q W G E D H E A A D R L A R L R T E L V T M G E V L R  
UniRef90\_J2ZNG0 A D W Q V E L W G E D W E A A D L R A T R F T A F Q L A M R L A A L S R  
UniRef90\_W4HI86 E D W Q A Q Q W G E D E E A A N A A E H K R R A F H D A V A F L S L A R  
UniRef90\_T1J1S3 T E F Q I S R W G N V E W A H E E L M D S R A R V A A A T L E T Q L N  
UniRef90\_G8PPD6 E D W N I E Q W G Q D E E A A R I R R F K N D E F N A A A L I L  
UniRef90\_D5AM29 E D W Q I A Q W G A D E E A A E M A A L K R E A L T H A G R F W I L  
UniRef90\_B0WBZ8 E E Y Q L G H W G R V E W A H D M Q Q L E S Q A R L S A A V M F  
UniRef90\_D6WNB0 E E Y Q T G H W G R V E W A H D L N Q Q D L Q A R L A V I L F T  
UniRef90\_A7HWU5 E T W Q M E I C G E D D E E L A R L A A R R A E L L E T A R F L A L  
UniRef90\_F4X763 E E Y Q I S H W G N V E W H H E Y K Q D L Q A R L S A A M L E V Y L N  
UniRef90\_UPI0003617990 E D W N A E L W G E D T E A R R I R T Y K K T E F D A A A L L L  
UniRef90\_UPI00037FCCE5 E D W N I E Q W G E D A E A Q A R R A N R Y E D M R M A A L M L  
UniRef90\_M0RHN7 E D L Q V D K W G L V E G H D D I A D L K V Q I S S A T V L L G L S K  
UniRef90\_A0A015IVF1 M N S Q T I R W G E L E A H D I E  
UniRef90\_V5ER08 V Q S Q I D R W G S V E D S H D V D Q A E M R R  
UniRef90\_UPI000455D883 V A S Q I Q R W G E V E D S H D V D F H D R R Q L G S A A C L L  
UniRef90\_X8JUA0 V V S Q T Q R W G E V E D T H D  
UniRef90\_I1BMB3 M T H Q M E R W G E V E D S H D E R E Y I R Q T L G S A V A L M H  
UniRef90\_I9WTV8 E T Y Q A A I W G S D A E A E A R L A L R R T E F E A A A E L I A  
UniRef90\_J7SD65 V N S Q I E R W G E V E D S H D V D Y H M R R H L G S A A  
UniRef90\_UPI0003B5035A E L W Q M E Q W G E D D E A L R R I G G H R R D A L J A L G A W F E  
UniRef90\_D7A1F0 E E I Q E E L W G T D A E A L A R R A A R F R D F E A A A R L V A L  
UniRef90\_UPI00035CC067 E D F Q M K I W G R D E E A L Q R R A R R W I E M E A A K L F R L  
UniRef90\_W5J2Z2 E E F Q Q G H W G K V E W A H D Q R L D T Q S R L S A A L L Y V H F N  
UniRef90\_UPI0003722CC6 E T Y Q S E R W G E D S E A Q A A A N K R D L L A T E R L F R L  
UniRef90\_UPI00036C6E92 E V F Q A E Q W G E D D E A K Q R E A N R H Q A L G L G V F F A A L N R  
UniRef90\_H9J0X1 E E Y Q L E R W G R V P W A H G L S Q A D L T A R V S A A L L V H C  
UniRef90\_T1W972 E D W A I E H W G S D A E A E H R R A K R F E E M Q A A A A V E D  
UniRef90\_A5V9V2 E L W Q A E Q W G E D A L A T E A R E N R R A D F K A A A R L L G L  
UniRef90\_E6VBZ5 E D W N I E Q W G L D  
UniRef90\_Q94BY8 E D L Q V D K W G L V E G G H D A D V A D L K V Q I S S A T V F L A L S R  
UniRef90\_A0A059F6G1 E A W Q I E Q W G E D D E A G K A A T E A R R K E A R A L E T W M R  
UniRef90\_W1NJP5 E D L Q V D R W G L V E G G H D D M A E L R V Q I A S A A V F L G L S R  
UniRef90\_W3RGY6 E D W N L E T W G F D D L A A A R R A A R E T E F K A A A L V L  
UniRef90\_Q2G4E6 E D W Q A E L W G K D A E A M E R R E K R A A F A A A R F A A L A R  
UniRef90\_C1L4Z9 M L F Q V S R W R D V P S Y H D V E N A D L N A R V S A A L F L A L  
UniRef90\_U6HDZ5 Q N F Q E R R W G S V E W F H E V D E V E V N T R V S A G L L V V L T  
UniRef90\_U2YLA7 E D W Q V E L W G E D A L A K D L R D K R A E F A N A L R F A E L V R  
UniRef90\_A9TW86 E N H Q V E E W G Y V E G G H D D E A D M R V K I A A C S V F M R L  
UniRef90\_UPI0004108601 E D W N A E Q W G A D Q E A T E R R A A R S V D F R A A A R I L  
UniRef90\_H8FRS1 E T Y Q I E Q W G E D A E A T S R R A A L K R D I A A A E R L L S L L K  
UniRef90\_B6JEZ6 E D W N S R Q W G E D D E V T Q R R A M R R D F D  
UniRef90\_UPI0004647E92 E D H Q I E A W G A D D E A M E R R A R R F A E M K A A A R I T E F  
UniRef90\_S4PI60 E E Y Q L A H W G R V P W A H E L N Q A E L S A R V J A A L L V  
UniRef90\_G5ZX80 E L Y Q N S L W G A D E E A A H R Q Q M I R S E L K D V E R F M N M  
UniRef90\_UPI0003B5FECA A L W Q E Q W G R D P L A E K A E A E R A D L D A A I R C L R L  
UniRef90\_Q4PEA0 V Q S Q I N R W G S V E D S H D  
UniRef90\_M2XYJ3 E D F Q I Q Y W G D V E G C H D D R A D T F V R L A S A S L V F S L L R  
UniRef90\_I2G2U4 V Q S Q I N R W G A V Q D S H D V D Q A D I R R  
UniRef90\_S8EQB6 V N S Q I E L W G E V E D S H D V D Y H D R R Q L G S A A  
UniRef90\_E9BW81 E E F Q T E R W G K V E W G H M R H A D T R M T L A A A G L F M R L A  
UniRef90\_D8S9U3 E D F Q I A K W G L V E G G H D D I S D L R V R I T A A S I F H R L L K  
UniRef90\_F2IUX5 E D W N A E Q W G E D A E A T R V R A A K R A E F D A A A L I L A  
UniRef90\_F2U3P7 T D F Q T S R F G E V E W A H T I E K H D T Q A R L A S A I V R L A R  
UniRef90\_T0INT3 E D W Q V E L W G E D W E A A E R R A A R F E G F K L A I R L A E L S R  
UniRef90\_I3TNV1 E H F Q I A R W G E D A E Q A E R L A L L R R D L D D L A R I  
UniRef90\_E2CP23 E D W N I E R W G E D A E S S Q M R V Y K R K E F D A A V L I L E  
UniRef90\_M4Z6M8 E D W N A A Q W G A D E E A M S R R A A K Q I D Y Q A A V R I L R  
UniRef90\_U6IBC9 Q T F Q E K R W G S V E W F H E V D A V E L N T R V A A G L L V T L T  
UniRef90\_J3JXB6 E E Y Q C G R W G R V E W A H D L N Q Q E L Q S R L A A V L L F

UniRef90\_F6IMX0 1 MKR R F Y K E V T V G E T D S G W R V L L D G R R P L K T A G G R T Q  
UniRef90\_UPI0003C18E88 K P K R F Y K E A V T A P V D D G G F A V R L D G R A T P K R S T A K K A G P L Q  
UniRef90\_A3WAF3 MKR R F Y K E R V D V S G A L G G W Q V L L D G R A T V R T R Q A K G A G Q  
UniRef90\_Q11HT3 Q M R Q P M P K R F Y K E R V E V T S G E G N A W K V L L D G R A T V R T R Q A K G A G Q  
UniRef90\_A9PI48 M S S M T G K R F Y K Q V T T R E A D D G W N V M L D Y R T L K T P T S K R Q L L  
UniRef90\_B2IK22 L K K A L P K R F Y K A R A R A E P V E G G F A I L T L D G K P A K T P S A R S Q D L L  
UniRef90\_W4FNC1 R S R F Y K A V G A E A E G D G Y C I L T L D G K K K V R T P P A R S L L L  
UniRef90\_I0YTJ2 A A S R W Q G H I T V I Q E T T G G C M I L F D G K A L R T P A R F P L  
UniRef90\_H6SSM3 L T A T L R R R F Y K S V G V T E G P E G A G V L L D G R A V T P P R Q A G L  
UniRef90\_V9DXW9 R R F Y K D V G V K D V E G L Y A V T L D G K T V K T P P R Q Q P V  
UniRef90\_A0A059DZ71 P K P K R F Y E T A K A V Q M P G G W T V E L D G R S I K T P A R A A L L  
UniRef90\_M9LZN1 R A E R L K S R F Y K T V S L S P E C D G G F R V L L D N R A I K T P K G Q T P L  
UniRef90\_M4BFT5 R F Y K D V S V Q D V A N A R Y A V T L D G K T V K T P P K G Q T P L  
UniRef90\_W5Y6D4 T Q G R R K R F W T Q A A S P A E G G F S V A L D G R G I R L P G G T P L L  
UniRef90\_UPI000248A011 M K R F Y K N V A A V A G P D D G F A I E L D G R P V L K T P P A R A A L L  
UniRef90\_E0VF77 N E G K Y E V T L D Q R K L K T P P K G K L F  
UniRef90\_I9C559 M K R F Y K D V T V A S I D D G W R A L L D G R G I K T P G G R P Q  
UniRef90\_M2U2Q3 M K R F Y K E A A A R R T D E G W Q V E L D G R P L K T P K A K A P L  
UniRef90\_I3LAB4 T E R K R F Y Q N V S I T Q G E G F E I N L D H R K L K T P Q A K L F  
UniRef90\_S8BYK6 K R F Y K E K V T T R E A E D G W Y V M L D Y R T L K T P S K R N L  
UniRef90\_C8WCB7 K R K R F Y K K A T V D K A E I G F A A K L D D R Q I L M T P A R K H P L  
UniRef90\_J9DFE9 A R R F Y E T V S V E A V S E G F I V L L D D R K L K T P P A K K L L  
UniRef90\_U7GHJ6 L P K R F Y K E A T H V A V D G G F A I H L D G R P V K T P G K A A L  
UniRef90\_UPI0003B4AFB3 M K R F Y Q D V T V S P E D A G F R V C L D G R G L K T P Q G G R P Q  
UniRef90\_E0TB40 M S E A G P K R F Y E T V T V A A D G V G Y V I K L D G R P A K T P G R H L L  
UniRef90\_G2IPD8 M K R F W K E A Q A V A D G E G W A I R L D G R P V R T P A R A L L L  
UniRef90\_A7IPN4 P L P K R F Y T D V S V I G E A D G G F T I L L D G R P V K T P A R G L L L  
UniRef90\_D5BQE5 R K R F Y K D V S V R A I E A D T G W Q I A L D G R A V K T P A G S Q L L  
UniRef90\_UPI0004131AF1 M R R F W K E V T T E P G N G I A L D G K P V R T P G R A P L L  
UniRef90\_UPI0002657A86 M S S P K P K K F Y K N V S I V K S I D G W E V N L D D R K L K T P P A G S A L L  
UniRef90\_R4XHS2 L A E A T L K R F W K S V S I E S S L G Y V V V L D K K A L K T P S S A V L L  
UniRef90\_UPI000369829D A P K L P K R F Y E S V T I S G T D N G Y V I Q L D G R A V R T P S K A V L L  
UniRef90\_V5GC51 S S A L K K R F W K D V H V K K I E D G Y Q V L L D A R A V R T P A K T S L L  
UniRef90\_Q07KQ9 P R P K R F Y K D A G F I E T A D G F A I T L D G K N V R T P S K Q L L  
UniRef90\_F3X0D9 M K R F W S E V T V D A E R V V R L D D R P V R T P G R T P L  
UniRef90\_V9DL79 S K P L Q K R F W K D V H V T E A P E G Y Q I L L D K R P V R T P S K S I L L  
UniRef90\_UPI0002E6CF8E A R P L P R R F Y E E A T I G D A D G G F S I L L D G R P V N T P A R R R V  
UniRef90\_K3WQF4 R F Y K D V G V K E V E Q D F A V T L D G K T A K T G A R T P V  
UniRef90\_UPI0004780434 M A S Q H P R F W K E V R V V P E V P G H Y A V E L D R K P V R T P G K H D L  
UniRef90\_A8J6P8 K I S R R F Y K A A H V V P A E D G G F S I L L D R K P V R T P G K K L A  
UniRef90\_D5QCH9 A A R R R F W D T A T V A P Q A G G Y T V H L D G R P V R T P G R T P L  
UniRef90\_H0TKX1 M R G P Q R K R F Y K A G V K E A E G G Y A V L L D D R P V R T P S G Q I V  
UniRef90\_UPI0003690DEA T S P L R K R F W K D V H V K E V P E G Y Q V L L D S R P I R T P A K T L L  
UniRef90\_C4JZG7 K R F Y K H A E A S D A E G G Y N V L L D G K P M M T P D G A K L L  
UniRef90\_UPI0003A2EE70 R S R F Y K E V G V Q A Q D G G F V L L D G K K V R T P A R S L L  
UniRef90\_T0S4S3 D G F V L L D G R I L K T P D G N Q V  
UniRef90\_F4P230 P K R F Y D E V N I A P Q P N G F A V T V D G K V L K T P L R S A L L  
UniRef90\_R7QR62 R F Y K T V H I R D A D G G Y Q V M L D H R V L R T P A R H P L  
UniRef90\_E1ZIG5 A A K K R F Y K S V L L A D D G L S I Q L D G W N L R S P A G S L L L  
UniRef90\_UPI00037EA454 M K R F Y K M V T A A E Q G G G F S I R L D G K P V K T P S G Q M V  
UniRef90\_M4VHE5 K R F Y K E L K T Q E A D D G W T V M L D D R K L K T P P Q G K I F  
UniRef90\_K7MX75 S A L Q K R F W R E V H V K S Q T P D G H G V L L D S R P V R T A S K N V L  
UniRef90\_E2B8Y3 M R R F Y T A V T V L S R E P E G W Q V M L D T R G V R T V G G A P Q  
UniRef90\_K2QR95 A S P L R K R F W K D V H V K E A A G G H Q I Y L D S R P V R T P E K K I L L  
UniRef90\_UPI00047787A7 A P R Q T R V F W K A V S T R P L D P K F G V F L D A R P L R T H L K Q L L  
UniRef90\_F2PTT2 A S P L R K R F W K D V H V K E A A G G Y Q V L L D S R P I R T P A K T I L L  
UniRef90\_A0A058Z886 R S R F Y K T V T L R E V A D K W E I L L D S R V L K T P G R R P L  
UniRef90\_C5PB14 Y N I Y L D D R K L K T P S G K A L L  
UniRef90\_D7FMM9 A K T K R F W K D V H T K H T E E G M Q V F L D K H P L R R P S K D I L L  
UniRef90\_F1LBQ8 Q M A A A R K R F Y K N V S I S Q S N G M Y E I N L D R R K L K T P M S R I L L  
UniRef90\_W9C6M6 R G D G T A P R F Y K S V S V V P A P G L W G I A L D G K T L K T P S K A P L L  
UniRef90\_C3XY2 P R P K R F Y Q N A G L V E A E G G F A I T L D D K A V R T P S R G H L L  
UniRef90\_C1N615 R F Y N R V S V V E D A P A Y G V A L D G R N I K T S L K S P F  
UniRef90\_Q211J5 L P K R F Y K S V D V A E T D G V F T V L L D G R V T K T P T G K Q V  
UniRef90\_F0W0T9 S K P L K R R F W K D V H V K E E T D D G Y Q I F L D S R A V R T P A K K I L L  
UniRef90\_G4RC07 T S A L Q K R F W K N V S V K E T D E G L Q V L L D S R P V R T A S R Q V L L  
UniRef90\_C0NAZ5 Q K V E K T M Q R F W K D V Q L A D D D E H F V V Q L D K R S L R T P G G A K I F  
UniRef90\_N1PV62 G G F E I N L D H R K L R T P G A K I F  
UniRef90\_M5EA09 W E R K R F Y K Q A T V Y Q T E G G W G V K L D H R N L R T P L R R V F  
UniRef90\_S9YUR6 R G D G T A P R F Y K K V E V R V E G G W G V A L D G R A L K T P K R A A L  
UniRef90\_I1FKZ5 S A L Q K R F W K N V H V K E D D G G L Q V L L D T R P V R T A D R R I L L  
UniRef90\_C1ECJ0 T K R K R F Y K I V D V E E T Q G G K Y K V T L D G R M L K T Q G G N V L L  
UniRef90\_F9X2B2 T E R R R F W K E V N V R E V D G G F Q I Y L D T R P L R R A N S Q I L L  
UniRef90\_A0A016VXJ6 M K R F W K E V S V R E A S P G H E V R L D G R A F R L P G G H P L  
UniRef90\_UPI00046FE578 M K K F W E T V Q L K K T D S S Y E I F L D D K V L K T P L K K K L  
UniRef90\_UPI0003B780BB T K P K K F Y K E V T L A E V D E K H K V L L D H V L K T Q G G Q V L L  
UniRef90\_A8WN22 A K R R F Y E E V R F K P M E Q V Y N I Y L D K Y C L V T P K R N P V  
UniRef90\_A0A044QLR8 S A G R K R F W K Q A S V V P D G A G Y A V Q L D G R P V R L P E R T P L  
UniRef90\_F7VAX7 K R F W K D S T V K E T D G G L Q V F L D S R P V R T P T K D I L L  
UniRef90\_Q0V183 A K R R F F W K N V S V K S E G K F E V C L D Q R K L K T P L G N H F  
UniRef90\_B7PPV4 M S Q T I K R F W K E V H V V P V P S G H E V R L D G R S F R L P G G N P L  
UniRef90\_UPI00046EF74F M K R F W K E A T L R A V E G G W Q V W L D E R A V K T R G G A P Q  
UniRef90\_UPI0001DD1163 R R F W K N T S V S N E D G K T V V K L D G R S L K T P N G K V L L  
UniRef90\_S9Q0N4 M K R F Y K T A E A V P A E G G H A V H L D G R P V R T P S K A A L L  
UniRef90\_K9GWZ5 A L K K R F W K D V T V E E T P D N G Y Q I F L D S R P V R T A S K N I L L  
UniRef90\_R7YK89 R F Y K S V D V M P V D N R F S I R L D Q R P L K T P K G R I L L  
UniRef90\_E5SJY2 A E R T M T R F W K T V H L A P A T E A Y T V K L D K R A L K T P S G A K M  
UniRef90\_UPI000456056C M A E P E M K R F W K D V T V E N R A I R L D G R A L K T P A R A E L L  
UniRef90\_UPI0004771569 M K R F W K T V A M A D G V I E L D G R P V R T P A R A P L L  
UniRef90\_UPI0002632194 R F W T E A A V I G P A D G G W A V L L D G R A P K T P A K A P L  
UniRef90\_UPI000477CB28 R F W T E A A V I G P A D G G W A V L L D G R A P K T P A K A P L

UniRef90\_F6IMX0 I I V P T M P L A E A L A E E W A A Q G E D I D P A G F V L R D L C D F A I I D A V 80  
UniRef90\_UPI0003C18E88 I I V P A Q P L A A A L I A A E E W D A A Q G V E E Y I D D N S A L M P L A R D R L A F T A I I D D R I  
UniRef90\_A3WAF3 I V L P N E A A A S R L I A A G E F A A Q Q G E K Q I D D P A M S T L M P L R D R M A V N T A I I D D V I  
UniRef90\_Q11HT3 V L P T L A A A A K A I A A E E W D Y Q Q E D G I D D P F S T M P L M K R L A C T A I I D D G V  
UniRef90\_A9PI48 K L P T L A A A A K A I A A E E W D Y Q Q E D G I D D P F S T M P L M K R L A C T A I I D D G V  
UniRef90\_B2IK22 V L P T L A A A A E A L A A E E W N A Q Q E D I V I D D Q P T T M P L M T R L A N S T A I I D D G V  
UniRef90\_W4FNC1 Q L P T K A L A A A T V A A M E W D A Q R E V I V I D D Q P T T M P L M T R L A N S T A I I D D H W  
UniRef90\_I0YTJ2 I L P N R A L A A L A V A A E E W Q W Q D D E K I R D P F T M P L M S L L A A N T A I I D D Q  
UniRef90\_H6SSM3 V V P T R A L A E A L A A E E W A A Q Q S E S I D D R P A T M P L M T A L L A N T A I I D D R V  
UniRef90\_V9DXW9 R L P T R A M A Y A V A H E W D S Q Q S H D I D D R P A T M P L M T A L L A N T A I I D D L V  
UniRef90\_A0A059DZ71 S L P T E K L A K A I A A E E W N A Q Q D E H I D D L A A M H L T R S L L A N V A I I D D R V  
UniRef90\_M9LZN1 V V P R E R L A T C M A Q E E W N A Q Q K V L K R P H A L P L T S L L A S T A R A L D A C  
UniRef90\_M4BFT5 R L P T R A M A F A V A H E W D A Q K H D L K R P A T M P L M T L L A S T A R A L D L L  
UniRef90\_W5Y6D4 C V T S R A L A G A V A A D E W A H A G G E F T P P D D L P L T R L I A N A G T M I E R V  
UniRef90\_UPI000248A011 L L P T S E A L A D A V A A E E W Q S Q K E D T I D P P R S S M P L T T G L L A N A Y A I D D R V  
UniRef90\_E0VF77 Y V E S E P L A L A V A A E E W D R Q Q E T N I V V P P S S M H L T T G L L C Y A N A T V L D N P  
UniRef90\_I9C559 I V P T K A L A E A L A A E E W A A Q Q G E E I D D P G A F R Y R D L L T D F T I I D A V  
UniRef90\_M2U2Q3 I L P T S E A M A Q A V A A E E W D A Q Q G D T I D D P S A S M A M T G L L A N A A I D H V  
UniRef90\_I3LAB4 T V P T E A L A V A V A T E W D S Q Q S K V L K P Y T M H L V T T G C G R S C G P  
UniRef90\_S8BYK6 R C P T L S L A K A V A A E E W E Q Q K D G I R P F T M P L M K L T C T A I E R V  
UniRef90\_C8WCB7 I L P T R A L A E A V A E E W W N Q V K E I D P A S M P L T G Y A N A A V D L V  
UniRef90\_J9DFE9 A L P Y A K L A E A I A E E W R Q Q V D G E I L L S D M P M S R L V Y T A L D R V  
UniRef90\_U7GHJ6 L L P S E A L A A A V A A E E W Q A Q Q K E I N P A T M P L T R L S N S A I I D A V  
UniRef90\_UPI0003B4AFB3 I V P T A A L A Q A M A S E W A N Q Q Q D I D D T A A F A F R D M A D Y A I I D V  
UniRef90\_E0TB40 G A E S Q I L A E A L A A E E W S Q Q Q D I D D L T T M P L T R D M A D Y A I I D V  
UniRef90\_G2IPD8 V V P H A A M A Q A L A A E E W D A Q Q G E E I D D P R T M P L T G F A N A T I I D R V  
UniRef90\_A7IPN4 L A P T R A P L A E A M A A E E W A Q Q E K E I D N P F F M P L T R L V N V A L D R V  
UniRef90\_D5BQE5 C M P T R A L A S A I A A E E W D A Q D D I D D K P A S M P L T F A Y A V T A C D R V  
UniRef90\_UPI0004131AF1 A L P T P Q L A E A V A G E W R T V G E T I D P R A M P L T G L A N A S I I D D R I  
UniRef90\_UPI0002657A86 T V P N E A I A A A I A T E W A L Q K S A I E R Q H A M H L T S L L A N T A I I D N P  
UniRef90\_R4XHS2 Q I P S N K L A T L I A A E E W S Q Q V S A I R Q H H Q L P L T S L L A N A R A I D H L  
UniRef90\_UPI000369829D A V P N E S I A A A I A A E E W A G Q K D V I N Q A S M P L T R S L L A N S A I I D G V  
UniRef90\_V5GC51 T V P H T K L A H A I A L E W D S A Q Q A L K Q H L I P L T S L L V A R A E D I V  
UniRef90\_Q07KQ9 V A P N R V L A Q A I A A E E W Q A Q P L I D D P S S M P L T R L L A N S A I I D G V  
UniRef90\_F3X0D9 A L P T P A L A E A V A E E W R S V G E T V D P R A M P L T G L A N A A I I D R I  
UniRef90\_V9DL79 T I P R S K L A H A I A L E W D S A Q Q K A L K N P A N I P M T S I A A R A Q I I D  
UniRef90\_UPI0002E6CF8E V V P S R E L A E A M A A E E W A A Q G E K I D N P A T M P L M T K L A N A T I I D G V  
UniRef90\_K3WQF4 R L P S K S L A L A V A H E W D A Q D K D I D R P S T M P L M S L L A S T A I I D G K  
UniRef90\_UPI0004780434 A V A S Q G L A D A V A A E E W A A V E K E V Q P S R M P M T S Q L V N T M I E R I  
UniRef90\_A8J6P8 V L P S H P L A L A V A A E E W E W Q E K G K Q L H T M P M M S L V A H A L D Q P  
UniRef90\_D5QCH9 V H A D A L A H A L A G E W E A K G E G L F T P E D L P L T R I A G T M I E R I  
UniRef90\_H0TKX1 V L P V K G L A E A V A A E E W A Q Q G E T L N D L T M P L T R F A N S V M E G V  
UniRef90\_UPI0003690DEA L A P N R A F G E A L A A E E W G A Q G E H L L D F E T I P L T R L A N A R A E D I I  
UniRef90\_C4JZG7 T I P R S K L A H A I A L E W D S A Q Q A L K H H L I P L T S L L A N R A E D I I  
UniRef90\_UPI0003A2EE70 Q L P T R A A A Q I A D E W N A Q Q E Q I K A N D L P L T R L A N A L A Q D R M  
UniRef90\_T0S4S3 T L P T K S L A A A V A M E W D A Q K E S I Q P S T M P M M S L A N A T S L D F W  
UniRef90\_F4P230 V I P R P A F A A L T A A E E W E G Q D K V L K S H S L P L T S I I V R A V D T F  
UniRef90\_R7QR62 T A P T S A L A T A V A A E E W D A Q V L G R L R P A S M P L T T L V A S T A I I D V  
UniRef90\_E1ZIG5 V L P S R A L A L A I A A E E W A W Q L K R I R Q P A T M P L M S L L A A T A L D E P  
UniRef90\_UPI00037EA454 C L P T R S L A S A I A D E W R T Q G D N I D P A T M P L T F S L L A V T V I D R V  
UniRef90\_M4VHE5 V A P T R A L G E G I V A E E W A A Q Q D H I L P D T M P L T Q I L I T A L D R V  
UniRef90\_K7MX75 K L P S L P L A K A I A A K W E Y Q Q D G I R P F T M P L M G L A C T A L E R V  
UniRef90\_E2B8Y3 E V N S K P L A L A V A A E E W D A Q K E I I D R G N M H L T A L L C N T V L D N P  
UniRef90\_K2QR95 T I P P N K L A A A I A L E W D N A Q Q E T A L K Q H Y I P L T S L T S R A I D I Q  
UniRef90\_UPI00047787A7 L L P T R A L G E A I A A E E W R G Q G E T I D P A S L P L T R D M A D Y A I I D V  
UniRef90\_F2PTT2 T V P S S K L A H A I A L E W D T A Q H A T K Y H L I P M T S I T G R A E D I A  
UniRef90\_A0A058Z886 E V P C P L A E L I A A E E W S Q R E H L K P L A L P L T S L T S R A L D G P  
UniRef90\_C5PB14 N I P R S K L A H A I A L E W D S A Q Q A L R P H H L I P L T S L T A R A E D I V  
UniRef90\_D7FMM9 Q F D S P E L A M A V A A E E W D A Q D K G I E P A V M P L T M A L L A S T A I I D Q V  
UniRef90\_F1LBQ8 E T E S E A L A L A I A Q E W N N Q K K Y A L N K S H M R L T G L L F T A L D N P  
UniRef90\_W9C6M6 T V P H H K L A S A I A L E W D S A Q Q A L K T H L I P M T S L V N R A L D I V  
UniRef90\_C3XY2 S V P N E P I A I A V A T E W E A Q H K E I K M S Q M H M  
UniRef90\_C1N615 A V P S K A L A L A V A A E E W W Q Q K S I R P F T M P L M A L V A N T A M D Q M  
UniRef90\_Q211J5 I A P N R A L A E A I V G E W Q A Q Q Q F I E P T T M P L T R L L A N T A I I D A V  
UniRef90\_F0W0T9 Q L P Y K A L A Y A V A H E W D A Q K N I I R P A T M P L M T L A N S T A I I D A P  
UniRef90\_G4RC07 G V G H A E L A A R M R E E W D A Q G E L I D D P D M M P H V K L L T A N S A V E G G  
UniRef90\_C0NAZ5 T I P A S K L A H A I A L E W D S A Q Q A L K Q H Y I P L T S L T A R A Q D I V  
UniRef90\_N1PV62 T L P K N A L A T A I A L E W D S A Q Q A L K Q H Y I P M T S I T S R A M D I E  
UniRef90\_M5EA09 T V P S D R L A C L I A V E W D S Q T Q V V K P H S L P L T S L V S R A I D G L  
UniRef90\_S9YUR6 T V P S E A L A V A V A T E W D S Q Q D T I R P Y T M H L T T L C N T A I I D N P  
UniRef90\_I1FKZ5 S V P S E S L A I A V C H E W K S Q T K F I R P S L M H L H I S P L T P F G K V  
UniRef90\_C1ECJ0 A V P S K S L A M A I A A E E W W A Q Q G R S I R P F T M P L M A L V A T S I I D Q M  
UniRef90\_F9X2B2 T L P K R A L A A A I A L E W E S A Q Q A L K Q H Y V P M T S L T S R A I I D I Q  
UniRef90\_A0A016VXJ6 Q I E S E P L A L A I A E E W A S Q E Q Q L H M G H M R L T G L L A F T A Q D N P  
UniRef90\_N1J6E5 V L P K P H L A T A I A L E W D L A K Q A L K P H L I P L V S L V S R V Y D I V  
UniRef90\_UPI00046FE578 I L H S S A L A E A I A D E W R A L G E A F R T A E L P L T Q M A G T Q I E R V  
UniRef90\_UPI0003B780BB T I P N S K I A E E I Y K E W N Q D T N I I D T D A L I F Y G T L S T Y I D K I  
UniRef90\_A8WN22 K L D S S E P L A L A I A Q E W S Q D E F L Q L G Q M R L T G L L A F T S Q D N P  
UniRef90\_A0A044QLR8 K I S S E A L A L A V A E E W K M Q D E E L K Q T N L M R L T T G L I F T A I I D N P  
UniRef90\_F7VAX7 R V E S R A L A D A L A E E W Q A A G K E F R P E D L P L T G I V G S M L E R I  
UniRef90\_Q0V183 T V P A S K L A T A I A L E W D A Q Q A L R T H Y I P M T S L A A R A L D I E  
UniRef90\_B7PPV4 T V P N E A L A V A V A T E W D A Q K E I L N Q H E M H L T T L C N T V L D N P  
UniRef90\_UPI00046EF74F I V P S R A L A E R I A E E W R A I G A A F R T S D L P L T Q M A G T Q I E R I  
UniRef90\_UPI0001DD1163 V V P T R A L G E L L R A E W A A T G E E F A P E D L P L T R D L A D R A I D A A  
UniRef90\_S9Q0N4 E I P T Q P L A H L V A L E W D R L P G S S T R P E D L P L T S L L F S R A M D V I  
UniRef90\_K9GWZ5 A V P F P A L A E A I A A E E W N E Q Q G E T L V L D N M P L T S Q L A N S A I I D R V  
UniRef90\_R7YK89 T I P K P Q L A T A I A L E W D S A Q Q A L K Y H Y I P L T S L T S R A V I D I N  
UniRef90\_E5SJY2 T V D S E P L A L A C I A V E W S Q Q R A N L D L A R M H L T T L C N T A I I D N P  
UniRef90\_UPI000456056C V I P H Q P L A S L I A Q E W S E Q T K T L K S H T L P L T S L A A R A I I D G C  
UniRef90\_UPI0004771569 V L P T D A L A N A I A G E W R Q V G E E I D D P R T M P L T G L A N A A I D R V  
UniRef90\_UPI0002632194 A L P T P Q L A E A V A E E W R S V G E E L D P R T M P L T G L A N A A I D Q V  
UniRef90\_UPI000477CB28 V L P T Q S A A Q L V A D E W A A Q G Q F L D P S T M P A T R L A S T A I D R I



UniRef90\_F6IMX0 A V D R A E A I R 90 G M V P Y A E T D T L L C Y R A D P E D A L F Q R Q Q E V W E P  
UniRef90\_UPI0003C18E88 A E T R V E V A R K E I T A Y A A S D T H L L C Y R A D H P A P L V E R Q Q Q R D W G A  
UniRef90\_A3WAF3 A P D P A A V A D K V L R T Y G A S D T D T L L Y R A D A P D P L Y V E R Q Q Q E E W P P  
UniRef90\_Q11HT3 A A D V Q A V M E D L L T F A S T D T D L L Y R A D A P D P E R L I Q L Q A E A W D P P  
UniRef90\_A9PI48 P L T R P K I T I E H L M K K F S Q D L L V F C Y R A E P E D N V L Y E R Q V E K F D P P  
UniRef90\_B2IK22 R A A L M E T V I E E I A R Y G G S D L L V C C C F P S A S Q G P Q E K L V A A Q Q A A W D P P  
UniRef90\_W4FNC1 D F E F T I E E L L M K Y L Q T D T L V C C C F P S A S Q G P Q E K L V A A Q Q A A W D P P  
UniRef90\_I0YTJ2 P K H R N L V V N T L L T Y L L H A D S A C C C C R D A P G P L S A T R Q Q A Q V Y D P P  
UniRef90\_H6SSM3 A P E R S A I L L D E T M V Y G G T D L L C C C Y R A D Q Q Q T T L V E R Q Q Q A A W S P P  
UniRef90\_V9DXW9 T S S S Q E T I D E L M M H Y L H T D T V C C C Y Q A D Q Q Q E K L V A L Q Q K A W K P P  
UniRef90\_A0A059DZ71 P E T R Y E M A D E L A R Y C E T D L V C C C H I A E D Q S E E L A E L E E A H W A P P  
UniRef90\_M9LZN1 S D E R V G I Q A D L L R Y L E N E T I L F Q E T Q Q Q K A L V E L Q Q E K H W Q P P  
UniRef90\_M4BFT5 T S S S Q E A I D E M M H Y L H T D T V C C C Y Q S D Q Q Q K A L V A L Q Q K K W K P P  
UniRef90\_W5Y6D4 A P D P A A Q V T A L M Q Y V D G E L L C C C Y R A D H P A L L C A R Q Q A E W D P P  
UniRef90\_UPI000248A011 A P D P L K F A Q D I A V Y G E S D V T L C C C Y R A D D E E D D L V V Q Q A E A W D A P P  
UniRef90\_E0VF77 N K T K E E I V N N I K Y L E D T D T L Y T S D G E E D D L Y D L Q Q E A W D Q P P  
UniRef90\_I9C559 A P D P A T I V A E L L P Y A E T D T L C C C Y R A S D P D E A L Y K R Q L E V W E P P  
UniRef90\_M2U2Q3 S A D R L G F A S R I A A Y G E T D L V C C C Y R A S E G P E P L A A R Q Q C A A W D P P  
UniRef90\_I3LAB4 P R T R D L L I T G N G T L P A S L R I S Y R V E P E T L V E L Q R N V Y S S S  
UniRef90\_S8BYK6 P L T R A T I I E H L M K K F H Q D L V F V R A D P T G N D L A E L Q V K K F S S S  
UniRef90\_C8WCB7 P D R Y D D F V A G L L R Q F A E S D V L L C C C Y R A D S P Q A L V D R E L E L W E P P  
UniRef90\_J9DFE9 S E A Y D A T A Q A F A S Y G E T D T L C C C Y R A T H P E K L V Q Q R E I W S P P  
UniRef90\_U7GHJ6 S I R F G E V A D D I T R F A G N D A L L C C C Y R A D D P Q S L I D T Q R R L W D P P  
UniRef90\_UPI0003B4AFB3 A P A P A A A R A D L L P Y A A G S D T L L C C C Y R A E P D D E P L A A R Q Q R L W E P P  
UniRef90\_E0TB40 E D A R G P W R Q T I L A Y A G S D L L C C C Y R A P E T G L A A R Q Q A E I W D P P  
UniRef90\_G2IPD8 L T G P G A F R G Q V A A Y A E S D L L C C C Y R A D S P E A L V A R Q N D V W E P P  
UniRef90\_A7IPN4 G S P E A E A V R E A E V V R Y A G S D M L F Y R A D S P Q T L V K R Q A E Q W D P P  
UniRef90\_D5BQE5 A S Q R A A V I A E I T S Y G N D L C C C Y R A D D A D L A A R Q Q A A A W Q N  
UniRef90\_UPI0004131AF1 A P D I A F A A G L A A Y G E S D L L Y Y R A E G P P P L V E R Q A A A W D P P  
UniRef90\_UPI0002657A86 N K T A E S T L C E E I L V E F L E H D S L L F R M P E N A E L Q Q E E K W D P P  
UniRef90\_R4XHS2 H R D R A S T I T T L L R Y L L D T D A V L L H I K G S D K F Q K M Q E E W T P P  
UniRef90\_UPI000369829D A R E P E A T R A E V L R Y A G T D L L C C C Y R A D G P E K L V A L Q Q E E R W S P P  
UniRef90\_V5GC51 R E D R D D V L R T V M R Y L L D T D T L L C C W V P G N E T L R Q M Q E R V A Q E P P  
UniRef90\_Q07KQ9 A D R V I A V T D I A N Y F Q S D L T F Y R A S F P P E E L V A L E A Q H W D P P  
UniRef90\_F3X0D9 A A D P V P F A T G L A R Y A E S D L L C C C Y R A S P P E E L V A R Q D A V W N P P  
UniRef90\_V9DL79 A T V R N E I T T T M L R Y L D T D T L L C C W A P E P E S L R Q V Q I K T A K P P  
UniRef90\_UPI0002E6CF8E A G Q M A E V E A E L V R Y A E S D M I C C C Y R A G E P P D S L A A A Q R A G W D P P  
UniRef90\_K3WQF4 T S S K K E L V D E M M H Y F H T D T V C C C Y Q A D Q Q D K L A A L Q Q K K W N P P  
UniRef90\_UPI0004780434 G G Q R A A I I D E L L R Y V D A D T L C C C Y E V T P A D L V A R Q Q A E W A P P  
UniRef90\_A8J6P8 R R P R D K V I A H I M N Y V H T D A A C C C L Y E R G T L A R R Q Q E V F G P P  
UniRef90\_D5QCH9 A P D R E A T V T A L L Q Y A N G E L L C C C Y R A T H P A T L C E R Q A A Q W A P P  
UniRef90\_H0TKX1 V G R T D L V R D D I L A K Y L R S D L L F Y R A S H P D A L V R R E A Q H W D P P  
UniRef90\_UPI0003690DEA P E T R E A V I D D A A Y G G S D A L A H R T D E G E L A D L E R E A W D P P  
UniRef90\_C4JZG7 E Q D R N E I L R T L M R Y L D T D T L L S W A P E K E S L R D V Q K R T A Q P P  
UniRef90\_UPI0003A2EE70 G A A R E A T A D W L T Q Y A Q T D V L C C H R A E H P Q N L T Q R Q E Q Q W D A  
UniRef90\_T0S4S3 E L D I I V D E L M K Y L Q T D T I L C C C F P V E H Q E K L A T R Q E K K W G T P P  
UniRef90\_F4P230 K D D R Q G V I D T M L K Y V H T D S I C C C Y Q Q S Y P S S L V E L Q K C Y W N P P  
UniRef90\_R7QR62 P N T R D R I F A A A L N F L D T D T V C C C R P D Y P S E L V E A Q N R V F A P P  
UniRef90\_E1ZIG5 K P R D E V V A T M L Q Y L D T D S V L C C R D E A G V A D R Q A Q A R V Y A P P  
UniRef90\_UPI00037EA454 T P Q R D M V M A E L A A Y G G N D L L C C C Y R D A Q T D L A S R Q H D Q W Q P P  
UniRef90\_M4VHE5 A H E R K T M T D M V A G Y L D T D L L C C C Y Q T E D P P P E L A Y R Q Q N A W A P P  
UniRef90\_K7MX75 P L T R S K V I E N L M K K F N Q D L V F C R A P D D D N E R L A R Q Q V E K I D P P  
UniRef90\_E2B8Y3 Q N T K V D L V N N I V N C L E M D T V L F Y S S E A D E L Y K L Q I E K W E P P  
UniRef90\_K2QR95 A A D R D S I V K M L M N Y L T T D T L L C W A P E K E T L R Q V Q M R T A Q P P  
UniRef90\_UPI00047787A7 A A D P P G L A E G L V G Y A E T D T L L C C Y R A D P D E P L H A H Q L A V W E P P  
UniRef90\_F2PTT2 A E D R D E I T R V M L R Y L E T D T L L S W A P E K E P L R E K Q I K A A Q P P  
UniRef90\_A0A058Z886 Q R D T E S I L D G L V A Y L H S D L L C F P E P Y P A G L V E R Q N R E W T P P  
UniRef90\_C5PB14 Q Q D R N E L M R T L M R Y L D T D T L L S W A E A P P R S L R D L Q I R T A Q P P  
UniRef90\_D7FMM9 A S D R E K T V A T C L K Y L P T D T V C C F L S P D P P I A R R Q R Q L W S P P  
UniRef90\_F1LBQ8 S L K K E D I V T S K I L E Y L D G D T I L F R A G E N E K L D A L Q R Q K W D P P  
UniRef90\_W9C6M6 A T L R N N I I J T V M R Y L D T D S L L C W A P E P S L R E I Q R L S A E P P  
UniRef90\_C3XY2 L P F M V C C F F P T I S Y R E E S P V E L A E L E E R E W E P P  
UniRef90\_C1N615 P A I R A Q H I H D L L E F F T D V V L C C R H P S P L A D Y Q A E H A H E P P  
UniRef90\_Q211J5 T T R V I E A V T D T V L A K Y F E T D V L L C C Y R A S F P P G L V A R E S E H W D P P  
UniRef90\_F0W0T9 T S S R H E L I D D M T N F L Q S D T I C C C Y Q V I T P Q D K L H S L Q L E K W E P P  
UniRef90\_G4RC07 E E S R G A L L D E V V K Y A G N D L L L Y R A D S P R E L V E K Q E Q I T W D D  
UniRef90\_C0NAZ5 V E D R N Q I L D K A T M R Y L D T D T L L S W A P E E K S L R D L Q I R T A Q P P  
UniRef90\_N1PV62 A A D R E N L V K M V M R Y L A T D T L L C W A P E P E R L R Q R Q K D V A E P P  
UniRef90\_M5EA09 S E D R K D V E E F L M R Y F E D T D A V C F H Q D Q P A A L V K L Q K E R W V P P  
UniRef90\_S9YUR6 T Q D K D Q L J R A A M R Y F L D T D T L L S Y R E E S P V E L A E L E E R E W E P P  
UniRef90\_I1FKZ5 L L S I V A I S Y V L N S Y R V V E P L D L V E L Q E K E W D P P  
UniRef90\_C1ECJ0 T Q E R D F H V R K L L E F F P T D V V L L T K H E P G K L A D R Q A E I H A H A P P  
UniRef90\_F9X2B2 E A D R E Q V V Q M V L R Y L S T D T V L L C W A P E K K N L S R Y Q E Q Y W K P P  
UniRef90\_A0A016VXJ6 L H T R E S I T A K V L E Y L H G D T V L F W N S E S E K L S R Y Q E Q Y W K P P  
UniRef90\_N1J6E5 D S D R S G I I D T L M R Y L E T D S I L C W V P L P E P L R V L Q Q R A A K P P  
UniRef90\_UPI00046FE578 A L D R D Q L I G L M A Y G E S D L L C C C Y R A S P G G L G R E Q D T L F D P P  
UniRef90\_UPI0003B780BB S G N R N P Y I L D D I L D F I D T D L T C C C Y R A E K P N D L V Q W Q S K N W D P P  
UniRef90\_A8WN22 L E Q A D T I S Q K I L D Y V D G D T V L F F N T E S S K L H R Y Q E E N W A P P  
UniRef90\_A0A044QLR8 S L K K S D L L S Q V L L R Y L D K D T I L Y R N T E E N S N L L E L E E K N W N P P  
UniRef90\_F7VAX7 P A Q R E G V V E S L L A Y A G S D L L C C C Y R A E N W S D L A R L Q K E Q W T P P  
UniRef90\_Q0V183 Q A D R N E V L N L L M R Y L A T D T L L C W A P E N K T L R E L Q Q E M A T P P  
UniRef90\_B7PPV4 S H K T E E L A A E I L E F L E S D T V L C C C Y R A T G A L G R E Q D V L F D P P  
UniRef90\_UPI00046EF74F A P D R E Q I I G G L M A Y G E S D L L C C C Y R A T P D E A L A H R Q A E V W E P P  
UniRef90\_UPI0001DD1163 R A A P E P I I T R L L G F A D G D T L C C C Y R A E P T E E K L L K E Q I K K W L P P  
UniRef90\_S9Q0N4 E S E R E K V F D Q V S K F I D T D T V L V Y A P T E E K L L K E Q I K K W L P P  
UniRef90\_K9GWZ5 A P L R D T M I E V L R F A E T E L L C C C Y R E A E D A L A A R Q Q A S T W Q P P  
UniRef90\_R7YK89 T K L R D D I V K M L M R Y L T T D T L L C W V P E R E S L R Q L Q Q R T A Q P P  
UniRef90\_E5SJY2 N Q T N G Q V V D M L L K H L E S D T I F F I N D Q P E L S L G Q M Q R D K W G P P  
UniRef90\_UPI000456056C A K E R Q K I C S D L L K Y L E T D T V L F Y E S T P T S L V R L Q A E H W D P P  
UniRef90\_UPI0004771569 A P D T A A F A A G L A R Y A G E S D L L C C C Y R A S H P T E L T T R Q G A M W D P P  
UniRef90\_UPI0002632194 A P N P A F A A D E L A R Y G E S D L L C C C Y R A E M P E P L V E R Q A A Q W D P P  
UniRef90\_UPI000477CB28 G Q A R E P V A D E L A A Y A G S D V V C C C Y L A E H P P L V E R Q A R E W G P P

UniRef90\_F6IMX0  
UniRef90\_UPI0003C18E88  
UniRef90\_A3WAF3  
UniRef90\_Q11HT3  
UniRef90\_A9PI48  
UniRef90\_B2IK22  
UniRef90\_W4FNC1  
UniRef90\_I0YTJ2  
UniRef90\_H6SSM3  
UniRef90\_V9DXW9  
UniRef90\_A0A059DZ71  
UniRef90\_M9LZN1  
UniRef90\_M4BFT5  
UniRef90\_W5Y6D4  
UniRef90\_UPI000248A011  
UniRef90\_E0VF77  
UniRef90\_I9C559  
UniRef90\_M2U2Q3  
UniRef90\_I3LAB4  
UniRef90\_S8BYK6  
UniRef90\_C8WCB7  
UniRef90\_J9DFE9  
UniRef90\_U7GHJ6  
UniRef90\_UPI0003B4AFB3  
UniRef90\_E0TB40  
UniRef90\_G2IPD8  
UniRef90\_A7IPN4  
UniRef90\_D5BQE5  
UniRef90\_UPI0004131AF1  
UniRef90\_UPI0002657A86  
UniRef90\_R4XHS2  
UniRef90\_UPI000369829D  
UniRef90\_V5GC51  
UniRef90\_Q07KQ9  
UniRef90\_F3X0D9  
UniRef90\_V9DL79  
UniRef90\_UPI0002E6CF8E  
UniRef90\_K3WQF4  
UniRef90\_UPI0004780434  
UniRef90\_A8J6P8  
UniRef90\_D5QCH9  
UniRef90\_H0TKX1  
UniRef90\_UPI0003690DEA  
UniRef90\_C4JZG7  
UniRef90\_UPI0003A2EE70  
UniRef90\_T0S4S3  
UniRef90\_F4P230  
UniRef90\_R7QR62  
UniRef90\_E1ZIG5  
UniRef90\_UPI00037EA454  
UniRef90\_M4VHE5  
UniRef90\_K7MX75  
UniRef90\_E2B8Y3  
UniRef90\_K2QR95  
UniRef90\_UPI00047787A7  
UniRef90\_F2PTT2  
UniRef90\_A0A058Z886  
UniRef90\_C5PB14  
UniRef90\_D7FMM9  
UniRef90\_F1LBQ8  
UniRef90\_W9C6M6  
UniRef90\_C3XY2  
UniRef90\_C1N6I5  
UniRef90\_Q211J5  
UniRef90\_F0W0T9  
UniRef90\_G4RC07  
UniRef90\_C0NAZ5  
UniRef90\_N1PV62  
UniRef90\_M5EA09  
UniRef90\_S9YUR6  
UniRef90\_I1FKZ5  
UniRef90\_C1ECJ0  
UniRef90\_F9XB22  
UniRef90\_A0A016VXJ6  
UniRef90\_N1J6E5  
UniRef90\_UPI00046FE578  
UniRef90\_UPI0003B780BB  
UniRef90\_A8WN22  
UniRef90\_A0A044QLR8  
UniRef90\_F7VAX7  
UniRef90\_Q0V183  
UniRef90\_B7PPV4  
UniRef90\_UPI00046EF74F  
UniRef90\_UPI0001DD1163  
UniRef90\_S9Q0N4  
UniRef90\_K9GWZ5  
UniRef90\_R7YK89  
UniRef90\_E5SJY2  
UniRef90\_UPI000456056C  
UniRef90\_UPI0004771569  
UniRef90\_UPI0002632194  
UniRef90\_UPI000477CB28

130 140 150 160  
L L K S A E E R W G L T F T R V S G I I H K P Q Q P P R T L A R L E Q L L G E Q D  
I L D W A K E R H G L T F T R V S G I I H K P Q Q P P P A T T L A G V L E A L A L T Q D  
V L D W A E A E R H G L T F T R V S G I V H H R P Q Q P P P P E A S A I A A K V L E R G A D A L L R R K Q T  
L I G W I K S E F G F K F V V H S C L F G G K Q Q P P P E E A V E A A A I L E K A V L L K K A N A  
V L A F A R E T K L G A R F L C A E G V T V F V T Q Q H D A A V N N V L R T F V V D S L L D  
L R K W F E T E F G G E L D I N Y G T I T K L Q Q P P P E E A I E A V L R R A S V L E K L N  
I V E W A S K A L Q T E I T I S D S I L F G S E Q Q P P P E E A I E A V L R R A S V L E K L N  
L L D W L A T T H G L S L V V T L L M P V A H D P Q Q L V A R L R R A S V L E K L N  
L R K W F S D T F E G E V D V S H G S I D R A H D P Q Q L V A R L R R A S V L E K L N  
L R T W A G Q A L D V T L V P V E G I I A S P Q H P D A S L E A A R T Y A L L G L D  
L L A H V N Q T Y G V K I T P F T G I L L G N T H A P G Q L V A R L R R A S V L E K L N  
L R K W F S D T F G G D V D V S H G I L N P L T H D E Q L V A N V R A Y L E K L N  
Q L A W L Q A R R H G I D M A V T Q G I M P L S Q S Q A V H V A W R G I L E K M D  
L L D W A R R R Y D V H F E I A T G I I H R P Q Q P P P D A T V A R L R E A V L S A R D  
L L N W F C K R F D I F E E S K D I S G P K Q Q P P P P T L A Q L R T E A L T G R S D  
L L A H V E A R L G V Q F T R V S G I V H K P Q Q P P P P T L A Q L R T E A L T G R S D  
L I A W A A R R Y D I A F L S T E S L L M P Q S Q P P P P P T L A Q L R T E A L T G R S D  
K V K N F L K R Y G V E I S S T S L L G P S P P P P P P A R T R E A L V S H L L D A S Y N  
L M K W V E S E F G Y K P T V H T S F F G G K Q Q E E G F V K A V E S A L T K T C  
L L E W A E K R F D I H F H R V V G I T H K K Q S P E V T L Q R I T G A A V T D G K N  
Y L D W V K S T Y D V S L Q I G A G I T P I H K Q S R E S I L E A L T Q R V A L L F N  
V V D W A G G L L G G R F V L T E G V I H A A Q P P E A L L A A Y R A A R L S D L T S  
L L A M A E A L Y G V A F T R V S G I M H K P Q Q P P P P T L A A A I E A A Y L S A R D  
F L A F A E R V G A P L T V T E S G I I A V E G Q D P A K S L L A A I E A A Y L S A R D  
L L D W A R G R F G I A F A V T A G I V P V D Q Q P P P A R T S L A A L R A G A V E A L D  
V L D W L S G A H D A R F L S E I R H V V T Q Q P P P D T H A V A A L R A H C A A Y D  
W L D W A R E L A P L I V A H S I M P V N Q P P H A V A A L R A H C A A Y D  
L L E W A R G R Y D V H F E T T A G V I M H R A Q P P P A T S V A R L R E A V A A L D S  
I L E W F S E R H Q V K F E P S M D I V S P E P P A T S V A R L R E A V A A L D S  
L R K W A E T F F E T K F L P A E G I V S H K Q S P E T R A A M K W I F E T L S H S  
V I A W M Q D R F Q A R F V L A E G I V H V T Q Q S P E T T E A V I D A A I G D L D  
I I G F L S A K L W P G I V D A D S I L V P I S Q S Q V T K D V L R G W I E N L Q  
V I F W A A E T L N A H F L L A E G I V H V R Q P P E A A I A A A R A A L P N D  
L L D W A R D R Y D V H F A L V I T G I M H R P Q Q P P K A T V E R L S A A V A A L D P  
I I S F L S T S V W P V L D E N S I M P T K Q D E S T R N V I K A G W I A G L H A  
L L A F A R D K L G A R M T L A E G V M F A D Q P R D A I D A L A A A I E A Q L N  
I R Q W F A E T F A G D V D V S H G I N G L T H S E E V V K N V R A A H L E Q L N  
V R N W A E T R L A V L Q V T S G L M P Q D Q V I Q V H T A L R A Q A L A M D  
L L E A L R Q D A G W R F L M S D N I A G S H Q T D Q V L V E G V L R A W L A G L D  
W L D W L R E R Y G I T L C T T E G V M P T T Q T P G T L A A L G D I L R G Y D  
L L D W A R D T L A A H F E M M A E G V M H V A Q Q P P D A A V A A A H A A P R D  
L L A W A E A L G A R L E P V A G I M P K D Q A P E A L A A A L R A A A V A E L S  
I I G F L T T A V G V E I K P A D S I L P I S Q P Q I T K E V I R G W I S G L P  
A L E W A N Q L G V S L S T V C I Q T A N H P P E T S L E R V R D L A L E L D  
L R K W F E E F D G E L D S V N H G I T V L Q H N P P T A V A N V R A Y L Q Q M D  
L V D W L K E A H N I D I V T T E G I S V T Q S D A V M D K L R E I I Q Q G Y D  
V L A H L E K E R H A K L N I A R G S L S A P Q T D Q V R D T F S R I V R Q E L D  
L L A W A Q Q M G V R V E P T D S I F G A S L G Q E E L G G V E A H L I R Q L D  
W Q D R L A A E H D I H L E I V T G I M P T W Q S D A V K F V E L I A A H D  
A R D W F A R V S S V T L T V T P S L A A V R Q P E A A H Q Y I R R A M D G M D  
L L R W V E S V S F K P V V V Y S F F G E K Q E D G L T A I E N L K K T D  
I V H W F C K H Y N V N I A G T Q S I E A P G V S L E T K T A I T R H L M S H N  
I I N F L T T K L G V E I K P I D S I L P V P P P P N T V D V V R G W L S A L P  
L L A G F E A A H G V T F T R V S G V L H R P Q Q P P A T T A T L R R A R L L T L T  
I I S W P G V E L K P T L D A N S I M P L P Q S Q Q T I D V I R G W L S S L S  
I R R W V E A E Y G V T L R A S E R E F D V T Q S P E T V A K L S A F L R E L H  
I I G F L T T V V W P P V L E E D S I L P V S Q P Q M T K E V I R G W I T G L P  
L R D W T E E A L G I P V A T T T E I H R T P Q P P E A L A R A R D L L E S L D  
I I E W A N T E F E L T L K P S Y S I V G P I T E A E S R N R L Q R Y L L A Y G  
I I Q F L S E R V W V P I L D A S I V P K S Q P P Q E T K D L I R G W V L S G L P  
L L D W V R Q K Y D I Q L Q S S T S I H G P T I P K A T K S T L K K H L H Y N  
V L R W A R K E L G D V T P T E S I F G A E L P E E V T R A A S K R A L D A M D  
V L F W A A E T Y S A H F I L A E G I N A L V H D K A L V Q N V R M Y L E K L S  
I R K W F S E K F N G E L D V S H G I N A L V H D K A L V Q N V R M Y L E K L S  
V L V R I A R H F S V S F Q P T V G I V H K A Q S V D M L K K L R D A I E P L H  
I I D F L T A K V W P G I E I E N S I M P T P Q Q L P L T K E V I R G W I Y G L P  
I L A F L T T H I I V E V L S E D S I L P K S Q P P E M T T E V V R G W V S D L A P  
L I D W A R R Y L Q I E I N I A Q S T L T H K Q P P D E A K A K L R L R L A S G L P  
W Y S V E I G S S T S L L G P S I P A R S R E V L A S H L A S Y S  
V I K W F N E R Y N C N I E P T S N L N V L S V T K E L K L S L S E F I H S L G  
I L K W A R S E L G P G V E P T E S N L Y G A Q Q P P E E A M A A A E K R L S R A M D  
I I A F L T T H V I V P V L G A D S I M P V P Q P P P E T L N V I R S W V S D L A P  
V I D T A N E G L G T S L K P C T N L F E T D V S P S D A R I V E K W L M S H N  
I L E F L E C R V W P P V L D T D S I M P K S Q D P T T C K V I R E W L L A L D  
V L E V F S P I O O 0 4 6 F E 5 7 8 L P L S V G A D H H E V L T R I L T G F D  
L L K V E N Y I N N K I N A F K G I M P L K Q D K E I H I K I S K F L T K F T  
L I K N L N S D L G I Q V R P S E S I L D C D V A S E T K D K I D R W V R Q H N  
I V E W I N W E Y I G S V K P S Y S I L E A K L D N N S R K R L A N Q L S N Y S  
W L D W C K R F D A P L E V S E G I M P I A Q P P A E T F N A L R R V L E Q A T  
I I G H L T T H I G V E I K P I D S I M P V E Q P A M T Q Q V I R G W L A G L P  
W H G V K L P D T W S D L A S S S L P P E E T S S A F L R H L L S Y S  
A L D L F E A H H G V R P I T R S L L P H N A G I E V Q D A Y A A A L G R L D  
I I G R I E A D L G I Q L T R T H G I L H R P Q S E Q S L A A I R S R L E T E N  
L K K A F E E K F D V I Q L N H L D G L I A C K Q S A E T H A N K I R K W L S D L A P  
L L D W A R Q R Y D A A L C H T A G L M P V D Q Q P P E A L R A L R A A V A D L D  
I I N Y L K A H V V P I L G S D S I V P A K Q P Q M T Q D V I R G W L S G L P  
I I Q W A T H R F G V S L T P S V T M F P P T L A A N S V A T M R Q Y F L S R N  
L L A W A S E R F S V P L S P F T A L L G N A H D P K V L P T F A S L L D N L D  
P L D W A R A R Y G V E F R V T A G I V H H V T Q P P E E T V A R L Q E A A V A R D  
L L G W A R R F D V H F E T T A G I M H R P P A A T I A R L Q E A V A A L D  
W R D W A A R E M G V A L E P V A G I V H R P Q S P D A I A R V K A H A L S L D

UniRef90\_F6IMX0  
UniRef90\_UPI0003C18E88  
UniRef90\_A3WAF3  
UniRef90\_Q11HT3  
UniRef90\_A9PI48  
UniRef90\_B2IK22  
UniRef90\_W4FNC1  
UniRef90\_I0YTJ2  
UniRef90\_H6SSM3  
UniRef90\_V9DXW9  
UniRef90\_A0A059DZ71  
UniRef90\_M9LZN1  
UniRef90\_M4BFT5  
UniRef90\_W5Y6D4  
UniRef90\_UPI000248A011  
UniRef90\_E0VF77  
UniRef90\_I9C559  
UniRef90\_M2U2Q3  
UniRef90\_I3LAB4  
UniRef90\_S8BYK6  
UniRef90\_C8WCB7  
UniRef90\_J9DFE9  
UniRef90\_U7GHJ6  
UniRef90\_UPI0003B4AFB3  
UniRef90\_E0TB40  
UniRef90\_G2IPD8  
UniRef90\_A7IPN4  
UniRef90\_D5BQE5  
UniRef90\_UPI0004131AF1  
UniRef90\_UPI0002657A86  
UniRef90\_R4XHS2  
UniRef90\_UPI000369829D  
UniRef90\_V5GC51  
UniRef90\_Q07KQ9  
UniRef90\_F3X0D9  
UniRef90\_V9DL79  
UniRef90\_UPI0002E6CF8E  
UniRef90\_K3WQF4  
UniRef90\_UPI0004780434  
UniRef90\_A8J6P8  
UniRef90\_D5QCH9  
UniRef90\_H0TKX1  
UniRef90\_UPI0003690DEA  
UniRef90\_C4JZG7  
UniRef90\_UPI0003A2EE70  
UniRef90\_T0S4S3  
UniRef90\_F4P230  
UniRef90\_R7QR62  
UniRef90\_E1ZIG5  
UniRef90\_UPI00037EA454  
UniRef90\_M4VHE5  
UniRef90\_K7MX75  
UniRef90\_E2B8Y3  
UniRef90\_K2QR95  
UniRef90\_UPI00047787A7  
UniRef90\_F2PTT2  
UniRef90\_A0A058Z886  
UniRef90\_C5PB14  
UniRef90\_D7FMM9  
UniRef90\_F1LBQ8  
UniRef90\_W9C6M6  
UniRef90\_C3XY2  
UniRef90\_C1N615  
UniRef90\_Q211J5  
UniRef90\_F0W0T9  
UniRef90\_G4RC07  
UniRef90\_C0NAZ5  
UniRef90\_N1PV62  
UniRef90\_M5EA09  
UniRef90\_S9YUR6  
UniRef90\_I1FKZ5  
UniRef90\_C1ECJ0  
UniRef90\_F9X2B2  
UniRef90\_A0A016VXJ6  
UniRef90\_N1J6E5  
UniRef90\_UPI00046FE578  
UniRef90\_UPI0003B780BB  
UniRef90\_A8WN22  
UniRef90\_A0A044QLR8  
UniRef90\_F7VAX7  
UniRef90\_Q0V183  
UniRef90\_B7PPV4  
UniRef90\_UPI00046EF74F  
UniRef90\_UPI0001DD1163  
UniRef90\_S9Q0N4  
UniRef90\_K9GWZ5  
UniRef90\_R7YK89  
UniRef90\_E5SJY2  
UniRef90\_UPI000456056C  
UniRef90\_UPI0004771569  
UniRef90\_UPI0002632194  
UniRef90\_UPI000477CB28

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



UniRef90\_F6IMX0 E D W Q I E L W G E D W E A A E R R K T R L E A F E L A M R L T R L A R  
UniRef90\_UPI0003C18E88 E I F Q A E R W G Q D E E A R V R A E A L S V E A E M I D R W F A A L R  
UniRef90\_A3WAF3 E E W Q A E L W G R D E A E A E R R A K R E S D F L R A R E E F V R L A  
UniRef90\_Q11HT3 E D W N I S Q W G E D A E A S A R R A A R K R D M M G A V A L L A  
UniRef90\_A9PI48 E D F Q V D T W G L V E G G H D D I A D L R V Q I S S A A V F L G L S R  
UniRef90\_B2IK22 E D F Q M R V W G R D E E A L E R R T R R W R D M E A A A R L F Q  
UniRef90\_W4FNC1 E E Y Q I E R W G L V E G G H D D R V N C S V N V H S A S F F L W L L K  
UniRef90\_I0YTJ2 E E F Q I E R W G L V E G G H D D Q A N A K V Q L A A P S L F L R L  
UniRef90\_H6SSM3 D L F Q V E R W G D D A E A R A R R E A L A A D M S A A H R E L L I L A R  
UniRef90\_V9DXW9 E E F Q I N N W G L V E G G H D D R V N C A V K L S S A S F L L Y L  
UniRef90\_A0A059DZ71 E A W Q A Q Q W G E D D E A K A V T A L R R V E A R A L E T W L  
UniRef90\_M9LZN1 V Q S Q I T N R W G A V E D S H D V D Q A E M R R T L G S V A I T T L  
UniRef90\_M4BFT5 E E F Q I T N W G V V E G G H D  
UniRef90\_W5Y6D4 E R T Q M D I W G R D D K Q E A S L R L L G L E V M D A S R F L R L C  
UniRef90\_UPI000248A011 E L W Q A A Q W G E D S L A L A A R E A R E R D F L A A A R F L A L A  
UniRef90\_E0VF77 E E Y Q V K R W G R I E W S H E L N Q Q D T Q A R V A A G I L F  
UniRef90\_I9C559 E D W Q V E L W G D D W E A A E R R A T R F E A F Q L A M R L A Q L A  
UniRef90\_M2U2Q3 E L Y Q M E E W G A D A E A E A V L A R R R S E L E T A A R F L S L  
UniRef90\_I3LAB4 E E Y Q L A A W G L F A G L T Q E A Q F L A A R N A G A L F V H L C  
UniRef90\_S8BYK6 E D L Q V D R W G L V E G G H D D I A D L R V Q I S S A A A F L G L S R  
UniRef90\_C8WCB7 E L W Q A E Q W G Q D E V A A N A L K R R R R D F L A A A R F F S L  
UniRef90\_J9DFE9 E F F Q F E Q W G E D Q E A M A R L D G M K R E I D T L S D Y F S L  
UniRef90\_U7GHJ6 E D F N I E R W G E D A E A A L V R A Y K R K E F D A A V L L L R  
UniRef90\_UPI0003B4AFB3 E D W Q A E L W G K D E M A Q A R R T L R G E A F A T A A R F A S L  
UniRef90\_E0TB40 E T F Q A E R W G I D A E A A I R R E A S L R R D F E D T L R F A S L T  
UniRef90\_G2IPD8 E H W Q A E Q W G E D A E A A A R L A E R R T A F L D A A R W C A L L A  
UniRef90\_A7IPN4 E D F N R E Q W G E D E I A T A R R A A R R T E M D A A A R L L T L  
UniRef90\_D5BQE5 E L W Q V E K W G S D W E A E D R R G F I R A E L D E A A R F R D L L K  
UniRef90\_UPI0004131AF1 E D W Q A E Q W G E D E L A V Q A R D A H R A D F D A G A R F L G L  
UniRef90\_UPI0002657A86 T D F Q I K K W G S V E D S H E D K Q Q V K A R L A A S V L Y F L C  
UniRef90\_R4XHS2 V R Y Q T D M W G E V E D T H D D H E D I R R Q L A S A V L L I S S S Q  
UniRef90\_UPI000369829D E D Y Q I A L W G E D E E A S V R R A G R W A E M Q A A S L V L A  
UniRef90\_V5GC51 V R W Q T D M W G E V E D T H D E R E D L K R Q L G S V V L L  
UniRef90\_Q07KQ9 E D W N I S H W G V D E V A A R R A A R L V D F K A A V M V L E  
UniRef90\_F3X0D9 E D F Q A E Q W G E D Y L A L E A R E A K R R E F D A A V R F L  
UniRef90\_V9DL79 V R W Q T D M W G E V E D T H D V N E D I R R Q L G S A V L L V T G S R  
UniRef90\_UPI0002E6CF8E E D F Q M R A W G E D A D A L A R R T A R F K E M A A A  
UniRef90\_K3WQF4 E E F Q I G R W G L V E G G H D D R V N C A V N L S S A S F M L W L  
UniRef90\_UPI0004780434 E L F Q A E E W G R E D W E A Q D R R D A L L A D L T V A E R F L G L L A R  
UniRef90\_A8J6P8 E D F Q A E E W G R E D E A G H D D E A D L R S R V F G P S L F V R L L Q  
UniRef90\_D5QCH9 E R T Q M E I W G S D A Q E A M L A T L G R E V A E A S T F L E L L A R  
UniRef90\_H0TKX1 E D W N A E Q W G A D E A L A R R A A R K V D F R A A A D I L Q  
UniRef90\_UPI0003690DEA E E W Q A L R W G R D E E A E A R M A R R K A A F L Q A A R L W D L A  
UniRef90\_C4JZG7 V R W Q T E Q W G E V E D T H D V E E D L R R Q L G S A I L L V  
UniRef90\_UPI0003A2EE70 E K F Q Q E Q W G V D E A A A K R D A E I L S E L K T L Q D F M  
UniRef90\_T0S4S3 E E F Q I E R W G L V E G G H D D R V N C S V N V H S A S F F L W L L K  
UniRef90\_F4P230 V I H Q I E K W G E V E D S H D D R E D L A R Q L G A C  
UniRef90\_R7QR62 E R W Q M G V W G E V E G G H D D E A R L S A A N A V F R F V D M  
UniRef90\_E1ZIG5 E D H Q I E R W G L V E G G H D D I A D L R V R V A A P C L F V R L L R  
UniRef90\_UPI00037EA454 E L W Q N E T W G T D F E T A D R H G F L R A E L Q D A A R F L A L  
UniRef90\_M4VHE5 E L Y N E E L Y G P A P H G E K Q R A M R A D L N A A R D F L D  
UniRef90\_K7MX75 E D F E V N R W G L V E G G H D D I A D L R V Q V S A I V F L G L S R  
UniRef90\_E2B8Y3 E K Y Q I S H W G N V E W H H E Y S K H D L Q A L S A A M L F V Y L N  
UniRef90\_K2QR95 V S W Q T G M W G E V E D T H D D K E D L R R Q L G S V V L L V  
UniRef90\_UPI00047787A7 E A W Q A E L W G R D A E E E P R Q R R E A D  
UniRef90\_F2PTT2 V R W Q I E N W G E V E D T H D E R E D L R R Q L G S V I L L V  
UniRef90\_A0A058Z886 T L Y Q V G R W G V E D T H D V D H Y D I R T R L G A A L L M H  
UniRef90\_C5PB14 V K W Q T E Q W G E V E D T H D V E E D L R R Q L G S A V L L V  
UniRef90\_D7FMM9 E E Y N V E R W G M I E G G H D M D R A  
UniRef90\_F1LBQ8 Q I F Q S K I W G N V E W H D E R E E L I S R L S A G I L F A H L T  
UniRef90\_W9C6M6 V D W Q T G M W G A V E D T H D E R E D I R R Q F G S I V L L V  
UniRef90\_C3XY2 T E F Q I M R W G N V E W A H D M E  
UniRef90\_C1N6I5 E D F Q T E E W G L V E G G H D V D A A D V S R L R A P R A M M S L L R  
UniRef90\_Q211J5 E D W N I A Q W G I D E E V A A R R A A R Q V D F  
UniRef90\_F0W0T9 E E F Q I D G W G L V E G G H D D R V N C S V G I S S A S L F L W L  
UniRef90\_G4RC07 E D Y Q I S L W G E D Y E A A R R R Q R R L E F E A A V N V I K L  
UniRef90\_C0NAZ5 V T W Q T D K W G E V E D T H D D R E D V R R Q L G S V V L L V  
UniRef90\_N1PV62 T V H Q T E Q W G E V E D T H D V K E D L R R Q L G S A I L L T S T T R  
UniRef90\_M5EA09 T A A Q A S T W G A I D D S H D D H A E L R R Q L A S C A  
UniRef90\_S9YUR6 E E Y Q I Q K W G S I E W A H D Y E R Q E L R A R T A A G L F V H L C  
UniRef90\_I1FKZ5 V R H Q I S K W G S V E W Q H E I E A Q L L S R L S A S V L F H D L T K  
UniRef90\_C1ECJ0 E D F Q I D E W G L V E G G H D I D K A D I A V R L A A P R L M S L L R  
UniRef90\_F9X2B2 V K H Q T E Q W G E V E D T H D V E E D L K R Q L G S A I L L V  
UniRef90\_A0A016VXJ6 Q K S Q A E T W G S V E W A H G V E E E E L T R L A A A A L F V Y F N  
UniRef90\_N1J6E5 V E W Q I G M W G L V E D T H D D R E D I R R Q L G S A I L L V  
UniRef90\_UPI00046FE578 E R Y Q M Q W G E D D A L L Q E I E R S G V D I A E A V R F L A L S R  
UniRef90\_UPI0003B780BB E L W Q A E N W G Y E E A S K N R N K I N L E L N R T I Y F L D  
UniRef90\_A8WN22 Q R T Q A E T W G S V E W A H G E R E E L L S R L S A A L E V Y F N  
UniRef90\_A0A044QLR8 Q T Y Q S D I W G S V E W A H D E R E E L I S R L S A G I L L V H L  
UniRef90\_F7VAX7 E R A Q M Q R W G E D T E I T D R I A A L V R E V S D A A R F L A L S R  
UniRef90\_Q0V183 V R W Q T G Q W G E V E D T H D V E E D L R R Q L G S A I L L V T  
UniRef90\_B7PPV4 T E F Q T S R W G S V E W A H D D R E Q L R S R V A A L L F V Q L T  
UniRef90\_UPI00046EF74F E R H Q M A Q W G E D D A L I Q E M E R N A S D I G A A L D F V T L A  
UniRef90\_UPI0001DD1163 Q D W Q A E R W G F D E E A L S R N R E A E F  
UniRef90\_S9Q0N4 L C F Q T N K W G T L E D V H E M D H H D L R Q V S S S A L I F R F A  
UniRef90\_K9GWZ5 E L F Q M E H W G A D A E A Q A R L E R Q R K D I A D A A R F L A L  
UniRef90\_R7YK89 V R W Q T G M W G E V E D T H D V E E D L R R Q L G S V I L L V  
UniRef90\_E5SJY2 R Q F Q T N R W G R I E W A H D L V E E Q E L R C R V S A G L L F A  
UniRef90\_UPI000456056C V R S Q I E R W G E V E D S H D V D T A D L R R V L  
UniRef90\_UPI0004771569 D L W Q A E Q W G E D V L A T A A R E D K R R D F R A A A R F L G L  
UniRef90\_UPI0002632194 E D W Q A E Q W G E D E  
UniRef90\_UPI000477CB28 E L F Q E E Q W G V D A E A A E R T E A R R Q E A Q L L D R W F R

UniRef90\_UPI00042CE458 1 A E R K R F Y Q N V S I S Q G E G G F E I N L D H R K L R T P Q G K L F  
UniRef90\_UPI0003B61B05 MKR F W T E V S I D A D R E G S I R L D A R R P V R T T P G R K P L  
UniRef90\_A1D9C4 S S T L E K R F W K N V D V V R K A D R P D G Y Q V V L L D T R P P V R T P T G R D I P L  
UniRef90\_UPI0003683B16 MKR F W T E V S I D A D R E G S I R L D D G R P V V R T P T G R V I P L  
UniRef90\_A0BMW6 Q L K R F Y K E A T I E M A T N Q W L V K L D D G K T V K R T P P S G K A N T L  
UniRef90\_G211W2 A R R R R F W A Q A C I A A V E G G F T V I E L D D T R G I R L P T P G G A A L  
UniRef90\_B6QV24 T S P L K R F W K D V V D V V K R K P D D G Y E V M L D T R P I R T P S P A K A D I L L  
UniRef90\_A1CFZ3 S S V L K K R F W K N V D V V K R K P D D G Y E V M L D T R P I R T P S P A K A D I L L  
UniRef90\_A0A059G1P0 K P K R F Y K L A A V E P M D D G W T V A L D D G R T V K R T P P A R A G L  
UniRef90\_B8NJ45 A K P T P K R F W K S V D V V R K P E G G D Y Q V L L D T R P V R T P T K D V L L  
UniRef90\_D3AZW0 D G T S L R W Y K H V T F D A E N N G Y L P L L D N R P P M K R T V N R K S V L F  
UniRef90\_C8VH85 K R F W K D V D V V K Q K D G G Y Q V L L D K R P P V R T P S K A S V L L  
UniRef90\_UPI00036AEC02 M K K F W K T V E V S E T N N S Y Q I L L D K K L L R T P S M Q N D L  
UniRef90\_L8FY87 S A K T K R F W K D V N V V K K T D D G H Q I F L D T R P L R T P T K Q I L L  
UniRef90\_M2N0P8 A L Q K R F W K N V S V V K D T N E G L Q V L L D S R S P I R T P A S R K T P L  
UniRef90\_C7JBV4 A P A G R K R F W K Q A D V P E G Q G F V V Q L L D G R S V I R L P R K T P L  
UniRef90\_W7TPZ3 R R R F Y K T V G V V R P S L D H Y E V T L D G Y P L R T P T G E K A Y  
UniRef90\_W6QHV4 N L T A A L R K R F W K D V H V H A G K S D E Y Q V L L D K R P P V R T P T K A E V L  
UniRef90\_A8IAK5 T L P L K R F Y K E V T V A E G E G G H E V R L D G R T L R T P T K A K L  
UniRef90\_Q54CV4 S D G S S L R W Y K T A G M C R T E Q G Y Y P L I D E R K I R T P S N H V I  
UniRef90\_UPI00041233DE M K R P L P K R F Y K T V T V V P V E G D G F G V A L D G K P I R T P S P A K A G F  
UniRef90\_K2MME1 M S Q T L K R F W K K V D V V S D E G G Y E V R L D G R P P F R T P G G H A L  
UniRef90\_UPI0004728C4D L A F A T R K R F W K E V H V V E T A D G Y Q I H L D T R P L Q T P E K R S P L  
UniRef90\_U4LDZ5 Q S R I K V W Y K S V G V Q R V A H A W A V T L D G R A L Q T P E K R S P L  
UniRef90\_R1BGD2 S E E R L K R F W K D A S V A P D G E G H V V L L D G R A P K T P A H A R M  
UniRef90\_D9QGQ1 A S P L R K R F W K D V H V K E A A G G H Q I Y L D S R P P V R T P E K N L L  
UniRef90\_E4UZ5 M K K F Y K K A T V K K L E N L Y G V F L D G K L I R T P L K N K L  
UniRef90\_Q22WQ9 K T L P R R F Y K E A A V S C V D G L W R I V L D D R P P V R T P S K N L L  
UniRef90\_UPI00037C8752 T S A L Q K R F W K N V A V A Q E T D G G L Q I M L D S R P P V R T A T K E V L  
UniRef90\_M3DAA4 L A K R F W K D V S V Q E G N G G L Q V F L D H R P V R M P N K Q T L  
UniRef90\_B2WKK8 S A L R K R F W K N V D V K K P E E Y Q V L L D T R P I R T P T K D I L L  
UniRef90\_A0A017SB47 P K R F Y T D V T A E P A E G G W Q I L L D G R S V K T P S G R A L L  
UniRef90\_Q0C3G5 K R F Y K D V K I E M A F G Q W L V K L D G K T V K T P S K N E L  
UniRef90\_A0CSS1 R R F W K D V H V K E V A D G H Q V L L D S R P I R T P E K K I L I  
UniRef90\_C1HC34 M A K K A A K R F Y K N V S T A E E G G W L I Q L D G R T L R T S P G K L T L  
UniRef90\_UPI0003FA167B A D G T A P R F Y K R V D A R E R D G T W R V E L D A R A L R K T P K R N E Y  
UniRef90\_A4S7W8 M S Q T I K R F W K A V E V A A Y D G Q F A V M L D G R P F R L P G G N M L  
UniRef90\_V8AAS3  
UniRef90\_UPI0003AF8F97  
UniRef90\_U2YUI3 R R F W K A V S V E P D G Q G W A V R L D G K M P K S P A G H S L  
UniRef90\_Q00UT4 R A D G T A P K F Y E E V S V R R D D G T W R V T L D E R L L R T P R R N E Y  
UniRef90\_S3EA28 R F W K D V H V K E V E G G L Q I H L D T R P L R R P N K N E L  
UniRef90\_V5H9R3 A K R K R F F K N V G I V K S E G K F E V C L D Q R K L K T P L G N H F  
UniRef90\_UPI00041957AF S S G L K K R F W T E A S V T E D M G E F G V A L D D G R P V L R T P L G G T P L  
UniRef90\_C4WTB3 K F Y K T S I T E N S D S Y Q V L L D S S K L K T P L G K T E L  
UniRef90\_G6EZB0 K S R R F W D S V R I T H D D G G Y Q I L L D E R P V K L P K K T L L  
UniRef90\_Q2ND83 M K K F W K E V S V E Q V D D G G Y Q V A L D G R G I R T R Q G K R P Q  
UniRef90\_K1WPZ2 K T K R F W K E V H V K G A D E G L Q I H L D T R P L R R P S K T L L  
UniRef90\_V4M200 R P K R F W K E V T V T Q G L G I A L D G R P V K T P S G A H L  
UniRef90\_A8Q3G8 R A E K T M E R F W K D V F L G Y E D E H F V V Q L D R R N L R T P Q G A K L  
UniRef90\_Q9UT16 Q P S F R R F W K N T A T K I Q N G E V L I Q L D G R N L K S P S G K I V  
UniRef90\_H6C055 R T S P L K K R F W K D V H V K E V P E G Y Q V H L D S R P V R T P A K T I L  
UniRef90\_A0A023F7S9  
UniRef90\_K8EIH1 D G T V T K Y E N V D I R E V Q N Q Y E I L L D G K P V L R T P K G N V M  
UniRef90\_M3ALU1 S A L Q K R F W K N V S V I M E N E H G L Q V M L D G R S P V R T P A T R Q A Q F  
UniRef90\_W9BWZ2 M K R F Y K T V T T E P V E A G H A L L L D D G R S V V R T P L R A P L  
UniRef90\_F2SUB9 A S P L R K R F W K D V H V K E A A G G H Q I Y L D S R P P V R T P E K K I L L  
UniRef90\_N9UQG0 M K R F W R T A T V P Q D G G R G I A L D D G R P V R T P A R A P L  
UniRef90\_L1QL11 S E E R I K R F W K S A G V E A R D G G W I V L L D G R A P K T P A G N S I  
UniRef90\_W3WVF5 P L R K R F W K D V T V A E K D D G A L E V H L D T R P L R H P T K K I L I  
UniRef90\_W1QG89 E Q T L T K F W K V D L A R E K D D G Y H I L L D G K S I K T P L G K F Q L  
UniRef90\_K0VW35 Q M K K P L P K R F Y T E V G L A E H E G G F A I T L D G K M V R T P A R Q V L  
UniRef90\_G9ZV57 M K R F W D T A T P A P E E G G F T V L L D G R P V L R L P G G G P L  
UniRef90\_M1ZJ14 L A K R F W K D V H V K E A D G G L Q V F L D H R P V R M A N K Q I L  
UniRef90\_F0ZRK7 S D G T S L R W Y K T T G Y T Y D E G G Y L P T I D D R R I K T P N D I L V  
UniRef90\_UPI0002260652 M S E K K R K R F W T Q A S V E P S D N G F A V L L D G K P V R L P G R E I L  
UniRef90\_UPI0004766741 S G L M A K R F Y K T V T V S P A A N G Y G I F L D A R E L K T P G R K A M  
UniRef90\_J2H0F8 R P R R F Y K A T T A P H E G G F A V L L D G R T P K S P A K A P L  
UniRef90\_W610N5 M K R F W K E A A V V Q E A A G L A V T L D G R P M R L P G G V S L L  
UniRef90\_C7YMZ6 S G P L R K R F W K D V A V K E D G S L Q V F L D T R P L R H P S K E I V  
UniRef90\_C4R2T3 N R L E K T L Q T F W E K V D V A K E K D G F H V R L D G K S L K T P L G N Q L  
UniRef90\_E8RTF9 A K P K R F W K T V E I K A D G P G Y G V T L D G R A V K T P K G A T L  
UniRef90\_W7E6J5 M S E L K L R R F W E T V S L V H N D N M G Y Q I L L D K R P V K L P K K T E L  
UniRef90\_F4Q6B2 D G T T L K W Y K H V T Y D Q E K G G Y V P T L D N R A M K T P C G N H F  
UniRef90\_V4P731 R P K R F W K T V A V T E I T G G Y T V S L D G R A V K T P P K G E A L  
UniRef90\_Q6CXR0 N R L S K T L T K F W E Q V S L E E T P E N V T I K L D S K P L R T P L G N P L  
UniRef90\_W6MGF4 N R L E K T L T K F W E K V D V T E D S E G I H V Q L D G K T L R T P L G N R L  
UniRef90\_G0RGD0 S E T V A R R F W K E V T V R E V D G A L Q V H L D A R P L R H P T K A I L I  
UniRef90\_C5DKF4 N R A S K T L Q K R F W K D V S V K E C D T H L T V M L D N K P L R T P L G N A L  
UniRef90\_S7ZKS1 S P L K K R F W K D V H V H G K T G E Y Q V L L D K R P V R T P N K D I L L  
UniRef90\_B4R912 K P R R F Y K D V S V G E D A A G F A V L L D G R A L R T P K G Q P F  
UniRef90\_K5YKF1 M K R F W T L A A P L P Q D G G F R V Q L L D K R L V K M P S G A P L  
UniRef90\_M4S3T1 M A D A E A K R F Y K E V A A A A E P G G G F A I R L D G R P V K T P A R N P L  
UniRef90\_W1JHM7 P L R K R F Y K A A G V I A D A E G G F A I T L D G K T P S R G Q V  
UniRef90\_K0KL99 N R L S K T L T K F W S Q V S I E S N E N H H A I K L D N K T I R T P L G N F L  
UniRef90\_E3Q6X0 A L K R R F W N D V N V Q E V D G A L Q V H L D N R P L R H P T K E I M  
UniRef90\_M1WBPS T T T L R K R F W K E V T V S E V D G A F Q I C L D N R P L R H P T K E I I  
UniRef90\_Q7SHX7 R R F W K S V H V A T K N D M N E I H L D S R P L R R R P K S I I  
UniRef90\_N4W0F3 T T G L K R R F W G D V R V E E V D G S L Q I F L D A R P L R H P T K S I V  
UniRef90\_B5ZD53 A R K R F W D Q A T V E T L P D G G F A V L L D G R T V R L P G G T A L  
UniRef90\_V4RRK6 R P K R F W G T A V E T L E G G I G V A L D G R P V K T P K G K L L  
UniRef90\_G0RZZ7 R G K T V R K R F W K D V H V R E V N G A Y E I H L D T R P L R H P T K S V I

UniRef90\_UPI00042CE458 T V P S E A L A A A I A T E W D S Q Q Q I K M Y T M H L T T L C N T S L D N P  
UniRef90\_UPI0003B61B05 A V P S T A K L A A A A I A E E W R S A V G Q D E T I L D P R A M P L L T G L L A N A S L D R V  
UniRef90\_A1D9C4 S A L P L T D A L A H A I A A L E W D S A Q Q A L R K D P H R L I P L L T T G L L A N A A A G D I A  
UniRef90\_UPI0003683B16 A V P S T D A L A H A I A A L E W D S A Q Q A L R K D P H R L I P L L T T G L L A N A A A G D I A  
UniRef90\_A0BMW6 A V P S P Q L A S F I A H E F N M Q T E Y I L R P T T M P L L L T L L A R N A I D I E  
UniRef90\_G21W2 V V Q S E A K L A E A I A A G E W A A A Q G G A H F T P D D D L P M T T R I L L A R A M I E R V  
UniRef90\_B6QV24 T V P S T K L A E A I A S L E W D S A Q Q A L K N H L I P L L T T S L L A S R A A D I A  
UniRef90\_A1CFZ3 S I P S T K L A N A I A S L E W D S A Q Q A L K N H L I P L L T T S L L A S R A A D I A  
UniRef90\_A0A059G1P0 Y L P P T E R L A H A I A A L E W Q S A Q E A N I L D L L A M H L L T T S L L A A R A A I D V  
UniRef90\_B8NJ45 Y I P P T K L A H A I A A L E W D S A Q Q A L K N H M I P L L T T S L L A A R A A I D V  
UniRef90\_D3AZW0 I V P T K E I A M A I A T E W M V Q Q K Y I M P H H R L P L L T T S V L A A T C I D M N  
UniRef90\_C8VH85 S I P S T K L A Q A L A L E W D A A Q Q A L K N D L L K T L L T T S L L A A R A A D I A  
UniRef90\_UPI00036AEC02 I F T D Y R I S Y E T S L E W D I N S Q D K L D T D E M V F F G I L T F S T A A D I D R M  
UniRef90\_L8FY87 S V A H T K L A H A I A L E W D S A Q Q A L R K H H L I P L L T T S L L T S R A V I D I A  
UniRef90\_M2N0P8 L L T P H R A L A A C I A L E W D A A A Q Q A L R K S H H Y I P L L T T G I L T A S R A V E I E  
UniRef90\_C7JBV4 C V L T S R A L A D A L A A E W Q A A G Q R F S P A D L P L L T T G I L T S G S M I E I  
UniRef90\_W7TPZ3 R L P S T E G L A L A I A L E W D Q A Q Y K G V E S P T Y M P L L T T G I L T A T I A L D E I  
UniRef90\_W6QHV4 T I P S T A K L A H A I A L E W D S A Q Q A L K P H L I P L L T T S L L A A R A T D I A  
UniRef90\_A8IAK5 A V P S A A L A A A L A E E W A A Q G V E I I K D P F T M P L L T R L L V N V A L D G V  
UniRef90\_Q54CV4 I T P S K E I A Y A V A A E W R A Q E K Y I K P S R L P L I T Q T I I S C L D V R  
UniRef90\_UPI00041233DE V L P S S K L A D A V A N E W A A Q G D D V V P A T M P L M Q R L A A T A I D D R V  
UniRef90\_K2MME1 L L P P T R V A A E L V A N E Y A G Q A G V I D P A T M P L V T R L V N T A I D D G V  
UniRef90\_UPI0004728C4D L I G S S R A L A E A I A D E W R A P D A A F R T S A E L P L T T Q M A G T Q I E R I  
UniRef90\_U4LDZ5 L I P S S K L A Q A I A V E W S N L R D A A A Q S Y H R T P L L T M M A S S R A I D M A  
UniRef90\_R1BGD2 E L P T E A M A W A V A M E W Q A Q G K F L E Q P Y T M P L L T M K M A T T A I D D Q V  
UniRef90\_D9QGQ1 V L P S T E A A A R L V A D E W A A Q G E F F L E P Y G T M P A T T R L L A T A I D D R V  
UniRef90\_E4UZ5 T V P S S K L A H A I A L E W D T A Q E H A T K Y P A T M P L L T T S I L G R A E I A  
UniRef90\_Q22WQ9 A L P S T Y E L A F A I A H E F N M Q N E Y L K P A T M P L L T S I L S R T T E M D I Q  
UniRef90\_UPI00037C8752 A T Q Y Q S L A E Q I A E E W A A Q G D L I D P S T M P L L T R L L N I S I D N T E  
UniRef90\_M3DAA4 T V P K R A L A A A I A I E W D S A Q Q A L K N D Y I P L L T S L L T S R A L D I E  
UniRef90\_B2WKK8 T L P S S K L A T A I A L E W D S A Q Q A L K N D Y I P L L T S L L T S R A L D I E  
UniRef90\_A0A017SB47 S I P P T K L A H A I A L E W D S A Q Q A L K H H M I P L L T R L L T A R G A D I A  
UniRef90\_Q0C3G5 R L P P T E A L A Q E V A E E W A E Q A T F I H L I G M H L L T R L L A N R A A D R T E  
UniRef90\_A0CSS1 S I P P T P Q L A Q R I A D E F S A Q A T M P L L M T A T M P L L M T A L L A R A Q D I A  
UniRef90\_C1HC34 T I P K P H L A H A I A L E W D S S H Q A L K H H L I P L L T A L L T A R A Q D I A  
UniRef90\_UPI0003FA167B L V P T E K C A K R L A A E W D A Q G D E Y I K P E T M P L V T R L L N V A I V E Q T  
UniRef90\_A4S7W8 A F A T E G L A K R A I A A E W D A Q G E R I A P E F T M P L L T S L S A T A I E H M  
UniRef90\_V8AAS3 T T S S A R L A D A I A A E W R A E G E A F R T A D L P L M T Q M A G T E I E R V  
UniRef90\_UPI0003AF8F97 V L P T K G A A Q L V A E E W A G Q Q D V L I P A T M P L A T T L L C N T S L D N P  
UniRef90\_U2YUI3 T F G T K A L A V A I A M E W D A Q T D A H V A P F T M P A T T Q L L A F T A I D R V  
UniRef90\_Q00UT4 T I P K S K L A T A I A L E W D S A Q Q A L R K H H L I P L L T T S L L S A T A I D H M  
UniRef90\_S3EA28 T V P K S K L A T A I A L E W D A A Q Q L R K H H L I P L L T T S L L S A T A I D H M  
UniRef90\_V5H9R3 R V S S R A L A E A L A E E W D D V E R R F G Q L D D L P L L T T R I L T G T M I E R V  
UniRef90\_UPI00041957AF I N N K L A L A I A A E E W E M K K E H F K T D P M H L L T K L C V G T A V D N P  
UniRef90\_G6EZB0 Y V Q S E S L A K K I A A E W E K A G E K F S F D L L P L L T R I L V L G T M I E K I  
UniRef90\_Q2ND83 I V Q T A A L A E L L A D E W R A Q G K D I D P A S F P H R D M A D Y A I D R I  
UniRef90\_K1WPZ2 T I P K P L A T A I A L E W D S A Q Q A L Q Q H L I P L L T S L L V S R A L D I A  
UniRef90\_V4MZ00 V L P V H A L A H P V A E E W A A V G E H V P Q S T A L K N H N I P L L T S I V A R A Q D I S  
UniRef90\_A8Q3G8 A I P A D R L A C L I A Q E W D E Q T K V V K P H S L P L L T S L L M S R A I D A L  
UniRef90\_Q9UT16 K V P K E L A H L I A L E W D R L P S T A L K N H N I P L L T S I V A R A Q D I S  
UniRef90\_H6C055 T V P R S K L A H A I A L E W D S A Q Q A L K N H N I P L L T S I V A R A Q D I S  
UniRef90\_A0A023F7S9 K L D N E T L A L M V A T E W E S Q K E E I Q L S S M H M T A L L C N T A L E N P  
UniRef90\_K8EIH1 I L P N K L L A S A I A T E W A T Q E D L I R P F T M P L M Q L L T S S T A I D H M  
UniRef90\_M3ALU1 T L P K R A L A S A I A L E W D S A Q Q A L K Q H Y I P L L T S L L T S R A I D I E  
UniRef90\_W9BWZ2 I L P T A A L A E A V A A E W H A Q G E E I V T A S M P L L T G F A N A A I D Q V  
UniRef90\_F2SUB9 T V P S S K L A H A I A L E W D T A Q H A T K Y H L I P L L T T G I T G R A E D I A  
UniRef90\_N9UQG0 V V P S E E L A E A I A A E W N A Q G S D I D P A A M P L L T S G I T A N A A I D L A  
UniRef90\_L1QL11 V L P T E A A A R L V A E E W N D Q G G H L L A P A T M P A T T R L L A S T A I D R V  
UniRef90\_W3WVF5 R L P V S K L A G A L A H E W K S L V P Q Q A S K Q H L I P L L T S L I C R A V D I G E  
UniRef90\_W1QG89 T V P K N K L A Y L L A H E W K H L V P Q S L I K P Y L V P L L T S L L V S R C I D L E  
UniRef90\_K0VW35 A V P T A A L A R L V A A E W E A Q A E V I D P V T M P L V T R L V N T A I D D G T  
UniRef90\_G9ZV57 H L P T Q L P L A E A I A E E W R A K G Q A L K M E M V P L L T R V L A G T A I D R V  
UniRef90\_M1ZJ14 T V P K Q Q L A T A I A L E W D S A Q Q A L K A D Y I P L L T S L L A A R A I D I E  
UniRef90\_F0ZRK7 V V P S K E I A L S I A A E W A A Q E K Y I R P A R L P L I T Q T I I T C L E I R  
UniRef90\_UPI0002260652 Q V Q S Q A L A E A L A A E W A A Q G K R F A A D D L L T R L L A G T M I E R V  
UniRef90\_UPI0004766741 H L Q S Q A L A Q L V A D E W D A Q E R E I N P E T M P L V T R L L N V A I E R T  
UniRef90\_J2H0F8 V L P T Q A L A Q L V A D E W E A Q V E V I D S T A M P A T T R L L A F T A I D R I  
UniRef90\_W610N5 R F A N R A L A E A I A L E W G A P G E P F S F D M V P L L T S L L A G T A Q E R V  
UniRef90\_C7YMZ6 C L P M S K L A S A L A V E W D S A Q D A T R H L I P L L T S L L T C R A L D I I  
UniRef90\_C4R2T3 V I P S A K L A Y M V C N E W K N L S N L V K P H S V P L L T S L L S T R A I D L G  
UniRef90\_E8RTF9 V L P N F A L A A L V G R E W A V E E T V D F F T A M P L L T R L L G F A A I D H M  
UniRef90\_W7E6J5 F V Q N H V L A E K I A E E W A K K G D T F S F D D L P L L T Q I L T G T M I E K V  
UniRef90\_F4Q6B2 V L P T K E I A M A V A A E W H T Q T T Y I K P S R L P L S S A L A T C V D L T  
UniRef90\_V4P731 V L P N D T V A R R V E A E W A A Q G D H V I F S E M P L L T R L L G F A A V D R M  
UniRef90\_Q6CXR0 T L P Q S R L S V M V L N E W S N L V S V K P Y V L P L L T S L L V S R C I D K I  
UniRef90\_W6MGF4 I L P K A P L A H L I A H E W K N Q T L T I K P Y T V P L L T S V L A A R A V D L V  
UniRef90\_G0RGD0 R L P K P N L A S A L A L E W D S A Q Q A T K Q H S L P L L T S I V S R A L D I A  
UniRef90\_C5DKF4 S V S K D R L A L S A L Q N E W S S M S A T K P H S L P L L T S I V S R C I D K I  
UniRef90\_S7ZKS1 S L P P T K L A H A I A L E W D S A Q H A L K S H L I P L L T S L L A A R A A D I V  
UniRef90\_B4R912 R A P S R E I A E Q V A E E W A A Q G E T L E L A T M H A T R L L A N T A L E S I  
UniRef90\_K5YKF1 T V A S L K L A E A I A Q E W N R T G A E F T P D D L P L L T Q M V C A Q E R V  
UniRef90\_M4S3T1 L L P S G A E L A E A I A A E W A A Q G E T I D P R S M P L L T G L A N A A I D R V  
UniRef90\_W1JHM7 V I P S R E L A D A V A S E W A A Q G S I I D P V T M P L L T T R I L A N S V I D E G V  
UniRef90\_K0KL99 E I P T N R L A H L I H H E W S S L K N L K T H N L P L L T S L L T C R A I D I A  
UniRef90\_E3Q6X0 R L P K Q H L A S A L A I E W D S A Q Q A T K Q H M I P L L T S L L T C R A I D I A  
UniRef90\_M1WBPS S L P K P L A F A I A L E W D S A Q T S T K H H L I P L L T S L L V S R A L D I A  
UniRef90\_Q7SHX7 R L P K P S L A S A I A I E W D S A Q Q A T K Q H H L I P L L T S L L V C R A L D I P  
UniRef90\_N4W0F3 R I P K H H L A S A I A I E W D S A T Q A T K Q H L I P L L T S L L V C R A L D I P  
UniRef90\_B5ZD53 C V R S A A L A T A R I A A E W A A A G G V F T P A D L P L L T R L L A G T M L E R I  
UniRef90\_V4RRK6 V L P N A D L S Q R I A A E W S A V G E Y V D Y E A M P L L T R L L A G F A S V D R M  
UniRef90\_G0RZZ7 R L P K P N L A H S L A V E W D S A Q H A T K Q H L I P L L T A L L T C R A L D I A



UniRef90\_UPI00042CE458  
UniRef90\_UPI0003B61B05  
UniRef90\_A1D9C4  
UniRef90\_UPI0003683B16  
UniRef90\_A0BMW6  
UniRef90\_G211W2  
UniRef90\_B6QV24  
UniRef90\_A1CFZ3  
UniRef90\_A0A059G1P0  
UniRef90\_B8NJ45  
UniRef90\_D3AZW0  
UniRef90\_C8VH85  
UniRef90\_UPI00036AEC02  
UniRef90\_L8FY87  
UniRef90\_M2N0P8  
UniRef90\_C7JBV4  
UniRef90\_W7TPZ3  
UniRef90\_W6QHV4  
UniRef90\_A8IAK5  
UniRef90\_Q54CV4  
UniRef90\_UPI00041233DE  
UniRef90\_K2MME1  
UniRef90\_UPI0004728C4D  
UniRef90\_U4LDZ5  
UniRef90\_R1BGD2  
UniRef90\_D9QGQ1  
UniRef90\_E4UZ5  
UniRef90\_Q22WQ9  
UniRef90\_UPI00037C8752  
UniRef90\_M3DAA4  
UniRef90\_B2WKK8  
UniRef90\_A0A017SB47  
UniRef90\_Q0C3G5  
UniRef90\_A0CSS1  
UniRef90\_C1HC34  
UniRef90\_UPI0003FA167B  
UniRef90\_A4S7W8  
UniRef90\_V8AAS3  
UniRef90\_UPI0003AF8F97  
UniRef90\_U2YUJ3  
UniRef90\_Q00UT4  
UniRef90\_S3EA28  
UniRef90\_V5H9R3  
UniRef90\_UPI00041957AF  
UniRef90\_C4WTB3  
UniRef90\_G6EZB0  
UniRef90\_Q2ND83  
UniRef90\_K1WPZ2  
UniRef90\_V4MZ00  
UniRef90\_A8Q3G8  
UniRef90\_Q9UT16  
UniRef90\_H6C055  
UniRef90\_A0A023F7S9  
UniRef90\_K8EIH1  
UniRef90\_M3ALU1  
UniRef90\_W9BWZ2  
UniRef90\_F2SUB9  
UniRef90\_N9UQG0  
UniRef90\_L1QL11  
UniRef90\_W3WVF5  
UniRef90\_W1QG89  
UniRef90\_K0VW35  
UniRef90\_G9ZV57  
UniRef90\_M1ZJ14  
UniRef90\_F0ZRK7  
UniRef90\_UPI0002260652  
UniRef90\_UPI0004766741  
UniRef90\_J2H0F8  
UniRef90\_W610N5  
UniRef90\_C7YMZ6  
UniRef90\_C4R2T3  
UniRef90\_E8RTF9  
UniRef90\_W7E6J5  
UniRef90\_F4Q6B2  
UniRef90\_V4P731  
UniRef90\_Q6CXR0  
UniRef90\_W6MGF4  
UniRef90\_G0RGD0  
UniRef90\_C5DKF4  
UniRef90\_S7ZKS1  
UniRef90\_B4R912  
UniRef90\_K5YK11  
UniRef90\_M4S3T1  
UniRef90\_W1JHM7  
UniRef90\_K0KL99  
UniRef90\_E3Q6X0  
UniRef90\_M1WBP5  
UniRef90\_Q7SHX7  
UniRef90\_N4W0F3  
UniRef90\_B5ZD53  
UniRef90\_V4RRK6  
UniRef90\_G0RZZ7

90 100 110 120  
T Q D K D Q L T R A A V K F L D T D T V C Y R V E P E T L V E L Q R N E W D P  
A A I P G D F A A G L V R Y A E N D L L L C Y R A D G P E T S P L I A R Q R A A W D P  
Q E D R D Q I V K L A M R Y L D T D T L L C W V P E P E D S L R A R Q Q A V A K W D P  
A A D P A F A A G L A A Y G A T D L L L Y Y R A E S P E S D D L L A R A Q Q A A W D P  
A D D R Q M F M E Q S I I S Y L E R D T V L F R E N D Y E P E T K L Y K I Q K E K L D P P  
A P D P M A Q V A L L Q Y V D E G E L L C Y R A D Y E P A T Q L C A R Q Q H L W D E P  
R E D R D Q E I A R T A M R Y L E S T D T L L C W A P E P E E S L R E A Q V R V A K D P  
Q E D R D Q I V N V A M R Y L E S T D T L L C W V P E E E S L R E A Q V R V A K D P  
G E T R E E M A D E L A M R Y C E T D T L L C H I A D T P E S D E S L A E A E E N H W A K D  
R E D R D Q I V K T A M R Y L E T D T L L C W V P E P E S L R E A Q Q M R V A K N D P  
P E S R Q K C I D E L T G H L A T D Q V L C N R D S D E T E T Q L K K L Q M R A F D D D  
Q E D R T Q I V K T A M R Y L E T D T L L C W V P E P E E Q E T L R E A Q Q M R V A K D P  
V N D R V L Y I N E I M K F V D T D T L L C Y K A N K P D E L L V E L Q N K H W D P  
E E D R N T I T E T L M R Y L D T D S L L C W A P E T P E S L R S I Q Q R T S L P P  
V A D R D A I V M T L M R Y L G T D T L L C W A P E K K G K L R H R Q R R E V A E P  
P A E R D G V L R S L L A Y A G S D L L L C Y R E Q P E E G K P L A Q A Q M R V A K W D P  
V F S R R H S T I D R C L R Y L A T D T V L C Y C F P E E E E S D L L R R Q Q K T W E P P  
R E D R D Q K I L T A M R Y L D T D T L L C W E P E R E S L R Q I Q A T R I A G N P  
A R N P R Q E V K E I V R Y M G S D L L L Y R A E G P E P E G L V A R Q Q M R V A K W D P  
P E G R F K I I G E F I N H L A T D P I C N R E K N D S K L K K L Q S E L Y E P P  
A P N R E H I V D T V A G Y G G T D L L C C Y R A E A P A S L A E R Q Q A A W Q P P  
A H H A Q P V L E D V L R Y A S S D L L L C C Y R A E A P S P E S L V A R Q Q A L W D P P  
S P D K A Q I I G L M A Y G E S D L L L C Y R A T P G Q L G A E Q D A A F D P P  
A S E R S D S V L N L R T Y L D T D T V L C Y A P T T P E L R E L Q I E A A K P P  
P S I R P Q M A S S M L R T M H T D V V A L R A D A E P E D E L L A A K E A A Y D P P  
S Q T R E P V A D E I A S Y V G S D L L L C Y L A E H P E T N L V A E Q A R D W A P P  
A E D R D D I T R V M L R Y L E T D T L L S W A P E E E K L R E K Q K A A E P P  
E N I R Q H I E D S V N Q F V R N D T I L F R P E E E G K L R G V I Q N E K L N P P  
P G A R E A L A D E L A K Y A E T D L V C H L A E G P K E L R A L Q D A G W R P P  
I A D R E N I V K M A L R Y L A T D T L L C W A P E P E S N K T L R A R Q Q R A V A E T G  
A A D R D N V R N D L L A Y F A T D T L L C W A P E P E K K T L R R Q V Q R A V A T G  
R E D R E Q I V R T T M R Y L D T D T L L C W V P E P E K E S L R D V Q E E R V A K D P  
P E I R E E M A E E V L A R Y C E T D L L C H I A D T P E P F E S L A A L E E A R W R P P  
A D M R E F M E H S I L S Y L E R D T V L F R E Q S H S E L L A Q I Q M Q K L D P P  
L Q D R N E I L K T T M R Y L D T D T L L I W A P E E Q S E S L R D I Q I K T A M P P  
P D N R E A L I A E A R K Y A G T D A L C Y R E S P E V R L Y K A H Q A V K W D P P  
A E T R R V H V I E T L K Y F G T D A T R V R S P D E A T A A R Q A K A H D P P  
R P D R E Q I I G G L S A Y G E N D L L C C Y R A V D G S L G A R E Q D A L F D P P  
T Q D K D Q L R A A V A F L D T D T V L C C Y R V E P E T L V E R Q R N E W D P P  
R E V R E Q V A D E I T A Y A G S D A I C Y L A E T P E D T L V E R Q R A R D W T P P  
R E T R E L H V I E T L L K H F R T D V V R V R S M D E A V A K R Q V E T H A P P  
D D D R D S I T S L L R Y L D T D S L L C W A P E P E K S L R S I Q M E S A A Q P P  
S R K T E E L A A E I L L E F L E S D T L L C Y R M Q E P E E L A A L Q A R S W D P P  
A P D R L H S I R T E I L M E Y G K N D A L L C C Y W T D D E G G A L A E R Q E A E L G P P  
S D L S E D V V Q I L S Y L E T D T V F F I S D D A D N L E A K L I M E K W M P P  
A P A R E T Y I H A L L P Y V N G D L L C C Y H T D D T P K N T L R Q Q E Q W M P P  
A T A A D D I P A K L I G F M E T D T L L C C Y R A D P D E G P L Y K R Q L D M W E P P  
D E D R T G I T T S L M R Y L D T D S L L C W A P E A E G L L R S I Q K R H A V P P  
P D I R D E I V T E V L R Y A E T D L I C C Y P S E Y P A E S L I A R E A Q A W D P P  
Q D E H K D V Q D Y L M R Y F D T D A V C F H D S E T P A R L V R L Q E E R W T P P  
Q E E K E L L S T Q L T R Y L D T D T L L Y S P E T E K L L E E Q K E N A W T P P  
T A I R E E L I T V M M R Y L D T D T L L C W A P E H E T H R Q I Q I K T A T P P  
N N V K E E A V D K L V D Y L E T D T V L Y H S H S E S D V F A L Q Q Q E W D P P  
S D T F D F H V K K L L E F F D A D Q A V V A H P S G S E L R R E I Q L K T L K P P  
T A D R E N L V K M A M R Y L S T D T L L C W A P E P E Q N P L R E Q R Q K N M A E P P  
V P N R Q R F I D D I V A Y G E T D T L L C C Y R A D P G D P L A E R Q Q D R D W E P P  
A E D A K G V T T L R D E I T R V M L R K N Q T T S D E A A K R S A R A H C G R P  
T G D R A A F A E T I A A Y A Q T D L L C C Y R D D R D A A L Q G E R Q A A W N P P  
S Q T R G P V A E E I A A R Y A G S D V L L C C Y L A E T P S G L M E R Q Q T Q W G P P  
E D D R Q G I V K M V M R Y L D T D S L L C W A P P P E S L R D I Q K R T S E E P P  
Q S D K E N L K A L L R Y L D T D T L L V F S D P C D G K L R E A Q E Q T Y R P P  
V S N T Q A I F E D I L R F S S S D L L C C Y R A D G G P E R L V E R Q A E R W D P P  
A S N P Q S I D A I A E Y G E T D L L C C Y R G E D S R L A A A Q A E W Q P P  
T A D R D D I L N L M R V F T T D T L L C W A P E T K T L R E Q Q E A D V A T K P  
P E G R E K V I G E F L N H L A T D P T C N R E M Y D S K L Q K L Q K E F F D P P  
T P D R Q H S V D T L A G Y G E H D L L C C Y R A E A A D P L S A R Q Q A L W Q P P  
A H N R D S L Y A E V A K Y L G T D L L C C Y R A V A P A E L R K N Q A A F D D D  
R E T R A E V A A E V A A Y A G S D L L C C Y R A D D G G E S L T T R Q E R L W Q P P  
S E V R N A I S T L L R Y L D T D S I L C W A D A G G E S L R D V Q K R I A E D P P  
I S H I E D I K T D L L R Y L D T D T V L T F S D C D G K L R R A Q E E M Y R P P  
D S G L E A A L A E A A R F A E T D L V C C Y P S D Y P Q K A L I A R E Q Q A A W G P P  
A P D R Q I Y I Q A E L P Y V N G D L L C C Y H A E T P Q K L I V Q Q Q E K W I P P  
P E Q R L K S I T E I V G H L K T D P V C C N R A D E T S S K M R K L Q D E K L D P P  
G E V L D D T L V E V T R Y S E T D L V C C Y P A E Y P Q A L V T R E D A A W K P P  
G N R E K L T E G L R Y L D T D T L L V F S P A N E A L R K A Q Q D E L Y R P P  
A A K M D V K E S L L R Y L D T D T L L V F S P H H E K L R S A Q E E L Y R P P  
A K I R T A I T N S L L R Y L D T D S L L C R A W A D A G E S L R D V Q K E A A E P P  
G G D R S V I S E S L L R Y L D T D T L M C C R A E A Y E G A L R A A Q Q D E L Y E P P  
R E D R D Q I V I T T A M R Y L E T D T L L C C W E P E R E T L R Q I Q M R V A K D P  
S Q N R E A V A G Q V A Y A A S D L V C C Y F A E G P E A L V S R Q V A A W G P P  
A L H R E E L I R Q L A A Y G L N D L L C C Y R A E G P P E A L A A R Q Q H A Q W D P P  
A P D P A R F A A D I A V Y G E T D L L C C Y R A D E P A E L A A R Q A A A W D P P  
V D R V E L V S D D L A K Y F E T D L L F Y R A G H P E G L V A R E A A H W D P P  
H A N R E D I J E D L L R Y F D T D T L L P Q A E Y E G K L R S K Q E E L Y R P P  
E D D R Q S I A T T L M R Y L D T D S L L C W A D A G E S L R D V Q K R T A E E P P  
A S D R D Q I T T V M R Y L D T D S L L C W A D A G E S L R D V Q K R T A E S P P  
D Q D R N A I A T V L R Y L D T D S L L C W A P A P E T L R E V Q K E A Y S S P P  
A S I R T Q V A T V M R Y L D T D S L L C W A P P P E S L R D V Q K R T A E T P P  
A P D R S A T V A V L A G Y A G G D L L C C Y R V R P A L L V E R Q R Q E W D P P  
G E V L D D T L A E V T R Y S E T D L L C C Y P A E Y P A A L Q A R E A A V W Q P P  
A D D R P Q V I S L L R Y L D T D S L L C W V P R P G A L H D L Q E Q T Y Q R

	130	140	150	160
UniRef90_UPI00042CE458	V I S W A E K R Y G V E L G S S T S I	T G P S P A R T R E V L V S H L A S Y N		
UniRef90_UPI0003B61B05	L L D W A S R R Y D V H F T I V A S I	M H R P Q P P A T T I A R L A E A V A S S R D		
UniRef90_A1D9C4	W I A F L G T R Y D V F I E L D A D A S I	L P V S Q P P R A T T K D I I K G E A V V A S L L R D		
UniRef90_UPI0003683B16	L L D W A R T R K R Y D V H F E P T A G I	I H R A P P P R A T T L T R L I K G E A V V A T L L R D		
UniRef90_A0BMW6	Q L K I F N E K F G L H L K T N F G L	N I E P L K Q Y D Q I R L E T T I V S A E L L N D		
UniRef90_G211W2	Q L A W L R A R H G I D M T V T G I	M P L V Q A E K V H A A W R S L V A A Q D P		
UniRef90_B6QV24	I I N F L T R T I W P V L D D E N S I	I P M S Q D E K T L E T I W R S W I S A L Q D		
UniRef90_A1CFZ3	I I A F L S T K V W V P I L D D T N S I	L P V S Q P P Q A T T K D I I K Q W V A S L H		
UniRef90_A0A059G1P0	V R D W A G D T L G V N L V P V I S E S I	V A S P Q T D S S L E A A R D H A L L D Q		
UniRef90_B8NJ45	V I S F L S T M V W P I L L D V S E S I	L P V S Q T Q A T N D I I K Q W I F S L Q		
UniRef90_D3AZW0	L L H W S S D Y Y G K P F Y L S F D L	D L S R H P P S L L K T I R E H L E S M N		
UniRef90_C8VH85	V I A F L S T K V W V P I L D D G N S I	F P A S Q S Q A T K D I I R Q W V E G L E		
UniRef90_UPI00036AEC02	L L L I I K N Y I G E E I Q V F T G I	P P G R Q N K Q V H N K I K K L I H K F S		
UniRef90_L8FY87	I I Q Y L T E R V W V P V L D E G S I	M P N A Q P P Q Q T L D V I K G W I M G L P		
UniRef90_M2N0P8	L I A Y L T A H L G V P I L D E Q S I	M P T P Q P E E T R Q I I R G W V S G L L		
UniRef90_C7JBV4	W I S F L S T K Y G A L I H T S C G V M	P I V Q P P E E S L Q K L I Y D A M E K L L N		
UniRef90_W7TPZ3	L L G W L R D E F G V H I K P A H M L	D V C H N S P E T L Q K V R I M L Q E M D S		
UniRef90_W6QHV4	V M S F L S T K V W P I L L D A N S I	L P L A Q P P K G T K D S I G A T W V S G L S		
UniRef90_A8IAK5	V L A W L D R A H D A R F F L A E G I	R H V E Q P A D M V A R V A A L V I G T D D		
UniRef90_Q54CV4	I L Q F A N E Y Y G I P F S I L S T H L	S I S K H P K E L L D K I E R H L H S M N		
UniRef90_UPI00041233DE	L L D W A M T A L D A P L T A T A S G I	V H Q A Q P D S S L A A L R A A V A A Q S D		
UniRef90_K2MME1	L L D W A Q M A M G A H F V L A E G I	V H V E Q P R A A I L S A H L R A Q R S		
UniRef90_UPI0004728C4D	V L V L F E A R Y G I R P P V T R S I	L P L G D G L K V S E A Y A L L S R F D		
UniRef90_U4LDZ5	L L Q W P G L E I W A V D G D E V G I	V G K G Q P P A T R E T L L A W M R G L D		
UniRef90_R1BGD2	L I S W L A D A E G V Q L N A T S S I	V P P A A A A A A A R V L G A A		
UniRef90_D9QGQ1	W R H W A G A E L G V H V E A T Q S G I	I H R P Q P P P E T L A R V K T L A L E L D		
UniRef90_E4UZ5	I I S A L A V W P G V E L K P T D S I	M P L P Q P P Q Q T I D F I R G W L S S L S		
UniRef90_Q22WQ9	V I E Y V N K L M N I K L Q P T D S I	F S R E L E D I E I Q N I Q K Y I A S K D		
UniRef90_UPI00037C8752	W R E W A G K A L D I V L V P V I E G I	I A S P Q P P D A S L A A A H A H A T S L D		
UniRef90_M3DAA4	I I A F L T T H I V V P V L S E D S I	M P L P Q P P E M T T Q V I S G W L A G L S		
UniRef90_B2WKK8	I I A Y L Q T N V G V E I K P T E T I	I P V E Q P E L T Q Q V I R G W C A R L P		
UniRef90_A0A017SB47	V I A Y L S T K V W P P I L D E S S I	I P A S Q P P Q A T T K D I I K T W I Y N L Q		
UniRef90_Q0C3G5	Q L D W A G E K L G V L M T T E G I	I A A P Q P G A S L Q A A R D Y A L G L D N		
UniRef90_A0CSS1	V L K L F N K Q F G M H L K A N F G I	D V E P L K Q Y D Q I R I E T I L K E L N		
UniRef90_C1HC34	I I N F L T E K V W P G I E I A D S I	M P T P Q P Q I T K N V I R G W I Y G L P		
UniRef90_UPI0003FA167B	V L A W A E Q G V A L K T T E S I	I A E Q D K Q A L N S I A D F A R S L		
UniRef90_A4S7W8	I V A W A E R F G P V E T S D S I	F G P G T S E K T V E V L R R R L H A M C		
UniRef90_V8AAS3	V L A L F G S R H G V L P Q V T R S I	L P L S I A P E L Q K A Y G A L E R M D		
UniRef90_UPI0003AF8F97	V I S W A E R R Y G V E I G S S T S I	T G P S P A R T R E V M V S H L A S Y N		
UniRef90_U2YUJ3	W R D W A E R D L G C V L V P V A G I	V H R S Q A E E A L A A V R S Q A L A L D		
UniRef90_Q00UT4	I L K W A E K E F G E V E V S D S I	F G P E T S D K T L E V L R K R L N A M C		
UniRef90_S3EA28	V I Q Y L T E R H G V K I V P A E S I	F P R P Q E E G T R A V I A G W M A G L P		
UniRef90_V5H9R3	L L R W F E E R H G V K I D T W S D I	A S S L P Q E T S G A L L R H M L S Y S		
UniRef90_UPI00041957AF	W L T W S A T R L G A D L T K T T G L	M P V T Q P P E A L G R L E A T L I A T S		
UniRef90_C4WVB3	L I Q K F N G Y F D T N L K P S K G I	Y V E S L D A E T K A L V E K Y F L S L G N		
UniRef90_G6EZB0	L V Q W T E E R F N I K L K I Q H G I	M P I T Q T A E V I A F V K E Y L S N L N		
UniRef90_Q2ND83	L V T A F E M R E D I R V E R A S G I	I H K P Q P P E S L A K L R A R I D A L D		
UniRef90_K1WPZ2	I I S Y L T E K V W E I L D E D S I	M P K E Q P P R M T R D V I R G W V M G L P		
UniRef90_V4MZ00	L L W A S E E L D L V F Y Q N L T L	T H Q A Q P P A Q T T D R L R A L V L A M T		
UniRef90_A8Q3G8	L L D W M R S F D I E V N V A K D S	L V C Q S P E T R E K V A R I V A G L Q		
UniRef90_Q9UT16	L K E T F E N K L G V P L S Y L D G I	I A H K Q S Q E T H E R I R N W M A G L N		
UniRef90_H6C055	I I S Y L T T V W P P V L E E G S I	M P V Q S E M T R S V I R G W M A G L P		
UniRef90_A0A023F7S9	V I S W F C K K Y D V D I A P T T D L	V C P T I A R E T K D S I R K H L L S Y N		
UniRef90_K8EIH1	V H D W A R R E F G E Q L N L S D S I	F A Q P P P E E V K L L M K R L R S L S		
UniRef90_M3ALU1	I I A F L T T H I V P V L A E D S I	M P I V Q S S D T T N E V I R N W L S G L S		
UniRef90_W9BWZ2	I L Q W A E N R Y D I R M I H V A G I	I H Q P Q S S H S L S R L R S V V A A M D		
UniRef90_F2SUB9	S R S W A Q A L G V E L K P A N S I	M P L P Q P P Q Q T V D V I R G W L S S L S		
UniRef90_N9UQG0	L L A W A E A R H G I E F A L A Q G V L	P I D Q P P A A T V A A L R E A V H A L D		
UniRef90_L1QL11	W R D W A A R E L G I E L H P V I E G I	I H R P Q A P E A L A R V E A L S L Q M N		
UniRef90_W3WVF5	I I G F L T T R V W P P V L D G E S I	L M P R S H D P V T R Q I I E G W V A G L S		
UniRef90_W1QG89	I I K S M E F F V G E V K L T H G L	V G N K Q P E A T V K A V R K W L D T L D		
UniRef90_K0VW35	I I D W A N D L G A R F I L V I E G V	M H H E		
UniRef90_G9ZV57	L L D W A E Q A L G A P L K V T S G I	I H V R Q P P E S L A A L I R G A V A A L P		
UniRef90_M1ZJ14	I L A Y L T R H V G V E I R P T D S I	I P V S Q S E L T Q Q I I R G V C A G L P		
UniRef90_F0ZRK7	V V N F A S E Y Y G K E F T I S K H L	E T S K H P Q E L L T S I K D H L N S M N		
UniRef90_UPI0002260652	W L D W L H E T Y G V T L T V T H G L	M P V P Q P P S A S L E K L K Q V L S E R S		
UniRef90_UPI0004766741	V L A W A K A V H D I K L D I T D G L	F R S Q Q D A T M T Q I L G A Q Y A A R Q D		
UniRef90_J2H0F8	M L D W A R V E L G L N L Q P V S G V	I H T A Q P P A A L A S V E A L A L T M D		
UniRef90_W610N5	L L D W A E Q R Y G A R L H V T T G I	I H V S Q S P E A S L M A L R A A L T A L D		
UniRef90_C7YMZ6	I V S F L T H V W T P V L D G H S I	L P Q A S P S P G V R E V V Q G W I A G L D		
UniRef90_C4R2T3	L I A S M E S Y L N F L D S D T D G F	R S N Y Q N E A T K R A A L N W M N K L N		
UniRef90_E8RTF9	V I D W L R R E L S L E F V P Q T S I	M A R G Q P V A T I E G V K T L T T A S		
UniRef90_W7E6J5	L I K W L E D K F S L K L K I Q P G I	M P N Q Q P E V I N I F E R Y L Q L D		
UniRef90_F4Q6B2	V F E F A N A Y Y G G N F K M S Y G L	N L S K H L P A T L K R I Q D H L G S L S		
UniRef90_V4P731	I L V W A D T E L D L Q F H Q N K S I	I H Q P P A E T I H R L Q S L I A N A S		
UniRef90_Q6CXR0	I I S G V E K F L E V K L Q D L H G I	R G N A Q S G E T R E V A K Q Y L D S L S		
UniRef90_W6MGF4	L I K S M E D Y F G V E K L V F D G L	R G N M Q T E E T K D A V R K W L K N L S		
UniRef90_G0RGD0	T V S Y L T T H V W P V L D G H H S I	V P R K Q P E K G V R E V I Q G W V M G L D		
UniRef90_C5DKF4	V I S Q V E K F L S V K L Q D V H G I	L K G N L Q D K E T K E A A L A Y L N S L S		
UniRef90_S7ZKS1	L M G F L S T K V W V P I L D T E S I	M P V S Q P P Q A T Q D S I R T W L Y E L S		
UniRef90_B4R912	V L E R A Q A E E G L S F V R A A G I	V H R E Q P S E T L E K V R A L A L E L D		
UniRef90_K5YKF1	W L R W L N A T H G I G L I T T L G I	M P V N Q L P W T K E K L E A L L A V R D		
UniRef90_M4S3T1	L I D W A Q R R Y D I H F T I A T G I	I H K A Q P A A T V T R L A E A A A A R D		
UniRef90_W1JHM7	V I S W A A Q T L G A H F L S E G V	M H V K Q P D E A V R A A R A A L P G D		
UniRef90_K0KL99	I I S Q I E K L G E I L D T D V G I	R G N Q Q S E N V R S K A R S W L N L D		
UniRef90_E3Q6X0	V I G F L T A R V W P P V L D G H S I	V P R A Q A E G V R E V V Q G W V M G L D		
UniRef90_M1WBPS	I V S F M T H V W A P V L D G H S I	L P K K Q E D G V R D V V Q G W V S K L T		
UniRef90_Q7SHX7	V V S F L T T R V W P V L D E T S I	M P R Q Q E P G T R E V V Q G W M L G L S		
UniRef90_N4W0F3	I V G F L T S R V W P V L D G D E I	F P R Q Q D E G V R E V V Q G W V M G L D		
UniRef90_B5ZD53	W L D W L R V R Y G I S L T V T E G V	M P A Q S E E A L G A V R A L V D A L S		
UniRef90_V4RRK6	V L A W A D A T L D L Q F Q O N Q S I	I H Q P P K T T L G R I Q S L S N T T		
UniRef90_G0RZZ7	V T G Y L T S R L W P V L D G A S I	L P R H Q P P G T R E V V K G W I A G L S		

UniRef90\_UPI00042CE458 M W A L | 170 180 190 200  
UniRef90\_UPI0003B61B05 A F H L A P L S P L V T L T G T S L V G A L A L A E H A V D A D S L W A A A S M V D  
UniRef90\_A1D9C4 P H D L A G L E R G V I V A S K S L L V L A V R L V I Q K K A F G D I E E A A E A A S L E D  
UniRef90\_UPI0003683B16 A F H L A G L S P V G I V I T S G S L L V L A L A L I W N N H L Q V I E E A V K L S R L V E D  
UniRef90\_A0BMW6 N W Q L V S L D A K V E N L K S S L L V L A L A L V W N N H L Q V I E E A V K L S R L V E D  
UniRef90\_G21W2 N A T L A A L G V G M V P A M K S I V L V G L A V V T G A L S A A K A A D L A S T V D E D  
UniRef90\_B6QV24 P Y E L A G L E R G I V A S K S L L V L A V R L V V S R R F G V I E E A A A C A S S L E E D  
UniRef90\_A1CFZ3 A Y D L A A L E R G I V A S K S L L V L A V R L V Q K R F G V I E E A A E A S S L E E D  
UniRef90\_A0A059G1P0 A F R L T G L L F G A G L F G S A L L A L A V E Q Q K A L S A E D A Y E I S S R I D E D  
UniRef90\_B8NJ45 A H D L A A L E R G I V A S K S L L V L A V R L V Q K K F G I E E A A E A S S L E E D  
UniRef90\_D3AZW0 N W Q L L C M Q T L T T S T K S S F L I S L N L Y R N R V R L D K L Y K I V A L E E D  
UniRef90\_C8VH85 A Y D L A G L E R G I V A S K S L L V L A V R L V R L V K R F G I E E A A E A S S L E E D  
UniRef90\_UPI00036AEC02 N I E L S L L H R L T N L I G S I F I S L C V I K E D I Q K K H I C Q L C F L D E D  
UniRef90\_L8FY87 A Y E L A G L E H A V F A G K G L L V A A R L L E K K F G I E E A A N A A T L E E D  
UniRef90\_M2N0P8 A Y E L A A L E R G V L A T K S L L I A A R L L V E W F G I E E A A E A A T L E E D  
UniRef90\_C7JBV4 P A E L A A L E R A V S V P A L G S L L V L G L A L V N G A G S V I D D L V A E A S A T L E D  
UniRef90\_W7TPZ3 P F T L A A F L S L V L D L K S S V I T A L A L V F R H V I T V I E E A C Q A S S A L E E D  
UniRef90\_W6QHV4 A Y D L A G L E R A I L A S K S L L I A V R L V T K R F G I E E A A E A S S L E E D  
UniRef90\_A8IAK5 P L S L A A L S T L T A L T G S A F L A V A L A N G V L D A D A A W R A A H V D E D  
UniRef90\_Q54CV4 N W E L V C L Q L I S Q S S K S S F L V A L S L Y Y G K L R L D N L Y Q T I A L E D  
UniRef90\_UPI00041233DE D W R L T A L H Q A T A L T G S L L V L G L A L V E A D A I S A D A D A W S A A H V D E D  
UniRef90\_K2MME1 P L R L A A L H V M T A L T G S L L L A L A V E A D A I S A D A D A W S A A H V D E D  
UniRef90\_UPI0004728C4D D A A L T C A A I C A P A T G S L L I A L G L A D S W V D A E S A C A M A S L E E D  
UniRef90\_U4LDZ5 V W R F V G F E R C V Q A T K S F V L G A R M T E E W W G S V I E E G A E A A S I E D  
UniRef90\_R1BGD2 D W T L A A L D S V T G S C K S F V L A L A L Y R R R L S A R E V C V A A R I V A D E D  
UniRef90\_D9QGQ1 D F A L T G L A T A V P L F G S A I L G L A V Q R G A L S G A A A F E I S R L D E D  
UniRef90\_E4UZ5 P Y D L A G V E R A G I A T K S L L V G T R V L I N G F T F G I E E A A Y A S S R L E E D  
UniRef90\_Q22WQ9 N W T L M A I E Q A T V N T K S T C L G V S L I N G F L S I E Q A L E Y S R L E E D  
UniRef90\_UPI00037C8752 D L R L T G L S W A L A L Y G S A V L A L A V E Q Q G Q L D A L D A F D L S R I D E D  
UniRef90\_M3DAA4 A F D L A A G V E R A I L A T K S L L T I A V R L L K K D K F G S I H A E E A S S L E E D  
UniRef90\_B2WKK8 A Y E L A A G L E R A V L A S K S L L V S V R L I H H R I E E D A T R A S S L E E D  
UniRef90\_A0A017SB47 A Y D L A G F E R G V L G S K S L L I A A R L V Q K R F G I E E A A E A S T L E E D  
UniRef90\_Q0C3G5 D F R L T A L V I A C V G V F G S A V L A M A L V E G A L T A E S A F H K L S R I D E D  
UniRef90\_A0CSS1 S W Q L V C L D S K V E N L K S C I L A F M Q L W N Q I D V Q E A A V K L S R I D E D  
UniRef90\_C1HC34 A Y E L A G L E R A V L A S K S L L V A A R F I R R E F G I E K A A E A S T L E E D  
UniRef90\_UPI0003FA167B D M Q L T L F V H L V A V T G S A I L A M A V L K S Y L K G E E A F E L S R L V E D  
UniRef90\_A4S7W8 P W E L T C A F A L S A A T K S L L I S L K T L R G G L T V D E A A I A A A R V E D  
UniRef90\_V8AAS3 D A A L T C A A I C A P A T G S L L I A I G L V E G W V D A A S A R L M A S V E E D  
UniRef90\_UPI0003AF8F97 M W A L Q G I E F V V T Q L K S L L V L T L G L M D L H L T V E Q A V L L S R L D E D  
UniRef90\_U2YUJ3 D Y A L T G L A M A T P L L G S A V L A F A V Q R G A L S G A E A F D L S R L D E D  
UniRef90\_Q00UT4 P W E L T C A F A L S A A T K S L L I G L K T L R G E L S V D E A I A A A R V E D  
UniRef90\_S3EA28 A W E L A G L E R G V L A G K G V L G A S R L V G K R W G V I E E A A K A A S L E D  
UniRef90\_V5H9R3 L W G L T G L L Y A T E S L K S A V L G L A L M E G A L S V D E A V S L T T L D E D  
UniRef90\_UPI00041957AF D A D L A G L G V A V P A L K S L L V L G L A L M E G A L S V D E A V S L T T L D E D  
UniRef90\_C4WTB3 F P A L H G V L H A V E T L K S L L V L T T C C L H Q D L S V K D A V L L F K M E D  
UniRef90\_G6EZB0 D T E L T Y F A L T V P L L G S I F L T I A L K E G R L S V E Q A F E A A H L D E D  
UniRef90\_Q2ND83 P F T L A A L F A T T S L S A S L I I G L G T L E A D A D S E T L W D A A N C E E D  
UniRef90\_K1WPZ2 A F E L A G L E R A V L A G K G L L G A A R L V V E W F G V I E E A A K V A S L E E D  
UniRef90\_V4MZ00 P H E Q A G L M T A I P L L G S V V L A L A L W R G R L G G E D A F A A A T S V G E D  
UniRef90\_A8Q3G8 P L D L A S L E R A V M T S K S M I I G L A L I H R H I E A E Q A A L A A E V E E D  
UniRef90\_Q9UT16 S W Q L A A F E R S V S C K S F I V S F M I L K G Y L N S E K A A A L T N L E E D  
UniRef90\_H6C055 A Y E L A A L E R A V L A G K S V L V G A R L V E K R F G I E E A A E A T V E E D  
UniRef90\_A0A023F7S9 M N A I H G F N F V L E S L K S I V L T L C C A E R R I T A D K A V L L S R L E E D  
UniRef90\_K8EIH1 P W E M T C T F A A A A A K S L L I G L A L N R N I L D P E E A L K C A R V E D  
UniRef90\_M3ALU1 A W D L A A I E R C I L A T K S L L I A A R L L K D I F G I E E A A E A A T L E E D  
UniRef90\_W9BWZ2 P F V L A G F S T L A A I G G S L I G A L A L W E Q A F D S G T I W R A I C L E E D  
UniRef90\_F2SUB9 P Y D L A G V E R A G I A T K S L L V G A R V V S E W F G I E E A A H A S S L E E D  
UniRef90\_N9UQG0 P F R L A P L S P L V T I G S S L V L G L A L V E D A F A D M L W E A V S L D E D  
UniRef90\_L1QL11 D F A L T G L A T A V P L F G S A V L G L A V Q R G A L A G E A A L D L S R L D E D  
UniRef90\_W3WVF5 S W E L A G L E R A V L A G K G L L G A A R L V A V K F G A D E A A K A A S L E D  
UniRef90\_W1QG89 F W S L V S L E K A T L T A K S F L S G V A I L R L D L T V D D I A R A A T L E D  
UniRef90\_K0VW35 P L E L A T A I G L A V P L L G S L L V L G L A L A H G R L D A M E A A T R L A R V D  
UniRef90\_G9ZV57 A Y E L A G L E R A V L A S K S L L V L G A R L V A S R R F G M Q D A E A A C S L E D  
UniRef90\_M1ZJ14 N F E L C C L Q L I S Q S A K S Y L L A L N L Y Y G K I R L D N L Y K S I A L E D  
UniRef90\_F0ZRK7 D A I L A A L G V C V P A L G S L L T L G L A V D G R L S D T E R A V N I A T L D E D  
UniRef90\_UPI0002260652 D L R L T L L H F T V V F G S A A L A I A V M D G F I S A S D A L T R S R T D E D  
UniRef90\_UPI0004766741 D F T L A G V A Y G A G L L G S T V L S L A L R A G T V T G Q R A L D L S R L E D  
UniRef90\_J2H0F8 P A A L A A L G I V V P A L G S L V I G L A L A E G R L D P P E A L E I A L D E D  
UniRef90\_W610N5 A F E I A G L E R V A L A G K S L I A A R F I G K K F G V E A S V A T S L E E D  
UniRef90\_C7YMZ6 V W E L V A L E K A T L T A K S F L C G V A I V R A N M D L E S I A R A A S L E E D  
UniRef90\_C4R2T3 V Y V R A G L M A A I P L L G S V L A L A L A L K G R L S A E E A F A A S R V G D  
UniRef90\_E8RTF9 D A E L T F F A I T I P L L G S M I L T I A L K E G R K I N T Q Q A F K Y A S R L D E D  
UniRef90\_W7E6J5 N F H L L A L Q F I T S S S K S F L C A L A I Y H Q H V R L D G I Y D T V A I E E D  
UniRef90\_F4Q6B2 V Y E Q A G I M Q A I P L L G S V V L A L A L W R G H L T G A Q A F A A S R I G E D  
UniRef90\_V4P731 V W D L A I F E K T V L T T K S F I C G L L L R E L Q V S M E D I A R A A T L E E D  
UniRef90\_Q6CXR0 V W E L V A L E K A T L T V K S F L A G T A I L R E R L S I H D V A K A A D L E E D  
UniRef90\_W6MGF4 A W E L A G L E R A V L A G K S F V A A A R I V A G R F S V E Q A A K A T S L E E D  
UniRef90\_G0RGD0 M W D F A V F E K A V L T T K S G L L L H N K V T M E K I A Q F A T L E E D  
UniRef90\_C5DKF4 A H D L A G V E R G I L A S K S L L V A V R L M V I E W S E N F R H L Q  
UniRef90\_S7ZKS1 D F A L S G L A F G V A L F G S A V L G I A V L R G W L E G G E A A F E L S R V D  
UniRef90\_B4R912 D A A L A A L G V L I P A L G S F V L G L A A A E G A L E A Q A C A A A L D E D  
UniRef90\_K5YKF1 A F A L A G L S P L T T I G S L V T A L A V A E G A V D A D A A F A A T H L D  
UniRef90\_M4S3T1 A W  
UniRef90\_W1JHM7 F W D L V A L E K V T L S A K S L I T C G I L T L R A K V N L E K I A E C A T L E E D  
UniRef90\_K0KL99 P W E L T G L E R A V L A G K S L I T A A R L V T R K F G I E E A A T A A S L E E D  
UniRef90\_E3Q6X0 A W E M A G L E R A V L A G K S L V A A A R L V A E W F G V I E E A A K M V N S L E E D  
UniRef90\_M1WBPS A W E L A A G L E R A T L A G K S L L V A A R L V T K R W G V I E E A A K A V S L E E D  
UniRef90\_Q7SHX7 A F E L A A G L E R A V L A G K S L I N A A R L V G D K F G A E E A A V A S S L E E D  
UniRef90\_N4W0F3 D G A L A A L G V A V P A L G S L V L G L A L A E G R L T A E Q A T A C A T L D E D  
UniRef90\_B5ZD53 P Y E Q A G I M L A I P L L G S V I L A L A L W R G H L S G E A F A V A S R I G E D  
UniRef90\_V4RRK6 A F E L A G L E R A T L A G K S L L A A A R L V A E W F G V I E E A K A V N L E E D  
UniRef90\_G0RZZ7



UniRef90\_UPI00042CE458  
 UniRef90\_UPI0003B61B05  
 UniRef90\_A1D9C4  
 UniRef90\_UPI0003683B16  
 UniRef90\_A0BMW6  
 UniRef90\_G211W2  
 UniRef90\_B6QV24  
 UniRef90\_A1CFZ3  
 UniRef90\_A0A059G1P0  
 UniRef90\_B8NJ45  
 UniRef90\_D3AZW0  
 UniRef90\_C8VH85  
 UniRef90\_UPI00036AEC02  
 UniRef90\_L8FY87  
 UniRef90\_M2N0P8  
 UniRef90\_C7JBV4  
 UniRef90\_W7TPZ3  
 UniRef90\_W6QHV4  
 UniRef90\_A8IAK5  
 UniRef90\_Q54CV4  
 UniRef90\_UPI00041233DE  
 UniRef90\_K2MME1  
 UniRef90\_UPI0004728C4D  
 UniRef90\_U4LDZ5  
 UniRef90\_R1BGD2  
 UniRef90\_D9QGQ1  
 UniRef90\_E4UZ5  
 UniRef90\_Q22WQ9  
 UniRef90\_UPI00037C8752  
 UniRef90\_M3DAA4  
 UniRef90\_B2WKK8  
 UniRef90\_A0A017SB47  
 UniRef90\_Q0C3G5  
 UniRef90\_A0CSS1  
 UniRef90\_C1HC34  
 UniRef90\_UPI0003FA167B  
 UniRef90\_A4S7W8  
 UniRef90\_V8AAS3  
 UniRef90\_UPI0003AF8F97  
 UniRef90\_U2YUI3  
 UniRef90\_Q00UT4  
 UniRef90\_S3EA28  
 UniRef90\_V5H9R3  
 UniRef90\_UPI00041957AF  
 UniRef90\_C4WTB3  
 UniRef90\_G6EZB0  
 UniRef90\_Q2ND83  
 UniRef90\_K1WPZ2  
 UniRef90\_V4MZ00  
 UniRef90\_A8Q3G8  
 UniRef90\_Q9UT16  
 UniRef90\_H6C055  
 UniRef90\_A0A023F7S9  
 UniRef90\_K8EIH1  
 UniRef90\_M3ALU1  
 UniRef90\_W9BWZ2  
 UniRef90\_F2SUB9  
 UniRef90\_N9UQG0  
 UniRef90\_L1QL11  
 UniRef90\_W3WVF5  
 UniRef90\_W1QG89  
 UniRef90\_K0VW35  
 UniRef90\_G9ZV57  
 UniRef90\_M1ZJ14  
 UniRef90\_F0ZRK7  
 UniRef90\_UPI0002260652  
 UniRef90\_UPI0004766741  
 UniRef90\_J2H0F8  
 UniRef90\_W610N5  
 UniRef90\_C7YMZ6  
 UniRef90\_C4R2T3  
 UniRef90\_E8RTF9  
 UniRef90\_W7E6J5  
 UniRef90\_F4Q6B2  
 UniRef90\_V4P731  
 UniRef90\_Q6CXR0  
 UniRef90\_W6MGF4  
 UniRef90\_G0RGD0  
 UniRef90\_C5DKF4  
 UniRef90\_S7ZKS1  
 UniRef90\_B4R912  
 UniRef90\_K5YKF1  
 UniRef90\_M4S3T1  
 UniRef90\_W1JHM7  
 UniRef90\_K0KL99  
 UniRef90\_E3Q6X0  
 UniRef90\_M1WBP5  
 UniRef90\_Q7SHX7  
 UniRef90\_N4W0F3  
 UniRef90\_B5ZD53  
 UniRef90\_V4RRK6  
 UniRef90\_G0RZZ7

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



UniRef90\_M7SRW8 R I P A S K L A S A L E W D S A Q H A T R Q H L I P L T G L V C R A I I D I L T G  
UniRef90\_C5K9F3 A L P S E R G L A F A V A E E W A S E Q D K F I R K Q P H F M P L L M A S L A A T T I D L T  
UniRef90\_R9XF73 R V D K K R L A T H M L R E E W A S G L Q T S A V T R K Q P Y S L P L L T T S L V C S R R A I D I D K V  
UniRef90\_J4KQ14 R V P K P T L A T A L A L E W D S A Q T A T K Q P H L I P L L T T S L V C R A I D I D V A  
UniRef90\_A0A024JEG9 L V P T K P A L A H L V A H E W R V L P S L I T K Q P H S L I L L T T S T A A R A I V D I S A  
UniRef90\_T0LE65 R L P K Q H L A S A I A L E W D S A Q Q A T K Q Q H L I P L L T T S L V C C R A L D I I A E  
UniRef90\_E9DT96 R L P K P N L A F A I A L E W D T L T Q A T K Q H H L I P L L T T S L V C C R A L D I I I  
UniRef90\_A0A016PS39 R I P K P D L A S A L A L E W D S A Q D A T R Q H H L I P L L T T S L V T C C R A I D I I  
UniRef90\_J3PDY0 R V P A T K L A Y A L A N E W D S V R Q N T T Q R Q H M V P L L T T S L V C C R A I D I I M  
UniRef90\_S6F004 A V D K E R L A A L Q K E W S N V P N T V R P H H A L P L L T T S L V S R R A I D I K I  
UniRef90\_F1ZBM5 A L P T S A L G D A L V A E E W A D Q G T E E I D T T R F A F R D M A D H A L E D I V  
UniRef90\_W0AG39 I V P T A A L A E A I A E E W R A L V T G E E L D P S R A M R L T T G L A N A A A V E R I  
UniRef90\_R5QH61 F L P T F A A A G L I A E E W K A L V T E E F K P S D F P K T R L L M M G A A A L K  
UniRef90\_W6KV63 A V P S E A M A Y C C A Q E Y S E Q S G Y L N K L L M P M T D I C S G V L H V A  
UniRef90\_G7YBF6 L I P N E A L A L A V A V E W D S Q K Q E L I K R H G S M H L V L L D W S R P E I K  
UniRef90\_B8ER18 A L P T L E A A E A I A E E W E R Q Q E L I D P T G Q M P L L T T R I L A N S R A I D I D G V  
UniRef90\_UPI0002F56728 T L P S R P L A E A V A A G E W Q Q A G S E M S L D E V P L L T T R L L A N G T G L D D R I  
UniRef90\_V4P087 V L P N F A L A A L V G R E W E A V E D Y V E F T S M P L L T T S L L T G F A A M D H I M  
UniRef90\_F9FXX5 R I P K P D L A S A L A L E W D S A Q D A T R H H L I P L L T T S L V C R A L D I D I A  
UniRef90\_D5G8K1 V V P E S K L A S A I A L E W S S K D A L T K R Y R I P L L T T Q L A A R A I D I M R V  
UniRef90\_UPI00026CC104 A L P T A A L A E A V A E E W R A V K G E R I N P L A M P L L T T G L A N A A A I D R E V  
UniRef90\_E4XSS3 K I K S R D L A E I V A L E W A G Q E R I K K H S L Y M T Q L L C Y A E S E R E  
UniRef90\_B8BZ98 T L P S A H L A L A V A S E W D A Q E K V L R P A Q M P L M T L L C C T A I D Q V  
UniRef90\_Q1GRA9 M V A S A A L A E A I A A E W D S A Q V E T L D D N P A A M P M T S G L A N A A I D I A  
UniRef90\_Q6CBE8 I L P K K P L A H L I M H E W Q V L P S L L K N H S V P L L T T S L V S R A I D I L S  
UniRef90\_S8ALL2 A I P A N K L A H A I Q V E W A T A K E A L K S Q Y I P L L T S L L T S R A I V D K V  
UniRef90\_G0UYD5 A I P S E A M A Y A C C A Q E Y A E Q T G Y I N K L L M P M T D L C S S G A L A V V  
UniRef90\_S9W194 A V P S E A M A L C C A R E Y A E Q T G Y I N K L L M P M S D M C S S G A L H V A  
UniRef90\_L1JS14 T V P T K D M A M A I A M E F D V Q D L N I L P Y T M P L L T T L A T T S I D Q I  
UniRef90\_A7TGS3 A V D K K N L A L M L S N E W K N L P N L K K Y S L P L L T S L L T S R A I D I L E  
UniRef90\_G9P3C6 R V P K P N L A S A L A N E W D S P Q Q A T K Q H L I P L L T T G L V C S R A L D I L  
UniRef90\_S9VW53 A V P S E E L A Y C C A Q E Y A E Q T G H I N K L L M P M T D V C S G A L H V A  
UniRef90\_R8BJY0 R I P K P H L A H A I A L E W D S A Q Q A T K M H L I P L L T S L V C R A D G V F I  
UniRef90\_A3LR77 A L P S S K L A Y A I A N E W A N L P D L I K T N M M P L L T S I V A R S I D L I  
UniRef90\_UPI00035E7652 V I K N F K I A K E M F N E W N P E G N Y L I L E K M V F Y S V F S T A I D R I  
UniRef90\_Q59VX2 E L P N K L A Y L I A H E W T H L P D K V K S S T L P L T A L A T R A I D L S  
UniRef90\_K1V4G2 V I P K E R L A M M I A A E W E N Q D Q V L K K S Y A L P L L L L  
UniRef90\_A5DD02 A V P A T K L A H L I A H E W A N V P E L I K H G S L P L L T S L A S R A I D I L Q  
UniRef90\_G8JX38 S I P S E N R L A H M L K D E W N V T K L I K T H S L P L L T S I V S R A I D I D K P  
UniRef90\_UPI0003288139 T V P S E A L A L A V A T E W D S Q K D T I K L Y T M H L L T T S L V C S R A L D I D N P  
UniRef90\_G8ZYT9 A V D K R R L A M L L K K E W T N L P S A I K T H A L P L L T S L V S R A I D I D K I  
UniRef90\_G1XTL4 S V P V N K L A Y A L Q V A E W A N S K E A L K S H F I P L L T S L L T S R A I D I L V  
UniRef90\_UPI00036D2CFE A F A D R A L A E E V A A E W A A Q G E T I D P A T M P L L T R L L A N S R A I D I D G V  
UniRef90\_M3HH80 E L P E R K L A F L I A H E W T N L P D K V K S S T L P L T A L L A T R A I D I L S  
UniRef90\_UPI00036C8653 V V P S R T L A A I A E E W A A K G A E R L L A A L K L T R V L A A A I D R I  
UniRef90\_A0A024KJU1 V V P V A G I A T I M A E E W A A Q G E R L D A Q T M P M V R L V A S A L E S G  
UniRef90\_M7NV18 E F P K H N L A Y S V L L E C R S S P N F F E Y N F L P L L T S L S I R A I D M F  
UniRef90\_UPI000225E2F8 V V P T Q A L G E V L R A E W A D A P D E V Q P D H F P M R D L A D R A L D T L  
UniRef90\_UPI00038347A8 R I P K P Q L A H A L A L V E W D S A Q E A T K Q H L I P L L T S L V C R A I V D I G  
UniRef90\_B2ALW4 R I P K P H L A H A L A L E W D S Q T E A T K Q H M I P L L T T S L V C S R A I D I L T A  
UniRef90\_G2R466 A I P S E A M A Y A C A Y E Y G E Q T K E Y L N K L L M P L L T T D I L C S S G A L T D I V A  
UniRef90\_G0U4D3 R L P T S K L A S A V A I E W D S A Y Q A T K Q H L I P L L T T S L I C R A I D I I E  
UniRef90\_G2VWV37 S V D K N R L A Y L L R Q E W A T L P T V K N T D H L I P L L T T S L V F R A I D I D K I  
UniRef90\_G0W5K8 R I P K P Q L A Y A L A V E W D S A Q Q A T K Q H L I P L L T T S L V C R A I D I D L A  
UniRef90\_G5EH01 A V P A E A L A R A I A A E W D A K D Q D I R P D D L P L L T R L L A G T A I V E R I  
UniRef90\_A5G1Z0 S L P K K Q L A E L I A H E W A N L P D L I K T N S L P L L T S L A S R A I D I L T  
UniRef90\_G3AF59 Q M S E P L A I A E E W A A Q E K D I E Q G H M R L S S G L A S M T A I D N P  
UniRef90\_H3EVA7 E T P K E K L A Y L L T N E W K S L P S H V R P Y X L T L T T S L S C R A I D I L A  
UniRef90\_I2K0H1 A V S K S N L A C L R K E W A N L P D L V K P Y S L P L L T S L V S R A I D I D K I  
UniRef90\_J7RWG1 L A P T L P L A L A L L Y E W D R Q S E R L R P A L M P L L T R L L A K S L S V D  
UniRef90\_M1UUM8 H V P S E T L A T A L A A E W A A Q E T V I D P F T M P I T T R I L H V A L D R M  
UniRef90\_A3UD61 A V D R D A L A Y L L M K E W N L P K N L S K R N S L P L L T S L V S R C I D I D K I  
UniRef90\_H2AWL5 A V D S R L A Y L L M N E W K N L P S L I R Q N S Y S L P L L T S L V S R C I D I L E  
UniRef90\_G8BN71 A I D H D R L G L M L K K E W S N Q E V A S K K F S L P L L T S L V S R C I D I D K I  
UniRef90\_Q6FSV6 A V P A E K L A Y L I Q H E W S S L P E L I K L N S M P L L T S L L A C R S I D I H  
UniRef90\_G8YDN4 A V D K D R L A R L L Q K E W S N I S H G V K T H A L P L L T S L I A R C I D I D K I  
UniRef90\_C5DWR5 A V D K D R L A R L L Q K E W S N I S H G V K T H A L P L L T S L I A R C I D I D K I  
UniRef90\_G4VLC0 A V P S E A M A C C C A Q E Y A E Q T G Y I N Q L L M P M S D L C C S G A L H I L A  
UniRef90\_E9ARH2 S V P A N K L A Y L V S H E W E N L I D L I K P N S L P L L T T S M V A R A T D I L K  
UniRef90\_C4Y010 Q I P A H K L A H A I A M E W D S A R Q A T K Q G H R V P L L T T S L V C R A I D I L A  
UniRef90\_U7PV52 V L P S L A L A E A V A A E W Q A Q G A E V E V R S L A L T S G L A W T A I D R V  
UniRef90\_Q1EHX5 E L P K N K L A Y L I A H E W T H L P D K V K S S S A L P L L T S L V T R A I D I D L S  
UniRef90\_B9W716 T L P E N K L A Y L I A H E W T H L P K S L K S S A L P L L T G L A A R A I D I L G  
UniRef90\_G8B808 T I P K P T L A H S I A I E W D S A Q T E A L K N H K I P M T S I V S R A H D V D  
UniRef90\_W2RP79 S V P V T L A T M I A A E W N A Q T P Y I V P T Q M P L M T L A C T A I D I D Q T  
UniRef90\_B7GEH3 V I E S E S L A V A I A E E W S S Q E E F L H M G H M R L T T G L A F T A Q D N P  
UniRef90\_U6NI78 I L L D S Y P L A L A L A E E W S S Q D E H I Q L L G Q M R L I T D G L A F T A Q D N P  
UniRef90\_H2VNL6 A L P N E E L A L A C A R E Y A A Q G E H I N K L L M P I T D L C S S G A M Q V A  
UniRef90\_B6DTF4 S L P A E K L A H L V A H E W A N L P D L V K I N A L P L L T S L S S R A I D I L Y  
UniRef90\_Q6BVJ6 A V S K D K L A Y L I R Q E W A T L T E L L N T D S M P L L T S L V S R C I D I D K I  
UniRef90\_G0VKD1 R L P A S K L A H A I A L E W D S A Q Q A T K Q H L I P L L T S L V C R A I D I I A  
UniRef90\_G2Q700 A L P E D K F A H L I Q H E W S N L P N L I Q T N S M P L L T S I A A R S I D I L Q  
UniRef90\_G3BD13 T V P K N K L A Y L I S H E W T N L P N S V K S S A L P L L T S L A A R A I D I L T  
UniRef90\_A5DWA1 E V P T L A R A I E E W K K D P S P H Y S R K P L L T S L A A T T L D R V  
UniRef90\_K2DSQ6 Q L P R S K L A H A L A A E W D S V R Q A A Q G H R V P L L T S L V S R A L D I L Q  
UniRef90\_S3BTM5 R L P A H K L A H A L A V E W D S V R Q A S Q G H S R V P L L M S L V C R A I D I D N V  
UniRef90\_F0XJ44 T L K S E P L A G A I A G E W A R A G G E F T P D D L P M T R M A G S M I E R I  
UniRef90\_T1H6N1 S V H S D E L A H I V A M E W A T Q G E H L T P A T M Y V S N A L S S T F I D N P  
UniRef90\_UPI0004704658 K F P K R S F A Y M V S Q E C S S V F K R S Q Y H L L P L L T S L A S K A L D I F  
UniRef90\_X1YN11  
UniRef90\_A9V299  
UniRef90\_L0PDR4



UniRef90\_M7SRW8 E D D R A N I V D M V M R Y L D T D S L L C WA P P P R S L R D M Q R A A A E D  
UniRef90\_C5K9F3 A K D M S T V I V E R N L H Y L N T D T D L T C Y G E Y F E G S L R E A V Q D E M Y K E P  
UniRef90\_R9XF73 G G D R R K A I S E S G L L R Y L D T D T D S L L C R W A D E F E G S L R R E A V Q D E M Y K E P  
UniRef90\_J4KQ14 A D D R A A I A E S V L M R Y L D T D T D S L L C R W A D E F E G S L R R E A V Q D E M Y K E P  
UniRef90\_A0A024JEG9 K D V R E E I T E A L L P Y L D T D T D S L L C F S D C E G S T L R L R P A Q Q E E T Y R E P  
UniRef90\_T0LE65 A D D R R Q E I A T T S V L M R Y L D T D S L L C W A D A P P E G S L R L R D V V Q K R T T A E A D  
UniRef90\_E9DT96 R D D R N E I T T S V L M R Y L D T D S L L C W A D A P P E G S L R L R D V V Q K R T T A E A D  
UniRef90\_A0A016PS39 S E I R S S I A T V L L R Y L D T D S L L C C W N E A D A G E S L R L R D V V Q K R T A D D  
UniRef90\_J3PDY0 A P T R A S A V A T A M R Y L D T D N L L C W A P P S D A E K L R E L Q E R A A R P  
UniRef90\_S6F004 G G D R E A L V S K S L L R Y L D T D T D L L V F S P S D N E K L R L R J A Q D E M Y L P  
UniRef90\_F1ZBM5 A A D P A E A T A G L L P Y A D T D T L L C Y R A R A D S F P A D L V A R Q A A A W D P  
UniRef90\_W0AG39 A P N P R C F A D G L L A S Y A E A D L L C C Y F R A R P A D L V A R Q A A A W D P  
UniRef90\_R5QH61 E E E R L A V I N K I M Q A A E A D V L C C F F A R P A D L V R R Q E E C W R P  
UniRef90\_W6KV63 P Q M I P P R I D Y L M S F Y Q H D N M Y F R S P A D L V E V Q N K L T P  
UniRef90\_G7YBF6 P L D A V I Q S I M Q Y A D T D T I C C F R V Q E P E A D L V H L Q N A S W D P  
UniRef90\_B8E18 S N E M D A T V I A D I A R Y A E T D L L C C Y R A G E D P R R L A A L E A A A W D P  
UniRef90\_UPI0002F56728 A P D P G P T V E A L A R Y A E T D L L C C Y R A G E D P R R L A A L E A A A W D P  
UniRef90\_V4P087 E T G L D A A L A E A A R F S E T D L L C C Y P A D Y G E S L R L R E R E A A A W Q E P  
UniRef90\_F9FXX5 A A D R N A L A T T L R Y L D T D S L L C W N D P A D Y G E S L R L R D V Q K R T A E E P  
UniRef90\_D5G8K1 T P S R D T T S N V M R Y L H T D T D L I F R D P N K K T L R E L Q V A E A E P  
UniRef90\_UPI00026CC104 G T D P A L E F A R G L A T Y A E S D T L L C C Y R A D P A P E A L V A R Q A A A W D P  
UniRef90\_E4XSS3 T T D K A L E I D D L L K Y L Q T D T C L C F R S P F T E A L V E T Q D E K W T P  
UniRef90\_B8BZ98 A S D P S A H Q Q D V M R Y L R N D T V C C Y W A C P T E D L H R R Q T Q A W E G  
UniRef90\_Q1GRA9 A P D L T A F A A P I A A Y A T S D L L C C Y R A R D A R D S T L Q A A Q A A W N P  
UniRef90\_Q6CBE8 P A V R D A A I K D I M P Y I D T D A L L I F E P A R S R L R A A Q E N D F R P  
UniRef90\_S8ALL2 P E T R E Q I V D F V M G Y L D T D T V L M A A P G E K Q L R D R Q L E T A H N  
UniRef90\_G0UYD5 P Q M I T P R I D Y L M S F Y Q N D N M Y F R S P L I A E E Q D R N I D P  
UniRef90\_S9WI94 P Q M I P P R I D Y L M T F F Q N D N M Y F R S P A A I A D E Q D R M I Q P  
UniRef90\_L1JS14 S A G D R N K I L N D L R Y L D T D T D L L V F S P A S E A L R K E E K I W G R  
UniRef90\_A7TGS3 D D D R H G I A Q N T V L R Y L D T D T D S L L C W A D A G E D L R R D V Q K K A A Q E  
UniRef90\_G9P3C6 P Q M I P P R L D Y L M S F F Q N D N M Y F R A A S P I A H Q Q D A L T Q E P  
UniRef90\_S9VW53 A P V R T A I A T M L L R Y L D T D S L L C W A P E S D S T L R S R Q E R V A G E P  
UniRef90\_R8BJY0 N G D L D D I L K F N M L R Y L D T D T C L I R D E Y R G T L R R K R Q D E L Y L P  
UniRef90\_A3LR77 S K N R N K Y I D E I L N F I D T D M T C C Y R A E A P T E L I E I Q K K Y W N P  
UniRef90\_UPI00035E7652 Q Q H L S D L K T E M L R Y L D T D T C L C F A E C D G K L R K R Q E E I Y R P  
UniRef90\_Q59VX2 N T N L E D I R L N L L K Y L D T D T C L I F D E Y E G K L R A R Q D E L Y L P  
UniRef90\_K1V4G2 G T D P D V I S E S L L R Y L D T D T D L L C F S E Y E G A L R R A Q D K I L Y L P  
UniRef90\_A5DD02 T Q D K D Q L I R A A V K R F L D T D T I C C Y R V E Y E P E T L V E L Q K N E W D P  
UniRef90\_G8JX38 G G D R E H I A N D L L R Y L D T D T L C C P Q A E F E G A L R K A Q D E R Y L P  
UniRef90\_UPI0003288139 R N T R E Q I T A D F V M G Y L D T D T V F M A A A G E K Q L R D R Q L D V A H D P  
UniRef90\_G8ZYT9 A G E R E A V A A E I V K Y A G S D L V C Y R A D A P K R L V A K Q S A H W D P  
UniRef90\_UPI00036D2CFE K H H L E D I K L Q M L R Y L D T D T C L I F A E C D G K L R K R Q E E I Y R P  
UniRef90\_M3HH80 A P A P E A T V D A L A A Y A G E T D L L C C Y R A E S H P P E L A A A R Q E A E R W Q P  
UniRef90\_UPI00036C8653 E G M V P S F R D E V A K Y A G S D L M L Y R A E S P P R E L A A E Q E A L W D E P  
UniRef90\_A0A024KJU1 S E D R E Q A S S G L L K Y L D T D T I L S F A S K N E D L L V L Q K K M W E P  
UniRef90\_M7NV18 S K E R E S V I S R L L G F A D G D T D T L C C Y R A E S P P E A V A R R Q A K M W E P  
UniRef90\_UPI000225E2F8 A E D R E S I V T G M M R Y L D T D S L L C W A D E G K S L R D L Q E E A A G G E  
UniRef90\_UPI00038347A8 A D A R P G V A Q T L L R Y L D T D S L L C F C P A P S P L H E R Q R Q A Y A E P  
UniRef90\_B2ALW4 P Q M I A P R V D Y L M S F Y Q N D N M Y F R S P P V A A E Q D K L I S P  
UniRef90\_G2R466 A N D R A Q I A T T L M R Y L D T D A M L C W A P P P D G L R D V Q E K T A V D  
UniRef90\_G0U4D3 N A D R S L I N E Q L L R Y L D T D T L P R N E F E G G D L R S K Q D E L Y L P  
UniRef90\_G2VWV37 G S I R T S I J D T V L R Y L D T D T L L C W A P A G G D L R Q A Q D E E A A R P  
UniRef90\_G0W5K8 A P D T A P V R A G L L A Y G R S D L L C C Y R A T G P D G L V A E Q A R L W Q P  
UniRef90\_G5EH01 H A D R E E M I A N V L R Y L D T D T C L I F A T H K E K L R K K Q D E L Y L P  
UniRef90\_A5G1Z0 T A M K E S I T A M I M E Y L A T D T V L F F A P E N Q A L M E A Q K E H W A P  
UniRef90\_G3AF59 K S D P E T I K T L L K Y L D T D T L L V F S D C E G E L R K E Q Q K L Y Y P  
UniRef90\_H3EVA7 G G D R H T I N K D L L R Y L D T D T L L P R D E F E G A L R E E Q D T L Y L P  
UniRef90\_I2K0H1 D S C R A L Y V R E I L E H F G A D S L C F L E H A H A S L L A R Q D E R L W R P  
UniRef90\_M1UUM8 E A V R E G A A E E V A N F G R T D L L S H R A E E S Q L A A R Q A E L W D P  
UniRef90\_U3UD61 G G G K E V I K N D L L R Y L D T D T L P R S E Y E G A L R E E Q D S L Y L P  
UniRef90\_H2AWL5 N G N L E K M I S D T L R Y L D T D T L L P R K E F E G K L R E E Q D K L Y L P  
UniRef90\_G8BN71 G G D T T V I K N Q L L R Y M D T D T L L V F S P A K E A L R E E Q D K L Y L P  
UniRef90\_Q6FSV6 N T A N D D I K L N L L R Y F D T D T C L I F T T K D E K L R A R A Q D E L Y L P  
UniRef90\_G8YDN4 G G N R N E L S N S L L R Y L D T D T I L V F S P R D E K L R A A Q D D M Y L P  
UniRef90\_C5DWR5 A D E H D I L V N T I M Q Y A D T D T I C C F R C Q E P D D L V K V Q S L S W D P  
UniRef90\_G4VLC0 P Q M I T P R I D Y L L S F F Q S D N L Y F R A P P I A A T Q D A M I A P  
UniRef90\_E9ARH2 V G D L Q D I K Y N L L R Y L D T D T C L I F D E Y E G R L R N K Q E E L Y R P  
UniRef90\_C4Y010 A P M R T A L T E N L L R Y L D T D S L L C W A P P D E T L R Q L Q E R T A E P  
UniRef90\_U7PV52 G S D R A R V V E E V A Y A A H D L V C C Y R A E A D G K L A A L Q Q A V W Q P  
UniRef90\_Q1EHX5 N Q E N Q D I K L Q M L K Y L D T D T C L I F A E C C D G K L R K R Q E E I Y R P  
UniRef90\_B9W716 S K S N E K G I E D M L K Y L D T D T C L I F A D C C D G K L R K K Q E E I Y R P  
UniRef90\_G8B808 N D I R R Q S I V K T M M R Y L D T D T L L C W A P E K K L R D L Q Q E M T A K P  
UniRef90\_W2RP79 S R Q R M T Y Q E T S L N F V G T D T I C C Y W E D P M E D L Y Q A Q E R L W G P  
UniRef90\_B7GEH3 L H M K E S L T A K V M E Y L Y G D T V L F W N N E S E K L E N Y Q K K H W Q P  
UniRef90\_U6NI78 L E Q A D T I S R K I L D Y V D G D T V L F F N T E S A K L H R Y Q E E N W A P  
UniRef90\_H2VNL6 P Q A I Q P R I D Y L M T F Y Q N D N M Y F R A A A I A A K Q D E M I T P  
UniRef90\_B6DTF4 N V H N N E N I D N L L R Y L D T D T C L I F D E Y E G Q L R S K Q D E L Y F P  
UniRef90\_Q6BVJ6 G A D R N Q I N S D L L R Y L D T D T L L P R A E L E G V L R A D Q D K L Y L P  
UniRef90\_G0VKD1 A D P R A G I A A T V L R Y L D T D S L L C F S P P P E E L R A A Q D E R A Y A S  
UniRef90\_G2Q700 A E D R D D V K L N M L R Y L D T D T C L I F D E Y E G K L R A K Q D E L Y L P  
UniRef90\_G3BD13 N E Q V K E V I E S L L R Y L N T D T C L I F A D C C D G K L R K R Q E E L Y R P  
UniRef90\_A5DWA1 A E A R E S Y I S Y I A E S V R D V I L F W A P E P D T L M K L Q K K E W L P  
UniRef90\_K2DSQ6 A E D R D A V I E N L L R Y L D T D S L L C W M P A D E S L R Q V Q E K T A G P  
UniRef90\_S3BTM5 G P L R K T A L I A N L L R Y L D T D S L L C W E D E G G A L H Q L Q K R T A E P  
UniRef90\_F0XJ44 N R E K P D M V N Y L N F L P D T D T V L F Q S N E E A D L A E F Q R N E W D P  
UniRef90\_T1H6N1 A P E P A A Q V A A L M Q Y V D G E L L C C Y R A E H P A R L C A A E R E E W D P  
UniRef90\_UPI0004704658 N G Q K H D M V N Y L V N Y I S T D T I V F H S S E E P E S L K K L Q T Q E W E P  
UniRef90\_X1YN11 S K Q M R S L E R E N T Y N A L L K Y L D T D T V L I F A P E N G E L A L Q K K L W E P  
UniRef90\_A9V299  
UniRef90\_L0PDR4

UniRef90\_M7SRW8  
UniRef90\_C5K9F3  
UniRef90\_R9XF73  
UniRef90\_J4KQ14  
UniRef90\_A0A024JEG9  
UniRef90\_T0LE65  
UniRef90\_E9DT96  
UniRef90\_A0A016PS39  
UniRef90\_J3PDY0  
UniRef90\_S6F004  
UniRef90\_F1ZBM5  
UniRef90\_W0AG39  
UniRef90\_R5QH61  
UniRef90\_W6KV63  
UniRef90\_G7YBF6  
UniRef90\_B8ER18  
UniRef90\_UPI0002F56728  
UniRef90\_V4P087  
UniRef90\_F9FXX5  
UniRef90\_D5G8K1  
UniRef90\_UPI00026CC104  
UniRef90\_E4XSS3  
UniRef90\_B8BZ98  
UniRef90\_Q1GRA9  
UniRef90\_Q6CBE8  
UniRef90\_S8ALL2  
UniRef90\_G0UYD5  
UniRef90\_S9W194  
UniRef90\_L1JS14  
UniRef90\_A7TGS3  
UniRef90\_G9P3C6  
UniRef90\_S9VW53  
UniRef90\_R8BJY0  
UniRef90\_A3LR77  
UniRef90\_UPI00035E7652  
UniRef90\_Q59VX2  
UniRef90\_K1V4G2  
UniRef90\_A5DD02  
UniRef90\_G8JX38  
UniRef90\_UPI0003288139  
UniRef90\_G8ZYT9  
UniRef90\_G1XTL4  
UniRef90\_UPI00036D2CFE  
UniRef90\_M3HH80  
UniRef90\_UPI00036C8653  
UniRef90\_A0A024KJU1  
UniRef90\_M7NV18  
UniRef90\_UPI000225E2F8  
UniRef90\_UPI00038347A8  
UniRef90\_B2ALW4  
UniRef90\_G2R466  
UniRef90\_G0U4D3  
UniRef90\_G2VW37  
UniRef90\_G0W5K8  
UniRef90\_G5EH01  
UniRef90\_A5G1Z0  
UniRef90\_G3AF59  
UniRef90\_H3EVA7  
UniRef90\_I2K0H1  
UniRef90\_J7RWG1  
UniRef90\_M1UUM8  
UniRef90\_A3UD61  
UniRef90\_H2AWL5  
UniRef90\_G8BN71  
UniRef90\_Q6FSV6  
UniRef90\_G8YDN4  
UniRef90\_C5DWR5  
UniRef90\_G4VLC0  
UniRef90\_E9ARH2  
UniRef90\_C4Y010  
UniRef90\_U7PV52  
UniRef90\_Q1EHX5  
UniRef90\_B9W716  
UniRef90\_G8B808  
UniRef90\_W2RP79  
UniRef90\_B7GEH3  
UniRef90\_U6NI78  
UniRef90\_H2VNL6  
UniRef90\_B6DTF4  
UniRef90\_Q6BVJ6  
UniRef90\_G0VKD1  
UniRef90\_G2Q700  
UniRef90\_G3BD13  
UniRef90\_A5DWA1  
UniRef90\_K2DSQ6  
UniRef90\_S3BTM5  
UniRef90\_F0XJ44  
UniRef90\_T1H6N1  
UniRef90\_UPI0004704658  
UniRef90\_X1YN11  
UniRef90\_A9V299  
UniRef90\_L0PDR4

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

UniRef90\_M7SRW8 A W E L A G L E R A V L L A G K G L L G A V R L V E G K F G V I E A A R L A S I 200  
UniRef90\_C5K9F3 P W E L T A F D E M S R T A K S S V L V I A L N Y Y L G N T S L I E E A C R A A S V L E E  
UniRef90\_R9XF73 V W D L A G V F E K V V L T T K S F I C G I L L L L Q N K T S T E E D I A R A A A T L E E  
UniRef90\_J4KQ14 A W E L A G L E R A V L L A G K S L I V T A A R F I E T R F S A E E A A R A V T L E E  
UniRef90\_A0A024JEG9 S W Q L A A G L E R A T M T A K S S L I I G M N I A T L Q M S V I E Q A A S K A T S R L E E  
UniRef90\_T0LE65 A W E L A G L E R A V L L A G K S L I I G A A R L V E T G R F G V I E E A A A T S S L E E  
UniRef90\_E9DT96 P W E M A G L E R A V L L A G K S L V A A A R F I T E W F G V I E E A A A K T V S L E E  
UniRef90\_A0A016PS39 A F E T A G L E R A G L A G K S L I A A A R L V A K K F G V I E D A A V A T S L E E  
UniRef90\_J3PDY0 A F D L A G V F E K A A L L A G K S L V A A A R L V A R W F G V I E A T E A A A S V L E E  
UniRef90\_S6F004 A W D L A V F E K T V L V T K S F I C G L L L L Q K T T M E D I A R A A T L E E  
UniRef90\_F1ZBM5 P F T L A A L V N L T S L A A S S L I V G L A A I E D G A D L D A L W D A A S L E E  
UniRef90\_W0AG39 A F R L A A L S P I T I G G S L V I T A L A L D E D G V I T D A D Q E A W N A T H L L E E  
UniRef90\_E5QH61 N P L A C L Q I L S G L I G D S V I L A F F V E D D G I L T A Q L D G E A F R L S C L L E E  
UniRef90\_W6KV63 P Y Q I V A L C V A A Q F T S S L L L P L A L F H G I V D S P T A L R I N H S L E E  
UniRef90\_G7YBF6 R W A L I G T Q S C V E N L K S V F L T L A V L D D G F C S A V K A A E A S Q L L E E  
UniRef90\_B8E18 R P E L A A L H V M T T L T G S A L L A L A V A H G A L T A E E A W A S A H V D D  
UniRef90\_UPI0002F56728 P L I E L S A L G L A V P A L I G S L L L G L A L S A G A L D P V A A H R L S L L D D  
UniRef90\_V4P087 V Y T R A G L V A I P L L I G S S V L L A L A L W K G R L T G E E A A F E A S R V L G E E  
UniRef90\_F9FXX5 A F E I A G L E R A T L A G K S L I A A A R V A R G H L G V I E E A A A V A T S L E E  
UniRef90\_D5G8K1 D W D L A G L E I A T M S S K S F L I G A R L V I E K S W G I E E A A R A A S V L E E  
UniRef90\_UPI00026CC104 A F A L A A L S P L V T I G G S L L A A L A L A E G A A S A E Q T W D A V T L L D E E  
UniRef90\_E4XSS3 I G V L I A L D K M C L A L G K S M M L C L M V I E R K L S I E D G V L L S R L E E  
UniRef90\_B8BZ98 A W R L A S L Y S A C A E S K S F F I G A A L V I E G H T N A K W A V R A A R V L E E  
UniRef90\_Q1GRA9 Q W R I T A L T P L V T I G G S L V A G L A L I S N A F D A D A Q L W Q A V S L D E E  
UniRef90\_Q6CBE8 P W Q L A A L E R A T L T S K S F I C G A F L I S G K L T P T Q V A E L V S L E E  
UniRef90\_S8ALL2 P W E L V G L E C A V I I S K S L L V G L R L V M E N W D V I E D A A T A C N L L E E  
UniRef90\_G0UYD5 P Y Q V V A L C V A A Q F T S S L L L P L A M F H E V V D L P T A L N I N R A E E  
UniRef90\_S9W194 P Y Q V V A F C V A A Q F T S S L L L P L A M F N G V V D L P T G L R I N R A E E  
UniRef90\_L1JS14 D W R L T V I D Q V A G S T G S L M L S L A L S Q G F L N A D E A M K A A R L S E E  
UniRef90\_A7TGS3 Y W D L A L F E K L V L T T K S F I C G I L L L L Q G K Y N V I E D I L V R Y A T L E E  
UniRef90\_G9P3C6 A W E I A G L E R A V L L A G K S L V A A A R V V A G H F G A E D A S K A T G L E E  
UniRef90\_S9VW53 P Y Q I V A L C V A A Q F T S S L L L P L A L F H G V V D L P T A L Q I N R A E E  
UniRef90\_R8BJY0 P W D L A G V E R A A L L A G K S L L G A I R L V I E G R F G V I E E A K A A A S V E E  
UniRef90\_A3LR77 I Y D L I A L E K A L L T S K S F L C G V T L V R S N A T V I E I V E L G N M E E  
UniRef90\_UPI00035E7652 D L I E L S I I H R F A N I T G S F F I S F Y N L K K N L T K N K I I K I C F L D E  
UniRef90\_Q59VX2 I Y D L I A L E K T A V L T T K S F L C G I T L L R S H K T L E E L V E L G N L E E  
UniRef90\_K1V4G2 P F Q L A M E R A V Y A T K S F V I G L A L V E G R I T A H E A A L A S H V L E E  
UniRef90\_A5DD02 I Y D L V A L E K A I L A S K S F L C G A S V L R A I K S I D E I V E L G N L E E  
UniRef90\_G8JX38 T W D L A V F E K T V L T T K S F I C G I T L L Q N K M T M E D I A N A A T L E E  
UniRef90\_UPI0003288139 L W D L A I F E K T V L T T K S F I C G V L L L L Q N K A T M E S V A Q A A T L E E  
UniRef90\_G8ZYT9 A W E L V G L E C A V I L L S K S L L V A L R L V D R K W D V I E D A A K A C N L L E E  
UniRef90\_G1XTL4 V F V L A G L S V T T L T G S A L I A L A V H R G R L S V I D D A W A A H V D E E  
UniRef90\_UPI00036D2CFE I Y D L I A L E K T I L T S K S F L C G V A L L R S H K S L I E E L I E L A N L E E  
UniRef90\_M3HH80 P V S L A A L G V A V P A L I G S L L V L G L A L A E R R I T G P D E A H A L A T L D D  
UniRef90\_UPI00036C8653 L L V L T A L V S I T G L T T G S S G L L A I L G L N R L F T P D Y V W S A A H V D E E  
UniRef90\_A0A024KJU1 Q W Q F A A L E R A I C L S K S F I I G A K M V A E R L D V I E K A F N L A Q L E E  
UniRef90\_M7NV18 A F V L A G L I D A A A S L A A S L C A A L A G L K D D D A D A Q E K A L W A A N L E E  
UniRef90\_UPI000225E2F8 M W A L Q G I E Y I I T Q L A K S L I L S M G V I D R H I T V E Q A V L L S R L E E  
UniRef90\_UPI00038347A8 C W E L A G I E R A T L A G K S L L T A A R L V E R K F G V I E E A A R V V S V L E E  
UniRef90\_B2ALW4 G F E L A G L E R A T L A G K S L L L A A A R L V R K R F G V I E E A A Q A V S R L E E  
UniRef90\_G2R466 P Y Q I V A L C V A A Q F T S S L L L P L A M F H K V V D L P T A L T I N R A E E  
UniRef90\_G0U4D3 A W E L A G L E R A V L L A G K S V V A A S R L V I E D R F G V I E Q A A V A T S L E E  
UniRef90\_G2VW37 M W D L A I F E R V V L T T K S F I C G I L L L L Q N K T S T E E D I A H L A T L E E  
UniRef90\_G0W5K8 S W D L A G V E R A T L A G K S L L A A T R L V C E W F G V I E E A A Q A V S V L E E  
UniRef90\_G5EH01 A W S L A G L G V T V P A L I G S L L V L G L A V A A G A I A P A A A H D C A T L D E E  
UniRef90\_A5G1Z0 V F D L I A L E R A I L T T K S F L C G V S L L R S H K T V I E I V E L G N L E E  
UniRef90\_G3AF59 F W A L T G L Q Y A V Q S S K S V L I P H G M I R H R V I G A R E A V E L A L L E E  
UniRef90\_H3EA7 T W E L V A L E R T T L T C K S L L C G V A V V R K N R S L D D L A R A A T L E E  
UniRef90\_I2K0H1 P W N L A L F E K T V L T T K S F I C G I L L I E N K T S L D E I E R A A T L E E  
UniRef90\_J7RWG1 L W S L V A L H S I A C L S K S A I I G L N I Q G R I S T E E A V L A G R C V I  
UniRef90\_M1UUM8 D L R L T A L V I S V T P I L I G S A I L A F A L L E G E A D A E A V W K A A R V D  
UniRef90\_A3UD61 L W N L V V F E N V V L T T K S F I C G I L L L L Q D H Y S T E E I E R A A T L E E  
UniRef90\_H2AWL5 Y W D L A I F E K V V L T T K S F I C G I L L V I L N K H T T E D I I R Y S A T L E E  
UniRef90\_G8BN71 P W D L A V F E K T V L T T K S F I C G I L L L M E S M T S L D E I I R L A T L E E  
UniRef90\_Q6FSV6 M F E L V A L F E K A V L T A K S F L C G A S L L R S H K T V H D I V E L G N L E E  
UniRef90\_G8YDN4 A W D L A I F E K T V L T T K S F I C G I L L L L Q N K A S M E D I L A R A A T L E E  
UniRef90\_C5DWR5 I W G L T G I K S C V E N L K S V Y L T L A M L D G Y C S A A R A V I L S Q I L E E  
UniRef90\_G4VLC0 P Y Q V V A L C V T A Q F T S S L L L P L A L F S G V V D L P T A L A L N R A E E  
UniRef90\_E9ARH2 I Y D L V A L E K A V L S S K S F L C G A A I V R S K K S V I E I V E M G N L E E  
UniRef90\_C4Y010 G W D L A G V E R A T L A G K S M V V A S R F V A G W L S V I E A A Y A A T N M E E  
UniRef90\_U7PV52 D L I E L T A L N A A V T A A G S L V I G L A L G A G R I D A A A F E A A Q L D E E  
UniRef90\_Q1EHX5 I Y D L I S L E K T I L T T K S F L C G I L L L G R S N V S V I E E L I E L G N L E E  
UniRef90\_B9W716 I F E F V A L E K S I L T T K S F L C A V S I L R S N V S V I E E I I E L G N L E E  
UniRef90\_G8B808 A Y E L A A L E R A A L A T K S L L V A A R L V E P R F G I E S A A R A A S V L E E  
UniRef90\_W2RP79 A W Q L T T L H A C A A E A K S F W L A W S L L M H M V D I E G A I Q A A S V E E  
UniRef90\_B7GEH3 F W A L T G M Q Y A V E S V K S V L I P Y S V V T F N L S A T E A V H H T L I E E  
UniRef90\_U6NI78 P A L I G L Q Y A T E S V K S F V V A Y N A L R H H I D A E T A I D A A T L E E  
UniRef90\_H2VNL6 P Y Q V V A M C V V A Q F T S I M V P L A L F N R V V D L P T A F A I N R A E E  
UniRef90\_B6DTF4 M Y E L V A L E R A I L T A K S F L C G A S L L R S H K T V I E E L V I E L G N L E E  
UniRef90\_Q6BVJ6 L W D L A V F E K T V L V T K S F V C G I L L L Q N K V D A E R I A H L A T L E E  
UniRef90\_G0VKD1 P F E L A G L E R A T L A G K S L L A A A R L V D E R F G V I E E A A R A V S L E E  
UniRef90\_G2Q700 T F E L V A L E K A I L T S K S F L C G L S L L H Y F K T I D E I I E L G N L E E  
UniRef90\_G3BD13 I Y E L I A L E K S I L T T K S F L C G A S I L R S N V S V I E I I E L G N L E E  
UniRef90\_A5DWA1 T F Q L S G F V H L L T T S F A I S Y L L F N S D E L T A E R A W N L A H L H  
UniRef90\_K2DSQ6 G W D L A G I E R A T L S G K S L V V A A R L V S G V L S V I E D A F L A T S M E  
UniRef90\_S3BTM5 S W D L A G V E R A T L A G K S I L V A A R L V G G W F S A E A V A A T N M E  
UniRef90\_F0XJ44  
UniRef90\_T1H6N1  
UniRef90\_UPI0004704658 N A T L A A L G V M V P A M K S I V L G L A V V T G A L S A T R A A D I A T V G  
UniRef90\_X1YN11 T A A L H G F V E A V D T T K S I I L T M A C V D R H L T T E R A V Q L A R L E  
UniRef90\_A9V299 H W Q L S A M E L E A D D T T R S L V I A L A M L E Q D L T Q E A A D A R A E  
UniRef90\_L0PDR4 K W Q F A A I L D R A V C A T K S F L I G A N I L S N H L S P E K A C D L A Q L E



UniRef90\_M7SRW8 V N W Q I G R W G E V E D T H D V E E D L R R Q L G S V V L L V I  
UniRef90\_C5K9F3 E L D N R G K W G T V E E G D H D V S D R T L K M A M G A A K F F A  
UniRef90\_R9XF73 T L Y Q V E R W G E V E D D T H D V H R D I R R N I N A A A  
UniRef90\_J4KQ14 V D W Q T S H W G E V E D D T H D V R E D V R R Q L G S V V L L V I  
UniRef90\_A0A024JEG9 T I H Q T D I W G E V E D T H D  
UniRef90\_T0LE65 V S W Q T G S W G E V E D T H D V E E D L R R Q L G S V V L L V I  
UniRef90\_E9DT96 V D W Q V T Q W G E V E D T H D V N E D V R R R Q L G S V V L L V I  
UniRef90\_A0A016PS39 V N W Q T M Q W G E V E D T H D V K E D V R R Q L G S V V L L V I  
UniRef90\_J3PDY0 V R W Q T G R W G E V E D T H D V E E D L R R Q F G S V V L L V I  
UniRef90\_S6F004 T I Y Q T E R W G E V E D T H D V D K R D I R R N V H A A A I A A  
UniRef90\_F1ZBM5 E D W Q A E L W G K D  
UniRef90\_W0AG39 E L W Q E E Q W G E D A L A A T R A R A A R R A D F D A A A R F L A L  
UniRef90\_R5QH61 E L Y Q N E K W T V D E A A L S A R S R R E S D A V S A A E I L  
UniRef90\_W6KV63 E R H N I T E A G L I E G Y H D I R E V D V A A K I S A A L  
UniRef90\_G7YBF6 Q L F Q A S  
UniRef90\_B8ER18 E D Y Q M Q L W G A D E A A L A R R A R R W S E M E  
UniRef90\_UPI0002F56728 E T Y Q E A L W G E D A E A L A R R E R L A A D V A L S A R L L L F L A R  
UniRef90\_V4P087 E A F Q M E T W G D D A E A V Q R A A N Q K T Q A Q S L E A W F  
UniRef90\_F9FXX5 V D W Q T G Q W G E V E D T H D  
UniRef90\_D5G8K1 V R Y Q T E I W G E V E D T H D D K E D I K R Q L G A A W L I  
UniRef90\_UPI00026CC104 E D Y Q A E R W G R D P L A A A G T A A R R R D F D A G V R F L T L  
UniRef90\_E4XSS3 N E Y Q K D T W G T V E Y H H T V E E D I R A K V A S Q A L F I R  
UniRef90\_B8BZ98 E E L N I E T W G L V E G G H D Y D R L N C S I Q M H S A S F L A  
UniRef90\_Q1GRA9 E L Y Q E R R W G A D G E A Q K A R A A K Q R D W D N A A R F L G L  
UniRef90\_Q6CBE8 T K F Q V E R W G E V E D T H D D I R R H L A S C S L L A R M  
UniRef90\_S8ALL2 T D F Q I E Q W G L V E D T H D V H A D L R R G L G S V V L L V I  
UniRef90\_G0UYD5 E S H N T R V E G M I E G Y H D I R E A D V V T K L C A A  
UniRef90\_S9W194 E L H N I N E A G M I E G Y H D I R E A  
UniRef90\_L1JS14 E D Y N V E R W G M V M G G H D D A A D M R S R L A A A W L Y N R L  
UniRef90\_A7TGS3 T I H Q V D R W G E V E D T H D V D K R D I R R  
UniRef90\_G9P3C6 V A W Q A E Q W G E V E D T H D  
UniRef90\_S9VW53 E M H N I T E A G M V E G Y H D I R E A  
UniRef90\_R8BJY0 V E W Q T S R W G E V E D T H D V E E D L R R N Q L G S V V L L V T  
UniRef90\_A3LR77 T I F Q T R E W G E V E D T H D V D K V D L R R N L T S A A L L C H  
UniRef90\_UPI00035E7652 E I W Q N S K W G S E E A A A S K R E K I T S E L F R I A K L V K L  
UniRef90\_Q59VX2 T A Y Q T E E W G E V E D T H D V D K H D L R R N L A S A A L V C H  
UniRef90\_K1V4G2 V A S Q I E R W G E V E D T H D D Y Q D I R R A L G S A A V A L H  
UniRef90\_A5DD02 T I F Q T E Q W G E V E D T H D V D K V E L R S L T S A A L V V H  
UniRef90\_G8JX38 T L Y Q V D K W G E V E D T H D V D K R I R R N I T A A  
UniRef90\_UPI0003288139 I I H Q T D R W G E V E D T H D V D K R D V R R N I H A A G I V A  
UniRef90\_G8ZYT9 T D F Q I E Q W G L V E D T H D V H A D L R R G L G A V V L L V I  
UniRef90\_G1XTL4 E D W N V E L W G S  
UniRef90\_UPI00036D2CFE T I F Q T G E W G E V E D T H D V D K H D L R N L A S A A L V C H  
UniRef90\_M3HH80 E A F Q I E H W G E D A E A A R R A A L A E E V R L A A R I L A L A  
UniRef90\_UPI00036C8653 E D F Q I R Q W G E D E A A I E R R A R R R I E F D T A V K L I E L M R  
UniRef90\_A0A024KJU1 I L F Q I E R W G K I D D S H D I E E K D I K R L L  
UniRef90\_M7NV18 E D F Q A E Q W G T D E E A L A R R N A R E A E F  
UniRef90\_UPI000225E2F8 E E Y Q I Q R W G N V E W A H D Y D L C E L R A R A A G L F V H L C  
UniRef90\_UPI00038347A8 V E W Q T R R W G E V E D T H D V E E D L R R Q L G S V I L L V I  
UniRef90\_B2ALW4 V T W Q T R Q W G E V E D T H D V E E D L R R Q L G S V V L L V I S G T R  
UniRef90\_G2R466 E W H N M R T Q G V I E G Y H D I R E A  
UniRef90\_G0U4D3 V T W Q T G H W G E V E D T H D V E E D L R R Q F G S V V L L V I S L N R  
UniRef90\_G2VWV37 I F H Q T E R W G E V E D T H D V N K R I R R N I N A A A  
UniRef90\_G0W5K8 V N W Q T K V W G E V E D T H D V E E D V R R Q F G S V V L L V I  
UniRef90\_G5EH01 E R W Q E R L W G E D A E A A R R A R I G G E I A S A A R F V N L A R  
UniRef90\_A5G1Z0 T I F Q T E E W G E V E D T H D V D K V D L R N L A S A A L V C H  
UniRef90\_G3AF59 Q R V Q M K Q W G E I  
UniRef90\_H3EVA7 T V M Q T K R W G E V E D T H D V E K V D V R R V L S A S S L L  
UniRef90\_I2K0H1 I L Y Q T D R W G E V E D T H D  
UniRef90\_J7RWG1 E D W Q A D L Y G V V E G E H D D R A F L R A N L G A A S V L C R L A R  
UniRef90\_M1UUM8 D D Y Q I E R W G E D A E A A L A A A N R K R D L I A S E T V M R  
UniRef90\_A3UD61 T I H Q T R R W G E V E E A H A I S K A E L R  
UniRef90\_H2AWL5 T I F Q T E R W G E V E D T H D V N K R D I F R N I T A A S I V A F  
UniRef90\_G8BN71 T I F Q V E R W G E V E D T H D V D K R D I H R K I S S A A I V A F  
UniRef90\_Q6FSV6 T I F Q T N E W G E V E D T H D V D K V D L R N L T S A A L L  
UniRef90\_G8YDN4 T I H Q T E R W G E V E D T H D V D K R D I R R  
UniRef90\_C5DWR5 M L F Q V N R W G D V P S Y H D V E N A D L N A R V S A A L F L A L  
UniRef90\_G4VLC0 E Q H S I S E A G L V A G Y H D I R E A  
UniRef90\_E9ARH2 T I F Q T Q E W G E V E D T H D V D N A D L R S L S S A A L V C R  
UniRef90\_C4Y010 T A F Q T A Q W G E V E D T H D D Q A D M R R H F G S V V L L V I  
UniRef90\_U7PV52 E S Y Q I E R W G E D P E A A R R R A A I H A D L E A A E R L M A L L R  
UniRef90\_U7PV52 T I Y Q T K Q W G E V E D T H D V D K L D L R N L A S A A L V C H  
UniRef90\_Q1EHX5 T I L Q T G E W G E V E D T H D V E Q R D L R S L T S A A L L S H  
UniRef90\_B9W716 V N W Q T G M W G E V E D T H D V E E D V R R Q L G S A V L M V I  
UniRef90\_G8B808 E E Y Q I A N W G L V E G G H D D R L N S S I Q I R S A R A M L D  
UniRef90\_W2RP79 E A Q A E T W G S V E W A H G I E E E E L T S R L J A A A L F V Y M N  
UniRef90\_B7GEH3 Q R T Q A E T W G S V E W A H G E R E E L I T R L S A A S L F V Y F N  
UniRef90\_U6NI78 E G H N I A T A G M I E G Y H D I R E A  
UniRef90\_H2VNL6 I T F Q T E E W G E V E D T H D  
UniRef90\_B6DTF4 I T H Q T R R W G E V E D T H D V N K V I R R N I G V A A  
UniRef90\_Q6BVJ6 V D W Q T Q W G E V D D T H D D R E D L R R Q L G S V V L L V I  
UniRef90\_G0VKD1 T I F Q T N L W G E V E D T H D V E K A D L R S L T S A A L L C H  
UniRef90\_G2Q700 T I L Q T G E W G E V E D T H D V D Q R E L R S L A C A A L V S H  
UniRef90\_G3BD13 E Q E Q R R I W G Q D E A L A H K T S Y E L L E T L R Y L J A L V R  
UniRef90\_A5DWA1 T A F Q T A Q W G E V E D T H D V E G A D M R R  
UniRef90\_K2DSQ6 I A F Q T A L W G E V E D T H D V E A A M R R H F G S A V L L V A  
UniRef90\_S3BTM5  
UniRef90\_F0XJ44  
UniRef90\_T1H6N1  
UniRef90\_UPI0004704658 E R I Q M T I W G E D A K L V E A L R Q L A A E V V E A D R F M H L C Q  
UniRef90\_X1YN11 E E F Q Q G H W G V E W A H D Q R L D T Q S R L S A A L L Y V H F N  
UniRef90\_A9V299 V E F Q I Q R F G R V S W S H G M E Q A D E G R L S A A A L V M Q L A Q  
UniRef90\_L0PDR4 I N F Q I S Q W G E I K E



UniRef90\_J9I1I8  
UniRef90\_D5RST3  
UniRef90\_UPI00041C8498  
UniRef90\_W2Y4K2  
UniRef90\_K7T691  
UniRef90\_V5GDB1  
UniRef90\_G0QUI8  
UniRef90\_I3SGV7  
UniRef90\_C9SB68  
UniRef90\_G6CVX9  
UniRef90\_J8Q3K0  
UniRef90\_M4FQ90  
UniRef90\_I2H9Q9  
UniRef90\_D5AA96  
UniRef90\_B6JY44  
UniRef90\_A0A023D4Y1  
UniRef90\_UPI0003717D1B  
UniRef90\_H1VZ89  
UniRef90\_G6XFU4  
UniRef90\_R6HT65  
UniRef90\_R6IVJ3  
UniRef90\_A0DSW6  
UniRef90\_C0S0S7  
UniRef90\_L1LCM9  
UniRef90\_H0EYF1  
UniRef90\_L0EUD4  
UniRef90\_N1QTY3  
UniRef90\_G3GVH2  
UniRef90\_UPI0003C15A4C  
UniRef90\_A0CWS4  
UniRef90\_Q0CWQ7  
UniRef90\_M8AYJ0  
UniRef90\_R5QQ44  
UniRef90\_D2VDZ9  
UniRef90\_J4C3M7  
UniRef90\_L8HGN7  
UniRef90\_UPI00046FE66B  
UniRef90\_W713M9  
UniRef90\_Q4UFR8  
UniRef90\_K6UIZ4  
UniRef90\_T5AGN8  
UniRef90\_A7AUZ8  
UniRef90\_B3L213  
UniRef90\_Q2H4N0  
UniRef90\_Q4N3Q2  
UniRef90\_R5XZ04  
UniRef90\_V7PHB8  
UniRef90\_B6AAD6  
UniRef90\_U6N0B0

50 60 70 80

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













