



50            60            70            80

QUERY	F R G L V A S P D G T K V L E T S R K G P Y V Y E D M V K M G K D A G Q E L L S
UniRef90_W8L1N3	M R G L V G E P D G S L V Y R A S L D G P R E K A H E L G V A L A E Q L L L
UniRef90_Q1EPC9	F R G L L A S P D G S K V F E T T R S G P Y S F D D M V E L G K D A G H E L K A
UniRef90_E1SQB6	L R G L V G D P D G S K L I Q D E L R G P V A P E E A E Q M G I E L A E R L L A
UniRef90_A7FD67	L R A L V G A P D G S Q M I R G E R R G K P E D A E R M G V E L A E E E L L N
UniRef90_L0MBZ4	L R A L V G A P D G S Q M V R G E R R G K P E D A E R M G V E L A E E E L L N
UniRef90_UPI00034BDEF7	L R G L V G S C P D G K Q M I C G E R R G P R A P E D A E R M G V E L A E E E L L N
UniRef90_Q1MZM5	L R G L V G S E D G S R I I R T E I R G P E S Q A A E Q M G I S L A E E E L L A
UniRef90_E6RHT7	L R G L V G A I D G S E I I R D E I S G H V D D A E K I L G I Q A A E D L L A
UniRef90_D6XSZ7	L T A L V A S T D G K Q V F K E S I I G E D P E Y I I G T E V A E R I L L
UniRef90UPI0004634E62	L R G L V G A I D G S R I I R G D I S G P R E Q A E Q L G Q L L A E Q L L L A
UniRef90_Q2BL65	L R G L V G A P D G T I L R D E E R G P T P E Q A E Q L G I T L A E D R L L A
UniRef90_R410G1	L R A L V G S L D G R Q I V R G E C R G P A T S A A E Q I L G I E L A E E L L A
UniRef90_K9TM19	L T G M V A S L D G K R L L K E K V T G P A T D A A E Q I L G I Q L A E E T L L A
UniRef90_R9XPH4	L N A L V G S L D G S T I V R A S A K G N I K E A E K I L G I V A E A L L L A
UniRef90_K2GTC5	L R G L V A S E D G S E V L R A E A R G P R T D A A E A L G I R V A D A L L L A
UniRef90_A6W1B4	L R G L V G S P D G K T M I E G E I R G P H K D D A K S L I G V Q L A D D D L L A
UniRef90_Q7NGF7	L Q G I V A S L D G R N M A R A C R S G P G D A P E A L L G R A V A E D L L K A
UniRef90_A0KFH6	L R G L V G S P D G S R V I R D E I R G P L A D G E A L L G H T L A Q R L L L A
UniRef90_F6AGQ4	L R G L V G E P D G S R L L R A E Q R G S A E D A E R L G I E V A E A L L L A
UniRef90_K8GKS5	L T G I V A S L D G K Q L V K D T I T G V A E E Q L G T A L A Q R M
UniRef90_E4PK73	L R G L V G A V D G T Q I F R V E G R A P R A E E G E R L G R E L A E D L L A
UniRef90UPI0002558B5F	L R G L V G R P D G T R V L R D E I R G P R A E A E A M G I T L A D R R L L S
UniRef90_10AGZ7	L D A M V G S L D G S I T F R K K V R G R K D E P E K L G R S L A K D L L L
UniRef90_G4T2L1	M R G L V G D P D G S V I Y R A E R S G S A E Q A E Q I L G V S I A E E L L A
UniRef90_Q1YY78	L R A L V G E P D G S K M V R G E I T G A A I D G E A L L G T Q L A E E Q L L A
UniRef90_Q6CZG3	L R A L V G A P D G S Q M I V G E R K G S V I S D A E K I L G V A L A E E L L A
UniRef90_B8HND9	L T G L V A S L D G Q R L I K D Q I T G A A T T A E Q M G T E L A Q R L L
UniRef90_K9Q5R7	L V G M V A S L D G K T L L R D E V S G S R A D A E K I L G V Q L A E K V V A
UniRef90_I3D8Y3	L R A L V G A L D G S Q I I R A E G K S A V E N A E N L G V Q I A E Q L L A
UniRef90_K7LMJ3	F R G L V A S P D G T R V L E T S R V G P Y A V E D M I E M G V Q
UniRef90_B4F1X3	L R A L V G S P D G E T I L R G E R L V S P E A D E Q A G L S L A E E L L
UniRef90_Q5QUS3	L R G L V G E P D G G K V L R D E V R G P A S K A E E L G S E L A E R L L
UniRef90_E3BMP0	L R A L V G E P D G S Q M V R G E I R G K R D A E Q L G I E L A N Q L L L
UniRef90_B7S2A8	L R G L V G R P D G S E V L R A E A I S S P E D A E N L L G I S V A N E L L
UniRef90UPI00036F816D	V R G L V G E L D G S K I I L R S E C T G P Q I Q A H K L G V V V A E D L L A
UniRef90UPI00037FA43A	L R G L V G S P D G K Q I L R K E I T G H L D D A E K I L G L N L A K Q L L L A
UniRef90_A6F8Y9	L R G L V G K P D G T E V I R A E I R G D R K N A R Q L G L E L A D D K L L L A
UniRef90UPI00047DE6EC	L R G L V G D L D H G T I L F H E I T G R P E D A E A I I L G T A L A D D H L L A
UniRef90_Q48AW8	L R G L V G S V D G S E M I E S E I T G P V E E G E A L L G N K L A Q R L L S
UniRef90_K9XD64	L T G I V A S V D G T V K D T I V T G S A S N A E Q L L G T E L A Q R L L
UniRef90_Q39QM7	L T G F V A S V D G T R S V K D T I S G P V T E C E K I L G I A L A E E K L L A
UniRef90_Q31JG5	L R G L V G A L D G S E I I L R S E A R G S Q K D P E T L L G V Y V A E E Q L L A
UniRef90UPI000366FE75	L K G L V G S P D G K T I I Y D Q I Q G A S S E A K Q L G Q A L A D D K L L V S A
UniRef90_Q1YSU2	L R G L V G S V D G S L I L Q D Q L S A P V A Q A E A L L G I E L A E R R L L L
UniRef90_Q2SQ70	L R G L V G S P D G A Q V L L R D E V E G P V A A A E A L L G T E L A E R R L L
UniRef90_J1QFU8	L R G L V G S L D G S E I I R D Q V Q G P A S S A A E A L L G L Q L A E R R L L
UniRef90_Q8KQC4	L L A F V G S V D G K T A L R N E L T K P V T P E E A A V V G I E L A E V V L L S
UniRef90UPI0003B77120	L R G L V G S V D G K Q I L R K E I T G K P E E A Q M G L A L A Q Q L L
UniRef90_D8QTP5	F R G L V A S P D G T Q V L E T T R S G Q Y N L D E M V A M G K D A A K E R L L S
UniRef90_K4KMT4	L R G L V A S T D G K R I I R D E I R G P V A Q A E T L L G V T L A E E R L L S
UniRef90_A8G0W4	L R G L V G N P D G S H I I E A T K V G S K T D A Q A L L G V A L A E E E L L
UniRef90UPI00035E075D	L R G L V A S T D G T E I I R D E I L R N S P D N A E A M G I E L A E R L L L
UniRef90_G7W5N3	L R G M V A S L D G T R L I K A D A K G S D P E A V V G E V A N K L L
UniRef90UPI00034C8FAD	L T G M V A S L D G K Q L L K D S V T G D R T N P E E I I G S Q L A E E K L L
UniRef90_V2UP33	I I E G R V G S V D G T V L L K A T L E G T V E Q A E Q L L G V Q L A Q Q L L L A
UniRef90UPI000377E24C	L T G M V A S L D G K T L I K D T V T G S S S D P E K I L G L D L A E E Q L L
UniRef90UPI0003958085	L R A L V G E P D G S T I L R A E I T G P L E K G E A L L G T D L A E E Q L L
UniRef90_B1WTL1	L T G M V A S L D G K T L I K D T I Q G E A A Q A E K I L G E E L A L R L
UniRef90UPI00031154BD	L T G M V A S L D G Q R L I K D E V T G L A S D A E Q L L G I N L A H Q L L
UniRef90_U3U6P3	L R G L V C P D G M K I V G E R R G A Y S N A E Q I L G I S L A E E E L L
UniRef90_E8PJ2	L E G M V L T D G K S F I R A E I E G D A S E A E E N L G R Q L G D D L L A
UniRef90_A1WVT9	L R G L V G A I D G S E V I R G E I R G P A A E A E N L G R Q L G D D L L A
UniRef90_G2FVW3	L R G M V A S L D G E R L I K A E A K G V D P D E V G H D A A G R L I A
UniRef90UPI00035FE300	I T G L V A S V D G Q K L V K D T I T G K T T D A E K I L G T E L A L R L
UniRef90_L0F7C4	L R G M V A S L D G Q R V L K V S L T G D P E K I L G K E A A E A L I A
UniRef90_Q1GXA1	M T G F V A S I D G K E F L R E S V Q G P A E Q P E A L G Q A L A A K L V A
UniRef90_Q15Z15	L R G L V G S P D G S V L L Q A E K R G N V N D A L S I L G V D V A E Q L L
UniRef90_Q9CK24	L R A L V G E V D G S S I L R A E G R S A V A D A E T L G I Q V A E K L L
UniRef90_K2AZU7	L R G L V G S V D G Q S S I L R A S G K A N V K E A E A L G I L V A K K L L
UniRef90_K9VGC7	L T G M V S S L D G K R F V K D S V S G A A E T A E M L G I D L A H R L
UniRef90_D8F8I8	F E G G L V A E L D G S R I Y K E I A T G S R D D A E K I V G I E A A K T L L S
UniRef90_Q65GK1	L T G L V A S P D G K T V Y R E T V K G K D P E A V G R E C A A V M
UniRef90_R4YRZ9	L R G L V G S V D G K Q M L T A E Y R A P V A E A E A L G I K A A E D L L
UniRef90_T0BY64	L T G F V A A P D G S K S L R E Q A S G R D A V A V G K T V A E A L L A
UniRef90UPI0002899958	L Q G R V A S V D G K K V L K S H G T G D D P V V L G T R I A E D L L N
UniRef90_Q8YVU6	L T G V V A S V D G Q N L V K D T V T G S N A S D A E A I I G I R L A E E L L
UniRef90UPI0003757CCB	L R A L V G M P D G S K V L R A E G R G S A S E P E T L G I R V A E D L L
UniRef90_F6B6M5	L Q A I V A T L D G Q R L I R A Q G E G A L N Q A E E L L G I E V A D D K L L S
UniRef90_Q602K3	L R G L V G N P D G S G I I R A E A V G H P S T F E A A L G K R V A E H L L
UniRef90_Q12593	L R G L V G N P D G S Q I I T G Q V K G L K S E A S Q L G E Q L A E I L L A
UniRef90_Q2RJ26	L Q G M V A S L D G R E M L R D I A S G S T R D P E A A G R E L I A R K L L A
UniRef90UPI00041750DC	L R G L V G S V D G T N L I R K E L I G H V D Q A H E L G E T L A Q Q L L N
UniRef90UPI00037F76FF	L R G L V G S P D G T T M I R A E C R G A A S D G E T L L G T Q L A E Q L L S
UniRef90_L8D4W9	L R G L V G A V D G S E M L Q A E V K G D A I E A K Q L G T Q L A E T L L S
UniRef90_K8WLX1	L R A L V G S P D G S Q V I R G E R C S D P E N A Y Q A G I S L A E E L L
UniRef90_D3PCG5	L K G F V A N L D G S K Y I Y E E E G D K T D A V K L L G K L A K N I I L L
UniRef90_C8X0N3	L D C F V A D L H G Q Q C L R R E G E A K P K D G V A L L G Q R L A D D D I L L A
UniRef90_K0C9C9	L H G L V A E P D G S V M I T E Q L E G P L E D A E K I I G V T V A N R L L A
UniRef90_A4XNY8	L R G L V G Q P D G G L L R A E H R A A S S D E A L G V R V A E A L L L A
UniRef90_W0TJN3	L R G L V G S V D G T R I I R D E I R G P R D E A G T L L G V S L A E R R L L
UniRef90UPI0003A8937D	L R G M V G N P D G T L L T A E A S G A E S E P E A L G I Q V A E N L L S

QUERY  
UniRef90\_W8L1N3  
UniRef90\_Q1EPC9  
UniRef90\_E1SQB6  
UniRef90\_A7FD67  
UniRef90\_L0MBZ4  
UniRef90\_UPI00034BDEF7  
UniRef90\_Q1MZM5  
UniRef90\_E6RHT7  
UniRef90\_D6XSZ7  
UniRef90\_UPI0004634E62  
UniRef90\_Q2BL65  
UniRef90\_R410G1  
UniRef90\_K9TM19  
UniRef90\_R9XPH4  
UniRef90\_K2GTC5  
UniRef90\_A6W1B4  
UniRef90\_Q7NGF7  
UniRef90\_A0KFH6  
UniRef90\_F6AGQ4  
UniRef90\_K8GKS5  
UniRef90\_E4PK73  
UniRef90\_UPI0002558B5F  
UniRef90\_I0AGZ7  
UniRef90\_G4T2L1  
UniRef90\_Q1YY78  
UniRef90\_Q6CZG3  
UniRef90\_B8HND9  
UniRef90\_K9Q5R7  
UniRef90\_I3D8Y3  
UniRef90\_K7LMJ3  
UniRef90\_B4F1X3  
UniRef90\_Q5QU3  
UniRef90\_E3BMP0  
UniRef90\_B7S2A8  
UniRef90\_UPI00036F816D  
UniRef90\_UPI00037FA43A  
UniRef90\_A6F8Y9  
UniRef90\_UPI00047DE6EC  
UniRef90\_Q48AW8  
UniRef90\_K9XD64  
UniRef90\_Q39QM7  
UniRef90\_Q31JG5  
UniRef90\_UPI000366FE75  
UniRef90\_Q1YSU2  
UniRef90\_Q2SQ70  
UniRef90\_J1QFU8  
UniRef90\_Q8KCJ4  
UniRef90\_UPI0003B77120  
UniRef90\_D8QTP5  
UniRef90\_K4KMT4  
UniRef90\_A8G0W4  
UniRef90\_UPI00035E075D  
UniRef90\_G7W5N3  
UniRef90\_UPI00034C8FAD  
UniRef90\_V2UP33  
UniRef90\_UPI000377E24C  
UniRef90\_UPI0003958085  
UniRef90\_B1WTL1  
UniRef90\_UPI00031154BD  
UniRef90\_U3U6P3  
UniRef90\_E8PJ2  
UniRef90\_A1WVT9  
UniRef90\_G2FVW3  
UniRef90\_UPI00035FE300  
UniRef90\_L0F7C4  
UniRef90\_Q1GXA1  
UniRef90\_Q15Z15  
UniRef90\_Q9CK24  
UniRef90\_K2AZU7  
UniRef90\_K9VGC7  
UniRef90\_D8F8I8  
UniRef90\_Q65GK1  
UniRef90\_R4YRZ9  
UniRef90\_T0BY64  
UniRef90\_UPI0002899958  
UniRef90\_Q8YVU6  
UniRef90\_UPI000375CCB  
UniRef90\_F6B6M5  
UniRef90\_Q602K3  
UniRef90\_Q12593  
UniRef90\_Q2RJ26  
UniRef90\_UPI00041750DC  
UniRef90\_UPI00037F76FF  
UniRef90\_L8D4W9  
UniRef90\_K8WLX1  
UniRef90\_D3PCG5  
UniRef90\_C8X0N3  
UniRef90\_K0C9C9  
UniRef90\_A4XNY8  
UniRef90\_W0TJN3  
UniRef90\_UPI0003A8937D

	1	10	20	30	40
UniRef90_UPI0003FA71A1	N H R E S Q I C V H V E R E F L K V L E G G C C T A P I G A L A K I Q D E H I V H				
UniRef90_I3L00	N D P E T R I A V E A E R A L M A R L E E G G C C Q V P P I G A H A Q I V Q G N D E E V Y				
UniRef90_D5XEC8	N H G P S A A A I T A E R A M L K K L E G G C C Q I P P I G A L G R V V E G D R L Q I W				
UniRef90_Q1LU25	H H S A T A L R V S A E R A M A K L A G G C C Q V P P I G S Y A E I E E G D Q I W				
UniRef90_K6W0S3	H E Q T S I C V R A E R A F N S H L E G G C C Q V P P I A A Y A T L E E N G Q L Q				
UniRef90_A7C2T8	N H K P T Q E R L K A E R A R L N E Q L N G G C C Q V P P I A G Y A E I E A E M M T				
UniRef90_B9M416	N H P A T A Y A V R A E R A R L W R C L E G G C C Q V P P I A A F G E V T G S D L K				
UniRef90_UPI000473A355	N D E D T S L A V Q A E R V F L K R M E E G G C C Q V P P I A G Y A H V V E N R H V				
UniRef90_D4TMD6	H P Q T R D R C L A E R S F L R S L E E G G C C Q V P P I G V N T E I D G E S L				
UniRef90_UPI00037603FB	N H R D S E I R S I A E R A M N H R L E E G G C C Q V P P I G V F A E I L D G D S K I				
UniRef90_V5DZ98	H D N D T G I C V I A E R A M N A R L S G G C C Q V P P I A G F A E I R D D N Q E L				
UniRef90_S6HGC5	H H I S S A Y C V L A E R A M N K R L Q G G C C Q V P P I A C H A I L N D D H E L				
UniRef90_I4N737	H H A D T A A R V S A E R A R L N K H Q G G C C Q V P P I A C Y A V L E G D Q				
UniRef90_UPI00035E38C3	N H E P T A A C C L R A E R A F L A R L E E G G C C S I P S F A L A S L T D Q Q T I S Y				
UniRef90_H8Z6C2	H H Q N T A E R V R V L A E R A M N E R L L D G G C C S I P V F A L A T H T T E G Q V				
UniRef90_I0K296	N H E P T E V C V K A E R A Y L R R L E E G G C C S I P V F A L A T H T T E G Q V				
UniRef90_A2BVF7	D K A S S Q K C C L A E R A S F L R E L E E G G C C Q V P P I G V N S S I Q N D E I L I C				
UniRef90_Q3ALS9	H T P T S Q R C C L A E R A F L R E L E E G G C C Q V P P I G V N T R F E G D D Q L I				
UniRef90_D3SBN1	N D R D T S D R V R A E R A F N R R L L E E G G C C Q V P P I L A G H A T L D G D D R L L R				
UniRef90_L0GTS0	H H A P T A A R V R V A E R A M N E R L H Q G G C C Q V P P I A G H A V W R G D E E L I				
UniRef90_Q7VD89	H K E S S L R C C L A E R A F L K E L L E G G C C Q V P P I G V N S K I Q G Q E E L I				
UniRef90_B8FJM7	N H E P T Q V V T G E R A F L K R L D G G C C Q V P P I V A A H G R L K G D F E L I Q				
UniRef90_UPI00047997EF	E T S Q T V R A E R A F L H K M E G G C C Q V P P I A G Y A T L D E S G E E I H				
UniRef90_I0GTK3	N D E A T V H C A K A E R A F L G R V E G G C C Q V P P I V G V Y A V P A E K E E I Q				
UniRef90_UPI000361D6C1	N H E Q T H Y A V S A E R A L V A R L D G G C C Q V P P I G A Y A R I E K G L I T				
UniRef90_C3K424	D H H D T E V R V T A E R A R L N K H L N G G C C Q V P P I A C Y A V L E G E N L W				
UniRef90_S7UNV3	N D P A S R T C V M A E R G F L T A L Q G G G C C Q V P P I A G H A V L D G G R V				
UniRef90_W7QYC5	N H P D T A T I V T T E R G F N T R L N G G G C C Q V P P I A G Y A Q Q K G S E I				
UniRef90_M5DXA8	H D D N T A S C V L A E R A R L N R R L Q G G G C C Q V P P I A C Y A E R T G E K I H				
UniRef90_B0C8A9	H E P S A H R C T A E R S F L H E E G G C C Q V P P I G V N T S L K E G Q L T				
UniRef90_F5LAK3	H H E P S G L A V V M A E R A F L A E M G G G S C C H V P P V A C Y A E M N A Q E L V				
UniRef90_W4DWZ5	N D E R T A L T V T A E R A T F L G A L N G G G C C Q V P P I G A Y A I L E P E G E I T				
UniRef90_G2LHZ1	H H R T W H A C V E A E R A F L H G L G G G C C Q V P P I A A H A V V D D E G R I				
UniRef90_J8TW42	N D T T I T E R L V T A E R A F L H K I E G G G C C Q V P P I A A Y G T L Q E N G D I				
UniRef90_H8MXH1	D A L T R N A V R A E R A F L A K L E E G G G C C T V P P L A G H A T V E D D G Q V				
UniRef90_K9YU6	D T E T R D R C L A E R A F L R E L E E G G G C C Q V P P I G V N S E I N G D E T				
UniRef90_S7TUZ6	N D D A S A V C V T A E R A F L T G L E E G G G C C Q V P P I A G H A T M P D E E T				
UniRef90_Q7U5C2	H T T T S R R C C L A E R A F L R E L E E G G G C C Q V P P I G V N S A I S G E N V				
UniRef90_UPI000369834A	H Y P T T T Q R C C L A E R A F L R E L E E G G G C C Q V P P I G V N T A I E G D D R				
UniRef90_UPI0004717F1A	N H E D T R D R C L A E R A F L R E L E E G G G C C Q V P P I G V N S A I S G E N V				
UniRef90_Q0VM28	D V D T W D R V V A E R A M N R R L E E G G G C C Q V P P I A G F A L L E D G Q L L				
UniRef90_BoxWI9	D R K K S T L A C C L A E R S L M R T L E E G G G C C S V P P V G V E T E W M S S G D L R				
UniRef90_UPI00047B125F	H H P D T A A C C L A A E R S L N A R L E E G G G C C Q V P P I A G Y A Q L H G K R I H				
UniRef90_UPI00041CC016	N D E L V A R R V T A E R A F L Q E V E G G G C C Q V P P I G G Y A L L E A N G D V				
UniRef90_UPI00037E509E	N H P E T A A V A V I A E R S V L S T L E E G G G C C Q V P P I A A F G K V N G D Q L T E				
UniRef90_UPI00034799A1	D V P T T Q R C C L A E R A F L R S L E E G G G C C Q V P P I G V N T S I E G D R L T				
UniRef90_A0M6C2	N H K E S E L C V H V E R E F L K T L E E G G G C C T A P I G A L A K I L N N N H V				
UniRef90_C8W5F1	H R P S R I L A V S A E R N F L K R L E E G G G C C Q V P P I G A Y G L V I G N E I K				
UniRef90_A1AUE7	N H P D T S H A V R A E R A F L R R C Q G G G C C Q V P P I A A H G T I R G G E L				
UniRef90_G2D8Z5	H H V D T A A C V H A E R A M N N R L M G G G C C Q V P P I A G Y A M L E A G N L W				
UniRef90_B0TW04	N C S D S F C V A T A E R A F N Q E L K G G G C C H V P A G A Y A E L H D N Q L T				
UniRef90_UPI0003B6DE55	D T P T R V C V E A E R G F L A G L E E G G G C C Q V P P I A G H A R L E D D E T F V				
UniRef90_UPI00035D7C57	H H K E T G Q C L A A E R A F L A E L D G S C C Q T P A G L A T I E G S S L K				
UniRef90_C5WDQ7	H H D D T A L C I K A E R A R L N T R L G G T C C Q V P P I G S F A I L E G D Q I				
UniRef90_A0L5L5	H K E T H S C V T A E R A F L A K L E E G G G C C Q V P P I A G Y A T L H E D T L				
UniRef90_N9MCR5	D D E T N V C V T A E R A F N A Y L E E G G G C C Q V P P I A G Y A T L K D G Q L S				
UniRef90_S6EN40	D P E T T A C V L A E R A M N H H Q G G G C C Q V P P I G G Y A V V R G D Q L Y				
UniRef90_G2PQ66	N H P S S E T A T T I E R E F L R T L E E G G G C C T A P I G A L A Q I K D E T V				
UniRef90_Q7VFE9	N D K Q S A L C V S A E R A F V R T L E E G G G C C Q V P P I G V Y A Q F S N N K L				
UniRef90_UPI0003B2EFB4	N D E K S E L A A A I E R S F L K T V E E G G G C C Q V P P I M G C Y A E V K E D G I				
UniRef90_UPI0004257B15	N D A S T T R T V T A E R T F L H L E E G G G C C Q V P P I I G G Y A Y L E G D D I				
UniRef90_W4C8Y3	N D A D T A L T V V A A E R T F L G V L E E G G G C C Q V P P I G A H A V L D E H K V I				
UniRef90_N8QCQ5	N D E T D I C V R A E R A F N A Y L E E G G G C C Q V P P I A G Y A S L S Q G Q L S Y				
UniRef90_A0A033V316	H D E N V E T C V T C E R T F L N E M D G S C C K V P P I A G Y A T L E N D E I S				
UniRef90_H6LI57	D K N T R I Q M Q A E R S F L E T L N G S C C K H V P P I G A F C E I K D Q T I V				
UniRef90_UPI00036017BA	H H D T E I C V S A E R A M N A R L N G G C C Q V P P I A G F A Q L Q G N L V V				
UniRef90_A3YZH7	H L P T A R R C L A E R A F L R Q L E E G G G C C Q V P P I G V N S R F E G E E L V				
UniRef90_Q8CXC0	H D A Y T A K T V S A E R T F L H L E E G G G C C Q V P P I G G Y A Y L D G D D E V				
UniRef90_G2Z3B7	N H I E T E I C T H I E R Q F L K T L E E G G G C C Q V P P I G A L A K Y D E D D T I				
UniRef90_UPI00035FB285	N H A D T V D R T A A E R A F L A H A E E G G G C C Q V P P I A G H A T L D G D D Q L				
UniRef90_F5SYB3	H C D K T A I V L R A E R A L N K R L S G G C C Q V P P I A G Y A M L D D D N V				
UniRef90_A8PKX6	H P I T H S C V L A E R A R A L S R E L L G G G C C Q V P P I A A Y A A S L G Q D F I				
UniRef90_UPI00036E652E	H D E D T S I R V G A E R A M N A R L N G G C C Q V P P I A G F A E I K G Q R L F				
UniRef90_Q9K8G0	N D D T T A T K V L A E R T F L H R M E E G G G C C Q V P P I A G Y A T L T D E G E I				
UniRef90_F8C344	H S E T T A I C I K V E R T F L K T L E E G G G C C Q V P P I G A Y C W I E N S K E I				
UniRef90_W4QTK7	N D D A T A T A R T V T A E R T F L N R M E E G G G C C Q V P P I A G Y A T V T L E N E I				
UniRef90_B2UA05	H D E P T A L A V T A E R A V S R I L G G S C C Q V P P I A S F A Q W S D G G T L R				
UniRef90_UPI00037BDCC4	N D E E T A L T V T A A E R T F L G V L E E G G G C C Q V P P I G A Y A T L E H S S R I				
UniRef90_G2Z9Q4	H H E E T G V C V E A E R V F L K K L N G G G C C E V P P I A G F A T K T D G I V				
UniRef90_UPI00036F1BD7	H T D T F D R V S A E R A V N Q R L E E G S C C C H V P P I A A Y A V L E G D R L				
UniRef90_I3BU96	H P E T A V R V R A E R A M N H R L N G G C C Q V P P I V A G F A E L V D G N L L				
UniRef90_K9XQK2	D L D S R D R A W A R E R S F L R N L E E G G G C C Q V P P I I G V N T S I E G D T L				
UniRef90_D5X258	N H P P T A L C T H A E R A V S R G L E E G G G C C T T P M G A Y A T L E G E A M H				
UniRef90_E3E0Q9	D E Y T K R T V L A E R A F L N A M E E G G G C C Q V P P I A G Y A T L N D Q D E V Q S R I				
UniRef90_D7UYY2	H H A I T A N C V V A A E R A F L K T L N G G G C C E P V P I A G Y A T Q S G S K V S				
UniRef90_E0QGM3	N D A E T Q S C V M A E R E F L H T I G G G C C Q V P P I V A G Y C E K I G Q I Y R				
UniRef90_UPI0004779652	N H A Q T A A C C I T A E R A L A R A L L N G G C C Q V P P I L A A F A T E E D G I L L T				
UniRef90_B2A1G7	D D S E S R K A I G A E R A F L N R L E E G G G C C H V P P V G A Y A E I S N E L H				
UniRef90_J0B7Y1	H S T S H S V C A L A E E R A V S R A L L G G G S C C Q V P P I A A Y A T L D G D E L				
UniRef90_Q3JDS1	H P P T R T I T R A E R A L N A R L A G G G C C H V P P V G G Y A T V N G D D V				
UniRef90_C4L4J6	H D D V T A K A A T A E R T F L K A I E E G G G C C H V P P V G G Y A T V N G D D V				
UniRef90_N1JB42	D P E T T L A G T S E R S L M R A L E E G G G C C S A P I G V E S T W I D K G K L M				

50            60            70            80

F H G A L F S [L D G S R K I   E V E K S V P V A   Q A E N L   G K F C A Q E V L N				
L E A I I I C S V D G I T A V R D N H R G P A N Q A V K I   G N E L A Q R M L				
L E G V V A S L D G K E L L R S R V E G P A S E A A S L G V A L A E K L L				
L E G R V G S V D G L I L L S S Q V S G Q P E H A E Q L G V E L A E N L L S				
V R G L V G D I D G K E V L H H K V Q G P I E S A E T L G K E L A T E L L A				
L V G F I A S V D G K T S V R G T I T G P A A D C E K I L G K L A E Q L L A				
L T A L V A S P D G Q Q I Y Q E T L A G A N P V E I L G E E A A R R L T A				
L T G I V V A S V N G E N L V K N T I T G A A A D A E K I L G T Q L A N I L				
I R G L V A E L D G S V V L T A S I E G D K K D A K A L G T T L G E E K L L A				
M R G L V G S P D G R Q I Y R S E H S G K L V D A E S I I G K T I A E D L L S				
L R G L V A S P D G T T V L R D E I R G S V N D A E K I L G V E L A E R L I				
L R G L V G E P D G A R L L T A D A R A P R S A A E Q L G D V A E A L L				
L T G G L V S L D G S Q L L R E T F S G P T D E A P S L G H S L A E S I L				
L R G L V G T P D G Q R L L R A E E R A A P E Q A E A M G R R V A E L L L				
L T G G I I S L D G N E W L R E T F V G P P A E A E K L G H D L A E A V L				
L K G M V A S I D G K K L I K D E S S G N V K Y P E E V G K K L A E K L				
L T G M V A S L D G K R L I R D Q T S G E A S E A E A I L G I A L A N T L				
L D G L V G A V D G S Q V L L R R Q V E G P R G D A E A L L G V Q L A E Q				
UniRef90_L0GTS0	L R G L V G T P D G A R V L R A E R S G Q P S E A E T I G Q A V A D D L L A			
UniRef90_Q7VDB89	L T G M V A S L D G Q K L I R D T K T G S S M H P E T I I G I E L A N T L L K S			
UniRef90_B8FJM7	L T G V I A G V D G T P I F R D S V S G K K E D A K E L G V K L A E K L L N			
UniRef90_UP100047997EF	L T G L V G S P D G K V I Y K E T L L K G S N P E E V G V K M A Q K L			
UniRef90_10GTK3	V E A V I A S L D G Q R L Y R D K I S G K V E D A E K I L G V T L A E K L L A			
UniRef90_UP1000361D6C1	L T G M V A S L D G E V I Y K L E N V G P V V D D A I N I G Q E L G S K L L			
UniRef90_C3K424	L R G L V G D P E G G N L L T A E V R G P Q C D A T A L I G Q V A Q A L L			
UniRef90_S7UNV3	L E G L V A D V H G V R V V R D E L S G P A D Q A W S I L G E T L A R R R L L A			
UniRef90_W7QYC5	F R G L V A S V D G K Q V F Y T E K S G L P E E A E Q I G I A A A E E L L			
UniRef90_M5DXA8	L R G L V G S P D G L Q V L R T E C E G V A G D A E A M G I I K A A E D L L A			
UniRef90_B0C8A9	L V G M V A S L D G K R L I K D T V S G P I A S A T Q L G I D L A Q K V			
UniRef90_F5LAK3	L T G L I A S P D G K T V L K E R R V S G H D P V Q L L G R Q A A Q R L			
UniRef90_W4DWZ5	L T G M V G T P D G T V I L K E T C T G N D P V E L G S E V A R K L V A			
UniRef90_G2LHZ1	L R G L V A R V D G T R T L V Q D E L T G D A R F A E D I G R E L A E R V L L A			
UniRef90_J8TW42	L T A L V G S P D G K T I L K E T R V G N E P V E L G V S I A N T L L			
UniRef90_H8MXH1	L R G L V G R P D G S L V V R G E V K G P V P E A E R L L G E A L A E E L L S			
UniRef90_K9YU6	L T G M V A S L D G Q Q L L K D T V S A D R S E V D Q I L G Q E L A Q I L			
UniRef90_S7TUZ6	L E G L V A S V D G K R S V R R S A Q G D A E D A W D L G Q E L A Q E I L			
UniRef90_Q7U5C2	L T G M V A S L D G K R L I R D E A S G S A A D P E S I I G I E L A G K L			
UniRef90_UP1000369834A	L K G I V A T L L D G Q T L L V R G E V V Q G S S V T Q S E E I V G T E L A N Q L			
UniRef90_UP10004717F1A	L T G M V A S L D G K T L I R D E C R G P R H T P E A V G R Q L A L A L			
UniRef90_Q0VM28	L R G L V A E E D G S R V L R A E G T A P R Q G Q A E L G I D I A E Q L L A			
UniRef90_B0XWI9	M D A I V V S L D G T R S V E D R I T A R V A I D E A D A L L G E E L A G R L L L			
UniRef90_UP100047B125F	L R G R V G M P D G S E L I A A E I E G V A V E E A E A L L G T A V G E T L I A			
UniRef90_UP100041CC016	L T A M I G S P D G A T V L R E K K T G S N P L E V G R E A A Q T L L			
UniRef90_UP100037E509E	L T A L V S S C D G Q Q M I K Q S M S C H I S D A V A T G V A L A R Q L L A			
UniRef90_UP100034799A1	L T G M V A S I D G Q Q L V K D T V S G N T A D A E T L G V T L A N R L			
UniRef90_A0M6C2	F H G A L F S L D G K K K M E V E R S L P V A E I E D M G K E C A Q E I L			
UniRef90_C8W5F1	F E G L I A S L D G K H L V R D V I A G P V V N E A A K I G V K L A E S I L L S			
UniRef90_A1AUE7	L V G L I A A V D G R E F V R D E L S G P V D Q C E H L G E E L A D R L L			
UniRef90_G2D8Z5	L R G L V G E L D G S Q I L R G E A E G T P D E A E S I L G V G L A E R L L			
UniRef90_B0TW04	L T A M V A S S D G K N I L K R K L T G D D P M R L G K L L A Q E M I			
UniRef90_UP10003B6DE55	L E G L V A E D D G S L I L R E A Q R G Q T S K A R Q I G L E L A E K L L A			
UniRef90_UP100035D7C57	F T G Q V L R T D G S E S I S E T A S C H I I E D G P E L G R E M A Q K I L L A			
UniRef90_C5WDQ7	L R S K I G L P D G T N M V S A E R R G H K K L A E Q L G T L L A E E M L			
UniRef90_A0L5L5	L R G L V A E V E G G R V V Q A Q C Q G P R A D A Y R M G Q Q L A T Q L L A			
UniRef90_N9MCR5	M E G R V G S V D G Q T L L S A Q L S A A P E Q A E Q L L G E Q L A Q N L L A			
UniRef90_S6EN40	L K A L V G K V D D G S Q I L D I K K E V K L S A V Q N S H Q L L G V Q V A E R L L			
UniRef90_G2PQ66	F E G V V F S L D G Q K Q I D I K K E V K L S D A E G L G K S C A Q E V L			
UniRef90_Q7VFE9	L Q A I V G L P D G S E V L Q D S V E D S I N I D D S E N L G I A F A Q K F I			
UniRef90_UP10003B2EFB4	V R A F I A S L D G T T F L K E E G L F P K E K P E E T G R A I A R R R L L S			
UniRef90_UP10004257B15	L T A L V G T P D G K T I L K E T V R G T D P E L V G K E A A E R L I M N			
UniRef90_W4C8Y3	L T G M V G T P D G S T I L K E T C T G I T P E Q A E Q L G E E V A K K L L I A			
UniRef90_N8QCQ5	L I E G R V G S V D G A T L L K V E L L K G T P E Q A E Q L G E T L A Q K L L			
UniRef90_A0A033V316	F T G L I M S P D G K E R Y E S T I I K G T D P V E I G K Q V S E E L K A			
UniRef90_H6LI57	L Y G L Y G L E D G S R V V T Q S I E G S P E E A E N I L G K Q L A K K			
UniRef90_UP100036017BA	UniRef90_A3YZH7	M R G L V G S P D G T V I Y R T A Q S G T P D Q A E E V I G C S I A E D L L A		
UniRef90_Q8CXC0	L T G M V A S L D G L R L I R D E A R G P Q Q D P E A V G T S L A Q I L L R S			
UniRef90_G2Z3B7	L T A L V G D P D G T T I L K E T V R G T E P T E V G K E A A E L L I S			
UniRef90_UP100035FB285	F H G V L F S V D G K Q F E I E K S V D I S E W K K L G F H A A Q E I L N			
UniRef90_F5SYB3	I R G R V G D V A G V E L L E Q T V V G P R Q Q A A E L G I Q L A E Q L L			
UniRef90_A8PKX6	L R G L V G Q P D G T N T V T A E V R G K A A D A E K I L G I Q V A E M L L A			
UniRef90_UP100036E652E	L Q A F V G S S D G T T Q I K V E K Q G P R V E A E K I L G F L A A Q D L R A			
UniRef90_Q9K8G0	M R G L V G S P D G S L L Y R A E A E S S T D F E V L G K A V A E D L L A			
UniRef90_F8C344	L T A L V G T P D G E Q I F K E I L R G K D P V Q L G E T T M A Q A L			
UniRef90_W4QTK7	V I G G F I S D L E G E R F Y K L R D E G S I S E A E K I L G E R L A K K L L			
UniRef90_B2UA05	L T A L V G S P D G K V L I K E T V K G S D P V D L G E R A S Q L L L			
UniRef90_UP100037BDCC4	L R A F F V A S Q D G T R K L A A D G E A P S T L A E A D A L G V R V A Q Q M L A			
UniRef90_G2Z9Q4	L T G M V G S T D G T V I L K E H A E G E R P L E E V A E R L L			
UniRef90_UP100036F1BD7	F K G L V G N S D G T T I L S A E Q S G P E N P A T I L G N Q V A E S L L L S			
UniRef90_I3BU96	L R A R V G S P D G G R L L R A E G R A P R G E A A A L G Q R V A D D D L L A			
UniRef90_K9XQK2	L R G L I G F P D G S A L Y S C E K T G C V V D P N A L G I E V A E N L L A			
UniRef90_D5X258	L T G M V A S L D G L R L I K D T I S G D R A L A E Q I L G D L A N R L			
UniRef90_E3E0Q9	L R A V L G L P D G S Q A L H A Q Q R G R V T L A Q A E A L G Q Q V A R Q L			
UniRef90_D7UYY2	L T G L V A S P D G K T I F K E K V A G N D P E E I I G K R C A A L M			
UniRef90_E0QGM3	F K G L V G T P D G K T I L W E A E R V G E D A D Q I I G T E A A N E L L			
UniRef90_UP10004779652	I Y A F V S S L D G K Y L S C E I K S K D T E N I L G K Q T A Q R L L I A			
UniRef90_B2A1G7	L T G G V V A S E D G Q D V I K R S V Q T H L S D N N P S T L G N D L A E E L I			
UniRef90_J0B7Y1	L S G L V A E P D G S T V Y R A Q I H G P A N N A E E L L G L S L A E D L L			
UniRef90_Q3JDS1	L R A L V G Q P D G G R V I R G E T W G M P G E A E S L G A S L G E E D L L			
UniRef90_C4L4J6	L T G G I A S V D G K E V L R V T K T S T D G V A L G Q A V A E E L L			
UniRef90_N1JB42	M K A I V V S L D G K T S V R A E R D E I L D V H D A N E I L G L R L A Q D L I			

UniRef90\_UPI0003FA71A1  
UniRef90\_I3L00  
UniRef90\_D5XEC8  
UniRef90\_Q1LU25  
UniRef90\_K6W0S3  
UniRef90\_A7C2T8  
UniRef90\_B9M416  
UniRef90\_UPI000473A355  
UniRef90\_D4TMD6  
UniRef90\_UPI00037603FB  
UniRef90\_V5DZ98  
UniRef90\_S6HGC5  
UniRef90\_I4N737  
UniRef90\_UPI00035E38C3  
UniRef90\_H8Z6C2  
UniRef90\_I0K296  
UniRef90\_A2BVF7  
UniRef90\_Q3ALS9  
UniRef90\_D3SBN1  
UniRef90\_L0GTS0  
UniRef90\_Q7VD89  
UniRef90\_B8FJM7  
UniRef90\_UPI00047997EF  
UniRef90\_I0GTK3  
UniRef90\_UPI000361D6C1  
UniRef90\_C3K424  
UniRef90\_S7UNV3  
UniRef90\_W7QYC5  
UniRef90\_M5DXA8  
UniRef90\_B0C8A9  
UniRef90\_F5LAK3  
UniRef90\_W4DWZ5  
UniRef90\_G2LHZ1  
UniRef90\_J8TW42  
UniRef90\_H8MXH1  
UniRef90\_K9YUS6  
UniRef90\_S7TUZ6  
UniRef90\_Q7U5C2  
UniRef90\_UPI000369834A  
UniRef90\_UPI0004717F1A  
UniRef90\_Q0VM28  
UniRef90\_B0XWI9  
UniRef90\_UPI00047B125F  
UniRef90\_UPI00041CC016  
UniRef90\_UPI00037E509E  
UniRef90\_UPI00034799A1  
UniRef90\_A0M6C2  
UniRef90\_C8W5F1  
UniRef90\_A1AUE7  
UniRef90\_G2D8Z5  
UniRef90\_B0TW04  
UniRef90\_UPI0003B6DE55  
UniRef90\_UPI00035D7C57  
UniRef90\_C5WDQ7  
UniRef90\_A0L5L5  
UniRef90\_N9MCR5  
UniRef90\_S6EN40  
UniRef90\_G2PQ66  
UniRef90\_Q7VFE9  
UniRef90\_UPI0003B2EFB4  
UniRef90\_UPI0004257B15  
UniRef90\_W4C8Y3  
UniRef90\_N8QCQ5  
UniRef90\_A0A033V316  
UniRef90\_H6LI57  
UniRef90\_UPI00036017BA  
UniRef90\_A3YZH7  
UniRef90\_Q8CXCO  
UniRef90\_G2Z3B7  
UniRef90\_UPI00035FB285  
UniRef90\_F5SYB3  
UniRef90\_A8PKX6  
UniRef90\_UPI00036E652E  
UniRef90\_Q9K8G0  
UniRef90\_F8C344  
UniRef90\_W4QTK7  
UniRef90\_B2UA05  
UniRef90\_UPI00037BDCC4  
UniRef90\_G2Z9Q4  
UniRef90\_UPI00036F1BD7  
UniRef90\_I3BU96  
UniRef90\_K9XQK2  
UniRef90\_D5X258  
UniRef90\_E3E0Q9  
UniRef90\_D7UYY2  
UniRef90\_E0QGM3  
UniRef90\_UPI0004779652  
UniRef90\_B2A1G7  
UniRef90\_J0B7Y1  
UniRef90\_Q3JDS1  
UniRef90\_C4L4J6  
UniRef90\_N1JB42

1 10 20 30 40

UniRef90_E1JXL6	D H P E S R D A V A A E R A F L G R L E G G C Q V P I A A H A V I D G N L I S T
UniRef90_G0L528	N H E P T E I C T K L E R E F L R I L E E G G C S A P P I G A L A T I S K E N E V
UniRef90_N9D019	H I E T D T C V R A E R A F N A Y L E G G C Q V P P I A G Y A T L A D N E R I
UniRef90_L0EGA5	N D E V S A R A V E A E R S F L A E L A G S C C T V P P L G A Y A V R D G N I L N
UniRef90_UPI0003697CA8	N H I D T Q L C V E A E R G M S R A L A G S C C T V P P L G A F A S V D H S G L L
UniRef90_W2EGY0	H D D T A L A V R A E R A F L G R L E G G C C Q V P P L G A H A V L Q A G R L V
UniRef90_UPI00036D392C	N H P E T A A C V S A C V T A E R T F L K E M N G G C C Q V P P I G G Y A T R K N D T E I
UniRef90_E8SIS5	H N E D V S A C V T A E R T F L K E M N G G C C Q V P P I G A Y G R V E R D R I Y
UniRef90_F6DSA7	H P D T R T A T D A E R S L L R Y L E G G C C Q V P P I G A Y G R V E R D R I Y
UniRef90_M7N6F0	N H P L T E T R L L A E R A Y L R R L Q G G G C C S V P P V Y A L Q V L G E G D T L V S
UniRef90_G4W9T2	E X C V D C E R A F L A Q L D G N C C T A P I G A L A T I E G N E E I V
UniRef90_UPI0003FE1AA4	N H R E S E I C V H M E R E F L K I L E E G G C C T A P I G A L A T I E G N E E I V
UniRef90_C6WZF5	N H R E T R I C I D I E R S F L S T L E E G G C C T A P I G A F A E I N D L G E V R
UniRef90_D0MJW6	H H A P T A A A V R A E R A F L L H A L Q G G C C Q V P P V A A L A A V E A D G T L V
UniRef90_UPI0003727BB6	H H A D S A A C V L A E R A F L S R A L Q G S C C Q V P P L G G F A Q I L D G R L R
UniRef90_W6KAS4	H D Q T S A D R I T A E R A F L L E V L D G S C C R T P I A A L A E I E S D G Q M F
UniRef90_T0S5X1	H E E E S A Q C C K A E R S L L R T L D E G G C C Q V P P I G A Y A T V R G S E V T
UniRef90_A0A015P2M1	N D G E T A L A V E A E R S F L G A L N G G C C Q V P P I G A Y A T V R G S E V T
UniRef90_UPI0003658A5B	N H A D T F D R V T C E R A F L A R L D G S C C R T P I A G L A E L S A D G R L L S
UniRef90_F0L3H0	N D I P T Y D A V T C E R A F L A A L D G S C C R T P I A G F A T C H G E E L H
UniRef90_K1ZFQ0	N D F K S F C V E V E A E R A F L A H D G S C C R T P I A A Y A V L E D D E T V L
UniRef90_A0A023BR78	N D S P E I C V H I E R E F L R E L E E G G C C T A P I G A L A Q I K E N I I Y
UniRef90_K3W518	D E R S A Q V C K A E R S L L Y H V E E G G C C Q V P P I A M G V H T V L D E N D T L T
UniRef90_N9QVF4	H E Q T W H C V R A E R A F N A Y L E E G G C C Q V P P I A G Y A T L D G N Q I S
UniRef90_D1KD95	D V E T T H R V S A E R A M N E K L E E G G C C S V P P I A G F S T L D N N Q M T
UniRef90_UPI00036C1E7A	N H T E S M L C A N A E R A F N E A L E E G G C C H A P I A A H A S F K G D L L Q
UniRef90_H2BT09	N H K E S E I C V H T E R E F L K T L E E G G C C T A P I G A L A E I R D G I L L Y
UniRef90_A7UFD0	N H Y E T T S V S I R A E R A L M R T L E E G G C C Q V P P I G S L G R L Q E G R L V
UniRef90_UPI00039A7B30	D R A T R V C V D A E R A G F L A G L E E G G C C Q V P P I A G H A R L A D E E N I I S
UniRef90_Q2VYV1	N C P D S F V R V A A E R A F L T R L D G S C C R T P I A A L A E L D G D R L L S
UniRef90_B8J0B3	D S A T R V C V E A E R G F L A G L E E G G C C Q V P P I A G H A R L L D D D T L T
UniRef90_B7RJR5	H D T P T Q G Q R L I A E R A F L L T L D G S C C R T P I A G L A T L D G D T L H
UniRef90_Q01178	D Q T T T Y C V L A E R A M N F H Q V G C C Q V P P I A G Y A T L E N N N Q L
UniRef90_Q6G8Q5	H N D E V I A K C V T A E R T F L A E M D G S C C Q V P P I A G Y A T I S D Q K E I E
UniRef90_UPI000381AC21	N D H V T A R T V E A E R V F L H K L E E G G C C Q V P P I A G Y A T I I E D D Q I E
UniRef90_UPI000367FD07	N D N E T Q I L A E A E R S L E V L N G A C C D T P V G A N A V I N D E G E L L
UniRef90_A1B853	D R D S A L R V T A E R A F L A R L D G S C C Q V P P I A G L A E L Q G D R R
UniRef90_B9E743	H D E E T E L C T E A E R T F L R L M D G S C C Q V P P I A G H A T M V G E S I
UniRef90_E31377	H D E A T G Y A I D A E R A F F L S E L D G S C C R T P P A A L A R Y D G H G R V
UniRef90_UPI0003487F10	D A D S T R R C L A E R A F R Q L E G G C C Q V P P G V N S E V I A D D R L Q
UniRef90_D3Q724	D D P M T S W R T E A E R S M L R A L N G H S P I A G Y A I Q E S E G V L L
UniRef90_A7BMK1	N D P D T Q D C V I A E R A R A L N E S L E E G G C C Q V P P I A G Y A T M N E R D E I
UniRef90_A8FFV2	N E Y T K K T V L A E R A F L K Q M D G S C C Q V P P I A G Y A T M N E R D E I
UniRef90_G3J7Z9	D H K P S R W R C V M A E R A M L R S L Q G G C C S S P I G A S S S W D P D N R L R
UniRef90_UPI0004687630	H D T E S G I V I Q V A E R A F L H T I E E G G C C Q V P P V A A Y G E R K D G V I H
UniRef90_G8XXB3	N H I E T E I C T Y I E R Q F L R T L E E G G C C T A P I G A L A T Y N E K D Q I H
UniRef90_UPI000262700F	D A E T T K T V T A E R T F L K L L E E G G C C S V P P I G I G G Y A S L N G N E I F Q
UniRef90_W8F4U3	D H A A T H V C L A A E R A F L R T M E D G G C C S I P S F A L A T L T A N G Q I
UniRef90_W0DU16	N D P A T E T V V K A E R A M N R C L D G G C C Q V P P I P G G F A T L L E N D Q V
UniRef90_L9PPZ9	N H E A T F Q A V T A E R K V S K V F G G C C Q V P P I L A A F A T V Q D G Q M H
UniRef90_J0VBU1	D H A E T T H V C L V A E R A F L R T M E D G G C C S I P S F A L A T L T A E G K V S Q
UniRef90_UPI000306B22C	H D A D T A R T V R A E R A F L G R L N G G C C Q V P P I G A Y A T N V G M G A Q
UniRef90_UPI0003791C03	H R P T R I C V E A E R G F L F G L Q G G C C Q V P P I A G F A T M K D N D N F E
UniRef90_A0A031IH56	H D Q M T E K V A Y A E R A F L A A I E G G C C H V P V G G F A T I N E D M S T T F
UniRef90_B3QWI1	N H A E T E L C T K C E R S L L R T L E E G G C C Q I P I G A H A R I I E N G T F
UniRef90_UPI000475AE0F	H H L P T M Q R I S A E R A F C L A E L D G S C C R T P I A A L A E I E G D D Q I Y
UniRef90_UPI0003EC3E90	H D P D T V L R C I A E R A F L R L E G G G C C S V P P V A V H T Q V K D S Q I
UniRef90_C5VPC7	H K A S T I Q A E A E R A F L K G V L N G G C C H V P I G A L C N I N K N T I E
UniRef90_Q1YDX3	D P R T T V A L T A E R A F L A E L D G S C C R T P I A A H A V L A E D G T V
UniRef90_D3QC97	H N Q Q V A D C V T A E R T F L A A M D G S C C Q V P P I G G Y A M N K P N G D I
UniRef90_D6SKM8	D D F S T R Y C I E C E R A F L A E L E G G G C C S V P V F C L A E L E G D D I
UniRef90_UPI00036E84BF	H E P S G Y R L A E R S F L K V L E E G G G C C S V P V F C L A E L E G D D I
UniRef90_UPI0003750F33	N D A E S V Q N S T A E R A F L A A V E E G G C C Q V P P V G V Y A H I K E N D Q
UniRef90_Q54P93	H R E S M Y C C E A E R S M L R D L E E G G G C C H V P I G V V T K I H N D E T
UniRef90_C4XJU4	D H P E S H D A V A A E R G F L G H E E G G G C C Q V P P V A A H A V I D G D M I
UniRef90_F2I2U3	N D K E T E I I V V S A E R A F L H R V E E G G G C C S A P I G A L A I L E N D N E
UniRef90_UPI0004798C91	N H H P T E I C T H V E R E F F L Q V L E E G G G C C S A P I G A L A I L E N D N E
UniRef90_F2NEV4	D D P E T R V A V A A E R A F L A R L E E G G G C C Q V P P V A A M G T L K K G E
UniRef90_UPI000470E4D1	N H I P S P K T C V H I E R E F F L R T L E E G G G C C T A P I G A L A Q I K K D T
UniRef90_G2IUI7	D H A D T H C A V C S A E R S L S R V L G G G C C Q I P I G G F A T L L S D D V
UniRef90_A1AX51	D V E T T Y M V S A E R A M N A R L E E G G G C C S V P P I A G F A L I D N E Q
UniRef90_I2JFU0	H N S V S A T Q V M A E R A M N R R L E E G G G C C Q V P P I A G Y A I A D P S D Q I
UniRef90_K0QZJ9	N C M D T H V C V N C E R G F L E A L D G N C C K T P I A G Q A R I I D G K I V
UniRef90_F6PNN8	H D P E T L C C L A E R A F L R H E E G G G C C S V P P V A V H T A M K D G Q I
UniRef90_UPI0003F8D76A	H H P P T A D Q A M A E R T F L L A K L N G G C C Q V P P V M A G Y A E R H P D G R I
UniRef90_V5S9C0	N H E P T A F C V T A E R A F L T R L E E G G G C C R T P I I A G L A E L D G D D T
UniRef90_E9EDL2	D R K S T L A S L A E R A F L R A L E E G G G C C S V P P I G V E T E W I G Q S E
UniRef90_U5T1A4	D D T D T H D R V A A E R A V N S R L E E G G G C C H V P P I L A A Y A Q L E E G D
UniRef90_T2G6U8	D H P P T R I T V A E R A F L R G F L T G L E E G G G C C Q V P P V A A H G V L D G K
UniRef90_E8LF08	N D L N T K Q A T D A E R A F L G L L E E G G G C C Q V P P V G V H A D V E G E N
UniRef90_S3CMT9	N H K D S S L A G L A E R S L M R T L E E G G G C C S V P P I G V E T T W I E K G K
UniRef90_K0B2U3	D C E K S R I C I E S E R S F M K S L H T P I G A Y A E L D G D F I
UniRef90_W5M7V3	H D P D T V L R C I A E R A F L K Y L E E G G G C C Q V P P V A V H T E L K D S Q I
UniRef90_UPI00047AF79D	R R T E R A V I A E R E F F L K Q L E E G G G C C Q V P P V G G H A K T S E D G G I
UniRef90_I3XE03	D D P R T H E A V A C E R G F L A T L D G S C C R T P I A G Y A Q S D G T H I
UniRef90_O94048	D P I A T I C C L A E R S L M R Y L E E G G G C C S V P P V G V H S D Y N E S K Q
UniRef90_B2GL24	D H L P T R L A V T A E R A V A L L A Q L E E G G G C C S A P V G T F A R V A G D V
UniRef90_UPI0003A40EBF	N H E E T F I R L T C E R A F L A Q L D G S C C R T P I A G L A E V K D G H
UniRef90_UPI000418225F	D H P Q T S Q K L R A E R A Y L R V L E E G G G C C S V P P V F A L A G H K D D D L
UniRef90_B0Y122	H Q K T T L A C L A E R S L R T E E G G G C C S A P V G V E T E W V Q D S K L
UniRef90_UPI00034BD54F	H D E E A A A T T Q A E R A F L L Q V L E E G G G C C H V P P I G A Y A T I R A G Q L H
UniRef90_F4AZ76	N H K P T A L C T Y I E R E F F L K T L E E G G G C C T A P I G A L A E E I G D D I

50            60            70            80

UniRef90_E1JXL6	I D G L V A D P D T G R T F R D V A T G K R D D A V E L G K K L A D S I V L A			
UniRef90_G0L528	L K G V L L T V D G K K K L E A E F T A P L G K H S Y L A K D C A N S I L L S			
UniRef90_N9D019	L E G R V G S V D G Q T L L K A Q V A G D A A E A E H L G V V L A Q E L L A			
UniRef90_L0EGA5	L T G G M V G T P D G G V L L K E S M T G T D A R L L G T E L L A R K L L			
UniRef90_UPI0003697CA8	V I G F V A S V D G Q Q I L R E K L S G S V D N A E A L L G Q Q L A A K L L			
UniRef90_W2EGY0	L T A M V G S P D G S K L L K E T R Q G T R P E E L L G L Q L A D A L I L			
UniRef90_UPI00036D392C	L N G F V A N P D G S G F I Q D R A E G D A A D P E A V V G Q T L A D K L L A			
UniRef90_E8SIS5	F T G G L I M S P D G K Q R F E Y T F S G Q D P I Q V G S E V S R V L K S S			
UniRef90_F6DSA7	L Q A V V A T L D G R Q V L R A Q G E S T L N R A G D L G V E V A E K L L S			
UniRef90_M7N6F0	I R G G V I S L D G Q E R I D L S L S G P T A E A E R L L G T A L A E Q V L A			
UniRef90_G4W9T2	F R G L I A S P D G K R K I N V D K E G P A Q D A V N I G K Q A G E E L R A			
UniRef90_UPI0003FE1AA4	F K A A L F S L D G K K Q V S I E R R I A I E D A P N F G K E C A K V L L			
UniRef90_C6WFZ5	F T G R I C S L D G Q N C I E T D E I F A W N E H D D F G K I L A E K I L L			
UniRef90_D0MJW6	L R G R V V V S L D G R Q L V E G V Q R G A M A E P E A V V G E A L A E T L L			
UniRef90_UPI0003727BB6	L R G F V S S T D G Q Q M L R A E A F G D V A D P E T L G N Q V A A A L R A			
UniRef90_W6KAS4	L R G L V A R P D G S E V L E T S R R G P I S Q A Y D M G A D A G R E L L			
UniRef90_T0S5X1	L T A V L L S R D G Q E S Y E E T T S G N R F E A E S L L G E A L A D R L L			
UniRef90_A0A015P2M1	L T G M V G S P D G E T T L L K E T M A G M D A A A L L G R R L A K A L L S A			
UniRef90_UPI0003658A5B	F R G L I M A R P D G S E V L S D S G D A A R S D G A A L L G V Q V A E R L L S			
UniRef90_F0L3H0	F S G L I L T P D G Q T S H S V E I S G A R K A D E D L G R K A G E D V R A			
UniRef90_K1ZFQ0	L R G L I L G S P E G R R I V K G R Q Q G L A K E A A K K I G Q L A D S L L			
UniRef90_A0A023BR78	F T G A L F S L D G S D K I E V N K E V K I E D V D H L G K I C A Q E I L N			
UniRef90_K3W518	L I A T I L S R D G A Q Q V K G			
UniRef90_N9QVF4	I E G R V G S V D G Q T L L C A Q Q S D H T E H A E Q L G I R L A Q Q L L S			
UniRef90_D1KD95	L T G L V G N V D T G T I L K Q Q V C G D V A K A E A L L G V E L A D K L L S			
UniRef90_UPI00036C1E7A	L S T M V A S E D G Q R L L K M N V K A L K D E K P D E L L G R R A A K K M I A			
UniRef90_H2BT09	F K G G L Y S L D G T Q K F E I E R V V S A N Q T Q G F G K K C A E E I L L			
UniRef90_A7UFD0	L D G I V A S L D G K H V A R G R E E G D P S Q P E E V G I R L A E Q L L			
UniRef90_UPI00039A7B30	L E G L V A E V D G S L I L R G A K S G N A A G A R A L L G L D L A R E L L			
UniRef90_Q2VYV1	F R G L I V S P D G T T V H A T A R S G S R A D A E A M G K D A A E E L L			
UniRef90_B8J0B3	L E G L V A E V D G S R I L L R C S K D G H T S Q A R R R W G L E L A G E I L L			
UniRef90_B7RJR5	L R G E V L R P D G S E V I S G D R S R G P I G D G G Q M G V D L A R E L L			
UniRef90_Q01178	L R G L V G D V I H G S Q I L S A E E S S Q S A V V Q K A E E L G G V S I A E Q L L			
UniRef90_Q6G8Q5	F T G L I M T P D G K E R F E Y T M N G T D P V E L L G K T V S N K L L			
UniRef90_UPI000381AC21	L T A L V G S T D G T V L L K E V V V G K H A G E V V G E R V A D L L I A			
UniRef90_UPI000367FD07	L T Q A E L L S D L D G K K S F R A H K T G I V E K A K S I L G D V A E E I L S			
UniRef90_A1B853	L R G E I L R P D G S E V I A A E R V G P A A D G A A M G T D L A E E L			
UniRef90_B9E743	F T G L I M S P D G K E K Y K V T H S G G N P I E I G T Q V A K A M			
UniRef90_E31377	F K G A I L T P D G K A R I Y E T T R E G S A N D A A A M G K D A A Q E L Y A			
UniRef90_UPI0003487F10	L T G M V A S L D G Q Q L I R D R A I G S A E D P E A V V G I R L A H H L L			
UniRef90_D3Q724	L H G R V V M S L D G S T V L L E A R E R S G A D A T A L L G T S V A E A L L			
UniRef90_A7BMK1	M R G L V G D L E G Q Q H I L R H N L Q G A R H L A A E L L G K S L A K V L L			
UniRef90_A8FFV2	L T G L V V A S A D G H H T L I R E T V S G T D P E A I I G T A C A K Q M			
UniRef90_G3J7Z9	L Q A T V L D E G T T S I F A E A E G I V Q D D E A E Q L G V A V A D I L			
UniRef90_UPI0004687630	L T G L V G S P D G K K I L I Q E T L K G E E P Q A L L G Q E L A L L			
UniRef90_G8XXB3	F K G A L F S L D G Q Q K I A I E R S F E V S E W K K L L G L N C A K E L L			
UniRef90_UPI000262700F	L T A F V G T T D G T T L L K E V V V R G T D P E N V L G T E A A Q K L L I A			
UniRef90_W8F4U3	L H G G L I S L D G Q Q F I E E T Q S A P P T D A E E Q L G I R V A E S V L			
UniRef90_W0DU16	L R G L V A E P D G S R M I L K M E G R A P A S Q A E E G L G R L I G Q A L L			
UniRef90_L9PPZ9	L R A M V A T P D G A R M A S A E V R G A A A D P E A L L G E Q V A E L L R A			
UniRef90_J0VBU1	I Q G G L V S L D G Q Q H L Y D K F E G D Q A E A E S L L G V K L A E T I L L			
UniRef90_UPI000306B22C	L T G L V G S A E D G E I K E T M E G D H P E A I I G T A V A E R L L A			
UniRef90_UPI0003791C03	M V G F V A D L E G V R K I R E T A T G N E E N A R Q V G L D L A E			
UniRef90_A0A031IH56	L V G F I G S V D G E Q I L L E R E S G N L D P M H L G Q D V A E R L L S			
UniRef90_B3QW11	F A T Y V G S I L D G K R A I K K S R E N V T T V E E A E Q I L G I E V			
UniRef90_UPI000475AE0F	L R T L L A S T D G S Q I F R A E R R G A L C D A E E E L L G R S A G Q D L K A			
UniRef90_UPI0003EC3E90	L T G A V Y S L D G S N S L K E T M Q V S I A V D E A E E Y V G V D L A D L L L S			
UniRef90_C5VPC7	V T G G L L G K E D G S K I L R K T L V G S I D E A E Y V G Y E L A K I I L			
UniRef90_Q1YDX3	L H G M I L T P D G S R M H E T R R T G I A A D A E A L L G R L A G R D V L			
UniRef90_D3QC97	F T G L I M T P D G K E R Y E H T E S G N N P I E L L G N K V S D V L I			
UniRef90_D6SKM8	F T G L I M T P D G K E R Y E H T E S G N N P I E L L G N K V S D V L I			
UniRef90_UPI00036E84BF	A T G L V C D L K G E R M I R K S V S G K P K D A R S L G V D M A R Q V L			
UniRef90_UPI0003750F33	L K A G I V S L D G Q E R I Q H Q S S G K T H D A K A L L G E Q L A Q K V L L			
UniRef90_Q54P93	V E A V I A S V D G K R L L R D S I T G A G V D A D K L L G F A L A Q R Q L L I N			
UniRef90_C4XJU4	I N A I V L N L D G S K Y I E S K I L I G P S I Q Y Y Q L L G K S I A Q Q D L L I N			
UniRef90_F2I2U3	I E G L V A D P E T Q T F R E A A S G P R S Q A T A L G V A V A E A V L L A			
UniRef90_UPI0004798C91	I Q A E I L S L D G K K V F N A H R T G I S E K A V S I G L D V A E E I L L			
UniRef90_F2NEV4	F E G V L L S L D G K E K I V A K K T I P S K D Y K E F G K A C A L E V L L			
UniRef90_UPI000470E4D1	L D G L I G D L A G S R I Y R E Q L S R P P A A A A D L L G Q Q L A E T L L			
UniRef90_G2IUI7	F T G A L F S L D G K K I E V N R E I A I E D S Q G F G E I C A K E I I L N			
UniRef90_A1AX51	L G G F V A H P D G S V M L T A S A S A P R E Y A D A L G R A V A Q K L L I S			
UniRef90_I2JFU0	L T G L V G N V D T G V I L K E Q I L S H V S Q A E A L L G V E L A N K L I S			
UniRef90_K0QZJ9	L R A L V G E P S G G K I L T A E A R G P R S Q A E A L L G V A V A E D L L A			
UniRef90_F6PNN8	F R G L I A M P D G S E K Y E T E A T G A I E D A V E I I G R K A G E E L			
UniRef90_UPI0003F8D76A	L T G G F V W S L D G S E T M Q A T I H V P A Q H E D A V E I I G S L A N L L L S			
UniRef90_V5S9C0	L R G M V A S T D G R T V L R A E S R H L D P Q S A G E L T A E A L L L			
UniRef90_E9EDL2	F R G M T F S P D G A E C F E I A R A G P A A D A H R L G L E A A D A I L L			
UniRef90_U5T1A4	M K A I V V S L D G T E C V E R S I D A M L T N D Q A S Q L G R D L A A R L I L			
UniRef90_T2G6U8	L R G L V V A S L D G R R V L V R A E G R S P R S A G P A L G H A V A E D L L A			
UniRef90_E8LF08	L E G L V A D P D T G E T I R R S T E G P A H Q A F A L L G J A L A D T V L L A			
UniRef90_S3CMT9	I E A I I I A A L D G S T I L R D T I N G K A D D A V S L L G Q Q L G K K M L A			
UniRef90_K0B2U3	M K A I V V S L D G K E S V E T E R E E I L N E K D A D Q F G W D V A Q A L L			
UniRef90_W5M7V3	M I G M F E L D G K L I K K D I R G N V E E H I K L G E E L A K K I L N			
UniRef90_UPI00047AF79D	L T G A V Y S L D G S D S L K E T M Q T S V A S E A A E K L I G V D L A K L L S			
UniRef90_I3XE03	F T A F V A S P D G R Q V F K E R V A G K D P A S L V G R E A A E R L F N			
UniRef90_O94048	F S G M I L T P D G S R L H R V F I D G A A A D A A L G K E A A E R I R A			
UniRef90_B2GL24	L K G G I V S L D G Q K R I F F E V E V E G P V T D P E G L G E K L A A K V F A			
UniRef90_UPI0003A40EBF	F S G M I L T P D G S R L H R V F I D G A A A D A A L G K E A A E R I R A			
UniRef90_UPI000418225F	L K G G I V S L D G Q K R I F F E V E V E G P V T D P E G L G E K L A A K V F A			
UniRef90_B0Y122	M R A I V V S L D G R E S A E V E V D G S V T A E S A E E F G V T V A K A L L			
UniRef90_UPI00034BD54F	L L I A Q V T S T D G S T T I R A E A T G A A D Q P E M V G E H V A R R L L			
UniRef90_F4AZ76	F R G V L F S L D G A T K I E V E Q V V S K A N A V G F G T D C A L D I L			

UniRef90\_E1JXL6  
UniRef90\_G0L528  
UniRef90\_N9D019  
UniRef90\_L0EGA5  
UniRef90\_UPI0003697CA8  
UniRef90\_W2EGY0  
UniRef90\_UPI00036D392C  
UniRef90\_E8SIS5  
UniRef90\_F6DSA7  
UniRef90\_M7N6F0  
UniRef90\_G4W9T2  
UniRef90\_UPI0003FE1AA4  
UniRef90\_C6WZF5  
UniRef90\_D0MJW6  
UniRef90\_UPI0003727BB6  
UniRef90\_W6KAS4  
UniRef90\_T0S5X1  
UniRef90\_A0A015P2M1  
UniRef90\_UPI0003658A5B  
UniRef90\_F0L3H0  
UniRef90\_K1ZFQ0  
UniRef90\_A0A023BR78  
UniRef90\_K3W518  
UniRef90\_N9QVF4  
UniRef90\_D1KD95  
UniRef90\_UPI00036C1E7A  
UniRef90\_H2BT09  
UniRef90\_A7UFD0  
UniRef90\_UPI00039A7B30  
UniRef90\_Q2VYV1  
UniRef90\_B8J0B3  
UniRef90\_B7RJR5  
UniRef90\_Q01178  
UniRef90\_Q6G8Q5  
UniRef90\_UPI000381AC21  
UniRef90\_UPI000367FD07  
UniRef90\_A1B853  
UniRef90\_B9E743  
UniRef90\_E3I377  
UniRef90\_UPI0003487F10  
UniRef90\_D3Q724  
UniRef90\_A7BMK1  
UniRef90\_A8FFV2  
UniRef90\_G3J7Z9  
UniRef90\_UPI0004687630  
UniRef90\_G8XBB3  
UniRef90\_UPI000262700F  
UniRef90\_W8F4U3  
UniRef90\_W0DUI6  
UniRef90\_L9PPZ9  
UniRef90\_J0VBU1  
UniRef90\_UPI000306B22C  
UniRef90\_UPI0003791C03  
UniRef90\_A0A031IH56  
UniRef90\_B3QWI1  
UniRef90\_UPI000475AE0F  
UniRef90\_UPI0003EC3E90  
UniRef90\_C5VPC7  
UniRef90\_Q1YDX3  
UniRef90\_D3QC97  
UniRef90\_D6SKM8  
UniRef90\_UPI00036E84BF  
UniRef90\_UPI0003750F33  
UniRef90\_Q54P93  
UniRef90\_C4XJU4  
UniRef90\_F2I2U3  
UniRef90\_UPI0004798C91  
UniRef90\_F2NEV4  
UniRef90\_UPI000470E4D1  
UniRef90\_G2UII7  
UniRef90\_A1AX51  
UniRef90\_I2JFU0  
UniRef90\_K0QZJ9  
UniRef90\_F6PNNN8  
UniRef90\_UPI0003F8D76A  
UniRef90\_V5S9C0  
UniRef90\_E9EDL2  
UniRef90\_U5T1A4  
UniRef90\_T2G6U8  
UniRef90\_E8LF08  
UniRef90\_S3CMT9  
UniRef90\_K0B2U3  
UniRef90\_W5M7V3  
UniRef90\_UPI00047AF79D  
UniRef90\_I3XE03  
UniRef90\_O94048  
UniRef90\_B2GL24  
UniRef90\_UPI0003A40EBF  
UniRef90\_UPI000418225F  
UniRef90\_B0Y122  
UniRef90\_UPI00034BD54F  
UniRef90\_F4AZ76

UniRef90_A3HYF5	1	H T E T S L K R A E R A Y L R V L E G G C S P V F A L A T M E G E E I K
UniRef90_E1YGN2	10	H F V T R A V V V L G E R A F L K R I E G G C Q V P I A G Y G K V E N D I F I
UniRef90_D3EQ4	20	S E T H Y R C M G E R S F L R A L E G G C Q V P I G V T T K I E C N I L T
UniRef90_G5A0L8	30	D E K S A Q L C K A E R S L Y H E G G C Q I A M G V S A T L D E D T L T
UniRef90_G8TMG3	40	N D E P T A L C T A I E R D F L R A L L G G C S T P I S A L A N I V N G Q V L H
UniRef90_C5DQB2	1	H K N T T V C C L A E R Q L M R S L E G G C Q V P I G V G S R Y D E T G Y L H
UniRef90_UPI000366FD02	10	N D P R T E R A V R A E R H F L G R I N G G C Q V P I G A Y A E A E S D A P V R
UniRef90_UPI0004716576	20	N D E E T A L T V A A E R R F L G V L N G G C Q V P I G A F A T L E S S G E I T
UniRef90_W9CJP3	30	H E P T Q L A G L A E R S L M R T L E G G C S V P I G V E T T W I E K G K L L
UniRef90_H7F2J4	40	H D D E T A F C V R A E R T F L K D L N G G C C E L P I A G Y A T H S S N G L S Y
UniRef90_UPI00028A1B21	1	N D P I T E L C V C H I E R D F L R K L E G G G C C T A P I G A L A S V K N D K V
UniRef90_V6EXY3	10	N C P E T M I R I T A E R A F L L T L D G S C C R T P I A A L A E V D G D R L
UniRef90_Q75DY0	20	D R N S T I C C L A E R S L M R T L E G G G C S V P I G V Y S T F D E E S M L T
UniRef90_UPI0003B5B0E8	30	H C T A T G H R V N A E R A F L R E L D G S C C E T P I A A L A M L D G D T L W
UniRef90_E4USC2	40	D H K S S L A C L A E R S L M R T L D G S C C S V P I G V E T E W I D D A T L L Y
UniRef90_UPI0004188AAA	1	H S D E A S L C C T T A E R T F L K R M D G S C C Q V P I G G Y A T V E D G E L
UniRef90_I3CDA4	10	N D P E T H Q R V I A E R M I N T R L D G G S C C Q V P I G G F A E L I G D E M S
UniRef90_UPI0004799C32	20	N H T E T E I C C T H I E R E F L K T L E E G G G C T A P I G A L A T F T S D K I
UniRef90_E9UQ17	30	D D A P T R A A V E A E R A V L A T L L E E G G C C A A P P I G T L A E G E E G P E L W
UniRef90_A6GVPO	40	N H I E T E I T T Y I R Q F L R T L L E E G G C C A A P P I G A Y A R F N E D E T I H
UniRef90_UPI0002DEAF6D	1	D D L P T R L A V T A E R A V L A R L L E A G G C C A A P V G T Y G R M V D G D L
UniRef90_A0A011P9K8	10	N D R I T A H C V R A E R A F S R A L L G G S C C Q L P L A A H A L P E G D D C
UniRef90_UPI000375AA4F	20	D H P A T T A A V T A E E R A L S R R R M G G S C C Q V P I P A A Y A E D D D G F L
UniRef90_J9HUI3	30	H P L T V T A V A A E R A F L R L L Q G G S C C Q V P I A G Y A T V S G E G V I
UniRef90_A0A037ZJF7	40	H D A E T G Q R L A A E R A F L R A G L D G S C C E V P G G L A V L V G D T L W
UniRef90_S2E3Q4	1	H H E E T G W R L L A E R A Y L R V L E G G C C S I P V F A L A I E G D M L K
UniRef90_X6KW12	10	H D T P T A Q R L L A A E R A F L A A L D G G S C C E T P I A G L A E L D G D D S L
UniRef90_B8NYA7	20	D E K S T L A C L A E R A F L R T L L E G G G C C S V P I G V E T E W V D E Y F L
UniRef90_R6VPV3	30	N D E D S E C C A A L A E R A F L F V R Y L D G G S C C S S P V A A H A K V E K D K I
UniRef90_G4W922	40	N A K T K A A V D C E R A F L G G G L D G N N C C R T P I A G H A F I T E D G R L K
UniRef90_E6SL55	1	D R P E V A L A V R A E R A F L A E L L G G T C C R I P P L G A W A R L L E G P R L R
UniRef90_U2KKF8	10	D P H M T A A A M A E R A F L R R V E G G C C Q L P V G V Y A E V G E G D V L H
UniRef90_V9TVN3	20	D D W A S R T R V I A E R S M L A T L L Q G Q C C R T P I S G H A V L N G N R L T
UniRef90_H1LK34	30	N D K E T R D C V T I E R N F L Q G L L G G S C C N F P I G S F A T K Q D D E Y A
UniRef90_UPI0003287EB4	40	H D P E T L L R C I A E R A F L R H E E G G C C S V P P V A V H T A M K D G Q L Y T
UniRef90_Q6CT60	1	D P P S T T I C C L A E R S L L R T L L E E G G C C S V P P V G V V S N Y D E S T K L
UniRef90_R4LW29	10	N H T A T A T R V K A E R A M N A K L E E G G C C Q V P P V A A H A E L E N G D E I
UniRef90_G4QF18	20	D A D T T T A C V V A E R A V S Q L L G G S C C Q V P P V A A Y A Q L Q G D D V L T
UniRef90_UPI00047AC781	30	H UniRef90_UPI0003B686FC A D D T T T A C V V A E R A V S Q L L G G S C C Q V P P V A A Y A Q L Q G D D V L T
UniRef90_B7GH32	40	D K Q T E R A T R A E R A F L Q H I E E G G C C Q V P P V A A Y A Q L Q G D D D A I V
UniRef90_UPI0003B686FC	1	H H E P T A V Q V R A E R A F L Q H I E E G G C C Q V P P V A A Y A Q L Q G D D R V
UniRef90_I1AQJ4	10	H H A P T A L R L S A E R S F L A T L D G G S C C E T P I A G L A E L D G D D G T L
UniRef90_F2F2G0	20	D A T T W A T A H A E E R S F L A A M D G G G C Q V P P V A G Y A T V E G D T I T
UniRef90_UPI000428CEC8	30	H N G A T A A V A Q A E R T L L Q A L N G G C C Q V P P V A G Y A E R D D S G Q V W
UniRef90_J2LB11	40	N D A P T F D T V S C E R A F L A A L D G G S C C R T P I G G Y A V C E G D D Q I
UniRef90_UPI000365511D	1	N H Q P T A L A V V S A E R T V S R T F G G S C C Q P I L A A F G M V E G E K M R R
UniRef90_C4JRY9	10	D M P T T Y A C M A E R E R N L L R T V E E G G C C S A P P L G V E T E W I Q D D N L R
UniRef90_UPI00037556F8	20	H D P A T G I A L A A E R A F L A V V L D G G S C C K T P P I G A Y A Q V Q G D H L A R Y
UniRef90_S9RC89	30	H D T E T A Q R L S A E R A F L A A L D G G S C C E T P I A G L A E L N G G I L Y
UniRef90_C7DBP9	40	H D G P T Q G R L L A A E R A F L K A L D G G S C C E T P I A G L A E L N G G I L Y
UniRef90_C4RC06	1	D H A P S R A A V V T A E E R A L L A T L E A G G C C S A P V A A Y A E L A E G D E I Y
UniRef90_M1MAK0	10	D T E E L C V K T E R I V M K V L G G S C C Q V P P L A A N A Y I E N G N I F
UniRef90_UPI000262D048	20	D A K G E T A G R A E R A L N R H N G G C C Q V P P I A A Y A I E S D G Q L I
UniRef90_D1A942	30	D H A P T R A A V T A E R T V L A V L E A G G C C S A P V G A Y A T V E D S A E L L H
UniRef90_M7PE55	40	N C P H T S I T V R A E R A L N R R L Q G G C C Q V P P I G G Y A M L E N D Q L W
UniRef90_UPI00047A7992	1	D H A P T R L A V V T A E E R A V L R R R L E A G G C C T A P I G A L A T V D G G L L T
UniRef90_D7FMY2	10	H Q E T K T A V D C E R A F L A A L D G G G C K T P I A A G Q A R M E G E K L V
UniRef90_T0XY75	20	D E E T T L C V R A E R G V L A A L N G G C C Q L P L A A H G R I L P D G R L E
UniRef90_UPI0004419031	30	H D R E T V L R C I A E R A F M K R L E E G G G C C S V P P V A V S T L L K D A Q I T
UniRef90_A5CW34	40	D I E T S Y R I I A A E R A M N T Q L E E G G G C C S V P P V A G F A T I N N K Q I T
UniRef90_R5J902	1	H UniRef90_UPI0003B686FC D I E T S Y R I I A A E R A M N T Q L E E G G G C C S V P P V A G F A T I N N K Q I T
UniRef90_UPI000237916E	10	H H V E T S Q R L A A E R S L L A G L D G G S C C E T P I A A L A D L S G G T I Q
UniRef90_Q1GDK5	20	H H A E T S L R L A A E R A F L A A L D G G S C C Q V P P I A A Y C T A D D H G L L T
UniRef90_C4GIS2	30	N H A K T A A C V T A E E R A F L A A L D G G S C C Q V P P I A A Y C T A D D H G L L T
UniRef90_U7V3Y3	40	UniRef90_UPI0003B686FC N H A K T A A C V T A E E R A F L A A L D G G S C C Q V P P I A A Y C T A D D H G L L T
UniRef90_UPI00047CFA22	1	N H F E T R L A V V T A E E R A V L R R R L E A G G C C A A P V G A Y A H V I E G D L T
UniRef90_I4F411	10	N H A E T R L A V V T A E E R A V L R R R L E A G G C C A A P V G A Y A H V I E G D L T
UniRef90_UPI000365B7C8	20	D D P A A R A R C V A A E E R A V L A A L E A G G C C S A P V A A H A E L D G S A E L W
UniRef90_K2JKN0	30	D D R A T R G A V A A E E R A L L A T L E A G G C C S A P V A A L A E V T E D D E I Y W
UniRef90_D8JY37	40	H E A T R I R V A A E E R A M N S R L E E G G C C Q V P P I G S F A T L L D G D D Q L
UniRef90_L0EUV9	1	N D V N S S Q R A V T A E E R A F L A R L E E G G C C R T P I A A Y A S C K D E D I S R
UniRef90_J2TC12	10	N H K N T Q I C V D I E R R N F L R T L E E G G G C C T A P I G A F A E I F D D D Q I
UniRef90_UPI0002D31273	20	N D Q E T N D C V T I E R D F L R T L V E G G D C T N P I G G F A T Q S G D D Q F H
UniRef90_S3CHN4	30	H E P T M L A C L A E R A V V M R A L E E G G G C C S V P P I G V E S S I G G N N E L R
UniRef90_E3F457	40	H D G P T G V R L A A E E R A F L A A L D G G S C C H T P I A G L A E I I G D Q I
UniRef90_UPI000414E87A	1	N D R Y T A H T V S A E E R T F L H L E E G G G C C Q I P P I A G Y A H M E E E E V V
UniRef90_UPI0003F804B4	10	D H A P T R R C V E A A E E R A M N R A L H G G S C C H V P P V A A L A S E R G D A L F
UniRef90_D5BTX1	20	H UniRef90_UPI0003B686FC D H A P T R R C V E A A E E R A M N R A L H G G S C C H V P P V A A L A S E R G D A L F
UniRef90_A4BU03	30	H S P S Y L R I T A E E R A V V N A R L E E G G G C C Q V P P I A A F A V L D G S N I I W
UniRef90_B9JCG9	40	N D S P T F D I V S C E R G F L A A L D G G S C C R T P P I A G Y A V C E G D H I R
UniRef90_A8LIJ6	1	H D G P T S G H R L A C E R A Y L S A L D G G S C C Q T P P I A G L A E L D G G S I L H
UniRef90_B4SJ78	10	H D D A A T R A C V E A A E E R A M N R A L H G G S C C Q T P P I A G L A E L D G G S I L H
UniRef90_UPI00035F9EA7	20	N D R H S E T E V L A E E R A V V L Q E L H G G G C C Q V P P I G V N A R L E D D D R L L
UniRef90_W4LY05	30	H D A A T G W A V T A E E R A F L A H S G G G C C M V P P I A A F A V L D G S N I I W
UniRef90_H1CYK0	40	H D E E V A S C I R A E E R T F L A R V G G D C C K V K P P I A G I Y A V P E K G H I S
UniRef90_R4XIE2	1	N D A G A T S I S L A E R A V V S R R L E E G G G C C Q V P P I L A A Y A E I A D D D T L L
UniRef90_I4WNND3	10	N D T R L T V S A E E R A M N Q A L H G G G C C Q T V P P V A G W C M L G E H G L L H
UniRef90_F9ZTW9	20	N D P T T S R C V G A E E R H M N R L H G G D C C R L P V V A A L A E A D G T G G L L H
UniRef90_E2Q6W5	30	H D A S A D A V V R A E E R A L L A E L H G G G C C S V P P V A G Y A E P L P N G E L L S
UniRef90_C7PKZ4	40	N D L A T A L C T R V E E R D F L R T L M G G G C C T T P P I S A Y A T I S N E E T V V H
UniRef90_UPI000225BF5E	1	N D A Y T T K T V T V A E E R T Y L N L E E G G G C C Q P P I G G Y A H L E G E E E V V
UniRef90_X0TJX2	10	N H Q P T W C S I L A E E R A F L R S L H G G G C C R A P P I A A L A E V V S G D V L S

UniRef90\_A3HYF5  
 UniRef90\_E1YGN2  
 UniRef90\_D3EQ4  
 UniRef90\_G5A0L8  
 UniRef90\_G8TMG3  
 UniRef90\_C5DQB2  
 UniRef90\_UPI000366FD02  
 UniRef90\_UPI0004716576  
 UniRef90\_W9CJP3  
 UniRef90\_H7F2J4  
 UniRef90\_UPI00028A1B21  
 UniRef90\_V6EXY3  
 UniRef90\_Q75DY0  
 UniRef90\_UPI0003B5B0E8  
 UniRef90\_E4USC2  
 UniRef90\_UPI0004188AAA  
 UniRef90\_I3CDA4  
 UniRef90\_UPI0004799C32  
 UniRef90\_E9UQ71  
 UniRef90\_A6GPV0  
 UniRef90\_UPI0002DEAF6D  
 UniRef90\_A0A011P9K8  
 UniRef90\_UPI000375AA4F  
 UniRef90\_J9HUI3  
 UniRef90\_A0A037ZJF7  
 UniRef90\_S2E3Q4  
 UniRef90\_X6KW12  
 UniRef90\_B8NYA7  
 UniRef90\_R6VPV3  
 UniRef90\_G4W922  
 UniRef90\_E6SL55  
 UniRef90\_U2KKF8  
 UniRef90\_V9TVN3  
 UniRef90\_H1LK34  
 UniRef90\_UPI0003287EB4  
 UniRef90\_Q6CT60  
 UniRef90\_R4LW29  
 UniRef90\_G4QF18  
 UniRef90\_UPI00047AC781  
 UniRef90\_B7GH32  
 UniRef90\_UPI0003B686FC  
 UniRef90\_I1AQJ4  
 UniRef90\_F2F2G0  
 UniRef90\_UPI000428CEC8  
 UniRef90\_J2LB11  
 UniRef90\_UPI000365511D  
 UniRef90\_C4JRY9  
 UniRef90\_UPI00037556F8  
 UniRef90\_S9RC89  
 UniRef90\_C7DBP9  
 UniRef90\_C4RC06  
 UniRef90\_M1MAK0  
 UniRef90\_UPI000262D048  
 UniRef90\_D1A492  
 UniRef90\_M7PE55  
 UniRef90\_UPI00047A7992  
 UniRef90\_D7FMY2  
 UniRef90\_T0XY75  
 UniRef90\_UPI0004419031  
 UniRef90\_A5CW34  
 UniRef90\_R5J902  
 UniRef90\_UPI000237916E  
 UniRef90\_Q1GDK5  
 UniRef90\_C4GIS2  
 UniRef90\_U7V3Y3  
 UniRef90\_UPI00047CFA22  
 UniRef90\_I4F411  
 UniRef90\_UPI000365B7C8  
 UniRef90\_K2JKN0  
 UniRef90\_D8JY37  
 UniRef90\_L0EUV9  
 UniRef90\_J2TC12  
 UniRef90\_UPI0002D31273  
 UniRef90\_S3CHN4  
 UniRef90\_E3F457  
 UniRef90\_UPI000414E87A  
 UniRef90\_UPI0003804B4  
 UniRef90\_D5BTX1  
 UniRef90\_A4BU03  
 UniRef90\_B9JCG9  
 UniRef90\_A8LIJ6  
 UniRef90\_B4SJ78  
 UniRef90\_UPI00035F9EA7  
 UniRef90\_W4LY05  
 UniRef90\_H1CYK0  
 UniRef90\_R4XIE2  
 UniRef90\_I4WND3  
 UniRef90\_F9ZTW9  
 UniRef90\_E2Q6W5  
 UniRef90\_C7PKZ4  
 UniRef90\_UPI000225BF5E  
 UniRef90\_X0TJX2

50            60            70            80

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

UniRef90\_A3HYF5  
UniRef90\_E1YGN2  
UniRef90\_D3EQA4  
UniRef90\_G5A0L8  
UniRef90\_G8TMG3  
UniRef90\_C5DQB2  
UniRef90\_UPI000366FD02  
UniRef90\_UPI0004716576  
UniRef90\_W9CJP3  
UniRef90\_H7F2J4  
UniRef90\_UPI00028A1B21  
UniRef90\_V6EXY3  
UniRef90\_Q75DY0  
UniRef90\_UPI0003B5B0E8  
UniRef90\_E4USC2  
UniRef90\_UPI0004188AAA  
UniRef90\_I3CDA4  
UniRef90\_UPI0004799C32  
UniRef90\_E9UQI7  
UniRef90\_A6GVP0  
UniRef90\_UPI0002DEAF6D  
UniRef90\_A0A011P9K8  
UniRef90\_UPI000375AA4F  
UniRef90\_J9HUI3  
UniRef90\_A0A037ZJF7  
UniRef90\_S2E3Q4  
UniRef90\_X6KW12  
UniRef90\_B8NYA7  
UniRef90\_R6VPU3  
UniRef90\_G4W922  
UniRef90\_E6SLS5  
UniRef90\_U2KKF8  
UniRef90\_V9TVN3  
UniRef90\_H1LK34  
UniRef90\_UPI0003287EB4  
UniRef90\_Q6CT60  
UniRef90\_R4LW29  
UniRef90\_G4QF18  
UniRef90\_UPI00047AC781  
UniRef90\_B7GH32  
UniRef90\_UPI0003B686FC  
UniRef90\_I1AQJ4  
UniRef90\_F2F2G0  
UniRef90\_UPI000428CEC8  
UniRef90\_J2LB11  
UniRef90\_UPI000365511D  
UniRef90\_C4JRY9  
UniRef90\_UPI00037556F8  
UniRef90\_S9RC89  
UniRef90\_C7DBP9  
UniRef90\_C4RC06  
UniRef90\_M1MAK0  
UniRef90\_UPI000262D048  
UniRef90\_D1A492  
UniRef90\_M7PE55  
UniRef90\_UPI00047A7992  
UniRef90\_D7FMY2  
UniRef90\_TOXY75  
UniRef90\_UPI0004419031  
UniRef90\_A5CW34  
UniRef90\_R5J902  
UniRef90\_UPI000237916E  
UniRef90\_Q1GDK5  
UniRef90\_C4GIS2  
UniRef90\_U7V3Y3  
UniRef90\_UPI00047CFA22  
UniRef90\_I4F411  
UniRef90\_UPI000365B7C8  
UniRef90\_K2JKN0  
UniRef90\_D8JY37  
UniRef90\_L0EUV9  
UniRef90\_J2TC12  
UniRef90\_UPI0002D31273  
UniRef90\_S3CHN4  
UniRef90\_E3F457  
UniRef90\_UPI000414E87A  
UniRef90\_UPI0003F804B4  
UniRef90\_D5BTX1  
UniRef90\_A4BU03  
UniRef90\_B9JCG9  
UniRef90\_A8LIJ6  
UniRef90\_B4SJT8  
UniRef90\_UPI00035F9EA7  
UniRef90\_W4LY05  
UniRef90\_H1CYK0  
UniRef90\_R4XIE2  
UniRef90\_I4WND3  
UniRef90\_F9ZTW9  
UniRef90\_E2Q6W5  
UniRef90\_C7PKZ4  
UniRef90\_UPI000225BF5E  
UniRef90\_X0TJX2

1 10 20 30 40

UniRef90_B2B5Y9	D E D T M M A A F A E R S V M R T L E G G C S V P I G V E T K W V E D E K L R Q
UniRef90_Q1NU29	D H R A T T L A V K A E R A Y L K R L E E G G C Q Q V P L A G F A T L D G D R L Q
UniRef90_UPI0003AD1290	D D L P T R R A V T A E R T V L A V L E A G C S A P V G T Y A A E I D E R L H
UniRef90_UPI0003B521B9	D H D K T R T C V E A E R A M N R R L H G S C C H V P V A A Y A Q I T A G R L H
UniRef90_A0A058Z164	H N T P T G Q R L A A E R A F L L A A L D G S C C E T P I A A L Q A E L S G D K L R
UniRef90_I0J3W2	D P V T V R V A V T A E R A F L R H V G G G C C A V P V A A Y A Q I T A G R L H
UniRef90_T4W7G9	D K T S E I Q V E A E R G F L D G I N G S C C H V P V A A Y A Q I T A G R L H
UniRef90_R9CR85	N H E E T R K C T Q T E R D F L R H E G G C C T A P I G A R A V I S G T T V T
UniRef90_G6F0X2	D Q E A K A V A V T A E R A L L A E L D G S C C R T P I G G Y A Q L L G A P E L H
UniRef90_W7BCU6	H D A D T A F T V Q C E R K F L E T L N G G C C E I P I A G F A E K G A A D S L L F
UniRef90_UPI000471981D	P D S T R C V E A E R A F G R L D G G C C Q M P I A A F A T L R N G G L A R Y
UniRef90_G3JU78	H V P T T L A C L A E R S L M R S L E G G C C S V P I G V E T S W L E D G R L R
UniRef90_UPI00036051A0	N D A N T A L C T K I E K D F L R K L L G G C C S T P I S A L A E I D N E M L Y
UniRef90_H1UVU6	D K P T M L A C V A E R S V M R T L E E G G C C S V P I G V E T T W V E D G K L R
UniRef90_10IM65	H S D T H I A V S A E R G V L K S L A A G G C C Q P V A A Y A T V K R S G W V Q
UniRef90_D2SHH5	D D A A T R A C V V A E R T T L A A L E A G G C C S A P V A A Y A E V E D G P E L F
UniRef90_U7UJU8	N D P S T A L T V T V A E R A F L R R I L E G G C C S Q V P V G V F G H I S G R L F S
UniRef90_UPI00035EDA9F	N H L E T A L E V K V V E R E F L K T L E E G G C C T A P I G A L A K V V N G N M L E
UniRef90_V5GB01	D K R S T L A G L A E R A L M R E L E E G G C C S V P I G V I E T E W L D D M L L R
UniRef90_UPI0003C7ECB9	D D A D T R A V A T A E R S L L A T L E E G G C C S T A P V G A L A D I D D G D E L
UniRef90_F0XNY8	D K P T M L A C L A E R A V M R A L E E G G C C S V P I I G V E S A W E A E T R L L
UniRef90_I8IIQ7	H N E T T F A S T A E R S L L R T L E E G G C C S A P V F A L A K L S Q G Q L S
UniRef90_UPI00041D4E20	N H P E T E A R L L R A E R R A Y L R V L L E E G G C C S I P V A A Y Q I Q E G D K L S
UniRef90_UPI0004799637	D E M T E I E V A A E R G F L D G V N G S C C H I P M G A Y C Q I E G D K L S
UniRef90_E4NA9	N H P R T Q R E V T A E R V V L L H N L R G H C N S P I A G Y C T T E P D G Q L S
UniRef90_UPI00030BFA48	N H I E T E I V T Y I E R Q F L K T L E E G G C C T A P I G A L A R Y E E E D T I H
UniRef90_D7CHT1	D D P L T R V A V T A E R S L L A A L E E A G G C C S A P V G A L A D I L L G D G Q M R
UniRef90_A71IS0	N N E N S V I A T T I E R D F V A K L N G G C C Q V P I G V N A E I I S G D I I K
UniRef90_W8RYX5	H D G P T Q G R L A A E R A F L A G L D G G C C E T P I A G L A E L D G T M L R
UniRef90_W7CJT3	H D P D T A F P V Q A E R S F L E T L A G G G C C E I P I A G F A E K Q G D E L Y
UniRef90_UPI0004638A21	D D P A S H S A V I A A E R A V L A E L E A G G C C S A P V G A L A E V V E S D E I S
UniRef90_R5I707	D D P E A H S V A L A E R A F V R Y L N G G C C S T P V A A Y Q I Q E G Q L K
UniRef90_Q8KZ06	H D R E T G Q R L A A E R A F L A A L D G G C C E T P I A G L S E L Q G S T M R
UniRef90_UPI00047ACFC2	N D P V T E R A V S A E R R L L G L N G G C C Q V P I G A F A E A D A G S P V T
UniRef90_A6WXJ2	H R E T G I A L A C E R A F L A A L D G G C C R T P I A G L A T V N G D D T V S S
UniRef90_M3TCL9	D D P S T R A V A D A R A V L A A L E A G G C C S A P V G A I E V V E S D E L L S
UniRef90_C7R NK0	N D V A T A H C V R A E R A F S R A L L G G S C Q P V A A H A V L D S G A L
UniRef90_L8ENC9	N H E R T L T E A T A E R V M L Q G L R G H C C N S P I A G Y C V T G P D G H L
UniRef90_S2Y9Z5	H E E T T W R A V V H A E R A F L H A M D G G C C Q V P I A G F A T V E N G D D
UniRef90_W7DPK5	D T E T S R A V E A E R T L L K A L D G G C C I P I A G Y A T T K D G C H E G
UniRef90_UPI00047CBA14	D D T T R T R L A V T A E R A V L R V L E A G G C C S A P V G A L A T I R G G V I
UniRef90_UPI0003B3E835	D D P A A R L C C D A E R E V V L W V L N G H C C N S P M A A H S T I T G D Q M T
UniRef90_J7LEA5	D H A P T R A E V V A E R T T I L A E L E A G G C C A P V G A F A E Y G E G R L R
UniRef90_J7G076	H H I P T G H R L A A E R S F L L E L D G G C C E T P I A G L A E L E G G T L H
UniRef90_UPI00035C9E5D	N N E Q T A L T V A E R T F L G A L N G G C C Q V P I G A Y A V L E G K A L I T
UniRef90_A0P4U9	N D D D T S R C V L A E R M V S R S L A G G S C C T V P I L G A H A F I N K N A M V
UniRef90_UPI0003C7FB30	N H Q K T S L R A H A E R N V L K V L E E G D C C E T A V G A H A V I D G D E I I K
UniRef90_K1LDU6	H H E D T G Y R L V A E R S Y L R V L E E G G C C S P V F A L A E L E G S Q L L K
UniRef90_K2HDW2	H D A A T G Q R L A A E R A F L A A L D G G S C C T P I L A G L A D L D G K S L L
UniRef90_I2ESJ8	N D E V T E T K C L A E R A Y Y R T L E G G G C C S P S F G W C V A E E K G T L N
UniRef90_UPI00047889E2	D D P E T R A A V V L A E R T V L A V L E E G G G C C S A P V G A F A V V T E N T L L H
UniRef90_UPI0004655D69	D D G D T R R C V S A E R T M L H G L Q G H C C N S P I A G H R A I L E R D G Q L T
UniRef90_B0CQT2	H R E T Q L K C C L A E R A C R A V L R V L E E G G G C C S V P V G V A S Q L E G G V L
UniRef90_UPI00037BF97D	N H P T A L V C H A E R S L L R T L E E G G G C C S V P V G V T C Q W A P Q A R L T S
UniRef90_F4R4C2	H W P T A L V C H A E R S L L R T L E E G G G C C S V P V G A H C T T E P D G Q L T
UniRef90_UPI00039C3B8F	N H S R T Q T E A T A E R V M L H G L R G H C C N S P I A G H C T T E P D G Q L T S
UniRef90_R7CMU3	D R D A W I V A G T A R A Y V K Y L D G G C C S S P V A A F A E V D G D E E I F
UniRef90_G0WBM6	H L E T T V C C L A E R S L M R T L E E G G G C C S V P I G V E S N Y D K D D S K L
UniRef90_UPI0004763A95	N H E D T A R A V V M A E R K V S K I F G G S C C Q L P I L A A F A T V E G D D T M R
UniRef90_L7WD83	N H Q K T A F C V D I E R A F L R D L E E G G G C C T A P I G A I A T V K N D Q L Y
UniRef90_D3D314	D D A P S S V A V R A E R A F L A G I E A G G C C S T A P V G A L G R V L P S G D L R
UniRef90_W6LWX9	D D S A T H I R L A A E R A F N A R L Q G G S C C Q V P I A G H A L L D G D Q L W
UniRef90_W1Q8H8	D C K S T S I R C R A E R E L L R T L E E G G G C C S V P V G V W S D Y N K D H E L Y
UniRef90_UPI00036932AE	H D H T T D D R I T A A E R E F L A G L G A G G C C M A P V G A H A T I K G G V L T
UniRef90_UPI0003B42EF5	D H P E T R F C V E A R I A L D A L G G G C C S P I G V H C V P E P D R W R V
UniRef90_C2CY18	D A D T R Q S V T I R D F V R R L G G G C C N F P I G A F A S Q T S M G V R
UniRef90_UPI00037CC749	N H L D T Q L A V T A E R A F L D A L D G G S C C R T P I A A Y Q R E D D D H F L
UniRef90_W2ES84	D D P A T R A A V V T A E R S V L A A L E E A G G C C A A P V G A F A S G D G H I L S
UniRef90_K3W5J0	D E K S Q A L C C L A E R S L L Y H E E G G G C C Q I A M G V N T T I E D D T L I
UniRef90_D0J8N1	D D R N T R L S A N I E R Q F L K T L G G G C C V T P I G A H A I I K N K I I T Y
UniRef90_F9FKJ2	N E Q T A L A C E A E R A L M R A L E E G G G C C S V P I G V E T K W V D D K I H
UniRef90_E2MUZ8	D H P V S H A R A V A A E R A V L N K L E E A G G C C T A P V G A Y A E A E D G L E L Y
UniRef90_UPI00047913C5	D D P A S R A A V T A E R S V L L A A L E E A G G C C T A P V G A Y A E A E D G L E L Y
UniRef90_A9CUB8	D H A D T H A A L N C E R G F L G A L D G G S C C R T P I A G H A T L E N G Q V
UniRef90_K1E18	D H A D T H A A V T A E R A I L A E L E A G G C C A A P V G A L A E V V D D E D I S
UniRef90_M7A8J3	D D A S T R A S V D A E R A V L A T L E E A G G C C T A P V G A I A E L D D D D G H I I
UniRef90_U2WA85	N C A I T Q A Q I T A E R E F M A R L D G G S C C K T P I A A Y A D V T E D D R L T
UniRef90_UPI000287CB16	D E I E F K C C L S E R A F L R E M N G G S C C S I P I G A H A T V S N D K I E
UniRef90_H2AZ19	D V E S T I C C C L A E R Q L M R S L E E G G G C C S V P I G V I K S S Y D R E T K L T
UniRef90_G0VCN9	D L E E T T V C C L A E R Q L M R T L E E G G G C C S I P I G V E S N Y D S T K K L L
UniRef90_K0EP62	D H A D T H R Q A D A E R A M L H A L Q G H C C N S P I A G Y A T T D R T G R L T
UniRef90_M2RGF0	H W P T A W A C T A E R A C L R V L E E G G G C C S P I G V H T A F E G G G R M D
UniRef90_E4UAY6	N H R E T W D T V S C E R A F L A E L D G G S C C K S A I A G F S Y C K G Q S L Y
UniRef90_UPI00047C85B9	D E E T T R W V S A E R T A L H L S G H C C N S P I A L H C T T T D E G R L A K
UniRef90_UPI000365CB30	N H R D T M Y C Y Q A E R A L L R A L N G G H C C S P I G A H A W I E D R Q L K
UniRef90_UPI00047C2625	D D E H T R M A V D A E R A M N Q A L G G S C C T V P I V G A W C V V T E R G L L H R
UniRef90_F6FVP5	D H R A T R V A V I A E R T V L A R L E A G G C C A A P V G A Y A E R V E D G A L
UniRef90_F8IDJ7	D P D A T R A V E A E R T F L A R L E E G G G C C Q V P I G A Y A E S V G R G L R
UniRef90_V9D6E9	N H Q Q T Y L A T A A E R S L L R T L E E G G G C C S A P L G V E T T W T E G N A L L
UniRef90_UPI000288BE6D	D L A V D A Q V R A E R A L L A E L H G G C C S V P I V G A Y A E T A P D G V L T
UniRef90_A4CHM3	H E Q S A L E V A V A E R E F L R T L E E G G G C C S A P I G A R V H A A D G Q L H
UniRef90_A1SE02	D D P R V R A A V T A E R A V L A T L E E G G G C C S A P I G A L A E I E D G D E L W

UniRef90\_B2B5Y9  
 UniRef90\_Q1NU29  
 UniRef90\_UPI0003AD1290  
 UniRef90\_UPI0003B521B9  
 UniRef90\_A0A058Z164  
 UniRef90\_I0J3W2  
 UniRef90\_T4W7G9  
 UniRef90\_R9CR85  
 UniRef90\_G6F0X2  
 UniRef90\_W7BCU6  
 UniRef90\_UPI000471981D  
 UniRef90\_G3JU78  
 UniRef90\_UPI00036051A0  
 UniRef90\_H1UVU6  
 UniRef90\_I0IM65  
 UniRef90\_D2SHH5  
 UniRef90\_U7UUJU8  
 UniRef90\_UPI00035EDA9F  
 UniRef90\_V5G0B1  
 UniRef90\_UPI0003C7ECB9  
 UniRef90\_F0XNY8  
 UniRef90\_I8IIQ7  
 UniRef90\_UPI00041D4E20  
 UniRef90\_UPI0004799E37  
 UniRef90\_E4NAA9  
 UniRef90\_UPI00030BFA48  
 UniRef90\_D7CHT1  
 UniRef90\_A7I1S0  
 UniRef90\_W8RYX5  
 UniRef90\_W7CJT3  
 UniRef90\_UPI0004638A21  
 UniRef90\_R5I707  
 UniRef90\_Q8KZ06  
 UniRef90\_UPI00047ACFC2  
 UniRef90\_A6WXJ2  
 UniRef90\_M3TCL9  
 UniRef90\_C7RNC0  
 UniRef90\_L8ENC9  
 UniRef90\_S2Y9Z5  
 UniRef90\_W7DPK5  
 UniRef90\_UPI00047CBA14  
 UniRef90\_UPI0003B3E835  
 UniRef90\_J7LEA5  
 UniRef90\_J7G076  
 UniRef90\_UPI00035C9E5D  
 UniRef90\_A0P4U9  
 UniRef90\_UPI0003C7FB30  
 UniRef90\_K1LDU6  
 UniRef90\_K2HDW2  
 UniRef90\_I2ESJ8  
 UniRef90\_UPI00047889E2  
 UniRef90\_UPI0004655D69  
 UniRef90\_B0CQT2  
 UniRef90\_UPI00037BF97D  
 UniRef90\_F4R4C2  
 UniRef90\_UPI00039C3B8F  
 UniRef90\_R7CMU3  
 UniRef90\_G0WBM6  
 UniRef90\_UPI0004763A95  
 UniRef90\_L7WD83  
 UniRef90\_D3D314  
 UniRef90\_W6LWX9  
 UniRef90\_W1Q8H8  
 UniRef90\_UPI00036932AE  
 UniRef90\_UPI0003B42EF5  
 UniRef90\_C2CY18  
 UniRef90\_UPI00037CC749  
 UniRef90\_W2ES84  
 UniRef90\_K3W5J0  
 UniRef90\_D0J8N1  
 UniRef90\_F9FKJ2  
 UniRef90\_E2MUZ8  
 UniRef90\_UPI00047913C5  
 UniRef90\_A9CUB8  
 UniRef90\_K1E18  
 UniRef90\_M7A8J3  
 UniRef90\_U2WA85  
 UniRef90\_UPI000287CB16  
 UniRef90\_H2AZ19  
 UniRef90\_G0VCN9  
 UniRef90\_K0EP62  
 UniRef90\_M2RGF0  
 UniRef90\_E4UAY6  
 UniRef90\_UPI00047C85B9  
 UniRef90\_UPI000365CB30  
 UniRef90\_UPI00047C2625  
 UniRef90\_F6FVP5  
 UniRef90\_F8IDJ7  
 UniRef90\_V9D6E9  
 UniRef90\_UPI000288BE6D  
 UniRef90\_A4CHM3  
 UniRef90\_A1SE02

50                    60                    70

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

UniRef90\_B2B5Y9  
UniRef90\_Q1NU29  
UniRef90\_UPI0003AD1290  
UniRef90\_UPI0003B521B9  
UniRef90\_A0A058ZI64  
UniRef90\_I0I3W2  
UniRef90\_T4W7G9  
UniRef90\_R9CR85  
UniRef90\_G6F0X2  
UniRef90\_W7BCU6  
UniRef90\_UPI000471981D  
UniRef90\_G3JU78  
UniRef90\_UPI00036051A0  
UniRef90\_H1VUV6  
UniRef90\_I0IM65  
UniRef90\_D2SHH5  
UniRef90\_U7UJU8  
UniRef90\_UPI00035EDA9F  
UniRef90\_V5G0B1  
UniRef90\_UPI0003C7ECB9  
UniRef90\_F0XNY8  
UniRef90\_I8IIQ7  
UniRef90\_UPI00041D4E20  
UniRef90\_UPI0004799E37  
UniRef90\_E4NAA9  
UniRef90\_UPI00030BFA48  
UniRef90\_D7CHT1  
UniRef90\_A7I1S0  
UniRef90\_W8RYX5  
UniRef90\_W7CJT3  
UniRef90\_UPI0004638A21  
UniRef90\_R5I707  
UniRef90\_Q8KZ06  
UniRef90\_UPI00047ACFC2  
UniRef90\_A6WXJ2  
UniRef90\_M3TCL9  
UniRef90\_C7R NK0  
UniRef90\_L8ENC9  
UniRef90\_S2Y9Z5  
UniRef90\_W7DPK5  
UniRef90\_UPI00047CBA14  
UniRef90\_UPI0003B3E835  
UniRef90\_J7LEA5  
UniRef90\_J7G076  
UniRef90\_UPI00035C9E5D  
UniRef90\_A0P4U9  
UniRef90\_UPI0003C7FB30  
UniRef90\_K1LDU6  
UniRef90\_K2HDW2  
UniRef90\_I2ESJ8  
UniRef90\_UPI00047889E2  
UniRef90\_UPI0004655D69  
UniRef90\_B0CQT2  
UniRef90\_UPI00037BF97D  
UniRef90\_F4R4C2  
UniRef90\_UPI00039C3B8F  
UniRef90\_R7CMU3  
UniRef90\_G0WBM6  
UniRef90\_UPI0004763A95  
UniRef90\_L7WD83  
UniRef90\_D3D314  
UniRef90\_W6LWX9  
UniRef90\_W1Q8H8  
UniRef90\_UPI00036932AE  
UniRef90\_UPI0003B42EF5  
UniRef90\_C2CY18  
UniRef90\_UPI00037CC749  
UniRef90\_W2ES84  
UniRef90\_K3W5J0  
UniRef90\_D0J8N1  
UniRef90\_F9FKJ2  
UniRef90\_E2MUZ8  
UniRef90\_UPI00047913C5  
UniRef90\_A9CUB8  
UniRef90\_K1E1I8  
UniRef90\_M7A8J3  
UniRef90\_U2WA85  
UniRef90\_UPI000287CB16  
UniRef90\_H2AZ19  
UniRef90\_G0VCN9  
UniRef90\_K0EP62  
UniRef90\_M2RGF0  
UniRef90\_E4UAY6  
UniRef90\_UPI00047C85B9  
UniRef90\_UPI000365CB30  
UniRef90\_UPI00047C2625  
UniRef90\_F6FVP5  
UniRef90\_F8IDJ7  
UniRef90\_V9D6E9  
UniRef90\_UPI000288BE6D  
UniRef90\_A4CHM3  
UniRef90\_A1SE02

1 10 20 30 40

UniRef90_M7Z979	N H E D T R L A V A C E R E F L S V L D G N C R T P I A A Y A Y R D K D G N C	
UniRef90_UPI0003B5A28A	N D E A T D I C T K V E R D F L R T L E G G C C T A P I G A F A T I K E D I I S E R	
UniRef90_P13446	H H I P D A V T V A C E R A M N R R L N G G C C Q V P I S G F A Q L K D G Q L	
UniRef90_UPI0003762641	D A D S T C A A L A E R S F V R F L D G G C C S S P I V A A H A V V D Q E K I V	
UniRef90_L1P9L3	H D G N T Y V E T Q V E R A F L R A L E G G C C S A P I G A I A K F D G Q Q K I Y	
UniRef90_C3XMM7	N D K N A V F E T H C E R A F V R V L N G G C C Q V P I G I N A R Y N E G S L E Y	
UniRef90_A0BE67	N D I D S Q K R C V A E R M F L N L E G G C C R L P I A V Y S E C R E D G Q V Y	
UniRef90_C6PWV2	D E N T R I C V E A E R S F M R T L N G D C H S T L G A Y A Q I N E N T I L S I	
UniRef90_UPI0003B7650C	H H E E T G R A A R A E R T F M Q A V G G C C Q V P T G A W A R V A P D G G V V	
UniRef90_A0A024KHK6	D H R Q T H D A L L A E R A L L D V L D G S C C R T P I A A L T T R E G D Q I V	
UniRef90_D7AWZ0	D H P A T R A E V V V A E R T V L S E L E A G G C C A A P V G A Y A Q Y D A E G R L R	
UniRef90_A3THP4	UniRef90_C5EYU7	N D K K A C F E T S A E R E F I V R T L E E G G C C Q V P I G V N A N L E N N N L L S S
UniRef90_E4UYP2	D Q K K T T F A C L A E R E R N L L R T L E E G G G C C S A P P L G V I E T E W V P D A S L L R	
UniRef90_Q022E4	N H A D T H T A V L A E R E R G L L G A L L G G G C C Q V P I G A H A T V A G G R V R	
UniRef90_UPI0002DB19ED	H R P T M T S V L A E R A M L Y A L L G G G C C L V P I G G I V T L E Q S E I T	
UniRef90_J7RT91	D L E T T V C C L A E R A L M R T L E E G G G C S V P I G C T S S Y D E R G L L K	
UniRef90_A9DZ66	H D R A T G E Q L A A E R A F L A T L D G S C C E T P I A G L A E L N G T N M R	
UniRef90_U1YSZ2	N D D D T R L A V T A E R A V L A R L E A G G C C A A P V G A Y A F R K G S M L H	
UniRef90_Q5YP70	D D A A T R A V V A E R A L A E L E A G G C C S T A P I V G A L A E L D D D G G R I V	
UniRef90_R5RFC6	D Q E G T W A A L S E R A F I V R Y L D G G C C S S P I V A A H A R I R G G Q I H	
UniRef90_A6ELI8	N N T A A D I C T Q I E R D F L R K L E G G G C C T A P I G A L A Q V V E E N I Q	
UniRef90_UPI0002557DA2	H D R T T A Q R L A A E R A F I L T R L D G S C C E T P I A G L A E L S G G T L R	
UniRef90_F7QKS2	D D P V A H L C A D A E R E V L W V L N G H C N S P I A G Y S T I D G R E M T	
UniRef90_I4A0F1	D T Q A Q T A G E L A E R A F I L R K L E G G G C C T A P I G G Y A H I E N E K V H	
UniRef90_G8LU06	H C E K S K Y I A D A E R A F V A A L E G G G C C S S P I V A A H A Q I Q G D K L I	
UniRef90_G8M5R0	H D E Q T A L A V E A E R A V S R A L L G G G S C C E V P I L A A H A V W R D G A L F	
UniRef90_S0JF11	H E E T A A A A L G E R S F I L Q E M G A S C C H L P I V G A V L R K E G E E M F C	
UniRef90_UPI000402C402	N H K E T E I C T T L E R K F L N L L E G G G C C T A P I G A L A I I K D T N I S S	
UniRef90_W0EYV5	N H L Q T A F C V K T E R E F I L S E L M G G G C C S T P I S A L A A F E N D Q I R	
UniRef90_W4EQH9	D K A T W E E A H A E R A Y L L A A M D G G G C C Q V P I A G Y A K Y D G K Q I L E S	
UniRef90_W9G3K9	D D A D S R A C V V A E R S L L A R L E A G G C C T A P I V G A L A E V V E G D E L S	
UniRef90_UPI0002F9A9A2	D D P R T R A A V T A E R T L L A A L E A G G C C S A P V A V N A T M D K K E D I S S	
UniRef90_A6Q7Y4	N H E P T F I C T K V E R D F I S V I G A G G C C S A P V A V N A T M D K K E D I S S	
UniRef90_B5HE03	H P P G T H R E V T A E R M F L H V L Q G H C N S P I A G Y A R S E R N G E L L S	
UniRef90_E7QXV1	D H P R T R V E T T V E R T T L R E L N G G G C C Q V P I A P I G V H S I I Q G E N V H E S	
UniRef90_F9DVL7	D Q K T W I E L Q A E R T F I L N E M D G G S C C Q V P I A G F A K Y D G N E V V H E S	
UniRef90_K1PAS9	H H P E T V I Q C V A E R A F I L K K L E E G G G C C S V P V S A F S E V K D G K L S T	
UniRef90_A0A022LJH9	D H L P S R I R V T A E R R L L A E L L E A G G C C T A P V P G A R A E L D G G V L T	
UniRef90_Q1QEM1	N D D K A R I R L I A E R A L N R H Q G G C C Q V P I A A Y A V L Q K A D T L W	
UniRef90_UPI00036E6D5D	H P H T R F A V E A E R T T L D A L G G G C C S L P I V G V H C I A T E A G K W R	
UniRef90_F8IBM6	D D P A A R V L A Q A E R G V L A R L L G G G C C Q M P L G A Y A T W D G E T V Y Y	
UniRef90_Q11DF1	H H P A T G F A L S C E R A F I L A A L D G S C C R T P I M A G L A T V D G D R I A	
UniRef90_A9FPD9	D A E T T I C V V S A E R A V M M A V E G G S C C T A P V A A Y A V R D G A L L W	
UniRef90_UPI00047C5DBC	D H A P T R W R L T A E R T T L L S V L R G H H C H T P I V A G H A R L S G D E L L E	
UniRef90_W3XLN5	D K H V M L A A E A E R S V M R T L E G G G C C S I P I V G V E T K W T S D R K L H	
UniRef90_C7QKP9	D S P L T R A A V V A E R T M L A V L E A G G C C S A P V V G G H A I A L D D N V L S	
UniRef90_F0QSZ1	D P K A M V E A L A E R A F I L R T V L G G G C C Q V P V V G G I A L Y D G N Y M E	
UniRef90_Q474V1	N H Q P T A L A V T A E R A V S R M L G G G S C C Q V P L A A H A R W V G D Q L R	
UniRef90_A3XGZ4	N D A A D A A L T T K V E R E F I L R K L E G G G C C T A P I G A L A K I E D D H H	
UniRef90_Q5ZRY6	N D P I S A L C V H T E R R V N A K L G G G N C C H I P F A V Y C T I L T E E K L L L	
UniRef90_E6M169	D E T A R V Q M A A E R S F I L T A L D G D C C H L P I G A Y C E A A G D A	
UniRef90_G8NPV0	N D S A T E Y A V Q A E R T V L A V L L G G G C C Q L P I G A F C H A V D D Q W H	
UniRef90_U2ANY5	N H P A T D K A T D I R F I L K R L E G G G C C T A P I G A H A T L E G D Q L S	
UniRef90_S0ETG8	H C T D S A C T L E A E R S F Q A A L G G G C C T V P I G A L A S L E G P S A V V	
UniRef90_R6FPZ1	D D K D T R T A V E A E R S F M K R L N G G G C C H T L I G C Y A E I K N D D L L Y	
UniRef90_UPI000370806B	D D P A A H R E T T M A E R M F I L H V Q G H H C N S P I A G Y A R A E R D G R L	
UniRef90_U7JMJ26	D D R P S H L A A L A E R A V L N R L G G G C C A A P V G A H A T L T E G G G V L H	
UniRef90_H3KCF2	N D P H T R A C C T A E R A V S R A L L G G G C C Q V P L A A Y G V V E G E E L W	
UniRef90_B1MH15	D H A D T R A A V T A E R A L L A E L E A G G C C T A P V G A I A E V V E S D E L L S	
UniRef90_A0LRF1	D D P A T R A A V T A E R A L L A A V G A G C C S A P V G A L G V V T A D T L Q	
UniRef90_C8ZER4	D L N A T I C C L S E R A L M R T L E G G G C C S V P L G V E S K Y N E E T K L L	
UniRef90_B0P7S0	D R D S A D C A L A E R A F V R R L L D G G G C C T S P T A A Y A T V Q G E T L T	
UniRef90_R6ACW2	H D S D V I A S C I T T E R A F I L A K V L G G D C C K V P A G I Y A T A K N G G I L E S	
UniRef90_UPI00026C7F83	N D P I S S I C V N A E R V N A L L G G G C C H V P L A V F C T P T E G N Q L S S	
UniRef90_M5RTZ8	N H V P A R A T V T V E R T L L A A L N G G G C C L A P I A A Y A Q I I D D V L S	
UniRef90_UPI00035F9BA0	N H Q E T R L A A I A E R A F I L V E L D G S C C R T A M G G H A R R N G G K W L	
UniRef90_W9WET9	D H Q Q T H L A T A S E R S L L K T L E E G G G C C S A P L G V I E T T W I K N E E L L Q S S	
UniRef90_R8BEH7	D T E T T M I A C F A E R S V M R T L E E G G G C C S V P I G V E T K W V P G T E L L	
UniRef90_G7H1D9	D D P S S R A A V D A E R A L L A A L E A G G C C T A P V G A Y A E L D D D G E L L S	
UniRef90_C7R6S3	D E T T S L R V L A E R T T I T K T I Q A S C C Q V P V A A F A T I N D D T L S	
UniRef90_UPI00047E0CD2	D D A Q S R Y R A I A E E R M I L L E V L Q A G C C T A P V A A Y A S E I D D D G E M T	
UniRef90_W6RVD5	D D N D A R T T V E A E R S F M R R L N G G G C C H T L I G A Y S K I E G K D L Y	
UniRef90_UPI000362A07E	H D A A T D A A V R A E R A L L A A L E G G G C C Y V P I G T T A V V E G L S L R	
UniRef90_A0A023D851	D P E A R V V I A T A E R A L L A V L D G S C C R T P I G G Y A R L V E N G R L V	
UniRef90_W1TL02	N D L A T A L T S T A E R A V L A E L N A G C C A A P V G A F A Q M E R G I L T	
UniRef90_F2I7D9	D D P E T H Q A V A C E R V V L K A L G A D C C N Y P V G A Y Q I K G Q E I N R	
UniRef90_K2LLN2	H C T D S A I R V A A E R A A L D G S C C A A P V G A M A A V A G G D T L L R	
UniRef90_J0NME2	D S P D T R A A V T A E R A V L A E L D A G C C A A P V G A M A A V A G G D T L L R	
UniRef90_V8CEN5	Q R T A L C T Q A E E R E F I K V L D G G G C C Q V P I G V H C K L L G E E G M V Q	
UniRef90_A3DIF0	H D K D S W D V S V A E R S F I I K A L N G G G C C S S P I S A A Y G V I Q G E K I I V	
UniRef90_UPI00036412DB	N H H E T E I C V V S I A E R E F I K H R E G G G C C T A P I G A L A Y V D E K T E I N	
UniRef90_M5EZY7	H D V P T G Q A L A C E R A F I L E A L D G S C C R T P I I G A H A T I S G G T L S	
UniRef90_I0RY95	D D A D T R A A V T A E R A L L A R L E A G G C C S A P V G A I A E I D D D G E K L L T	
UniRef90_E3GJF0	N P V T K A Q M T A E R Q F L I S L E N G G S C C H P I G A Y C N V E G E K L L T	
UniRef90_E3B6D1	D D A D T R A A V T A E R A V L G A V L G A E A G C C A A P V G A L A E I V E E P E I S	
UniRef90_UPI00028827EF	D S K T M T E V V L A E R A M N A T L E G G S C C S V I A G Y A K T M G E E L L	
UniRef90_E0MQD3	D D A N A R A C A E A E R E V L W V L D G H H C C N S P I A A H S V I E G D T M T	
UniRef90_UPI0003756DE3	D D P W T R A A V V A A E R A L L A T L E A G G C C S A P V G A L G E P V E E D E L L Y	
UniRef90_D8PLQ9	H W P S L W R C R A E R A C L R E L E G G G C C S V P V G V V S A V G R A G V L L S S	
UniRef90_A0A059MM05	D D R A S R A V V A V A E R A L A E L E A G G C C T A P V G A V A E V V E S E E L L S	
UniRef90_UPI00036B995E	N H G P S D V A T F I E R Q F L K R L E G G G C C T A P I G A L V T F I D N E I R	

50                    60                    70                    80

UniRef90_M7Z979	F R G L L A S P D G S		
UniRef90_UPI0003B5A28A	L E G I L L S I D G Q T K I E V K K Q T T I T	N H K N F G V L C A T E V L	
UniRef90_P13446	M E A R V G S V T G S K T F R L P W S G P Q L Q K E S E A L L G V E V A D M L L A		
UniRef90_UPI0003762641	L T G L Y Y E E E T G A Y K K G S L E G T R E E A E E L G V R L L A K K L		
UniRef90_L1P9L3	F K G G I W S E D G K E E R L I N E V L T S L I N D H T G E E L A Q K L M A		
UniRef90_C3XMM7	V R A I L G L P D G S E I I K E N L E S E V S I K D C E Y I G K T L A E S F L N		
UniRef90_A0BE67	I K G R V M A V D G S K V I I K E D E A L D H F E K V G Q I L C E K I		
UniRef90_C6PWV2	I G I F Q V G D N L L I K R D I A G N K E D Y M E L G Y K L A K K I I		
UniRef90_UPI0003B7650C	I D G C I A A L E G A P C Y R E R R T A T P E Q A A R V A R E L A H A L L A		
UniRef90_A0A024KHK6	L L G Q I L S P D G R T V F E L E R R G A A A Q A G D I L G R S L G E E L K A		
UniRef90_D7AWZ0	L R A A V V A T D G A E A V R R E R A A P G D L A A A T A L G R D L A R Q M I A		
UniRef90_A3THP4	L R A V V A S P D G T G D I R R S A T G S P T D A D G I L G R R L A R L L L		
UniRef90_C5EYU7	I K A V L G I P D G T K C L R D S K E V Q V G V E E C R Q I G R K L A L E M I		
UniRef90_E4UYP2	L R C I V T S V D G R E A V E V E K D G V Q T P E Q A E A F G K A V A D E M		
UniRef90_Q022E4	L L G L V I A A P D G S E I V R A E A E G A S G E A A E I G K R L G A E L L A		
UniRef90_UPI0002DB19ED	L K A G V Y S Q D G V R R I T E S L R G P M D K P L N V G A E L A A R L L S		
UniRef90_J7RT91	L S A L V I D V E G K N F V E E S L Q H I T R G D A M A M C G K R L A E I M I		
UniRef90_A9DZ66	L R G Q V L R P D G S D A I G D D V T C T I S D G A E A G R E M A R K K L L A		
UniRef90_U1YSZ2	L E A V V I C A V D G T R T V R E K K K A T D G L T E G A T L L G I E V A E Q L L A		
UniRef90_Q5YP70	L R G C A A A V D G S E V L R S V V G D P E R A A E L G R A L A R E E L L		
UniRef90_R5RFC6	L L G L Y Y E E K T G K Y K K G R M E G P V E E A E A L G I R L A E K L L		
UniRef90_A6ELI8	F T G C L F S L D G K T K I E V E K T I D K N N N G G V D A A I E L L		
UniRef90_UPI0002557DA2	L R G E I L R P D G S E A L A D D R S A A V E D G A L L G T E M A D A L L A		
UniRef90_F7QKS2	L T A S V L D L E G D R L L E A T T R R G P A D K P R E L G R A V A F D L L A		
UniRef90_I4A0F1	F S G A L L S L D G T Q K I E I S E T R P L G D A Q T L G E E M A Q		
UniRef90_G8LU06	L N G L Y V D E K M G I L K K G S M S G S V E D A Q N I I G K S L A R K L		
UniRef90_G8M5R0	L R G A V S M P D G R R V L R A E E T V S P D L A G A L A L L G K R V S A D L		
UniRef90_S0JF11	L R A M F G N E S G S R Q A Y A S V S G R E P E E A R E A R E I R S		
UniRef90_UPI000402C402	L K G V L L S V D G R K K I E V E F T S K L G K H E N L A E A C V E R I F S		
UniRef90_W0EYV5	F R G S V V S P D G T E K I E V N E W Y R L D E T R T P G T Q A A Q S I L		
UniRef90_W4EQH9	L T G L V I A A P D A S V I Y K E T V T M E D A K A A G E E V A R I L		
UniRef90_W9G3K9	L R A F A G S E D G R V E L L R R S L V G P Y S E P E A L L G A R L A E I L L		
UniRef90_UPI0002F9A9A2	L R G V V G T T D G R T L V Q L S T T G P A P A S D G A R M G R E L A D E M L A		
UniRef90_A6Q7Y4	V R A M I G Y P D G T H I L H K S L T V P L N E A D I L G D E L A Q A M I		
UniRef90_B5HE03	L R A K V F S P D G K V I L N A H E W A G R L D P A T L G T S V A V A L L		
UniRef90_E7QXV1	V E A Q V F S Q D G S E V I S I K R D V P V A K K V A E E L L A D R G A R D L I A		
UniRef90_F9DVL7	L T G F I I A S P D A I E V F R E T V K G T D P V S V G K E V S K I L		
UniRef90_K1PAS9	L T G G V F S I D G K Q I V V G S E K V S I A T L E V A Q R V G L Q V A E L L L N		
UniRef90_A0A022LJH9	L H A V A A S H D G S T V L H A E G T G P V A A A D D L G R R L A A D L L A		
UniRef90_Q1QEM1	L R G R V G Q E D G S E L L K V D K R Q T L T G S Q A E Q L G I E V A E M L L		
UniRef90_UPI00036E6D5D	M L A Q V V S P D G E A M V Q I D T E A T Y S T T P A A L G R W V A D D L I S		
UniRef90_F8IBM6	L L G Q A A D P A G T R L A R A E A R G T A S D T D R I L A E E V A D E L		
UniRef90_Q11DF1	F S G M I L T P D G R E V H E I G G D G A A Q D A A E I I G R D A G R R I		
UniRef90_A9FDP9	L R A L L A E P D G S R L R R A E R R L P G N T R E A E R L G A D L G A E L		
UniRef90_UPI00047C5DBC	L R A A V F S G D G R A I L S A S R V A P V S G A E R L G E V V G G E L I A		
UniRef90_W3XLN5	L N A T V V S V D G T E A A D G N L E E T L T R E Q A V D F G K R V A Q I L L		
UniRef90_C7QKP9	L T G V V A T V S G S R G L R L S H A G A V S E P E A L G R R V A Q A L L A		
UniRef90_F0QSZ1	F I A G I A D I N G N R K V I V K R D S S I D P E R L G I N A A H E L L		
UniRef90_Q474V1	L D A F V A M P D G S R Q T R A S A A G		
UniRef90_A3XGZ4	F H G A L E F S L D G T Q K L E I K E S I P V S E C L D F G A L C A L K I L		
UniRef90_Q5ZRY6	L R A K V L N M D G S Q M I D D E Q Q G K I A E A E V I A D R C T E S L		
UniRef90_E6M169	L Y G L Y G D E A G T R L V K G S A A G R A A D A E R L G A Q L A E Q L		
UniRef90_G8NVP0	L H A M V V S P D G E Q V A H V V Q K V P F G T P A C E L G S A V A S E L T A		
UniRef90_U2ANY5	F V G N L F S L D G T T V I E V S K C V S L H A L G E A C A E E I L L S		
UniRef90_S0ETG8	L E A V V V S P D G R Q R Q L F D T Y T G L R S R A R E V G A T L A R R M L		
UniRef90_R6FPZ1	M I G I T F E V N G K I I V K D L T G K K D D N I Q L L G I K L A E S I L L		
UniRef90_UPI000370806B	L R A R V F S P D G K T V L D A H E W A G P L D P A T L G T S V A V A L L		
UniRef90_U7JMJ26	L L Q A V V C S L D G T K Q V R K E A S I E L P P A A A Y G I V G E K L A E D L L		
UniRef90_H3KCF2	L R A L V G N H R T G E A V R A E A R G D W K D P E A V V A A E V V R Q L L		
UniRef90_B1MH15	L R G C A A A L D G S D V I R A S G I G T P D R A A E L L G L A V A R E L L		
UniRef90_A0LRF1	L D A V V V D P S G T T A F R R S L T G T P D D A S D L G R R L A A D L I		
UniRef90_C8ZER4	L K A I V I D V E G T E A V E D E I E M E N V K E D S M A C G K I L A E R M I A		
UniRef90_B0P7S0	L R G M D V T A K G A P V F D T I L G P R S Q G E A L L G I E L A E R I I L		
UniRef90_R6ACW2	A H A F I A S T D G K R L Y R S E R S A A V V S E A V S V G K A L A A E L L		
UniRef90_UPI00026C7F83	L R A K I L T L D G A Q L I Q S M Q L G P L E Q A L S M A D H C A Q S L L S		
UniRef90_M5RTZ8	L D A V V L S T D G T Q R L D E S R S I D F D P S Q W E S C A K T L A D Q		
UniRef90_UPI00035F9BA0	F D G E V L E P D G S Q R W S G E A G G D A S P E E L A A L G R G I G E R I		
UniRef90_W9WET9	L K A I V V S T D G Q E K A E I D M T E S V S Q N D A E V F I G T N V A A E L L		
UniRef90_R8BEH7	L K A T V V S L D G G D A I D A E L T E D V S F E A A D E F G Q K V A K I L L		
UniRef90_G7H1D9	L R A A V V A V A V D G S D V I R S S A V G P I E Q A V D V G R A L A A E M L		
UniRef90_C7R6S3	L R A L V G G V D Q Q I I E A S A E G P A Q D A L A I I G H K V S Q E L L		
UniRef90_UPI00047E0CD2	L T A G V F A I D G S A N I V R S A Q G P A D K P R D L L G R L V A H R L		
UniRef90_W6RVD5	L I I G I Y K I G D K I I K D F G P K E K S I E L G I T L A E K I I N		
UniRef90_UPI000362A07E	L L G Q V T A V D G R R A V R V E K S G S A Q A P E V L G A Q V A D E L L		
UniRef90_A0A023D851	L T G L V A R E D G S F Y L K R E I R G A P A D A R R L G E E L G A S L L R A		
UniRef90_W1TL02	L T A A I I S L D G T R E V R V E K T F A E M L D Q A R Q L G E S V A R A L L		
UniRef90_F2I7D9	L T A M I G R Q D G F A L V R S Q L E A P L D Q A L A I G Q A V Y Q D L L		
UniRef90_K2LLN2	L R V S I V R P D G S E R L D T E R I A K P D I L A T A M A A G T D A G E E L		
UniRef90_J0NME2	L L Q A V V A V S L D G T R T V L R E S A T A H I D E A D V L G A H V A Q A L L A		
UniRef90_V8CEN5	I T K A I V V G M P D G S K V L Q E S I S A S A Q E A S I A A K E L A H I L I		
UniRef90_A3DIFO	L T G F Y V D K N G K I Y K M T K G D R N Q G E A L L G Y S L A M E M L		
UniRef90_UPI00036412DB	F K G V L L S K D G D K K I E V A K I T P L G K H R Y A Q D C A D Y V I		
UniRef90_M5EZ7Y	F A G L I L S P D G T D W H E V E T Q G P A G D A A L I G A D A A R T V R A		
UniRef90_I0RY95	L R A F C V A A L L D G S D V I R A S G V G T P D R A R E L L G F S V A E E L		
UniRef90_E3GFJ0	L Y G L F G N G E D E G T I L Y K G Q T E G A M G E E A K M G D R L A K E L L		
UniRef90_E3B6D1	L R A F V G A P D G S F E L R R S D V G S Y D N P A A V G E A L A R T L L		
UniRef90_UPI00028827EF	L L G Q V L G N V E S G S I L R A E R T G S T S Q P K A L G E L V A N Q L L		
UniRef90_E0MQD3	M E S A V M E I D G D K I I R H T A S G P A E Y P R E L G R T V G I L A V A		
UniRef90_UPI0003756DE3	L R A T V L A T D G T A A V R Q S T T G P L V E A E M I L G R K L A A E M L A		
UniRef90_D8PLQ9	L T A G V T S V D G T E H V E I R E H V S V E E A E A L G V R M A K T L		
UniRef90_A0A059MM05	V R G C A A A L L D G S D V L R A S A V G D P D R A A E L G R A V A R E L L		
UniRef90_UPI00036B995E	L E G V L L S I D G R E K L H I E K V L P A G S N Y M N F G N E C A D Q I L A		

UniRef90\_M7Z979  
UniRef90UPI0003B5A28A  
UniRef90\_P13446  
UniRef90UPI0003762641  
UniRef90\_L1P9L3  
UniRef90\_C3XMM7  
UniRef90\_A0BE67  
UniRef90\_C6PWV2  
UniRef90UPI0003B7650C  
UniRef90\_A0A024KHK6  
UniRef90\_D7AWZ0  
UniRef90\_A3THP4  
UniRef90\_C5EYU7  
UniRef90\_E4UYP2  
UniRef90\_Q022E4  
UniRef90UPI0002DB19ED  
UniRef90\_J7RT91  
UniRef90\_A9DZ66  
UniRef90\_U1YSZ2  
UniRef90\_Q5YP70  
UniRef90\_R5RFC6  
UniRef90\_A6ELI8  
UniRef90UPI0002557DA2  
UniRef90\_F7QKS2  
UniRef90\_I4A0F1  
UniRef90\_G8LU06  
UniRef90\_G8M5R0  
UniRef90\_S0JF11  
UniRef90UPI000402C402  
UniRef90\_W0EYV5  
UniRef90\_W4EQH9  
UniRef90\_W9G3K9  
UniRef90UPI0002F9A9A2  
UniRef90\_A6Q7Y4  
UniRef90\_B5HE03  
UniRef90\_E7QXV1  
UniRef90\_F9DVL7  
UniRef90\_K1PAS9  
UniRef90\_A0A022LJH9  
UniRef90\_Q1QEM1  
UniRef90UPI00036E6D5D  
UniRef90\_F8IBM6  
UniRef90\_Q11DF1  
UniRef90\_A9FDP9  
UniRef90UPI00047C5DBC  
UniRef90\_W3XLN5  
UniRef90\_C7QKP9  
UniRef90\_F0QSZ1  
UniRef90\_Q474V1  
UniRef90\_A3XGZ4  
UniRef90\_Q5ZRY6  
UniRef90\_E6MI69  
UniRef90\_G8NVP0  
UniRef90\_U2ANY5  
UniRef90\_S0ETG8  
UniRef90\_R6FPZ1  
UniRef90UPI000370806B  
UniRef90\_U7JM26  
UniRef90\_H3KCF2  
UniRef90\_B1MH15  
UniRef90\_A0LRF1  
UniRef90\_C8ZER4  
UniRef90\_B0P7S0  
UniRef90\_R6ACW2  
UniRef90UPI00026C7F83  
UniRef90\_M5RTZ8  
UniRef90UPI00035F9BA0  
UniRef90\_W9WET9  
UniRef90\_R8BEH7  
UniRef90\_G7H1D9  
UniRef90\_C7R6S3  
UniRef90UPI00047E0CD2  
UniRef90\_W6RVD5  
UniRef90UPI000362A07E  
UniRef90\_A0A023D851  
UniRef90\_W1TL02  
UniRef90\_F2I7D9  
UniRef90\_K2LLN2  
UniRef90\_J0NME2  
UniRef90\_V8CEN5  
UniRef90\_A3DIFO  
UniRef90UPI00036412DB  
UniRef90\_M5EZ7Y  
UniRef90\_I0RY95  
UniRef90\_E3GJF0  
UniRef90\_E3B6D1  
UniRef90UPI00028827EF  
UniRef90\_E0MQD3  
UniRef90UPI0003756DE3  
UniRef90\_D8PLQ9  
UniRef90\_A0A059MM05  
UniRef90UPI00036B995E

	1	10	20	30	40
UniRef90_R6GA01	D R E G T I A A L C E R A F V R Y L D G G C S S P   V A A H A V I E G G E   L F				
UniRef90_G7UNB9	D H L P T R R C V E A E R A M N R A L H G S C C H V P   V G A F A R E D A H G M S				
UniRef90_K6VJS7	D D P P T R A V E A E R A L L A T E A G C T A P I G A L A R P D G Q T G L L L				
UniRef90_F5RHP5	D P V T E A C V R A E R A V S R A L A G S C C E V P   V A A Y C V V E G G A L W				
UniRef90_I4X1P4	D H E N T A L A V N A E R K F L K D M D G S C C Q V P   V I A G Y A T V N N G E I T				
UniRef90_G8BZ5	D K E S T I R C L A E R S L L R T L E E G G C C S V P   V G V E T S Y D D A T Q H L				
UniRef90_R0KGR8	E R T T R A C S A E R A L L R T L E E G G C C S V P   V G V E T S W I D D Q E L V				
UniRef90_Q0FDA0	N D K S A S L R L A A E R T L L A E L D G S C C Q T P   V I A G L A E L D G Q K M R				
UniRef90_A0A023XZ53	D D A R T R A C V E A E R A M N R A L H G S C C H V P   V V A G F A Q W E G E E L F				
UniRef90_A9KP83	H N E E A T F Q A V C E R A F V K T L N G G G C C S S P   V V A A Y A K V E D E M I T				
UniRef90_UPI00036B7E94	D D S A S R A A V T A E R A M L A A L E E A G C C Q V P   V I A A H A V V E D N Q L Y				
UniRef90_C6WNG2	N S Y E S E V A A T V E R A F L R T L V E E G G C C Q V P   V G A L A D V V E D L R I S				
UniRef90_E8T5K3	D R P E V S R A V V R A E R A F L A E L G G T C C R V P   V P L G C Y A V V N E D R I L				
UniRef90_K6P474	D D P H T R V A V T A E R T L L S V L E A G C C S A P V   V G A L A D L R T D T E M R				
UniRef90_UPI00031B5F7A	H D S K S A L C C N I R A F I Q L L G G G C C Q S P   V I G I H A Q I L D S K E I T E				
UniRef90_C3XEZ5	D P R T A R E T V A E R T L L H I L G N G C C S A P V   V A A L A R T E P D G R L L G E N				
UniRef90_J0L684	H D D D T L I R C I S E R A F L R Q L E E G G C C S A P V   V A V H S E V K N N K L L E				
UniRef90_UPI0003F09D4A	H N H E E T Q I C T Q I E R E F L N K L E E G G C C T A P I G A L I C Y I K D E E V N				
UniRef90_F6GGJ8	D M E T T Y S C L A R A L M K R L Q G Q G C C A P   V I G V E T Q C K D K Y S V V				
UniRef90_B6K1G7	N D A T T A L C T Q I E R K D F L R S L F G G C C T T P   V I S A L A E L S S N D T V L				
UniRef90_UPI00041C0A27	H A D T Y V T A V A E R T V L N R L E A G C C T A P   V V A A H A T L D G G D T M T				
UniRef90_Q8FSF7	D T E T T Y C C V A E R S L M K R L Q G G C C A P   V I G V L A M S S S A Y H V S				
UniRef90_S9X6E7	N D P V T K A C T D A E R F V L F S L E E G G C C Q V P   V M G A Y A T E S E D E Q I H				
UniRef90_C7N5L0	H Q P T L R A V E A E R Y M R A L E E G G C C Q V P   V M G A Y A T E S E D E Q I H				
UniRef90_UPI00041C0A27	T R V C V E A E R A M N R A L H G S C C H V P   V V A A F A R W E G Q D L F Y				
UniRef90_Q8PPR3	H D G E T V L R C I A E R A F M K H E E G G C C S V P   V V A V S T T L K D S Q L				
UniRef90_R4GBR6	D A D T R A S I T A E R A L L A A L E A G C C T A P   V V A V S T T L K D S Q L				
UniRef90_E6SAF4	D R T A R Y A A T A E R A L L A G L D G S C C R T P   V V G G Y A T I A G Q Q V L T				
UniRef90_V8A3V1	U N I T H A A L H G E R A R A L L A A L D G S C C R T P   V I G G H A R L L P D G N H				
UniRef90_F0J1B8	U N I T H A A L H G E R A R A L L A A L D G S C C R T P   V I G G H A R L L P D G N H				
UniRef90_UPI00046396DF	N D E D T A I A V S C E R A F L L A A L D G S C C R T P   V I A A Y A R C C F N E R I S				
UniRef90_D6U6V2	D R N V Q A T A S E R M F M R R L G A G C C Y L P   V V A A H A H I D E R L V				
UniRef90_S4RQ71	H H R D T V L R C V A E R A F L R T L E E G G C C S V P   V V A V S H M E G K E E L S R T				
UniRef90_UPI000365A09F	H P A T G L A L R V E R A Y L G Q L D G S C C R T P   V I G G L A Q L E G D I T				
UniRef90_E6L8G0	N D E K S L I E S T V E R D F I R T L E E G G C C Q V P   V I G I N A E L L I G E Q I T				
UniRef90_C8NBV9	D D A D T A L C V H T E R I I N T H E E G S C C R T P   V I G I N A E L L I G E Q I T				
UniRef90_UPI00035F5AC0	D H A E T H A C V L A E R A F L A A L D G G C C H S P   V I G I N A E L L I G E Q I T				
UniRef90_S4P937	N H P E T Y C R I L A E R S F L K T L G G G C C S A P V   V G V L T S D T N F Q L L A R				
UniRef90_B5GJG2	D P A T D T E V R A E R V L L A E L H G G C C S V P   V G T W T S R P S P G T L L R				
UniRef90_W1S298	N H A D T F D A V M M E R G V L K G L G G T C C H S P   V I G S I A A L A L V E G G Q I V				
UniRef90_A6GUG3	D P V C T A L V S A E R S V S K S G V Q P   V I G V A G Y A T L L N D A Q T F T				
UniRef90_R6STH0	D Q E T D I C V K A E R R Q F L K Q I L G G S C C H S L P   V I G V A G Y C K I Q D E K L V				
UniRef90_R6CF01	N D P A A Q T A Q A A E R A F V K Y L N G G G C C S S P   V I A A Y A E M K N G K L L L				
UniRef90_C8RWL3	H H G P T G I R L L A C E R A Y L Q E L D G S C C A T P   V I A G M S V L E G D A R I W				
UniRef90_K2P15M	H A P T G A E L L A C E R A F L G T L D G S C C R T P   V I A G L A R V E E G D A L L R				
UniRef90_UPI000376F6E9	D H D V L K A V T A E R T V L A T L E A G C C T A P   V V A A Y A D L D G D D T L L T				
UniRef90_UPI0003B625D6	H T P T R T A V V L A E R A V L L A A L E A G C C A A P   V V A T A T V V G D T E L H				
UniRef90_V6AQX1	D Q N Q T R T A L E A E R T L S E F F V D S D G C C R F P   V I G A Y G K V V E G S M V H E				
UniRef90_F3XP37	H D G K T Y I E T Q V E R A F L R A L E E G G C C S T A P   V I G A Y A E F D G E Q V				
UniRef90_UPI000455DD78	H Q E S Q W K V L A E R A M L R K L E E G G C C S V P   V V G T Y E T L S E D D G K L L K				
UniRef90_C2GGB5	D D H A T L S A Q A E E R A V L S T L Q A G G C C T A P   V L A A Y S T L V S G D D E I T				
UniRef90_UPI000374AAC6	H A D S T T A A N A E R A F L K H M G G G C C Q T P   V Y A A F A Q L N G D R I A				
UniRef90_M1MKE0	D A N A K L T V E A E R S F M K E L N G G D C C H S L P   V I G A Y S E I K G N D L Y				
UniRef90_A0A017T118	H P E T A T C V S A E R A V M A A V E N G N D C C H S L P   V I G A Y S E I K G N D L Y				
UniRef90_L8WXB6	D W R T A W S C R A E E R A C L R V L E E G G C C S V P   V V G V N S L E E H S K L T				
UniRef90_UPI0004648A44	H D D A A G W E V T A E E R A F L R S L G G G C C R S R A V G A K A S V Q R R E L V				
UniRef90_UPI0003088DF2	U N I T C A P A S I A R V T A E E R A F L R S L G G G C C R S V Q P   V L A A Y A E Q H G P D L R				
UniRef90_F4FEJ5	D H A A S R A T V T A E E R A F L M A T L E A G G C C S A P T   V T G S G V E G D V V Q E I Y				
UniRef90_UPI0004754C27	D D A P T S A C V M A E E R A L L E A L G G D C C H S A I I A A L A R I A D R T I H				
UniRef90_X5MLN4	D D A D T S L C V G C C E R A M L A E L D G T C C R T P   V I G G H A V L M P G G R I K				
UniRef90_K2LZW9	N C P A S A I R V T A E E R A F L R A L D G S C C R T P   V I A A L A L A E Y L P D G R M R				
UniRef90_F4LUU2	N D D E T T C A T G A E E R A F M K V V G G S C C R T P   V I M G A Y A E L F D D A L K				
UniRef90_B0D5Q2	U N I T C A T G A E E R A F M K V V G G S C C R T P   V I M G A Y A E L F D D A L K				
UniRef90_V8A867	W A V R A E R A R A L L W V L E E G G C C A F P   V V G I W S S W S G D N I A S				
UniRef90_H6BLH1	D P E A R A V A T A E E R A F L M A T L E A G G C C S A P T   V I G G Y A R L R G D R E L V				
UniRef90_G8AE80	D H L D S H L A T A A E E R S L L R T L E E G G C C S A P T   V I G V E T S W T G N K S L R L H				
UniRef90_UPI0004415607	N C A A T T A R V T A E E R A F L R V L E E G G C C C A V P   V I G V W A A G G D G I T L S				
UniRef90_UPI0003F6E9C7	H H A P T A M A L A A E E R A Y L L A R L D G S C C C R T P   V I G A Y A T V V T G A R V D E				
UniRef90_F2LG74	H D S A T A L A A E A E R A M V S R A L G G S C C C S V P   V I G A A H A I W H G E R L E				
UniRef90_UPI000410C876	N D R Y S Q A A V A A E E R A G R L L E R E A G A L R V A L A E V A E G S D L Y				
UniRef90_H9KF58	D V E T T L R C V C E R S F L K T L G G G C C S A P V   V A V S S T L K N K I L L T				
UniRef90_UPI00006CBE06	N Q K E P R I R V D A E E R Q F L N K L E E G G G C C K L P   V I A V H S E I I D Q T L L R Y				
UniRef90_N9XRM1	D N K E V R I A V D A E E R S F M K R L N G D C C H S L P   V I G I Y S E I I N G D K L L Q				
UniRef90_J0K8C1	H Q A T W L T V V A A E E R A V S R A M G G S C C S M P   V I A A H G T L I G A N G T L L Q				
UniRef90_A8IJ75	R A T G I A L A A E E R A L L T A L D G S C C R T P   V I G G L A T V V E G D M V R Q R				
UniRef90_M1V705	P R T K L C V E A E E R A F L A N L D G S C C R T P   V I A G Q A W F D T D S R I H				
UniRef90_D1B7N1	H R S T W L E V V L A E E R S F L K A F G M G G C C S A P V   V A A S A V M D R D T L L T				
UniRef90_M2U7J9	N T D D T F T A I T A E E R A F A R R L G G S C C R F P   V I G A A L A V R T E D A F L				
UniRef90_F3KHT3	D T D S R L E I E A E E R S L S D F V D S G C C R F P   V I G A Y A K S N G N Q M T R				
UniRef90_S4MB29	N D E D A I I E T R V E R D F V T V L E E G G G C C Q V P   V I G A L A D L L A D G Q I T R				
UniRef90_W6EIB0	N D A K D L R C V S A E E R A F L K E M D G G D C C T I L A P   V I G V N A E L C G D A L L H				
UniRef90_UPI00047DE5FF	N D H R A F Y E V T A E E R T V L K E L G V G C C Q W P   V I G V V A R S K G K N L K N				
UniRef90_E3GWS3	N D D A D T H N C V L A E E R S M N R V L G G D C C R L P   V I V A A L A Q W Q G P Q M V				
UniRef90_G0JMF4	H S E E S L C I S L A E E R T F V R E M N G G C C S T P   V I A A Y A T I Q Q G S E I I				
UniRef90_Q59293	N H H E T S V C V G V E R E F L R L L E E G G G C C H T P   V I G A L A Y V V D A T D E V N E				
UniRef90_A4BYX0	D P A L D E E V C A E E R A F L Q E L N G G G C C H T P   V I G A R C L L H D T T V E				
UniRef90_E2SJN6	D M E T T L L A C V A E E R C F M R T L N G G G C C S T P   V I A C H S Q F S G N N Y S				
UniRef90_T2MHP2	D D L P T R L S A T A E E R A V L A R L E A G G C C A A P V   V I G A F C C E A A G G G R L S T				
UniRef90_K7RRA8	U N I T C A T G A E E R A F M K V V G G G C C R T P   V I G V N A E L C G D A L L H				
UniRef90_B8I20	P R T T A L L A C V A E E R A G R L L A E L D G S C C R T P   V I A A L A I E I E G D R L I T				
UniRef90_J1F844	D E V A T I E T G I R Q F V G K L Q G G G C C S V P   V I G V N A T V L V E N D T I I				
UniRef90_D9S0T7	H K A T E V A V R A E E R S F M R A L G G G C C R V P   V I G A F A R V E G T V V T				

L R G L Y Y Q E S T G K H K I G T M R G S V K D P E T L G V N L A K K L  
 UniRef90\_R6GA01  
 UniRef90\_G7UNB9  
 UniRef90\_K6VJS7  
 UniRef90\_F5RHP5  
 UniRef90\_I4X1P4  
 UniRef90\_G8BZZ5  
 UniRef90\_R0KGR8  
 UniRef90\_Q0FDA0  
 UniRef90\_A0A023XZ53  
 UniRef90\_A9KPB3  
 UniRef90\_UPI00036B7E94  
 UniRef90\_C6WNG2  
 UniRef90\_E8T5K3  
 UniRef90\_K6P474  
 UniRef90\_UPI00031B5F7A  
 UniRef90\_C3XEZ5  
 UniRef90\_J0L684  
 UniRef90\_UPI0003F09D4A  
 UniRef90\_F6GGJ8  
 UniRef90\_B6K1G7  
 UniRef90\_UPI00041C0A27  
 UniRef90\_Q8FSF7  
 UniRef90\_S9X6E7  
 UniRef90\_C7N5L0  
 UniRef90\_C7MKX4  
 UniRef90\_Q8PPR3  
 UniRef90\_R4GBR6  
 UniRef90\_E6SAF4  
 UniRef90\_V8A3V1  
 UniRef90\_F0J1B8  
 UniRef90\_UPI00046396DF  
 UniRef90\_D6U6V2  
 UniRef90\_S4RQ71  
 UniRef90\_UPI000365A09F  
 UniRef90\_E6L8G0  
 UniRef90\_C8NBV9  
 UniRef90\_UPI00035F5AC0  
 UniRef90\_S4P937  
 UniRef90\_B5GJG2  
 UniRef90\_W1S298  
 UniRef90\_A6GUG3  
 UniRef90\_R6STH0  
 UniRef90\_R6CF01  
 UniRef90\_C8RWL3  
 UniRef90\_K2PM15  
 UniRef90\_UPI000376F6E9  
 UniRef90\_UPI0003B625D6  
 UniRef90\_V6AQX1  
 UniRef90\_F3XP37  
 UniRef90\_UPI000455DD78  
 UniRef90\_C2GGB5  
 UniRef90\_UPI000374AAC6  
 UniRef90\_M1MKE0  
 UniRef90\_A0A017T118  
 UniRef90\_L8WXB6  
 UniRef90\_UPI0004648A44  
 UniRef90\_UPI0003088DF2  
 UniRef90\_F4FEJ5  
 UniRef90\_UPI0004754C27  
 UniRef90\_X5MLN4  
 UniRef90\_K2LZW9  
 UniRef90\_F4LUU2  
 UniRef90\_B0D5Q2  
 UniRef90\_V8A867  
 UniRef90\_H6BLH1  
 UniRef90\_G8AEBO  
 UniRef90\_UPI0004415607  
 UniRef90\_UPI0003F6E9C7  
 UniRef90\_F2LG74  
 UniRef90\_UPI000410C876  
 UniRef90\_H9KF58  
 UniRef90\_UPI00006CBE06  
 UniRef90\_N9XRM1  
 UniRef90\_J0K8C1  
 UniRef90\_A8IJ75  
 UniRef90\_M1V705  
 UniRef90\_D1B7N1  
 UniRef90\_M2U7J9  
 UniRef90\_F3KHT3  
 UniRef90\_S4MB29  
 UniRef90\_W6EIB0  
 UniRef90\_UPI00047DE5FF  
 UniRef90\_E3GWS3  
 UniRef90\_G0JMF4  
 UniRef90\_Q59293  
 UniRef90\_A4BYX0  
 UniRef90\_E2SJN6  
 UniRef90\_T2MHP2  
 UniRef90\_K7RRA8  
 UniRef90\_B8IR20  
 UniRef90\_J1F844  
 UniRef90\_D9S0T7

UniRef90\_R6GA01  
UniRef90\_G7UNB9  
UniRef90\_K6VJS7  
UniRef90\_F5RHP5  
UniRef90\_I4X1P4  
UniRef90\_G8BZZ5  
UniRef90\_R0KGR8  
UniRef90\_Q0FDA0  
UniRef90\_A0A023XZ53  
UniRef90\_A9KP83  
UniRef90\_UPI00036B7E94  
UniRef90\_C6WNG2  
UniRef90\_E8T5K3  
UniRef90\_K6P474  
UniRef90\_UPI00031B5F7A  
UniRef90\_C3XEZ5  
UniRef90\_I0L684  
UniRef90\_UPI0003F09D4A  
UniRef90\_F6GGJ8  
UniRef90\_B6K1G7  
UniRef90\_UPI00041C0A27  
UniRef90\_Q8FSF7  
UniRef90\_S9X6E7  
UniRef90\_C7N5L0  
UniRef90\_C7MKX4  
UniRef90\_Q8PPR3  
UniRef90\_R4GBR6  
UniRef90\_E6SAF4  
UniRef90\_V8A3V1  
UniRef90\_F0J1B8  
UniRef90\_UPI00046396DF  
UniRef90\_D6U6V2  
UniRef90\_S4RQ71  
UniRef90\_UPI000365A09F  
UniRef90\_E6L8G0  
UniRef90\_C8NBV9  
UniRef90\_UPI00035F5AC0  
UniRef90\_S4P937  
UniRef90\_B5GJG2  
UniRef90\_W1S298  
UniRef90\_A6GUG3  
UniRef90\_R6STH0  
UniRef90\_R6CF01  
UniRef90\_C8RWL3  
UniRef90\_K2PM15  
UniRef90\_UPI000376F6E9  
UniRef90\_UPI0003B625D6  
UniRef90\_V6AQX1  
UniRef90\_F3XP37  
UniRef90\_UPI000455DD78  
UniRef90\_C2GGB5  
UniRef90\_UPI000374AAC6  
UniRef90\_M1MKE0  
UniRef90\_A0A017T118  
UniRef90\_L8WXB6  
UniRef90\_UPI0004648A44  
UniRef90\_UPI0003088DF2  
UniRef90\_F4FEJ5  
UniRef90\_UPI0004754C27  
UniRef90\_X5MLN4  
UniRef90\_K2LZW9  
UniRef90\_F4LUU2  
UniRef90\_B0D5Q2  
UniRef90\_V8A867  
UniRef90\_H6BLH1  
UniRef90\_G8AEB0  
UniRef90\_UPI0004415607  
UniRef90\_UPI0003F6E9C7  
UniRef90\_F2LG74  
UniRef90\_UPI000410C876  
UniRef90\_H9KF58  
UniRef90\_UPI00006CBE06  
UniRef90\_N9XRM1  
UniRef90\_J0K8C1  
UniRef90\_A8IJ75  
UniRef90\_M1V705  
UniRef90\_D1B7N1  
UniRef90\_M2U7J9  
UniRef90\_F3KHT3  
UniRef90\_S4MB29  
UniRef90\_W6EIB0  
UniRef90\_UPI00047DE5FF  
UniRef90\_E3GWS3  
UniRef90\_G0JMF4  
UniRef90\_Q59293  
UniRef90\_A4BYX0  
UniRef90\_E2SJN6  
UniRef90\_T2MHP2  
UniRef90\_K7RRRA8  
UniRef90\_B8IR20  
UniRef90\_J1F844  
UniRef90\_D9S0T7

	1	10	20	30	40
UniRef90_U7KU86	E R A V L A R L E A G C T A P V A A T S R W D G D Q L T				
UniRef90_Q18ES3	D H P R T R V E T T V E R T V L A E L G G G C I A P I G V H A T L Q G E Y V H				
UniRef90_A7GYU4	N D E R S V I E T R V E R D F V T L L E G G C Q V P I G I N A R L A S E E L E				
UniRef90_W7L6U8	N D S E T F E E A M A E R A A S Q I V G G G C H S P V G V L F R K E G D S				
UniRef90_R5BXS1	N D R Q A Q A E A L A E R A F V R W L D G G C C S S P V A A H A V C Q G E K L Q				
UniRef90_D0WETO	D D A A T R V C V E A E R I V L C A L E E G G C C Q V P M G A Y M R F D S G D I A				
UniRef90_UPI00026CDC8F	N H Q A T H L C V L V E R A L L A A L Q A D C C H S P V A A L A T L E G D S I L				
UniRef90_A0A059E702	N H E P T E A A A H I R A F L A A L D G S C C R T P I A A H T F D K G D T W F				
UniRef90_UPI00047EDA53	N H Q S T W L A V A V A E R A V S R A M G G S C S M P L I A A H A T L D G E V L R				
UniRef90_A0A059F7R9	N H V P T A A A A M I R A F L L A L D G S C C R T P I A A H T F D K G E E W H				
UniRef90_A0A013XTA7	N D A D T T D A V A A A E R A V L K A L G G T C C H S P V A A L A V V D G D G L Y				
UniRef90_A0A052JCQ2	N P A T T A C V S A E R A V S R K L G G G C S Q V P V G V H S A L D G D G R L K				
UniRef90_W4KP97	H W Q T Q W Q C L A E R G C L R V L E G G G C S V P V G V H S A L D G D G R L K				
UniRef90_B3RTQ8	D F D S L V C N A A E R A F L R F L D K G C C S V P I G V Y T E F T E N K L K				
UniRef90_Q0ATQ1	H H R D T E L A V L A E R A F L F E L D G S C C R T P I A A H V N K V S M D				
UniRef90_C3PKG2	D G P A T A A T R A E R T V L S Q L E A G C C T A P V A A T S H W E G E Q L V				
UniRef90_UPI0001DD03F3	N N D A P T R R E V E A E R A L L E A L G G G C C H S P V G V L V E N A D E G L H				
UniRef90_UPI000470C3C1	D T A T R I A A T A E R A L L E A L D G G S C C R T P I G G F A R M E K G R L I				
UniRef90_W9DSW3	D D K A T R A V A T E R A V A L R L E A G C C S A P V G A L A D V V E D E R L S				
UniRef90_T0KQ97	N D E E T Y I C T Q I R D F I S K I G A G C C S A P V A C N A V I E S D K V I				
UniRef90_U1H208	D N A P S R L L A A E A E R E V L W V L G N G H C C S V P I G A H A T L A G S E L T				
UniRef90_U3ARB7	N H R P T A V A V T A E R G A M A L L E G G S C C R T A V G A Y A V I E N D R R L S				
UniRef90_W7J2W8	D D E A T R T L A V A A A E R A M L A A L E A G C C S A P V G A L A D V V E D F R L S				
UniRef90_G1WYY1	H I P T Y L C A L S E R Q L M R T L E G G G C C S V P I G V E T K F E K G N M I H				
UniRef90_R9SIV3	D D Y N S N K R V L A E R K T V L Y E L G Q P W L G S Y A K I N S K S Q L H				
UniRef90_E4ND90	D H R P T R A A V V A E R A R L L A T L E A G C C S A P V A A L A T W A G T E L R				
UniRef90_A0A026W3C2	D V E T T L R C V C E R S F L K T L G G G G C C S A P V A V S S S L N N K E L T				
UniRef90_A8AAB4	D V K S E K L A T A E R T V L K F E G G G C C F V A L G A I A F E E G S L I R				
UniRef90_R9KKS2	D E G T A L A A E G E R S F L Q M G G G C C H V P V G A L F Q K E A G G S C K				
UniRef90_W5XQY1	D A K A G L Q A A G E R A R L R R L E A G C C T A P V A A T S V I D G D M I				
UniRef90_C7M6D4	H D D Y T Y I I A T Q L E R D F L R A L L E G G G C C T A P I G A F A E F K D D K L L Y				
UniRef90_Q46CH0	D H T D S R I A T E I E R I L I S E L G G G C C H M P T P I G S Y A E I M P D R K L H				
UniRef90_W7C8U1	H E V D T A K T V L A E R A F L N E M D G G S C C H M P T P I G G Y A T L V H D T I K				
UniRef90_S8A8A0	H T P T L L C C L A E R Q L M R T L E G G G C C S V P I G V E T K F L A E G R V H				
UniRef90_B9KIR4	N D H E S F T A V L A E R S F M K A V N G G S C C H T P P L A A M A R Y V D S G L L M S				
UniRef90UPI0003A25F22	D R Q T T I A I A A E R A F L A A L D G G S C C R T P I A A L A E I A D G D L R				
UniRef90_V4YRP2	H M P T W L R V A S E R A V S R A M G G G C C S V P I A A L A E I A D G D L R				
UniRef90_I0K0U5	N D F P S A C E V C A E R S F L Y E L L G G G C C R A A V G A M A K V E G S K L V				
UniRef90_R7HBX6	N D E N A R A V L M A E R A F L T A L L D G G S C C N A P C G V I C C E K S E D G F W				
UniRef90UPI00046326D7	D H E P T R L A V L A E R S L L A R L E A G C C A A P V G A H A L V E D D E I V				
UniRef90_E5XP5	D H E E S R V T S A A A E R A V L A E L S A G A C C S G P V G A L R I D A Q T L L R				
UniRef90_B4W913	N H P E T A V A V A A E R G A M T A L E G G S C C R T A V G A Y A L I E G D T L R				
UniRef90_Q5UY52	D D P Q T R I E T T V E R T I L E E L G G G C C V A P I G V H A Q L E G G V V				
UniRef90_W3RNV8	D D R D T E V A V A A E R G F L A L L D G G S C C R T P I A A H C I V E G E R I R G				
UniRef90_A0A011TF49	H D E A T G Q A L A C E R A F L G A L D G G S C C F T P I A A L A E Y V S E N M H				
UniRef90_B3CPS9	N N N M S F I R A K S E R S F M K T V N G N G C C F T P I A A L A E Y V S E N M H				
UniRef90_R4KHH5	N D P L S A V C C V H T E R Q V N A L L G G N G C C S I A I G A H S T E I N G K I				
UniRef90_G9ESI5	D D R P T R L A V L A E R A L L A R L E A G C C S V P I G V P L A V F I C A P T T S N Q L				
UniRef90_F4H671	D D I P A R L E T S A E R G G L L A R L E A G C C S A P V G T L A T L D A D G T L R				
UniRef90_A0A010NID7	D K K S R I L E I E S E E R A L S D Y V E S G G C C R F P P V G A L A I A N S G M L				
UniRef90_E7C716	N H K N S Y Q E I I M A E K K V L E E L G V G C C Q W P L G V C A R A Q G D E I E				
UniRef90_K6U3D4	H D R P T R F A T I A E R T L L E A G C C S A P V A A F A E V T D D N R L L V				
UniRef90_S3Y7J3	N D E G T A A A T T A E R T F L A A I L N G N G C C S V P I G V G Y V T V Q D G I L L T				
UniRef90_G0VS46	T T C R I L A E R S F L K T L L E A G C C S A P V A A Y A E I E G G G V L L S				
UniRef90_A0A034WJ22	D D P A T R A A V T A E R M L L R T L E A G C C S A P V A A Y A E I E G G G V L L S				
UniRef90_C7MH04	D D F P L S R C A K A E R T F L E L E D F T R L L D A G C C S T P I G V W S T L E G E H				
UniRef90_J1H4A9	N H E E T W N R V F A E R E F L R L L D A G C C S T P I G V R C S W D P P D K L V				
UniRef90UPI00036119A7	H C K T T F E V I A E R V F M A K L E G G G C C S V P I G V I E T S W R G D Q E L V				
UniRef90_T1KWP4	H E R T T R A C S A E R A L L R A L E G G G C C S V P I G I L E T S W R G D Q E L V				
UniRef90_Q0UDH2	D D K K T H L E V L A E R N A L K E Y G G D C C T P I F G A L A V Y D E N V L S				
UniRef90_D7DRN4	D H A E S R A S V L A E R A R L L A G L G G N G C C H S P I A V L T R H M D A T L L T				
UniRef90UPI0004670D0A	N D V K N Y Q A M R C E R A F L K T L E G G D C C T P I G C L A E V S D D G Q I				
UniRef90_T0IOS5	N H L P T F E L I K P E R A F L E Y D A N C S T P I A A Y A Q Y L D A Y N I I Q Q R				
UniRef90_XOPEA3	H A A T G A A L S C E R A F L A S L D G G S C C R T P I L A G Y A Q V E G D R I L V				
UniRef90_Q9ZD77	D D P A S R A A V T A E R S L L R T L E A G C C S A P V A A F A E M D G A R L V R				
UniRef90_Z9JQB7	D D D K S R I A A K A E R G F V R Y L D G G C C T S P V A A Y A E I A G R E V R				
UniRef90UPI0004649E5C	D M Q T A L R V T A E R S F L K T L L G G G C C S A P V I A I S S E K S N Q I K V T E				
UniRef90_V5GX26	N H K D T L L D E A L A E R A V I S L V G G G C C H S P I G V L F K K E G K V T E				
UniRef90_C3MZ88	D H P R T R V E T T A E R T V L G E L G G G C C V A P I M G V H A V M K G E Y V H				
UniRef90_U1NIQ0	D H P R T R V E T T A E R T V L G E L G G G C C V A P I M G V H A V M K G E Y V H				
UniRef90UPI0001D2E209	N H K D T L L D E A L A E R A V I S L V G G G C C H S P I G V L F K K E G K V T E				
UniRef90_A2BL26	D V E T T L R C V C E R S F L K T L L G G G C C S A P V A V S C L K K N E L T				
UniRef90_E2A1J7	D H L P S R V R I A A E R T L L R D L E A G C C S A P V A V S C L K K N E L T				
UniRef90_E6J9T0	H D G P T G E A L A C E R A F L A A L D G G S C C R T P I G A R A E L S G T D S L T				
UniRef90_X5Q2I3	H D A E T R A A V E A E R E V L A L L E A G C C S A P V G A R A V V V D A G L L L				
UniRef90UPI00036D3152	N C H Q S Y V C V M A E R S F L K T I N G N G C C D T P I A A L A Q Y V N N D T I H				
UniRef90_Q2GGC7	D H P R S R V E T T V E R T L L A E L G G G C C S I P V F A L A Q L T G S A Y I L				
UniRef90_M0LX91	N N D V T E I A A V I A E R A F L R T L L E G G G C C S I P V F A L A Q L T G S A Y I L				
UniRef90UPI0003815AC7	N H A P T A L A V A A E R G A M A A L E E G G S C C R T A I G A Y A H I A D G R L				
UniRef90_L1QGH3	D H P R S R V E T T V E R T L L A E L G G G C C S I P V F A L A Q L T G S A Y I L				
UniRef90_L0JSD1	D H P R S R V E T T V E R T L L A E L G G G C C S I P V F A L A Q L T G S A Y I L				
UniRef90_J3JG65	D H P R S R V E T T V E R T V L E E L G G G C C S I P V F A L A Q L T G S A Y I L				
UniRef90_B2ULP1	N D P E S F A C A L A E R A F L V R L G G G C C S T P I G V Y A H P D G E E L V				
UniRef90_D1C4S0	N D P A A A L A A R T E R S F L R A L G G G C C R S P I G A H A T V S G D D T V				
UniRef90_U3GV88	N P E A T L C T D A E R G V L R Y L G G G C C S T P I G V Y A H P D G E E L V				
UniRef90UPI0003B490E0	H A C V T V E R T V L E E L G G G C C S I P V F A L A Q L T G S A Y I L				
UniRef90UPI00047924ED	D D A R T R R C V E A E R A M N R A L H G G C C H V P V A A F A E E A G A G L R				
UniRef90_B0NJD0	K E D A Y I A K G E R A F V R Y L D G G G C C S S P V A A Y G E V I D G Q L L				
UniRef90_B4N3A3	N T T C R I L A E R S F L K T L L G G G C C S A P V A V W S N L L K G D V G L S				
UniRef90_C8XF53	D D A P T R A A V V A E R V L L R D L E A G C C S H P V A A F A Q V Q G D A L L T				
UniRef90_U2SR53	N D S E V T L M C Q V E R E F S R L F N G N G C C H T P I G C S S A I E G S T L K				
UniRef90_A2SQU4	N D P Q S A L D C A I E R I V M E Q V G G G C C F T P I M G I F C E N Q H				

50                    60                    70                    80

UniRef90_U7KU86	V R G G V F A [D G S R Q L T A T A S G P A A E A A E L G A R V S D E L F A
UniRef90_Q18ES3	V A A Q V F A S D G T E T V D G S R N [P V D A H A D A K L A D R G A D E L I A
UniRef90_A7GYU4	I N A I V G L P D G S E V I T E N L T A K K S E F E S V G K E L A R E F I A
UniRef90_W7L6U8	L V G I M S V S D G K R K I T V E I S T N K P P K E A L E L G K K V L E E M K N
UniRef90_R5BXS1	M T G L Y Y H E L T Q W H K E Q I I G E A S Q A E I L G E L A K R M
UniRef90_D0WET0	A D A V V A S V D G S R V A R V A L R V P A S D A T P A D V A R R V L A E L S A
UniRef90_UPI00026CDC8F	L R A E L F A E D G S A Q V S G E M R G T G G D G T F A D R L A T D L L A
UniRef90_A0A059E702	V K G E V L S L D G K Q T W S A N G S C A K T L H Q M T D L G A R L A A D I
UniRef90UPI00047EDA53	L Q A A W G D A E A A P L V R A Q G S G T V S T D D A A A L G T E V A A R L R A
UniRef90_A0A059F7R9	L V G E V L A M D G S A R W R A E G V C R K G A S E L E A L G K D I A N E I
UniRef90_A0A013XTA7	L R A E I I S P D G Q E T V A Q E T W L A R G D D V V G Q A V G R A L L
UniRef90_A0A052JCQ2	I E A L V S S V D G N R I L R A T R A G A A A E A E R L G A V A Q D L L
UniRef90_W4KP97	L I G T T S I E G T R H V Q H E I V I E E V S R E E A E S V G M R L A K V L I N
UniRef90_B3RTQ8	I T G A V F S L D G S K R V E C T I S G L N A K D D A E R L G K Y V A E M I L
UniRef90_Q0ATQ1	F I G E V L T P D G Q Q S W R R Q L R F D A T P P D S A R Q A G Q D L G R A V
UniRef90_C3PKG2	V R G G V F A L D G S R Q L I A Q A Q G A A S E A E L G R A V S K E L F A
UniRef90UPI0001DD03F3	M R A A L F S A D G A E R V D G S S D L T P G D D E A I R A F A A D L L A
UniRef90UPI000470C3C1	L H G L I A S E D G G C V V R R R I E G
UniRef90_W9DSW3	L R G V A A T E T S S D M V R A S A T G E L A D A E S L G R D L A V E L L
UniRef90_T0KQ97	F R T M I G F S D G T K I M Q E K L I V D V K K S Q N L G D M A K K M I
UniRef90_U1H208	L R A A V L D E A G A G F I E V T R R G P A E R P R E L G R A V G M E L L
UniRef90_U3ARB7	L T A E I L S P D G S A R W R H S G E I D A D T E T A H D L G V R I G E A V
UniRef90_W7J2W8	L R G V A A S A D G D E I M R A S A T G D L T E G E Q L G R A L A A E L L
UniRef90_G1WYY1	M K A S V S S V D G R Q T V E D E A S G K L S V T R A E D V G R L M A A R M L
UniRef90_R9SIV3	L Y S I L L N E D G E L H Q T T Q T S S L R T A K E L G V K V G K E L L
UniRef90_E4ND90	L D G V V G S T D G T E L I K M S A N G P L V P D
UniRef90_A0A026W3C2	I T G A V W S L D G K T L I K S T S K K E L Y L P D A E T L G K D L A K S L I
UniRef90_A8AAB4	L R A T V L S P S G R E R V D V L I G K G P E E V G M R A A E R L K A
UniRef90_R9KKS2	L M A F G N E N S G T K Q A Y A T V S G H A A G E E A R E L L A K Q A A K E I
UniRef90_W5XQY1	V H G G V F A L D G S K Q M V A A E T G P L E N A Y D L G V K V A E S L L
UniRef90_C7M6D4	F K G G L W S E D G K E A S V I D E V L T Q I D E Y T G E K L A
UniRef90_Q46C8	V R A E V L S L D G E E T V G I N E F I P P M A I E K A R E L G S S L
UniRef90_W7C8U1	L E T L L A T D G Q T V I R G K S S G S D S Q V V G Q Q A K K Q L
UniRef90_S8A8A0	M R A S V S S V D G T Q H V E V V D V L S L D D E E A D D V G R M M A G R M L
UniRef90_B9KIR4	M K C M L A H D S R T R M V S A E R T F P E R D A E S V G F E M G V M L
UniRef90UPI0003A25F22	L R G E A L T P D G A Q K W A R D A R P L S G D F V A I A R M L G E T I
UniRef90_V4YRP2	L D A A W G D E Q A M P V L R A S L S A D V S I D Q A D A L G L A V A Q Q G L Q A
UniRef90_I0K0U5	L Y G I W W P E G S R P K E G K V V G Q I Q E A K K L G Q E L A H L L
UniRef90_R7HBX6	I S G M Y A K D G K N L Q R V D K K T D G T P A D A V A L A E N V A A S L
UniRef90UPI00046326D7	L T A V V A R V D G A E Q L T H S A R
UniRef90_E5XP5	V E A A V C A L D G S R Q I R E A Q S A Q L L N E S A A A L G R R V A E S L R S
UniRef90_B4W913	L T T E M L S P D G S R W R V G E L F Q P T E A D A R A L G E R L G G E V
UniRef90_Q5UY52	T R V R V L S Q D D G T E E V S V G R D V P A A Q D L A A E L A E Q G A D D L I A
UniRef90_W3RNV8	F R G M I I T P D G R E A F E A A R E G
UniRef90_A0A011TF49	F R G L I I T P D G T T W H E I G A E G R V
UniRef90_B3CPS9	L Y C M L A G E R V I Y F T E R T S F V E D A E K M G M D A G L E L K S
UniRef90_R4KHH5	L E G F V C D D D N A A I F K S K V V G N I D E Y E N I G E L A
UniRef90_G9EIS5	L Q A K I L N Q D G S K L I Q N Q Q T G A L D K A T V L A Y N C A Q S L L
UniRef90_F4H671	L D A V V V R T D G T A S L R R R A R
UniRef90_A0A010NID7	L D S V I C A P D G T R T Q R A G A E I S V S V D R A I Q L G T Q V A E Q L L A
UniRef90_E7C716	L L T V T A Y S V D G K K S I T E K T G D I D K P R N L G Q G V G E E L
UniRef90_K6U3D4	L Q S I L L T R E G E L I S K H S M S G P I N Q A E D G L E I A R R I
UniRef90_S3Y7J3	L K A G V Y G R N T H L V R E S R T D T P V T A A S A E A A G R A L A E D M L A
UniRef90_G0VS46	L Q S I A A P D G S Q V C T T R G S A A D S A A L G H E A A C T L L
UniRef90_A0A034WJ22	L V G A V W S L D G A T E T E I R D K K A C S F A I E E
UniRef90_C7MH04	L R A L A I R T D G S H V V E G E A R M A L D L A A P A A L G A E L A A D L L S
UniRef90_J1H4A9	L T G F Y S D G E R S C K R Q L T G P L S E A R K L G E R L A E E V
UniRef90UPI00036119A7	M G A R V F P E G S G M L R A S A S G V V P M E V A H Q L
UniRef90_T1KWP4	L H G S V F S V D G T K S I K T H E E A D L A D E
UniRef90_Q0UDH2	M K T M V V S V D G K D A V E H D V R K V R S K E E A E E M G R E V A K I L I
UniRef90_D7DRN4	L T C L V F E A N G K N V L V S K E G F V D F E K A A D L G K N L G K L L K S
UniRef90UPI0004670D0A	F R G M I I T P D G G Q V Y E I G A E G S V
UniRef90_T0IOS5	M R A A L Y S P D G A E R V E G E A R F A T D D P E G P A R L A A D L L A
UniRef90_X0PEA3	A R A F L A D K F I P A R F T V S G Q S A D P E K L G T T L A Q
UniRef90_Q9ZD77	I D F M L G N L D C T K I Q T E T N I K T S K I C G K A A K M M L A
UniRef90_Z9JQB7	L Q A L A I R T D G G H A V R A E A S A P L A A S V P A R L G A Q L A E S L L
UniRef90UPI0004649E5C	I R G L Y Y H E E S G Q F T A G T S G E A H Q G E V L A K R L A K S L
UniRef90_V5GX26	L N G A V W S L D G T E E I E G K E E
UniRef90_C3MZ88	F Y G I A S Y S D G K K K I T V S I S K P G D P Y T I G S E L G L L L
UniRef90_U1NIQ0	L R T R V Q S G D G S R E V A D T R D A D E A A Q F A A D L A D R G A A E L I A
UniRef90UPI0001D2E209	F H G L A L R A D G S E I Y E A R R R G A A D A A R L G D D A A N E I L
UniRef90_A2BL26	F H A A L A S P D G S R R V E V R V E G D P D K P T Q V G E E A A F E L
UniRef90_E2A1J7	I T G A V W S L D G Q T L V T
UniRef90_E6J9T0	L H A V V A A H D G T T V L R T S G T T V P A V A A A E E L G R R L A A E L L
UniRef90_X5Q2I3	F A G L I I S P D G T Q S H E V R L Q G P A
UniRef90UPI00036D3152	L S V S V Y S L D G A T I L T S S H A A V W P D A D A R D I A A A V A R E L L A
UniRef90_Q2GGC7	M S C M L A N E K N M V F A S C C F E C D A E K S G I N M G K K L
UniRef90_M0LX91	A S V T V F D D R G E E S V V A S R D L P V A R E F A A D L A D R G A A K L I A
UniRef90UPI0003815AC7	V G G I V S L D G T K Y L R K E I S F T A A D A E E R G V E L A M A L L
UniRef90_L1QGH3	L S T E M L S P D G S G R W T R S G D I A A D V D P I A G H A A A R A L
UniRef90_L0JSD1	A T V T V F D D Q D G D E S V T G S R D L P V D A E A A R E F A R D L A D R
UniRef90_J3JG65	T E V Q V L S Q D G E E L V E S K R D L P V D D H A N A A V E M A E S L
UniRef90_B2ULP1	L R A A Y Y V P G R E E P F A V V L R G D R K A P E A L G L R A F E E L
UniRef90_D1C4S0	L R V M L G D E A M T R V R L S T W T P A A E A E A G A L A V E V Q R S L
UniRef90_U3GV88	L T A G H F P D G V Y E K V S V S G C L S P D T A E R L A E L V G A H L T A
UniRef90UPI0003B490E0	M T A Q I L T V D G S D A L F A E A T G P P A P A S A A E L
UniRef90UPI00047924ED	L L G M V G G A K D G R A V V R V E V E G M D P D T L G R E A R R L L A
UniRef90_B0NJD0	M K G L Y Y M E E T G N Y A I G S K S G P V E E A E K I G R E L A
UniRef90_B4N3A3	L T G A V W S L D G A I E I R E H L A C A L S E K D
UniRef90_C8XF53	L R A V V V A V D G S S E F R V H R A G S
UniRef90_U2SR53	L K G M Y S K D G K R I F K K V E G D K N K A G E L A E K L A G E I R N
UniRef90_A2SQU4	L T A E V L S L D G T R A E R I T A E I G D L E G A R V A G R L G A E L I A

UniRef90\_U7KU86  
UniRef90\_Q18ES3  
UniRef90\_A7GYU4  
UniRef90\_W7L6U8  
UniRef90\_R5BXS1  
UniRef90\_D0WETO  
UniRef90\_UPI00026CDC8F  
UniRef90\_A0A059E702  
UniRef90\_UPI00047EDA53  
UniRef90\_A0A059F7R9  
UniRef90\_A0A013XTA7  
UniRef90\_A0A052JCQ2  
UniRef90\_W4KP97  
UniRef90\_B3RTQ8  
UniRef90\_Q0ATQ1  
UniRef90\_C3PKG2  
UniRef90\_UPI0001DD03F3  
UniRef90\_UPI000470C3C1  
UniRef90\_W9DSW3  
UniRef90\_T0KQ97  
UniRef90\_U1H208  
UniRef90\_U3ARB7  
UniRef90\_W7J2W8  
UniRef90\_G1WYY1  
UniRef90\_R9SIV3  
UniRef90\_E4ND90  
UniRef90\_A0A026W3C2  
UniRef90\_A8AAB4  
UniRef90\_R9KKS2  
UniRef90\_W5XQY1  
UniRef90\_C7M6D4  
UniRef90\_Q46CHO  
UniRef90\_W7C8U1  
UniRef90\_S8A8A0  
UniRef90\_B9KIR4  
UniRef90\_UPI0003A25F22  
UniRef90\_V4YRP2  
UniRef90\_I0K0U5  
UniRef90\_R7HBX6  
UniRef90\_UPI00046326D7  
UniRef90\_E5XPF5  
UniRef90\_B4W913  
UniRef90\_Q5UY52  
UniRef90\_W3RNV8  
UniRef90\_A0A011TF49  
UniRef90\_B3CPS9  
UniRef90\_R4KHH5  
UniRef90\_G9ESI5  
UniRef90\_F4H671  
UniRef90\_A0A010NID7  
UniRef90\_E7C716  
UniRef90\_K6U3D4  
UniRef90\_S3Y7J3  
UniRef90\_G0VS46  
UniRef90\_A0A034WJ22  
UniRef90\_C7MH04  
UniRef90\_J1H4A9  
UniRef90\_UPI00036119A7  
UniRef90\_T1KWP4  
UniRef90\_Q0UDH2  
UniRef90\_D7DRN4  
UniRef90\_UPI0004670D0A  
UniRef90\_T0IOS5  
UniRef90\_X0PEA3  
UniRef90\_Q9ZD77  
UniRef90\_Z9JQB7  
UniRef90\_UPI0004649E5C  
UniRef90\_V5GX26  
UniRef90\_C3MZR8  
UniRef90\_U1NIQ0  
UniRef90\_UPI0001D2E209  
UniRef90\_A2BL26  
UniRef90\_E2A1J7  
UniRef90\_E6J9T0  
UniRef90\_X5Q2I3  
UniRef90\_UPI00036D3152  
UniRef90\_Q2GGC7  
UniRef90\_M0LX91  
UniRef90\_UPI0003815AC7  
UniRef90\_L1QGH3  
UniRef90\_L0JSD1  
UniRef90\_J3JG65  
UniRef90\_B2ULP1  
UniRef90\_D1C4S0  
UniRef90\_U3GV88  
UniRef90\_UPI0003B490E0  
UniRef90\_UPI00047924ED  
UniRef90\_B0NJD0  
UniRef90\_B4N3A3  
UniRef90\_C8XF53  
UniRef90\_U2SR53  
UniRef90\_A2SQU4

1 10 20 30 40

UniRef90_F4B725	H D Q E T F N E A I A E R S T M E L V G G G C H S P F G V Y F E Q I D D R
UniRef90_UPI000364988C	A E T D A C V R A E R A V S R A L A G G S C C E V P L A A Y A V I D H D R L W
UniRef90_D6WJU3	D V Q T A L R V I S E R S F L K T L G G G C C S A P V A V S S D L D N K H T L V
UniRef90_H1ANG0	D E I T T T R M E L R L F L K T V N G S C H I P V G G Y A K I I G D Q V H
UniRef90_I0R384	N N A S D L L V T T A E R S V L R G L G A S C C A T P I G A S A R F E N G E L I
UniRef90_A1RKQ2	D K T A A I E A T A E R A F L A G V G A G C C H V A I G G V A K I T P Q G G S L E
UniRef90_L7EJM0	C L L A E R S F L K E M N G G C C S I A I G A H A V Q Y N N K I L E
UniRef90_UPI000444A48E	Q T Q W K C L A E R A C L R V L E G G C C S V P V G V H S E L L E R D A K L V
UniRef90_W1GA06	P P I G S Y A E L I D G E I W
UniRef90_F3ZIT0	D D P R T R A A V T A E R A L L A L E A G C C S A P V G A L A D F T G A P Q M R
UniRef90_A9WIS3	L E G G C C Q I P V A A A H A V M T D T G M H
UniRef90_U1PBP4	D H P R S R I E T T T E R T V L A E L G G G C C Q I P V A A A H A V M T D T G M H
UniRef90_D9VON7	D D E T T R V A V T A E R A L L A A L E A G C C S A P V G A L A E I V E D
UniRef90_F0T648	N H L K S F Q E V I A E K R V L L E M G V G C C Q S P L G V S A R I N E N K L L K
UniRef90_F6D2Z8	N H T P S E Q E V I A E K T V L Q E L G V G C C Q S P L G V S A R T H G N S L L K
UniRef90_R6PP32	N H M E T Y V C F V A E R A F L K A M D S G C C Q S P L G V S A R T H G N S L L K
UniRef90_I6AM90	H D H A T A L A V A E A R A V S R A L L G G S C C E V P L G A I S E I G E N N L L K
UniRef90_F7JN36	H N K E S E W A A L A E R Q F V R A L D G G G C C T S P V A A A H A Q I L G K E L L K
UniRef90_A1VRW1	H Q P T W L A V T A E R T V S R A M G G S C C S M P L A A A F V T A G S D G A L L Q
UniRef90_D8IZS3	H D E P A A V S V A A E R S V S R I F G A S C C Q I P L A A Y A T L D G Q Q R L L H
UniRef90_R4W713	D H R P T R I A T T A E R I V L A E L G G G C C V A P L G V H A T L Q Q G A H V R
UniRef90_G0QW27	N N R E A Q I R V E A E R Q F L N S L L E G G G C C K L P I A V Y S E L N G E K L L
UniRef90_R6WGT9	N E E S E C L V K C E R S F I R G V G G G E C C S S P V A A A F A Q I M Q G E L T
UniRef90_Q9HMY5	H V R T R V E V T A E R V V L E E L G G G C C I A P I G V H A L V Q G D T I R R
UniRef90_UPI0003495189	D D E A T R I A L T A E R T V S V L D A G G C C H A P V A T H A A L V D G D L R
UniRef90_G7Y4X4	H N E S A C L S A I A E R S L M R Y L D G G C C S T P I G V R H Q L I P S R H
UniRef90_B4RC21	R P T T L A V V A A E R G A I L A L E G G S C C R T P I G A H A W L E G G T C K
UniRef90_B9LRV4	D H P R T R V A V T V E R T I L G E L N G G C C V A P L G V S A L V Q G E H V H
UniRef90_X5GJG1	N C H K S Y V C I M A E R S F L R T L N G S C C D T P L A A L A Q Y V D N D T V Y
UniRef90_F3ZW52	N H A P T R A A V D A E R M F M A M M G G D C C N T P I G V Y G E V D G V D I L
UniRef90_UPI00036EF4FB	D D P R S R A A T T A E R A V L A G L A A G C C S A P M G A F A D T I G G V E L S
UniRef90_A3CL78	D E K T A A E V A V E R A V L L A Q M N A D C C T F P I A A A F A Q K N G Q G Y Q
UniRef90_UPI0001BC2D4C	H D E T T D L A V T V C E R A I L S R A E A G C C S A P I G A L A T I D D D G K L A
UniRef90_UPI00036BEC1D	R D C A L A E R V V L N R L E A G C C T A P V A A Y S T F A A E G I I T
UniRef90_UPI000380337A	D S P D V R M C V D V E R T F I Y T L E M G C C H A P I G A F A R I G Q G G V I
UniRef90_Q2G4K1	D D K P T H H A I R A E R A R A L L A L G G N C C H S P I A V L T T H H E S S L L
UniRef90_A5PC66	D H A H S R E E V F V A E R A R A L L E G L G G T C C H S P I A A A L T R R E G D A
UniRef90_UPI0003B30ABD	D E L D A R L E T T A E R A R A M L A R L N A G C C A A P L G G L A R C K T D Q D
UniRef90_V4XEN4	D H P R T R V A T T V E R T V L A E L G G G C C V A P I G V S A H L Q G E Y V H
UniRef90_A4XK06	N D A D A Y I Q T Q F E R L V L K F L G G G C C H S S I G F C K T D Q D
UniRef90_W8X981	T T A C A L A E R A V S R A L G G S C C Q V P L A A Y A V L R D G R L R
UniRef90_R5TE18	E E S H V T S V C E R A F I R E F L K A V G A G C C H V A I G G V A F A R N D T V
UniRef90_A4WN24	D P K A S L E A I A E R E F L K A V G A G C C H V A I G G V A F A R N D T V
UniRef90_C7M2H5	D D D R S R R E I E A E R A V L A A F G T G C C A L P G A R A H A D G S S L R
UniRef90_Q3ISY1	D H P R T R V E T T V E R T I L G T L G G G C C V A P I G I H A V V R G E Y V Q
UniRef90_G6Y5Q3	D H M P T W L T V T A E R A V S R C M G G G S C C S M P L A A Y G R F E G D T L H
UniRef90_M0M9U1	D R R A A V E A T A E R E F L M H V G A G C C H V A P V G G L A R Y E D D G G M S
UniRef90_UPI0003698DDB	D A G T R L A I T A E R A R A L M A L G A G C C A A P V G A L A Q V V E P G D L L V
UniRef90_A0A031I6Z5	H L E T Q C K I L V E R S F L K T L G G G C C S A P V A V C T S L S K S N Y L N
UniRef90_UPI0004279096	H L E T Q C Q R I L T E R S F L K T L G G G C C S A P V A V R T D L E D G S P L L V
UniRef90_D0J464	D E K T L L F R M E T E R A F Q K E L G A D C C S T P M G I F T E I D H D K I T
UniRef90_A3MWV7	D H P R S R V E T T V E R T I L A E L G G G C C I A P V G V H A L L Q G E H V H
UniRef90_UPI000422077F	D N H E R S R M E T E V E R L L I T D V E G G C C I V P I G S F A Q M N E D G E I
UniRef90_Q0IE19	H D E T T Y R A V V A E R A I L S R A Q A G G C C S A P I G A L A N V T E R S I E
UniRef90_Q5TVW6	D H P R S R A E T T V E R T V L D E L G G G C C V A P L G V H A I L Q G S V I R E
UniRef90_F0GYK2	F L T V L D G G S C C R T P I A A A H A K I I I G D E E L E
UniRef90_I3R0S0	H S E A P T L A C I A E R A F M S R E G G G C C S T P I G G V A G I K G D D T M S
UniRef90_Q12WM8	D D A K T R A E V K L E R D I L R H M N A G C C S S P I G I N A E L V G D T M K L
UniRef90_D4YMU3	H N E N V A K I V E I R E F S K I F D G G G C C H T P M G C Y S Q V N G D K I K
UniRef90_C7P203	U L L A E L E A G C C S A P V G A L A E I D E D G E L S
UniRef90_UPI0004644DFA	Q A T T L A V A A E R G A L Y A L E G G G C C S T P I G G V A G I K G D D T M S
UniRef90_U6IE49	D D A H A R S E T M I E R K I M E T V G G G C C V V P M A V H A L V Q K G E A R
UniRef90_M9SCH9	H D R D T G D R V A A E R A R A L L A A L D G G S C C R T P I A A L A E L L G P G D T L L T
UniRef90_D6BD05	N D P A A E R E V A A E R A R A L L R A L E G G G C C R V P V G A R A V A G G R G V L
UniRef90_X7ZU5	H D T T W L T V T A E R A V S R A M G G G S C C S M P L A A H G Q W L G S S L R
UniRef90_B0T287	H D A K T E R E V T I E R S L L K R L G G G C C A L P L G C V C H I E G E E T A E
UniRef90_F4BYP6	N H K K T F L E A L A E R Y A L R E Y G G G G C C Q A P F G A L S K Y D E E N K L L T
UniRef90_UPI0004032229	H H V E T T H L Q I S A E R G A L V A L E A S C R T A V G A Y A K I E G D A
UniRef90_Q1AUK3	H H P E T A Q A V G I R L F L A C I G G G C C Q K A P V G A F A E V Q N G E E L F
UniRef90_UPI0003F6C060	D T A V R A C V V A E R A T A L T E A G G C C S A P V A A Y A E I A E G G E I
UniRef90_J6H0R2	H Q E T L Y A C L A E R A L M K R L Q G G G C C A L P I G V L A I S N S S Y R I
UniRef90_A6UW8M	R Q T T I A V V A E R G A L L A E L G G S C C R T A I G A R A L L D G A R L
UniRef90_E8RKF0	D H Q P T H R A V D T E R Q L L M R L N A D C C H S P I A A A F A E V K N E G I V R
UniRef90_UPI000379E207	D H P R T R V A T T V E R T V L A E L E A G G G C C A A P V P A T S A I V D D G M L F
UniRef90_H6RPM2	H D A T T H A N V V A E R A V L A G L E A G G G C C A A P V P A T S A I V D D G M L F
UniRef90_Q09899	H D L R T R F V E V S I E R D F V D T L N M G G S C C H A P P V G V N A K I M P D D D S I K
UniRef90_B8GXG1	R D T G I A L A A E R A F L T A L D G G S C C R T P I A G L A R V E G D D Q V
UniRef90_F8E9U2	H Q P T F L A C H A E R A V S R S L G G G C C S M P L A A F G H W N D G V L T
UniRef90_V4XYV0	N D K K T Y L E A T A E R R W A L R E Y G G G C C Q A P F G A L A N Y D E E S E L N
UniRef90_UPI0003B587E9	H K Q E V A D C T N V E R R V L K L L D G G G C C H L P L G A Y C T K D H E G N Y H
UniRef90_UPI0004631194	N D E T Q C I I L T E R S F L K T L G G G C C S A P V P A V D T S L K Q E H E L I
UniRef90_UPI00045E8B4F	N H E D S R I E A M T E K A I L E T I G V G C C Q W P I G V S K V D G N N I I N R
UniRef90_I0HVE9	N D E R T L K E A L V E R T V V K L L G G G C C H S P I G I L A S M I S E N E F N
UniRef90_UPI000477C6B3	D H Y P T H L A V Q S E R Q L L R L N A D C C H S P I A V F A E I L E K N I
UniRef90_UPI000366B284	D H D T R I Q V A A E R Q V L T G V Q A T C T T A I G A H S V L Q G M A D L T
UniRef90_C8WDJ7	D L E T Q C I I L T E R S F L K T L G G G C C S A P V P A V D T S L K Q E H E L I
UniRef90_W0K5Z1	D H V R S R V E T T V E R V V L E E L G G G C C I A P I G I Y A L V K G E I V R
UniRef90_D7GFS7	N D H D T R I Q V A A E R Q V L T G V Q A T C T T A I G A H S V L Q G M A D L T
UniRef90_U5EPV1	D L E T Q C I I L T E R S F L K T L G G G C C S A P V P A V D T S L K Q E H E L I
UniRef90_Q2NEP4	N H E D S R I E A M T E K A I L E T I G V G C C Q W P I G V S K V D G N N I I N R
UniRef90_A9BYX7	H Q T T W L T V T A E R A V S R C M G G G S C C S M P L A A H G T F D G R Q L
UniRef90_M1ITQ8	N D E R T L K E A L V E R T V V K L L G G G C C H S P I G I L A S M I S E N E F N

50                    60                    70                    80

UniRef90_F4B725	L L G I A S F S N G K K K I T V T E R K G N P K D	V G H E L G K L L L
UniRef90_UPI000364988C	L R A R V A L P D G S R I A A A E V K G E R S	
UniRef90_D6WU3	L K G A V W S L D G K E E I I E T G E C E D I K N	
UniRef90_H1ANG0	F Y G L L G N E D G T V L K N I D K K F S L K D A S E E V T A L A E M L	
UniRef90_I0R384	L I A E L A I E S T G Q A I R V S R S I E S D L E Q A E E M G L S V A A E M L N	
UniRef90_A1RK2	F T A G Y A A G G A K Y V V K V F G E D P V E V G K R A A Q L I A	
UniRef90_L7EJM0	L E G F V A D D N N I S I F K N N V I G Y L D E Y E N I G T N L A K K I	
UniRef90_UPI000444A48E	I V V S V T S I N G Q R H V V E E L K E V L G V E D V E A M G S K L A S Q L L	
UniRef90_W1GA06	L R A L V G A P D G S L I I R G E R R G A P Q D A E Q M G I S L A E E L L N	
UniRef90_F3ZIT0	L R G V V V G S T D G S E L V Q L T T T G H V	
UniRef90_A9WIS3	L R G M V G T L D G S T L V F A E Q T G D P A Q A E A L G V A V A E E L L A	
UniRef90_U1PBP4	T R A Q V V L G P A G E E T V E A T R D L P V T A D F A V D L R E R G A A D L I	
UniRef90_D9VON7	D E G A V V S L R G T A A V E G E A S A I A G I G E A E K L G R E L A A E	
UniRef90_F0T648	L C A V L L T Q E G K I V S R V M V E G S A D K A S N L G L K A A K L M	
UniRef90_F6D2Z8	L Y S I L L S K E G E L L S K V N L Q G S V D E A R K I L G L K A A K L M	
UniRef90_R6PP32	M E C F Y Y K K D R I V K M S I E G E N P V L T A A V L A K K L K E	
UniRef90_I6AM90	L T G S V I S T T D G A R V L V A A H A S R A A T A D A D A L L G R A V S D E L	
UniRef90_F7JN36	L T G L L Y F E E G M E T F R T D T I V G A V E T A E K M G E E L A V R M K N	
UniRef90_A1VRW1	L D A A W G D P D A S S G V S A V L P A P L S F A E A E A L G D A V A A Q L R A	
UniRef90_D8IZS3	L R A M I A T P D G L H A A A A E E G P A A A P E A L G A Q V A E E L L K A	
UniRef90_R4W713	V T V A A Y S R D G S E S V E A S Y A S A A R S F A R E V A D A G A A E L I	
UniRef90_G0QW27	L K G Q V W D N N A T Y T I K D	
UniRef90_R6WGT9	L R G M Y S A G T G E D Y V T G V M T G S V D E P E K L G E K L A C E L	
UniRef90_Q9HMY5	T A V Q V F S Q D G S E Q V G E T R E L D A E Q Y A T D A R E L A A D L	
UniRef90_UPI0003495189	L R A I V Y A L D G S H H R I G I D R T G A N A A D D A T R A G Q E A A R R L L	
UniRef90_G7Y4X4	L E A N V L S V D G T Q Y V E A S V S A E L	
UniRef90_B4RC21	L I V E A L S P D G K L R F R H S G E A E L S Q A D P E A S A R D L G L S L	
UniRef90_B9LRV4	T R V R V L S T D G T E E V A D T R D L P H A K A A E F A A D L A D R	
UniRef90_X5GJG1	M S C M L S S E K N S N C Y F K E C D A E K S G D I G N E L I	
UniRef90_F3ZW52	L R A A V E K D G C I M R H S V K G E V A	
UniRef90_UPI00036EF4FB	L H A V V A V D G S A S V R L S T S G P R G E A E	
UniRef90_A3CL78	L E A M L A K E D G Q C I F V S L Q G Q D G Q Q L A E Q A V R Q L A D K	
UniRef90_UPI0001BC2D4C	R T R Q V V A D L D S G S A N Q L S I T G K E L A R L A D E L G T A A A E D L L	
UniRef90_UPI00036BEC1D	A H G G V F F A F D G S K R L L A T A S G T D P I A I G E E I S Q T L L A	
UniRef90_UPI000380337A	F Y A F V G Y G D G N I L L K K T V Q A S N A A I Q V A R N L G T E	
UniRef90_Q2G4K1	L R A A L F S P D G A E R V E A H E T F A A G D D A G P A H L A H R L L	
UniRef90_A5PC66	M T A A I I Y S P D G A I R I A R E A R F E P G D L A A P R Q L A H E L L	
UniRef90_UPI0003B30ABD	L D A A V V C A P D G S A V L E A G A E R D E A L D Q A A Q L G D V A Q T L V A	
UniRef90_V4XEN4	V A A A V V C S A D G E R V V E R T R D L P V H A E A A R D L L A G E M A D D	
UniRef90_A4XK06	I Y A F A S I L S G D K L I K A S I E G D K D D F L S L A N K L S N M L K S	
UniRef90_W8X981	L L Q A L V A E P D G S R V L R	
UniRef90_R5TE18	L R G L Y Y E E C S G K A E T A V E E A P V S E A E H L G I M L A R R L	
UniRef90_A4WN24	F I A G Y A S G G R K Y I V R V V G D D P V E V G R R A A E E I	
UniRef90_C7M2H5	L R A V A V D P D G T R Q L E V E R E G V D P A T L G A T V A E V L	
UniRef90_Q3ISY1	A S V R V L S Q D G T E E I E T A T R D L P I H P E A A R E F A D E L A D R	
UniRef90_G6Y5Q3	L T A A V F D S A T G N C L E A A M E L P L N S K D F T E L G A K V A E Q L I	
UniRef90_M0M9U1	V V V R V L S Q D G S E E V A A T R D L P A A R D F A G D L A D R G A A D L I	
UniRef90_UPI0003698DDB	L R G V A A A Y D A N D V M R A S A T G D L T A G A Q L G R A L A A E L L	
UniRef90_A0A03116Z5	F S G F L G D K E L H Q S F T K S V Y V D D L A G V G A K I A T D L L N	
UniRef90_UPI0004279096	M D A A W G D M E G S K L V R V Q A S A Q V T D A S A N A L G E	
UniRef90_A3MWV7	F V I A G Y A S G G R R Y V I K L W G E D P R E V V G R R A A E E I	
UniRef90_UPI000422077F	L R A L V V C S A D G R R Q R H C E L R T P L D H A A A E E L G A R A A S S L L	
UniRef90_Q0IE19	I I Q G A V W S L D G K T E I R A D I G C A L D L A D S R G T N G G R K	
UniRef90_Q5TVW6	V E G A V W S L D G K T E I R T K G D C A L D L A D S R G T N G G R K	
UniRef90_F0GYK2	L T G S M A F D K D D R I N Y E K V S G N I S D R I N L A Q K L A R T L	
UniRef90_I3R0S0	V D V H V L A T D G S E S I K T S R D L P V	
UniRef90_Q12WM8	V L V E V V L A V D G T R E I R I E D D I P V Y R E H A L S I G R M L V E	
UniRef90_D4YMU3	L S A V M A D D A G K L A R I T R S A N T G V N A A I D V G T Q I A D E L L	
UniRef90_C7P203	T T V R V L D D Q A G E R E V A A T R S A D R H V D D A R A F A A D L A E Q	
UniRef90_UPI0004644DFA	F H G M A L R A D G S Q V Y E A R R R G P S M D A A L I G D A A A N E I L	
UniRef90_U6IE49	L D A A V L S L D G T K C V E G K M S	
UniRef90_M9SCH9	I I A V S F A D I I P V R I V T E F P A S E A D A K A K E I A D R L L	
UniRef90_D6BD05	F T A V Y L D E G K Q I R A V I E D D L T K G K E I A Y M A A E E I K N	
UniRef90_X7ZU5	L R G C V A T L D G S D V I R A S G I G R P D R A R E L G L S V A A E L F A	
UniRef90_B0T287	M I V E A L T P D G V Q R F R R E G S A T L S S L D A A D Q A R A L G L E L	
UniRef90_F4BYP6	V L A E V V L S P D G K R F V R L E E R I S L V Q N H A E D M G E R L	
UniRef90_UPI0004032229	L V S R V A L P D G T E M R E D R R S G R R D E A E R L L G R E A G E A L	
UniRef90_Q1AUK3	L R G V V V S P D G A A L C G G E E R G E E P E E V G R R L L A A R L L E R	
UniRef90_UPI0003F6C060	L A A A W G D L D G G P L V R A Q G D A A I T L E Q A D A L G L R V	
UniRef90_J6H0R2	L R R V F Y A N A S G T E H Y L A T H R T P L S D I D	
UniRef90_A6UW8M8	L K C S V V I G N T L K S K E E N I N C D I D I E G A K N L G I K I G K	
UniRef90_E8RKF0	L F V E A L T A D G T R Q R R E T I A P T I L E T A H A L L G L G L Q S I	
UniRef90_UPI000379E207	W V R F V G M L E G K V S W R E G P L V A G E T M V Q D L A Q E L	
UniRef90_H6RPM2	L R A S V T A L D G S D A V R G S L T R P	
UniRef90_Q09899	L L G T V V L S A D G L R A A F G A E A V V S S E E E A E E L G I T V A L A L L	
UniRef90_B8GXG1	M I V E A L T P D G A Q R F R R E L T G A D D I A E A R A F G L T L G A E V R A	
UniRef90_F8E9U2	L R A C L Y T A D G	
UniRef90_V4XYV0	T R V R V L S T D G T D E V S A T R D L P I	
UniRef90_UPI0003B587E9	L T A S V Y A L D G S R K L T A S T S K F D L L A G A D E V A Q R A V D E L L A	
UniRef90_UPI0004631194	I I K G I L E R N G K L I K K E V V I A F D K W E N A G K E F A G E	
UniRef90_UPI00045E8B4F	L S G L V M T P D G A D A A E A S G A P I L A D A A A L G T A L G T E L R A	
UniRef90_I0HVE9	I I D A A L G T E L T R P L I K V R V T G T P T D E A A R A L G E H A A A L L	
UniRef90_UPI000477C6B3	L L W A A Y A E T A T A P L K Q V R L L S S S T R F E L A E E A I K S L	
UniRef90_UPI000366B284	L R C L Y T E N G K F S A S I D K E I S Q P S D A F E V G	
UniRef90_C8WDJ7	L R A C L Y T E N G K F S A S I D K E I S Q P S D A F E V G	
UniRef90_W0K5Z1	T S V Q V F S R D G S E R V A E T R D L D A E N Y A S E A R E F A A D L	
UniRef90_D7GFS7	D H M G V A H A H V A R T I G L R R G D P T D D A R A L G E S V A E Q L L	
UniRef90_U5EPV1	I V G A V V W S L D G K I Q I D D K V	
UniRef90_Q2NEP4	I H C K L L S P E G K I L L A D V N K T T D K A I N T A K V I G T K L R E D T L	
UniRef90_A9BYX7	L D A A W G D P Q G R P L V Q V H A D A T V T D A S A D A L G Q H V	
UniRef90_M1ITQ8	V I S T Y V I S D K K K I T I E G I Y R G D P T T V V G E K V V K D M	

UniRef90\_F4B725  
UniRef90\_UP1000364988C  
UniRef90\_D6WJU3  
UniRef90\_H1ANG0  
UniRef90\_I0R384  
UniRef90\_A1RQK2  
UniRef90\_L7EJM0  
UniRef90\_UP1000444A48E  
UniRef90\_W1GA06  
UniRef90\_F3ZIT0  
UniRef90\_A9WIS3  
UniRef90\_U1PBP4  
UniRef90\_D9VON7  
UniRef90\_F0T648  
UniRef90\_F6D2Z8  
UniRef90\_R6PP32  
UniRef90\_I6AM90  
UniRef90\_F7JN36  
UniRef90\_A1VRW1  
UniRef90\_D8IZS3  
UniRef90\_R4W713  
UniRef90\_G0QW27  
UniRef90\_R6WGT9  
UniRef90\_Q9HMY5  
UniRef90\_UP10003495189  
UniRef90\_G7Y4X4  
UniRef90\_B4RC21  
UniRef90\_B9LRV4  
UniRef90\_X5GJG1  
UniRef90\_F3ZW52  
UniRef90\_UP100036EF4FB  
UniRef90\_A3CL78  
UniRef90\_UP10001BC2D4C  
UniRef90\_UP100036BEC1D  
UniRef90\_UP1000380337A  
UniRef90\_Q2G4K1  
UniRef90\_A5PC66  
UniRef90\_UP10003B30ABD  
UniRef90\_V4XEN4  
UniRef90\_A4XK06  
UniRef90\_W8X981  
UniRef90\_R5TE18  
UniRef90\_A4WN24  
UniRef90\_C7M2H5  
UniRef90\_Q3ISY1  
UniRef90\_G6Y5Q3  
UniRef90\_M0M9U1  
UniRef90\_UP10003698DDB  
UniRef90\_A0A031I6Z5  
UniRef90\_UP10004729096  
UniRef90\_D0J464  
UniRef90\_A3MWV7  
UniRef90\_UP1000422077F  
UniRef90\_Q0IE9  
UniRef90\_Q5TVW6  
UniRef90\_F0GYK2  
UniRef90\_I3R0S0  
UniRef90\_Q12WM8  
UniRef90\_D4YMU3  
UniRef90\_C7P203  
UniRef90\_UP10004644DFA  
UniRef90\_U6IE49  
UniRef90\_M9SCH9  
UniRef90\_D6BD05  
UniRef90\_X7ZUU5  
UniRef90\_B0T287  
UniRef90\_F4BYP6  
UniRef90\_UP10004032229  
UniRef90\_Q1AUK3  
UniRef90\_UP10003F6C060  
UniRef90\_J6H0R2  
UniRef90\_A6UWM8  
UniRef90\_E8RKFO  
UniRef90\_UP1000379E207  
UniRef90\_H6RPM2  
UniRef90\_Q09899  
UniRef90\_B8GXG1  
UniRef90\_F8EU92  
UniRef90\_V4XYV0  
UniRef90\_UP10003B587E9  
UniRef90\_UP10004631194  
UniRef90\_UP100045E8B4F  
UniRef90\_I0HVE9  
UniRef90\_UP1000477C6B3  
UniRef90\_UP1000366B284  
UniRef90\_C8WDJ7  
UniRef90\_W0K5Z1  
UniRef90\_D7GFS7  
UniRef90\_U5EPV1  
UniRef90\_Q2NEP4  
UniRef90\_A9BYX7  
UniRef90\_M1ITQ8

	1	10	20	30	40	
UniRef90_M0D4Y2	D	H S P T R V E A T V E R T   V L K E   L G G G C   V A P   V G I   Y A V L Q G   S   V V   R				
UniRef90_B9L0Q4	D	E P L V H E A V A V E R A F L   F L A A F G S G C S   V P L   G A Y A T I A G N   R L				
UniRef90_A0A059G590	D E K T R   C I D S E R A F V   R Q F N A S C   N Y P   I A A H   L F D R G E E W E					
UniRef90_F2LWE6	D K N T Y Y M A V A E R E F L   N E A K A N C   C N T P   I G A V S I I N Q N K I M M					
UniRef90_L0AAG9	S T W R C   A A E R A L M H   R M E G G C S   P L   G V A T E F D H   R D L   T					
UniRef90_M5E6K2	D D A P T R   L A V T A E R A M L   A R L E V   W G C S   A P   V G A L A T   L A G   S Q L L					
UniRef90_C5C5B3	H D K E T A D E V T L   E R E V   L A L M Q A D C T   F P   L A A L A Q K T S S G   Y Q					
UniRef90_UP1000376E8D8	H N P E   E K I   V E I   E R E F S K I   F D G G C   H T P   M G C   T G E K F   D G K   I F					
UniRef90_U7VD50	D D Q S W R Q A L V E R A   L M R T   L E G G C S   V P   I G V I E T W V S S D E L   V					
UniRef90_M3DCN2	N N E K S Q   M A N I E R A F L   Q K I D   G S C T   M P   I G G Y T K F S K N   K I   F					
UniRef90_V7PJ21	D H K T T R Y E V E F E R E   L L Q S L   L G G G C   A M P   L G A H   A V R T A D G G   L R					
UniRef90_UP100037A18B8	D D A P T N A S V S A E R A   L L A A L   G A D C   R S P   V A A L   A V R S G A G   L L   M W					
UniRef90_A5V7N0	N S K K D M   V L A E A E R N F V A Q   L N G S C   L S   P   I A I   Y C R   E E S G Q   I   L					
UniRef90_UP100037EDAB0	D S R E G R L   C L T L E R M   V L K   L L D A G C   H E   P   I G I Y S N   I M D G K M   E V					
UniRef90_UP1000372132D	N C K K S Y I   S V A A E R S F M K T   V N G S C   D T   P   L A A L A K Y V N   S D T L   Y					
UniRef90_C5EV71	D P K E   L I L A S A A E R S F   V A A M E G T C   L S   P   I A I   L C E   D K N G Q   I   K					
UniRef90_Q5FHN5	N D K V A M T E L K   C E R A F L   Q Y T G G G C   H A   P   C   G A S A E   F N G K E   I K   M					
UniRef90_UP1000350FAF3	N D P A A F R S L A A E R   L V L K R   L G A G C T   T G A V   V G V Y S   Y S E N G S F   H					
UniRef90_Q9F7M2	H D E P T A   L A V G   C E R A I L L S S A E   A G C S   A P   I G A L A H   V D G   S T   L   E					
UniRef90_R6MXU7	D P A A A A A A A A E R A F L   Q L D   G S C T   R   P   L G C I A Q Q Q   Q Q Q M E					
UniRef90_R6RRA4	H D A E T D   V V V R A E R A F N A A L   G G S C   T   P   V A A W A V L   G E R E   L   H					
UniRef90_UP10003611597	N D T G T M K E A L   A E K E T   V K V V   G G G C   H S   P   L G V L F R   L E D D   V					
UniRef90_U6L3H4	D G R T F M E A T F E R Q T A A E   I   G A G C   H V   P   L G V L F R   V E D N G					
UniRef90_T1CQB0						
UniRef90_A4YD92						
UniRef90_UP100036CB8B7						
UniRef90_F6QS06						
UniRef90_F5XF75						
UniRef90_UP1000359E530						
UniRef90_A0A021ZNA4						
UniRef90_C3WG35	H K E D   I K K   I V V I E   R E F S K I   F D G G C   H T P   M G C   Y S E   V N G D   K I   T					
UniRef90_D4JB7U	H D E D T W Q M F   L T E R S F L   R A I   G G G C   N E   A A A V D   V R M D G Q   K V   S					
UniRef90_R6UE42	N H   L K T M Y E F E A R Q I   P R   L L N A D C   A M P   V G A F A Q V   Q V E S K					
UniRef90_H5WL54	H T P   T W   L T A H   A E R A V   S R A I   G G S C   S M   P   L A A H   G V   W Q G   A T   L   V					
UniRef90_U5P4B7	H D K E V   E N C   I Q L   E R S F   L S   M N A D C   T F   P   V   G A H   A Q Y   I   D G   H   Y   H					
UniRef90_D9TP8E	H D A K T F F E S S A E R K I M K F   G G N C K   I   P   L   G I Y   S E Y   K   R   N G N D   D					
UniRef90_UP1000321E2D	H U   A D V   A F E   A L V E   P T   V   K   I   E C   H   I   C   C   Y   C   P   K   E   O   F   O					

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

The figure displays a sequence alignment of UniRef90 entries, focusing on the first 80 amino acids. The alignment is color-coded to highlight conservation: black for identical residues, blue for conservative substitutions, red for semi-conservative substitutions, yellow for non-conservative substitutions, and green for gaps. The alignment shows a high degree of conservation across the entries, particularly in the first 20 positions, which include the signal peptide and the start of the mature protein domain.

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

UniRef90\_M0D4Y2  
UniRef90\_B9L0Q4  
UniRef90\_A0A059G590  
UniRef90\_F2LWE6  
UniRef90\_L0AAG9  
UniRef90\_M5E6K2  
UniRef90\_C5C5B3  
UniRef90\_UPI000376E8D8  
UniRef90\_U7VD50  
UniRef90\_M3DCN2  
UniRef90\_V7PJ21  
UniRef90\_UPI00037A18B8  
UniRef90\_D3F2Z8  
UniRef90\_A5V7N0  
UniRef90\_UPI00037EDAB0  
UniRef90\_UPI000372132D  
UniRef90\_C5EV71  
UniRef90\_Q5FH5  
UniRef90\_UPI000350FAF3  
UniRef90\_Q9F7M2  
UniRef90\_R6MXU7  
UniRef90\_R6RRA4  
UniRef90\_UPI0003611597  
UniRef90\_U6L3H4  
UniRef90\_T1CQB0  
UniRef90\_A4YD92  
UniRef90\_UPI00036CB8B7  
UniRef90\_F6QS06  
UniRef90\_F5XF75  
UniRef90\_UPI000359E530  
UniRef90\_A0A021ZNA4  
UniRef90\_C3WG35  
UniRef90\_D4JBU7  
UniRef90\_R6UE42  
UniRef90\_H5WL54  
UniRef90\_U5P4B7  
UniRef90\_D9TP8E  
UniRef90\_UPI0003B31E3D

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