



QUERY T K D L F T L E E S 50 P R L G C G M M E M K E T T F D W T L N Y D E E I D Y V I D G G  
UniRef90\_C6PNQ7 F Q E L V S K D E E S K M S A G F L I T E N S K F D W E L L T Y D E E I D Y V I D G G  
UniRef90\_R2RZP3 Y Q E L I S K E E S A Q L I S A G F L E I D H S T T F D W E L L T Y D E E I D Y V I D G G  
UniRef90\_R5BII0 T K D L F S L D E E S P R L G C G L M F M E R S T F D W T L L R Y D E E I D Y V I D G G  
UniRef90\_H0UQ78 L K D V L T L Q E S S P R L G C G L V M E M E R S T F D W T L L R Y D E E I D Y V I D G G  
UniRef90\_UPI0004759411 L A D L L P V K E S S P R L G C G L M F M E R S T F D W E L L T Y D E E I D Y V I D G G  
UniRef90\_K8EDW0 C K D L V N L E S E S P R L G C G L M V M K N T T F D W T L L E Y D E E I D Y V I D G G  
UniRef90\_L9RY92 L T D L V T E Q D G S S M A A G F M Q W D N A F F P W T L L N Y D E E I D M V I L E G G  
UniRef90\_UPI000478E6AF L K D V L N L E A E S P R L G C G L V M E M E S T F D W T L L K Y D E E I D Y V I D G G  
UniRef90\_A1U000 L T D V I G A A D S S I L A A G Y M Q W E N C S F P W T L L N Y D E E I D Y V I D G G  
UniRef90\_C6LEW0 L K D V V T L E E A P R M G C G I M E L D H T S F E W T L L T Y D E E I D M V I L E G G  
UniRef90\_I4AER3 Y R E V V G Q D E S K M S A G F L T I E K S S F D R K L N C Y E E I D Q L V I L E G G  
UniRef90\_E8Q8M5 F Q E L V G K D E S K M S A G F L T I D D Q S S F A W D L P Y E E I D Y V I L E G G  
UniRef90\_E6MI88 L K D V M T L E E A P R M G A G V M E V D H T D F E W T L L S Y D E E I D M V I L E G G  
UniRef90\_UPI00045EC00A L A D V V T G A H G M P M A A G V M S L R Q S S F P W T L L D Y D E E I D Y V I L E G G  
UniRef90\_J7IPF9 L V D V I T D S R V G N L A S A G F M T F D H Q S R L P W F L L N Y D E E I D Y V I L E G G  
UniRef90\_A0A028VLX9 V A R A I S N E I V S P N L G I G F A R W E G A E V A W T L L Y D E E I F V I L E G G  
UniRef90\_N8ZS40 V A R A I G A D V S P N M G I G F A R W E G A E V S W T L L Y D E E I V F V I L E G G  
UniRef90\_R3TQR0 Y Q E L T S E E S N L H L G I L E I N S H F C E D T L E S I N H V I L E G G  
UniRef90\_UPI000255883D V A R A V S T D V S A T M G A G V A H F D A C S I S W T V L Y D E E I Y V I L E G G  
UniRef90\_M4X1N3 I C R L I G P T D S Q T M G A G L A C F D G V S I E W T V L Y D E E I L V V I L E G G  
UniRef90\_Q5YXY9 I I D D V Y A N P D D G S P M S A G F L R H T P L D Y H Y A Y D E E M K V V L E G G  
UniRef90\_D0L982 I I G D V Y E N P D D G S P M C S G F F E L H H T P L Y Y E Y A Y D E E M K V V L E G G  
UniRef90\_W9WZ93 I I G D V A S S E S N K P I S C G I F Y R L E K T P L V Y T Y T Y H E M K I I L E G G  
UniRef90\_A0A059MRK3 L D D V Y P N P E G S E M A A G Y F K L A H T P L D Y L Y E Y D E E M K V V L E G G  
UniRef90\_UPI00035F1148 I A D A I G V C D D A K L A A G Y M E W E R A S F T R T V E S P E I G I I L D G G  
UniRef90\_A7EDK3 L G D V V S T D E A A P L S A G F Y R L E K T P L T Y E Y T Y H E M K I I V E G G  
UniRef90\_UPI00047D8A6D I A R L V G S Q D S T M G A Y L A R F H G R S V P W T V R Y D E E I V I V C I L E G G  
UniRef90\_HOQS71 I G D S L H N P E G S V M S A G F F E L K A S P L V Y T Y T Y D E E M K V V I K G G  
UniRef90\_CON8A1 F E D I V G S D P K A P I S G I F K I E K G S L V Y T Y D Y D D H K L V L E G G  
UniRef90\_UPI00024858EC L V N V S F S D K L G A G I G V F E D C S I P W H I L T Y D E E I N I V I L E G G  
UniRef90\_L1QMB4 T G D V V N D A D G A P I S I G Y G R W G A G S L T E T M R V D D V M I V L E G G  
UniRef90\_UPI0003B46AF9 I S D A I R F H E D T H L T A T Y M K W E K S L F S R T V D A P E I S L I V V E G G  
UniRef90\_A7HVG2 N L Y A S P E D G K F F S G I W E S E P G A W R I H Y T E H E F C H I L E G G  
UniRef90\_UPI0003689696 I I D V P V C T D K H A L Q M G Y F S M Q P S D F E F T Y T F L E I K I V F R G G  
UniRef90\_UPI00035F5EFA L A D V L S Q D S R S A M S V G F K G R Y R K G E K P W K M T Y D E A L V V T S G G  
UniRef90\_C7ZF23 F H S I R T K D S P T H L T S G F Y K I V A P G K A P A H Y N F E E T K Y I L E G G  
UniRef90\_UPI00036BB3FA V G N L V D E R Q S G G P V T I G Y G R Y A P G S L T E T I E V D D V M I V L E G G  
UniRef90\_M7PST0 G A I I S D S K D K T L C A G F F H L N K T P L V Y T Y D Y E E M K Y I A D G G  
UniRef90\_W3WPH5 L G A L Y S S D P E K P I T S G F Y R I E K G T M T A T Y T Y E F K L V V A G G  
UniRef90\_R9GXW6 S L H Y H Y T Q D E W W Y I L E G G  
UniRef90\_UPI000361C253 A A N V I D Q R H G G P I T I G F G R Y A P Q D L D E K I A V D D V M I V V E G G  
UniRef90\_H1RYM3 H S R A I D G R L A S T N V W E C G I V W S K A G A F E W Y G W E E T V L I L E G G  
UniRef90\_UPI00035E1494 N N F S S P D D K F H V G I W D S K A G A W T V S Y S E Q E F C L I L E G G  
UniRef90\_UPI00036DFEFP V H S R S A D D S T T T A G A F E R W H F E W D E T V H I L E G G  
UniRef90\_K0KU96 L G D V I A S E T S K Q I T G G F Y K I P G E P L T Y T Y G Y D E L K I V L E G G  
UniRef90\_B6IXD6 A N V F S S A D G R F N C G V W S G E P G K W R V S F S E N E F C R I L E G G  
UniRef90\_K0UMW6 T L F E N Y E S G A R A T G V F F E C E P S K T T Y T L E Y N E I T Y V L E G G  
UniRef90\_A1SEB3 I W G C C D I S T F P W T Y D Q R E T C L L L E G G  
UniRef90\_G4FLY9 F A F K S E D G H F S A G T W T C Q P G K W H I D F A Q D E F V H I L E G G  
UniRef90\_UPI000378588C R G T P L H V H P A Q D E V F Y V L E G G  
UniRef90\_I2GIV4 M Q Y T D P T Q Q Y V V G L W R S E P G K W R I H Y T E E E Y C R M L D G G  
UniRef90\_A0A016XHW9 L E R L A P T Q E G A N L E A N I H I T E P G D G T L S H D G E E L G Y L L E G G  
UniRef90\_M1FF61 H R E I A W E G P D S M A A G I G E L D V A S F H I L E T I V V M E G G  
UniRef90\_B2TFY5 G I W K K E K S T F P W T Y N Q Q E T C Y I T R G G  
UniRef90\_W0TQ00 I W S K E E S E F P W T Y D E S E T C Y F L Q G G  
UniRef90\_A0A016QS12 V K D V I V K K P S D A E A A T I W S C E P S T F D W T Y T E K E T C L L I E G G  
UniRef90\_X1NVL9 W G C E K S K F P W T Y S A K E T C Y I L Q G G  
UniRef90\_B0C4M9 I W Q C T E G K F N W H Y D I D E T I C I L E G G  
UniRef90\_M8ATH3 N H Y N S P C G Q M S A G V W E G E Q G Q W Q V N Y T E H E Y C E I V H G G  
UniRef90\_Q13C58 L G D V Y T V K A S G D E S R G A M T L I E A S V P H T H D V D E A F Y V L D G G  
UniRef90\_UPI00040E929C N H Y S D P S N Q F H A G V W R S E P G C W K V S Y S E H E F C Q I L E G G  
UniRef90\_D7B201 S A E A F S T S N L R I G L W Q C E P A R K Q V E P G Y S E L M Y I L E G G  
UniRef90\_E1STY8 S D N V F T D D A A G Y C A G T W D S T P Y H R L H R A N E F M F L L D G G  
UniRef90\_S6HG17 S H F E N T G E V S A G V W S C E K G A W A F A D N K D E F F A V I L E G G  
UniRef90\_UPI000465EDAD N H F T S A S G E I N A G L W A C E K G S W A F A P T K D E Y F Y I L E G G  
UniRef90\_UPI00045E9FCE E T T M S A G G P P F H F Y T Q D E W F Y I L E G G  
UniRef90\_ROE9R9 F H T I R T K T D A P H I T S G F Y K I E A G P A P A H Y D F E E S K Y I L S G G  
UniRef90\_G8TPX8 T G E H S R S N D A A Y T A I W D C Q A G E P F R W Y F W D E T V M I L D G G  
UniRef90\_S0EM18 T Q A G P P H R H F Y E E T F H L L E G G  
UniRef90\_J21606 T V S G T H D G D A D V Y L W R T T A S T F R W T H Q S D E I T I V L E G G  
UniRef90\_UPI0003B539DD F T S P D G A F T S G I W E S T P G K F R A V Y E E D E F Y H M L H G G  
UniRef90\_M7Z6Z0 I G P A P Q C R A N N L F Q A G A L R W D S T P Y E R R H L C H E L M Y V T E G G  
UniRef90\_O69827 I W E K D V S E F D W Y Y D E K E V C Y I L Q G G  
UniRef90\_I4MZ03 G V P P H V H P T Q D E H I Y I L E G G  
UniRef90\_B8CX53 S N N I F E D T A S T L R I G V W D S T P F A R P H K I H E L M H I L E G G  
UniRef90\_D9UX42 T H A M A R D G L A S T H L W E C S A G A F A W R F S V E E T V L I L D G G  
UniRef90\_W0HCE4 R K D V W G G E E S A R I T I G G L Y S Y Q S G V Y H L H R N M E V M H I L S G G  
UniRef90\_V2J98 T H K L V G S D T G N Q I V E W V D N V I E P G P P H I H T L E D E I F R V I K G G  
UniRef90\_UPI00016A415C F H S I R T K E T P T Y I T S G F Y R I Q A G S A T P W H V H A D E A L V V L R G  
UniRef90\_M3CBB8 L E R I T H L Q K G G L L Q G N I H I V A P G D G L I E H P G E E M G Y V L T G G  
UniRef90\_UPI00036D67C8 L Q N H Y S S D C E Q F H A G V W Q G D I G R W K V S Y S E H E Y C E I L S G G  
UniRef90\_E5A657 Y S D I V G S D V N A P I V A G I W D L R K T P T E F T A E W D E M K Y I V K G G  
UniRef90\_H0EA13 S Y E L L T P D L N G A L E A T W V V Y D T S A T P Y H H G E E F G I V L S G G  
UniRef90\_U9IFW0 R W S Q S L D T T T T S W V W D C T A G R F N W Y F H D E D T I Y I L E G G  
UniRef90\_B8CT64 T I A R S S D G L G S T I W R C T E G K F N W Y F D E T I L I L E G G  
UniRef90\_X0KD98 I W E C D P S K F Q W N Y D D K E I C L I I E G G  
UniRef90\_A0QRK7  
UniRef90\_G8MI98  
UniRef90\_A4YLM6  
UniRef90\_UPI00046EFFBD

QUERY UniRef90\_C6PNQ7 UniRef90\_R2RZP3 UniRef90\_R5BI10 UniRef90\_H0UQ78 UniRef90\_UPI0004759411 UniRef90\_K8EDW0 UniRef90\_L9RY92 UniRef90\_UPI000478E6AF UniRef90\_A1U000 UniRef90\_C6LEW0 UniRef90\_I4AER3 UniRef90\_E8Q8M5 UniRef90\_E6MI88 UniRef90\_UPI00045EC00A UniRef90\_J7IPF9 UniRef90\_A0A028VLX9 UniRef90\_N8ZS40 UniRef90\_R3TRQ0 UniRef90\_UPI000255883D UniRef90\_M4X1N3 UniRef90\_Q5YXY9 UniRef90\_D0L982 UniRef90\_W9WZ93 UniRef90\_A0A059MRK3 UniRef90\_UPI00035F1148 UniRef90\_A7EDK3 UniRef90\_UPI00047D8A6D UniRef90\_H0QS71 UniRef90\_CON8A1 UniRef90\_UPI00024858EC UniRef90\_L1QMB4 UniRef90\_UPI0003B46AF9 UniRef90\_A7HVG2 UniRef90\_UPI0003689696 UniRef90\_UPI00035F5EFA UniRef90\_C7ZF23 UniRef90\_UPI00036B3FA UniRef90\_M7PST0 UniRef90\_W3WPH5 UniRef90\_R9GXW6 UniRef90\_UPI000361C253 UniRef90\_H1RYM3 UniRef90\_UPI00035E1494 UniRef90\_UPI00036DFEFA UniRef90\_K0KU96 UniRef90\_B6IXD6 UniRef90\_K0UMW6 UniRef90\_A1SEB3 UniRef90\_G4FLY9 UniRef90\_UPI000378588C UniRef90\_I2GIV4 UniRef90\_A0A016XHW9 UniRef90\_M1FF61 UniRef90\_B2TFY5 UniRef90\_W0TQ00 UniRef90\_A0A016QS12 UniRef90\_X1NVL9 UniRef90\_B0C4M9 UniRef90\_M8ATH3 UniRef90\_Q13C58 UniRef90\_UPI00040E929C UniRef90\_D7B201 UniRef90\_E1STY8 UniRef90\_S6HG17 UniRef90\_B4ENE3 UniRef90\_UPI000465EDAD UniRef90\_UPI00045E9FCE UniRef90\_R0E9R9 UniRef90\_G8TPX8 UniRef90\_S0EM18 UniRef90\_J21606 UniRef90\_UPI0003B539DD UniRef90\_M7Z6Z0 UniRef90\_O69827 UniRef90\_I4MZ03 UniRef90\_B8CX53 UniRef90\_D9UX42 UniRef90\_W0HXCE4 UniRef90\_V2J98 UniRef90\_UPI00016A415C UniRef90\_M3CBB8 UniRef90\_UPI00036D67C8 UniRef90\_E5A657 UniRef90\_H0EA13 UniRef90\_U9IFW0 UniRef90\_B8CT64 UniRef90\_X0KD98 UniRef90\_AOQRK7 UniRef90\_G8MI98 UniRef90\_A4YLM6 UniRef90\_UPI00046EFFBD

90 100 110 120

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

QUERY	T Y P A D W
UniRef90_C6PNQ7	T Y P A N W
UniRef90_R2RZP3	T Y P A N W
UniRef90_R5BII0	T Y P A D W
UniRef90_H0UQ78	T Y P A D W
UniRef90_UPI0004759411	T Y P A N W
UniRef90_K8EDW0	T Y P A D W
UniRef90_L9RY92	A W P A N W
UniRef90_UPI000478E6AF	V Y P A N W
UniRef90_A1U000	T Y P A D W
UniRef90_C6LEW0	V Y P A N W
UniRef90_I4AER3	T Y P A N
UniRef90_E8Q8M5	T Y P S N W
UniRef90_E6MI88	V Y P A D W
UniRef90_UPI00045EC00A	T Y P A D W
UniRef90_J7IPF9	T Y P A N W
UniRef90_A0A028VLX9	V H P G D W
UniRef90_N8ZS40	V H P G N W
UniRef90_R3TQR0	
UniRef90_UPI000255883D	V Y P G N W
UniRef90_M4X1N3	L Y P V D W
UniRef90_Q5YXY9	G H
UniRef90_D0L982	
UniRef90_W9WZ93	
UniRef90_A0A059MRK3	
UniRef90_UPI00035F1148	
UniRef90_A7EDK3	
UniRef90_UPI00047D8A6D	I A P V D W
UniRef90_HOQS71	G H
UniRef90_CON8A1	
UniRef90_UPI00024858EC	V L P A
UniRef90_L1QMB4	T Y P N W
UniRef90_UPI0003B46AF9	
UniRef90_A7HVG2	I Y E A
UniRef90_UPI0003689696	A H
UniRef90_UPI00035F5EFA	T Y P H
UniRef90_C7ZF23	V T
UniRef90_UPI00036BB3FA	T Y P H
UniRef90_M7PST0	
UniRef90_W3WPH5	A Q R A
UniRef90_R9GXW6	F Q P A
UniRef90_UPI000361C253	T Y P H
UniRef90_H1RYM3	C
UniRef90_UPI00035E1494	I Y E A
UniRef90_UPI00036DFEFF	C F P A
UniRef90_K0KU96	
UniRef90_B6IXD6	V Y
UniRef90_K0UMW6	C T P A
UniRef90_A1SEB3	
UniRef90_G4FLY9	
UniRef90_UPI000378588C	L S P A
UniRef90_I2GIV4	L Q P A
UniRef90_A0A016XHW9	I Y
UniRef90_M1FF61	N T P
UniRef90_B2TFY5	C A A S N
UniRef90_W0TQ00	
UniRef90_A0A016QS12	N T P A
UniRef90_X1NVL9	
UniRef90_B0C4M9	
UniRef90_M8ATH3	
UniRef90_Q13C58	C
UniRef90_UPI00040E929C	V F E A
UniRef90_D7B201	F T P G
UniRef90_E1STY8	I F P A
UniRef90_S6HG17	I
UniRef90_B4ENE3	
UniRef90_UPI000465EDAD	I T P A
UniRef90_UPI00045E9FCE	V
UniRef90_R0E9R9	I
UniRef90_G8TPX8	Y N P A
UniRef90_S0EM18	
UniRef90_J2I606	
UniRef90_UPI0003B539DD	V A P A
UniRef90_M7Z6Z0	
UniRef90_O69827	H Y
UniRef90_I4MZ03	V S
UniRef90_B8CX53	
UniRef90_D9UX42	V S P A
UniRef90_W0HCE4	V T
UniRef90_V2JJ98	C
UniRef90_UPI00016A415C	A
UniRef90_M3CBB8	A T P G
UniRef90_UPI00036D67C8	A F P A
UniRef90_E5A657	V T
UniRef90_H0EA13	T T P G
UniRef90_U9IFW0	N T P
UniRef90_B8CT64	I F E S N
UniRef90_X0KD98	
UniRef90_A0QRK7	S T P P T W
UniRef90_G8MI98	L R P H
UniRef90_A4YLM6	C
UniRef90_UPI00046EFFBD	

UniRef90\_I4ZV39 1 10 20 30 40  
UniRef90\_Q89SA4  
UniRef90\_UPI00036BE623  
UniRef90\_UPI000465608B  
UniRef90\_UPI000368A2E9  
UniRef90\_HOQS72  
UniRef90\_F6GVW8  
UniRef90\_R0GXZ3  
UniRef90\_F5LLK9  
UniRef90\_Y0KH70  
UniRef90\_K2E1U9  
UniRef90\_Q1YIJ6  
UniRef90\_E4N3X6  
UniRef90\_CON228  
UniRef90\_UPI00040BCDA0  
UniRef90\_U7FSA7  
UniRef90\_I3CXY3  
UniRef90\_D3DIH6  
UniRef90\_Q2CEW8  
UniRef90\_W5IS45  
UniRef90\_H1PRS5  
UniRef90\_UPI0001C3744C  
UniRef90\_UPI00047EE524  
UniRef90\_U7VC94  
UniRef90\_E2XUW2  
UniRef90\_B3E0S1  
UniRef90\_UPI00046A73FA  
UniRef90\_S5SQV0  
UniRef90\_UPI00037EB4B8  
UniRef90\_UPI000369BFEB  
UniRef90\_F6DDE9  
UniRef90\_B9JLS8  
UniRef90\_K9TYS6  
UniRef90\_L0MC96  
UniRef90\_E6W9W2  
UniRef90\_X2H415  
UniRef90\_S9SL09  
UniRef90\_M5RQN1  
UniRef90\_J0LH29  
UniRef90\_UPI00036F4E40  
UniRef90\_G4M5V7  
UniRef90\_B0DJN9  
UniRef90\_Q2IDL1  
UniRef90\_E4RUS6  
UniRef90\_I1SKY4  
UniRef90\_UPI0003611928  
UniRef90\_C1A1Q0  
UniRef90\_X5LS58  
UniRef90\_B0DKJ5  
UniRef90\_F7Y8K7  
UniRef90\_K4QEM8  
UniRef90\_K2MH09  
UniRef90\_T0BNJ8  
UniRef90\_R8BV29  
UniRef90\_F2ZEC0  
UniRef90\_UPI00036EC3A7  
UniRef90\_B5GXC6  
UniRef90\_M2TIN7  
UniRef90\_K9UGD6  
UniRef90\_UPI0003B3BD51  
UniRef90\_W6WSJ2  
UniRef90\_N8YIK1  
UniRef90\_UPI0003805292  
UniRef90\_U1QS69  
UniRef90\_X0X8U6  
UniRef90\_C3ALI2  
UniRef90\_A0A024M238  
UniRef90\_NOB6M4  
UniRef90\_G9ZUL5  
UniRef90\_UPI000362688C  
UniRef90\_K2F6H9  
UniRef90\_A4EQL8  
UniRef90\_L8TT32  
UniRef90\_V7EKT6  
UniRef90\_A0A021X814  
UniRef90\_UPI000467134D  
UniRef90\_UPI00047805C3  
UniRef90\_G7LMC5  
UniRef90\_J2JJE6  
UniRef90\_X5DJF2  
UniRef90\_UPI0003662B1D  
UniRef90\_UPI0002EC9F46  
UniRef90\_I0QXB3  
UniRef90\_D8HYU7  
UniRef90\_UPI000475E7E0  
UniRef90\_UPI00029A3416  
UniRef90\_C8S2X7  
UniRef90\_F4DQQ5  
UniRef90\_X7EGR1  
UniRef90\_A6GKV6  
UniRef90\_S9Q8R3  
UniRef90\_UPI000382F1B4

LDYPRPDRLVAGNPK  
EPSWLEGNPEARSH  
DDGTAQH LGV  
YNSRRPSSSMAAIRAESMATEKLGITVEKNPPESEKLA  
MEVVKKDERKYLESDSNTKMA  
T LKSEDRKLLFTSNKEGTKEY  
GPAQC  
VEAPQVVVD EEA LIDIG GQGVVS  
VRQNERARLV TGRA GNQVT  
GEKAF  
EGDIF  
S LKSL EDWGSVA GVP GTDAG  
NATEQSL  
RADRRKT VDFGDRKM  
T IDVA DLK PFD LGSDQGKAH  
ANGAH  
T LIRA PTV P AAGTK PKV  
DWLIFGTP VARS A  
FEESDGEEL VFRAGARP LIALD PLRRGE GLS  
VKVDDQK PFKLE GTSMT  
SPDPA LMS PLPQCR  
MKA FR LDE LEA ERA ANDGA  
VF  
GPA PRVA  
LDYPRPDRLVKGNPQR LTH  
LPAGNGAT HFF  
MPVVH ESEMEWTERA EGETEFR  
LKA IAGRTY PARRRQN L VGGAS PLQA  
DTGDPQLK  
VAGT PSMKTW  
DVSGLTPEEGRPAS DR LISGDP VQ  
R PLITLD PLR QGDGV T  
RRRKRFLQRNK QGGILE  
T VVNGELT P A GQR PGADSGDP QL R  
S LK VLES WGN VEG L P DT P AG  
P ATTF P PRDA FVAGKDDA P AY  
FEEGE PDDRAG  
T QFKNTDS VIT LDDSNP GE P VS  
PETSRP DPAKLISGDP  
PMP VVD A CKWERLE G DP HT VNL  
PRPGRLEKGNP  
MKLRK GK V I PRD DGKR



UniRef90\_I4ZV39 R S T Q S L Y D H P N M N C G I W E C E I G A W N I V F A E N E F F T V I E G G  
UniRef90\_Q89SA4 L L S T S A C G T A T T L I W S C T M G K F N W Y Y D L D E T I M I L L E G G  
UniRef90\_UPI00036BE623 V G D T Y T I L L S G M D T A G R F T L I D M H V P H R H D F E E E T F V L L D D G G  
UniRef90\_UPI000465608B S G V A R L L A P G E E H Y H P Y S E E E F L Y V V L E G G  
UniRef90\_UPI000368A2E9 V W E K E V S T F P W H Y D E R E E V C Y I L L E G G  
UniRef90\_HOQS72 W E L E A C G W E D F H P H T E T M F V L L E G G  
UniRef90\_F6GVW8 W G C S P S K F P W T F A E K E T M Y L L E G G  
UniRef90\_R0GXZ3 T Q L G V R N W P K W G C P P S K F P W T Y S A K E E T C Y I L L E G G  
UniRef90\_F5LLK9 E L V S P D F T G N L A T A I M N F P P S E K Q M E H K G E E V A F V L L E G G  
UniRef90\_Y0KH70 I W S C D I S K F D G E Y L E E E T C Y F F E G G  
UniRef90\_K2E1U9 P P H I H P T Q E E E F V Y M L L E G G  
UniRef90\_Q1YJ6 P L H V H H W E E E A F Y V L L E G G  
UniRef90\_E4N3X6 I W E K G Q S E F P W H Y D E T E T A Y I L L D G G  
UniRef90\_C0N228 R G T P L H V H P G Q D E E V F Y V L L E G G  
UniRef90\_UPI00040BCDA0 R V R S A D T G G R L G F F E G E G V P L H V H H K E D E E M F N V R E G G  
UniRef90\_U7FSA7 D E S S I G K I G T W D S T P Y H R I H P V N E F M H I L D G G  
UniRef90\_I3CXy3 I Y L W E D A P G T Y T H A E D E E V R M V L L E G G  
UniRef90\_D3DIH6 Y E R I S T T F P G A T L S S V I M R Q P P G H R S Q S H D G E E I F F V L L E G G  
UniRef90\_Q2CEW8 R N H Y A S P C G Q F N V G I W E G A V G H W T I N Y H E Y C E I L L Q G G  
UniRef90\_W5IS45 L L T T S N I D K T M E P L L Y E I E S G R S F Y T H N G E E F L F V L L E G G  
UniRef90\_H1PRS5 Y T G N D G S Q A A F W E Y S A D S E S K E H S H D Y D E Y M V C L S G G  
UniRef90\_UPI0001C3744C G Y F F Q G K D D S Q M A F W T C Y S D K I S K E H K H E F D E Y M V C V C G G  
UniRef90\_UPI00047EE524 Y N L I P D N S E I N G S Y V V I N P K C V R W S H S H D E I G L V I K G G  
UniRef90\_U7VC94 A L N L F D D A V T E L R V G I W D S T P Y A R H H K L H E L M H L L E G G  
UniRef90\_E2XUW2 L R L I H N G N P E R T L A M L L E T Y E P G S A T T G R H P G E E T G T L L E G G  
UniRef90\_B3E0S1 L E K L V P S G P G Y L L Q I N I H V V A G S P Q P W S H P S D E C V V V L A G G  
UniRef90\_UPI00046A73FA G S P Q P W S H P S D E C V V V L A G G  
UniRef90\_S5SQV0 I Q V L I G P E D G P H F I L R K F T L L P G P Y E R Q V P E A E V M V L A G G  
UniRef90\_UPI000369BFEB T G N L L D Q R H G G P V T I G F G R Y G P D Q L E E T I A V H D T M I V L L E G G  
UniRef90\_F6DDE9 G K S L S M R L W E N E E T K S P T T R D Y E T V I G Y V L L E G G  
UniRef90\_B9JLS8 M I H G A P D D N L S C G V F S C T R G S F V M E Y F A E H A T V W E G G  
UniRef90\_K9TYS6 L Q T V I P G K E D I D S G I F A C T A G S Y R R G V K Q A E I M H F L E G G  
UniRef90\_L0MC96 A S R I L A K T T G G N L T L F A F D K G S G E L S E H S A P F D A L V M V L L E G G  
UniRef90\_E6W9W2 V K S F L T V H D E G A L Q V M E I V L E S Q G E S Y A H E G E E C G L V L L E G G  
UniRef90\_X2H415 I H L A A G K Q V A M R Q W R E D P G Q Y S E S H D Y E T V I G F L L T G G  
UniRef90\_S9SL09 G E A H Q T P E F D E I T V L V L R G G  
UniRef90\_M5RQN1 M G S L M V F K A T S E E T G G Q Y W L A E S P V H V H T R E D E L F T V L L E G G  
UniRef90\_UPI00036F4E40 N R D I F G N E D G P L T C G I M A L D S G G T S A K S P C T D E Y I V T E G G  
UniRef90\_LPH29 I Q E F V G R V N S G T E A V S I A R M V S P E G W T P E F D E Y T L V L R G G  
UniRef90\_UPI00036F4E40 G S K L A M I E F T L P K G S E P P K H V H D E A F Y V L L E G G  
UniRef90\_G4M5V7 F F R L T G D H T D G H F A F E E F S L A P G V I H V H E G H E D E Y F Y V L L E G G  
UniRef90\_B0DJN9 Q W S A S K D G T T T H V W D C T K G R F R W Y F H A D E I V H I I E G G  
UniRef90\_Q2IDL1 K S D D S R I L S G V W E A S P G L S R W E L D R G E V I H V L L E G G  
UniRef90\_E4RUS6 D K N P L S S G F M E V R E S E G R A Y N Y H E I S L V L L E G G  
UniRef90\_I1SKY4 L E R V I P Y S P G H L L Q N I H H I E E S A G P I Q H A G E E V G Y L L E G G  
UniRef90\_UPI0003611928 T I N E K E H V E T G F W C S P G K F R R E I V Q G E I M H I L L E G G  
UniRef90\_C1A1Q0 Y E R L G T E F P G N Q L S S F I L T V P P G Y V S E T V S H E E L I Y I L L E G G  
UniRef90\_X5LS58 Y I R L A G N F A G R N L E P M I V E L E P N Q T K Y A H P G E E F Y Y V L L E G G  
UniRef90\_B0DKJ5 S N N L F E D T A S T L R I G V W D S T P Y E R I H K I H E L M N L I L L E G G  
UniRef90\_F7Y8K7 S M G I W D C T P G I W R R G L M Q R E Y C Y F L S G G  
UniRef90\_K4QEM8 Y L R F L R E R N M S V G L Y A L N A G E L D L P H D Q D E V I Y L V V S G G  
UniRef90\_K2MH09 F D D I F N S K E S A P L A G I W F R I E K G P G P G V H G Y D E S G V Y V E G G  
UniRef90\_T0BNJ8 G K I L F G T L D A P V S S G G I Y A A T R G R Y V T Y P F E H A T L L D G G  
UniRef90\_R8BV29 F W E R S D G A I S S G G I W C E V I G A W V F A D N K Q E F F Q V I L L E G G  
UniRef90\_UPI000362688C S L Y E H P N M S C G I W Q C E V I G A W V F A D N K Q E F F Q V I L L E G G  
UniRef90\_F2ZEC0 R K Q L G E G A D G D Q L G C S L Y E L P P G R R S W P Y H Y E E A I Y V L A G G  
UniRef90\_UPI00036EC3A7 E L L S P D L T G A L A V S L M T L P P N S V S L E H K G E E I A H V I L L E G G  
UniRef90\_B5GXC6 T L A V P S G T D A Q I G I W E C E P G G W P V V N T E V C Y I L L E G G  
UniRef90\_M2UTIN7 I E N K T A D G K F L T G F W E A M P G T Y H V T Y K A D E L I H L F E G G  
UniRef90\_K9UGD6 R I T T E Q T G G A M C V F E M S V P P G P L H I H S R E E E F F R V L L E G G  
UniRef90\_UPI0003B3BD51 L F T S A D G K V E I G V W E C T P G R F T A R S A S S E F C H F I S G G  
UniRef90\_W6WSJ2 D E L L S P S L S G Q L E M V L T T F E P G A G S Y S H K G E E A G Y I A E G G  
UniRef90\_N8YIK1 W V R R F G S G D R P A L A C G Y W H V T P A F D L M E A D E T I H I I E G G  
UniRef90\_UPI0003805292 V Q H T S I D G S V I S G T W E A T Q G T W H A T Y K F Y E F V H L I E G G  
UniRef90\_U1QS69 T T W N I E E A D G G I Y A G I W Q S T P G K W R V Q Y D E W E Y F H I L E G G  
UniRef90\_X0X8U6 Y T G E D G I A A G M V I E V S G Q T R V D H Y P F S E M I V H A G G  
UniRef90\_C3AL12 L E R V I P Y S A G H L L Q C N I H H I D A G A G P I R H V I G E E V G Y V V A G G  
UniRef90\_A0A024M238 L E N L T Y N H K G G L L Q G N I H I L I E G D G L I E H G E E M G Y V L L E G G  
UniRef90\_N0B6M4 T L P V D G G T D A Q I G I W E C R P G G W P V V D P N T E T C Y V L L E G G  
UniRef90\_G9ZUL5 R I T T E Q T G G A M C V F E M S V P P G P L H I H S R E E E F F R V L L E G G  
UniRef90\_UPI000362688C D G P P P H L H T R E D E S F F I C L A G G  
UniRef90\_K2F6H9 L F T S A D G K V E I G V W E C T P G R F T A R S A S S E F C H F I S G G  
UniRef90\_A4EQL8 D E L L S P S L S G Q L E M V L T T F E P G A G S Y S H K G E E A G Y I A E G G  
UniRef90\_L8TT32 W V R R F G S G D R P A L A C G Y W H V T P A F D L M E A D E T I H I I E G G  
UniRef90\_V7EKT6 V Q H T S I D G S V I S G T W E A T Q G T W H A T Y K F Y E F V H L I E G G  
UniRef90\_A0A021X814 T T W N I E E A D G G I Y A G I W Q S T P G K W R V Q Y D E W E Y F H I L E G G  
UniRef90\_UPI000467134D Y T G E D G I A A G M V I E V S G Q T R V D H Y P F S E M I V H A G G  
UniRef90\_UPI00047805C3 L E R V I P Y S A G H L L Q C N I H H I D A G A G P I R H V I G E E V G Y V V A G G  
UniRef90\_G7LMC5 L E N L T Y N H K G G L L Q G N I H I L I E G D G L I E H G E E M G Y V L L E G G  
UniRef90\_J2JJE6 T L P V D G G T D A Q I G I W E C R P G G W P V V D P N T E T C Y V L L E G G  
UniRef90\_X5DJF2 R I T T E Q T G G A M C V F E M S V P P G P L H I H S R E E E F F R V L L E G G  
UniRef90\_UPI0003662B1D D G P P P H L H T R E D E S F F I C L A G G  
UniRef90\_UPI0002EC9F46 Y T I N C E E V L H V I L D G G  
UniRef90\_I0QXB3 I Q K V I P G K E D I D T G I F E C S A G S Y R R S V K Q A E I M H F L N G G  
UniRef90\_D8HYU7 L A D V L H Q T G G S F S V Q W M R A G V G P P L H V H N V D E W F V L F S G G  
UniRef90\_UPI000475E7E0 T R P V V T L D D R P G D W A G V G H L L Q S N I H H H E G E E T G Y V L R G G  
UniRef90\_UPI00029A3416 I A S V T C V E R S D G V E T G I W E C T P G R W R R Q I V I Q Q E F C H F I K G G  
UniRef90\_C8S2X7 L H S T W N F E D R D G L Y C G L W H S T I G A W R V A Y D E Y F H I L E G G  
UniRef90\_F4DQK5 N A Y T S D D S K I M G T W I C T P K W R V E Y V K W E Y C H F Q E G G  
UniRef90\_X7EGR1 S G G V C Q G I F H L Y G H T E K V H R H D E T V H V I D G G  
UniRef90\_A6GKV6 L R S T W N H Y E H H G V S A G V W A C E T G A W R I A F D E F F V L L E G G  
UniRef90\_S9Q8R3 L E E F V G A A T T G T D A V S V A R M L A S E P A Q K P F D E V V I V L K G G  
UniRef90\_UPI000382F1B4 T D E H Y H A K A E E L Y Y I I E G G

UniRef90\_I4ZV39 UniRef90\_Q89SA4 UniRef90\_UPI00036BE623 UniRef90\_UPI000465608B UniRef90\_UPI000368A2E9 UniRef90\_HOQS72 UniRef90\_F6GVW8 UniRef90\_R0GXZ3 UniRef90\_F5LLK9 UniRef90\_Y0KH70 UniRef90\_K2E1U9 UniRef90\_Q1Y1J6 UniRef90\_E4N3X6 UniRef90\_C0N228 UniRef90\_UPI00040BCDA0 UniRef90\_U7FSA7 UniRef90\_I3CXy3 UniRef90\_D3DIH6 UniRef90\_Q2CEW8 UniRef90\_W5IS45 UniRef90\_H1PRS5 UniRef90\_UPI0001C3744C UniRef90\_UPI00047EE524 UniRef90\_U7VC94 UniRef90\_E2UXW2 UniRef90\_B3E0S1 UniRef90\_UPI00046A73FA UniRef90\_S5SQV0 UniRef90\_UPI00037EB4B8 UniRef90\_UPI000369BFEB UniRef90\_F6DDE9 UniRef90\_B9JLS8 UniRef90\_K9TYS6 UniRef90\_L0MC96 UniRef90\_E6W9W2 UniRef90\_X2H415 UniRef90\_S9SL09 UniRef90\_M5RQN1 UniRef90\_J0LHZ9 UniRef90\_UPI00036F4E40 UniRef90\_G4M5V7 UniRef90\_B0DJN9 UniRef90\_Q2IDL1 UniRef90\_E4RUS6 UniRef90\_I1SKY4 UniRef90\_UPI0003611928 UniRef90\_C1A1Q0 UniRef90\_X5LS58 UniRef90\_B0DKJ5 UniRef90\_F7Y8K7 UniRef90\_K4QEM8 UniRef90\_K2MH09 UniRef90\_T0BNJ8 UniRef90\_R8BV29 UniRef90\_F2ZEC0 UniRef90\_UPI00036EC3A7 UniRef90\_B5GXC6 UniRef90\_M2TIN7 UniRef90\_K9UGD6 UniRef90\_UPI0003B3BD51 UniRef90\_W6WSJ2 UniRef90\_N8YIK1 UniRef90\_UPI0003805292 UniRef90\_U1QS69 UniRef90\_X0X8U6 UniRef90\_C3ALJ2 UniRef90\_A0A024M238 UniRef90\_N0B6M4 UniRef90\_G9ZUL5 UniRef90\_UPI000362688C UniRef90\_K2F6H9 UniRef90\_A4EQ38 UniRef90\_L8TT32 UniRef90\_V7EKT6 UniRef90\_A0A021X814 UniRef90\_UPI000467134D UniRef90\_UPI00047805C3 UniRef90\_G7LMC5 UniRef90\_J2JJE6 UniRef90\_X5DJF2 UniRef90\_UPI0003662B1D UniRef90\_UPI0002EC9F46 UniRef90\_I0QXB3 UniRef90\_D8HYU7 UniRef90\_UPI000475E7E0 UniRef90\_UPI00029A3416 UniRef90\_C8S2X7 UniRef90\_F4DQK5 UniRef90\_X7EGR1 UniRef90\_A6GKV6 UniRef90\_S9Q8R3 UniRef90\_UPI000382F1B4

UniRef90_I4ZV39	V V E A
UniRef90_Q89SA4	
UniRef90_UPI00036BE623	C S P A
UniRef90_UPI000465608B	F H
UniRef90_UPI000368A2E9	
UniRef90_HOQS72	Y G P
UniRef90_F6GVW8	
UniRef90_R0GXZ3	
UniRef90_F5LLK9	V T P
UniRef90_Y0KH70	
UniRef90_K2E1U9	
UniRef90_Q1YIJ6	V S P A
UniRef90_E4N3X6	T V P G
UniRef90_CON228	
UniRef90_UPI00040BCDA0	L Q P A
UniRef90_U7FSA7	
UniRef90_I3CXY3	T V P A E
UniRef90_D3DIH6	
UniRef90_Q2CEW8	C T
UniRef90_W5IS45	I F
UniRef90_H1PRS5	V N P
UniRef90_UPI0001C3744C	
UniRef90_UPI00047EE524	
UniRef90_U7VC94	
UniRef90_E2XUW2	V
UniRef90_B3E0S1	
UniRef90_UPI00046A73FA	H T P A
UniRef90_S5SQV0	N T P
UniRef90_UPI00037EB4B8	V T P
UniRef90_UPI000369BFEB	I
UniRef90_F6DDE9	I
UniRef90_B9JLS8	T Y P H
UniRef90_K9TYS6	T S P
UniRef90_L0MC96	
UniRef90_E6W9W2	I F D A
UniRef90_X2H415	
UniRef90_S9SL09	T T P P V W
UniRef90_M5RQN1	T S P
UniRef90_J0LH29	C V P A
UniRef90_UPI00036F4E40	G T P G
UniRef90_G4M5V7	L R P H
UniRef90_B0DJN9	
UniRef90_Q2IDL1	C A P A
UniRef90_E4RUS6	I A P G D W
UniRef90_I1SKY4	
UniRef90_UPI0003611928	Y T P A
UniRef90_C1A1Q0	L S
UniRef90_X5LS58	I F A A
UniRef90_B0DKJ5	A
UniRef90_F7Y8K7	N T P A
UniRef90_K4QEM8	
UniRef90_K2MH09	G T
UniRef90_T0BNJ8	L Q P A
UniRef90_R8BV29	L D P A N
UniRef90_F2ZEC0	V T
UniRef90_UPI00036EC3A7	I
UniRef90_B5GXC6	F S P
UniRef90_M2TIN7	
UniRef90_K9UGD6	V S P
UniRef90_UPI0003B3BD51	V S P G
UniRef90_W6WSJ2	I S A G D
UniRef90_N8YIK1	V V E A
UniRef90_UPI0003805292	T W P A
UniRef90_U1QS69	
UniRef90_X0X8U6	Y G P A
UniRef90_C3ALI2	V T P
UniRef90_A0A024M238	I F
UniRef90_NOB6M4	I
UniRef90_G9ZUL5	V T P G
UniRef90_UPI000362688C	V S P A
UniRef90_K2F6H9	I T
UniRef90_A4EQL8	V T P
UniRef90_L8TT32	Y S
UniRef90_V7EKT6	I
UniRef90_A0A021X814	I
UniRef90_UPI000467134D	A
UniRef90_UPI00047805C3	N T P
UniRef90_G7LMC5	N T P
UniRef90_J2JJE6	I F
UniRef90_X5DJF2	C
UniRef90_UPI0003662B1D	T T R G D
UniRef90_UPI0002EC9F46	I V P A P W
UniRef90_I0QXB3	I F D A
UniRef90_D8HYU7	Y A P G
UniRef90_UPI000475E7E0	C T P
UniRef90_UPI00029A3416	
UniRef90_C8S2X7	I
UniRef90_F4DQQ5	
UniRef90_X7EGR1	T F P T D
UniRef90_A6GKV6	I
UniRef90_S9Q8R3	C A P A
UniRef90_UPI000382F1B4	C A P



UniRef90\_K2IQK1  
UniRef90\_UPI0003B3CB70  
UniRef90\_I2BUU4  
UniRef90\_UPI0003082DB4  
UniRef90\_B2T2W5  
UniRef90\_K8GNV5  
UniRef90\_K4KI55  
UniRef90\_K9NKQ0  
UniRef90\_G2NV76  
UniRef90\_A5FVB5  
UniRef90\_K1YTF0  
UniRef90\_F8FHM3  
UniRef90\_F1Z6G3  
UniRef90\_C1CYJ4  
UniRef90\_UPI00034A597A  
UniRef90\_UPI00037F993C  
UniRef90\_I4C873  
UniRef90\_UPI0002557CCF  
UniRef90\_V9QU43  
UniRef90\_B0PEN9  
UniRef90\_UPI00046CEEC6  
UniRef90\_W5X583  
UniRef90\_UPI0003B65F10  
UniRef90\_C6DKQ1  
UniRef90\_H6BK95  
UniRef90\_X0YBP3  
UniRef90\_G2PCT6  
UniRef90\_G2FN78  
UniRef90\_F9X8G8  
UniRef90\_S9QG80  
UniRef90\_J2W1S7  
UniRef90\_UPI0002FBF2D0  
UniRef90\_Q0RGV7  
UniRef90\_A4YQR6  
UniRef90\_J2VTA8  
UniRef90\_A6T5W2  
UniRef90\_M0GX45  
UniRef90\_UPI00035CA569  
UniRef90\_J1AMX3  
UniRef90\_UPI000255AFA6  
UniRef90\_A0A022H435  
UniRef90\_F4FC08  
UniRef90\_D6U5S0  
UniRef90\_UPI0004014FD8  
UniRef90\_J2UYW3  
UniRef90\_UPI00037A3AB9  
UniRef90\_X0N0C2  
UniRef90\_I4EQE9  
UniRef90\_R5R0K3  
UniRef90\_UPI0002DB79D7  
UniRef90\_C3MA39  
UniRef90\_R6ZJB8  
UniRef90\_UPI00037ABAC7  
UniRef90\_W0P6J7  
UniRef90\_X7FC05  
UniRef90\_D6U572  
UniRef90\_F1ZCP6  
UniRef90\_UPI00047E925E  
UniRef90\_E8W5V6  
UniRef90\_Q01QN4  
UniRef90\_UPI0004685005  
UniRef90\_B2T2Q0  
UniRef90\_D3EK17  
UniRef90\_A7HE82  
UniRef90\_A0YW47  
UniRef90\_D6TD15  
UniRef90\_K8AAD4  
UniRef90\_Q6HSC4  
UniRef90\_HOHS88  
UniRef90\_UPI0002FB2843  
UniRef90\_D5SZ18  
UniRef90\_UPI000474EE73  
UniRef90\_UPI00047E1573  
UniRef90\_D3PEG8  
UniRef90\_A2U2T1  
UniRef90\_I1SAV0  
UniRef90\_C7M2J9  
UniRef90\_X1HDM9  
UniRef90\_UPI000367ED6F  
UniRef90\_A3K8K8  
UniRef90\_F0LKH0  
UniRef90\_E8UZD7  
UniRef90\_UPI0004782AB9  
UniRef90\_C7PBB5  
UniRef90\_A5N519  
UniRef90\_D9S1S4  
UniRef90\_A1KBU8  
UniRef90\_N9NES1  
UniRef90\_A0A013XYE6  
UniRef90\_C6D5Q9  
UniRef90\_X0RSY7  
UniRef90\_UPI000368708E

1

10

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

UniRef90\_K2IQK1 Y A D L V E K Q V G S T L F G R A M M L D T G R V M Y G H E A E E G G I V I S G 80  
UniRef90\_UPI0003B3CB70 V H F N G P T T A A L A S G F V T L E P G H P P H Q H P E E E I M I V G E G G  
UniRef90\_I2BUU4 V A S T L S V E R N D G V E T G I W A C T P A R W R R Q I T S Q E E F C H F I Q G G  
UniRef90\_UPI0003082DB4 A P P H I H E A A D E T F I F I Q G G  
UniRef90\_B2T2W5 S D A T N M L S A G V W Q C D A G T L K L D L P I H E V C V L I L E G G  
UniRef90\_K8GNV5 L R E L L H P D K Q P S L A H A L V P V G Q T S I P H A L S T S E T V Y Y I L A G  
UniRef90\_K4KI55 V Q R L S T D A N S S Q F Y L E I D Q A V R P H H L T H S E T I Y I V I L A G  
UniRef90\_K9NKQ0 G F W E C S P G Q F R R R Q V A G A E E Y S Y I V I S G G  
UniRef90\_G2NV76 G S T T G H R L G I G E I T I E G P Q H R H A E H D E G F Y V I S G G  
UniRef90\_A5FVB5 K Q E S E H S M A W H A V F P P G G T F H I H P T Q D E F L Y M I L E G G  
UniRef90\_K1YTF0 I E E F I G R V N S E T E K V S I A R M R S P C G W T P E F D E Y T V V L K G G  
UniRef90\_F8FHM3 P F F P F E D G R R F E V Y T T I E I D K G S G P H Q P G T E E F I T V F D G G  
UniRef90\_F1Z6G3 D E L L S P S L D G Q L E L L L C R I A P G S G P Y A H A G E E A G Y V V L E G G  
UniRef90\_C1CYJ4 A P L H R H S N E D E E Y S Y V L E G G  
UniRef90\_UPI00034A597A V M Q P H S A T P P H H P T H S E E S F Y I Q E G G  
UniRef90\_UPI00037F993C L G P T T V G S T S G F M G L A I T I E P G D M H Y H P Y S E E F H V I V T G G  
UniRef90\_I4C873 Y K N L T P N A E D K H L W A Y L I T L D P K K E H E M V S Y E E F V Y V L D G G  
UniRef90\_UPI0002557CCF I E Y T A D D G S M I S G W E A S P G T W H A T Y S E E F I L I L E G G  
UniRef90\_V9QU43 S E T L F S A G N L R V G L W Q C E A A R K V E P G Y S E L H F I L E G G  
UniRef90\_BOPEN9 F I S A F D P A Q V M E A C I H V L T P D G G K V P Y T H A G Q E I F F V L E G G  
UniRef90\_UPI00046CEEC6 I R W L I K K E D G P N F A M R Y F E M Q P H T E P H S H P W E H E I F I L D G G  
UniRef90\_W5X583 E G D P V G V W I Q T V P P G P L H L H E D A D E A A L V L S G G  
UniRef90\_UPI0003B65F10 T W D S T P Y H R R Y R H Y E L M H L L Q G G  
UniRef90\_C6DKQ1 A S R V L A R T D G G N V T L F A F D Q G Q G L S E H S A P Y D A L V M V L E G G  
UniRef90\_H6BK95 P P H W H E M H D E T F L V L T Q G G  
UniRef90\_X0YBP3 V R W L I S D E D G P N F C M R R F E L D G S T P R H S H P W E H E V Y I L E G G  
UniRef90\_G2PCT6 T S G F M G M E R V T S E H Y H P S E E F V Y V V V G G  
UniRef90\_G2FN78 E G Y F Y D G A D G S Q M A F W T C N A D R I S K K H T H E F D E Y M V C V G G  
UniRef90\_F9X8G8 Q Q N V G Q L P I A T Q M A G V D M H L I E P N A Y R E L H W H D E W S Y I L N G G  
UniRef90\_S9QG80 M R F K N D D G T M L A G T W T S T P G K W I A F A D R D E F C V L L T G G  
UniRef90\_J2W1S7 N C D E A D G G I Y A G I W E A T P G K W R I A Y D E F C H I L E G G  
UniRef90\_UPI0002FBF2D0 F S A P E K N A I A G I W E A G V H L E R C E C D Y D E L C H I L E G G  
UniRef90\_QORGV7 D G D A Y T I K A S R D S T G G S L S F S G P P P H I H T L E D A F Y I L E G G  
UniRef90\_A4YQR6 L V T G K D R H T S M F E W T I P P G F L H V H R V I Q E E T F Y I L E G G  
UniRef90\_J2VTA8 Q V R V D L A P G V A F G R H T H P G E E I I Y V L T G G  
UniRef90\_A6T5W2 G A M I Y G E P Q D A F T C G L F S S T E G S F T M T Y P F T E H A T V L S G G  
UniRef90\_M0GX45 K G V L I S D D D D P H F A L R R F V L E P G A S V I H T N E V E H E Q Y V L S G G  
UniRef90\_UPI00035CA569 T A R L L G N E T G G S V S T L I E V T L D G A T P H Y H T L S E E L F Y V A E G G  
UniRef90\_J1AMX3 S R M I V N R P A G S I T L F S F D E D E G L S E H T A P Y D A V V T I L E G G  
UniRef90\_UPI000255AFA6 P P H V H T K E D E I F K V L E G G  
UniRef90\_UPI00022H435 G T I E R G K G A L P H H P G I E Q V C Y M L E G G  
UniRef90\_F4FC08 R V K V T G D Q T D G Q L S L L A F V D I A P G F G N R A H A H S E A F Y V A S G G  
UniRef90\_D6U5S0 T N I S C I W F I L P P G G G P H K H P Y E E F I M V Q E G G  
UniRef90\_UPI0004014FD8 I Y P H F T F E E G R R F E M Y V M E M D E E S E P H I D G A E E F I T V F E G G  
UniRef90\_J2UYW3 Y G E F E G S V I E G A D A S V M F Y T V N H G P R L H Q H P Y D E I E I V R Q G G  
UniRef90\_UPI00037A3AB9 F V D L P T R N V S M T V G G L V P G Q L T N R H R H T Y E T I E L Y V L E G G  
UniRef90\_X0N0C2 T M S V G L Y A L D A G T A D Q P H A Q D E V Y L V V S G G  
UniRef90\_I4EQE9 R V L L S P T S V G A T A G F M T L E P G E E V H W H P Y S E E F L Y C V S G G  
UniRef90\_R5R0K3 A G Q V V S K A Q N D A L S I T I F S F D K G E E I G T H S G D A M V T V L E G G  
UniRef90\_UPI0002DB79D7 L Y E L L S P S R N K A L E A M L I T L K P G K K S H A H S G E E I G Y I I T G G  
UniRef90\_C3MA39 N F E E A P G G L Y A W E S T P G K W R I A Y D E Y F V L E G G  
UniRef90\_R6ZJB8 T L A Q N D A L S V T L F S F D K G E E I S T H A S D A F V T C L D G G  
UniRef90\_UPI00037ABAC7 S L W V G H L E I E P G T H I H P D T E E A M V I V L E G G  
UniRef90\_W0P6J7 V G T L E Q N R G A L P H H P G I E Q V V Y I L S G G  
UniRef90\_X7FC05 A W H A T L P R G T F H I H P T Q D E F I Y V L E G G  
UniRef90\_D6U572 I K R L I D T T D G A R F V L S L F E V N G S T P P H Y H E W E H E I F I L E G G  
UniRef90\_F1ZCP6 Y A R L S G R H E E R K M E A L H I T V P P G P L A R R E G E G F W Y V L E G G  
UniRef90\_UPI00047E925E G S E L S S Y L L H V P A G Y A S E T V S H E E I Y V L E G G  
UniRef90\_E8W5V6 D V V T P P W N S T L C S I R P T E S S T P H G H A T D E T F I F I S G G  
UniRef90\_Q01QN4 K N F S I G N V T L E P G Q V P W H N E Q E E I G Y F I V S G G  
UniRef90\_UPI0004685005 V K E A L T P E G K Q L E L Y E L T L N P G A S S G T H T G E K A G Y I L S G G  
UniRef90\_B2T2Q0 F G R L T N L S V G G K L E V I L V R M Q N P S E V I T H A G E E F L Y V M S G G  
UniRef90\_D3EK17 I Y P Y F P Y E D G R R F E M Y S L E M E H G G Y A H I E G T E E F I T V F D G G  
UniRef90\_A7HE82 A S R V L A K K G T S N V T L F A F E K G Q G L T E H T S P F D A L V V L E G G  
UniRef90\_A0YW47 I G R V N S Q T E A A H M N S P S G W M E P G Q R P E F D E F T I V L K G G  
UniRef90\_D6TD15 N G Y L F Q G K D Y G D I P I S F F W M D E G P K L H Y H P D E D E F I V L E G G  
UniRef90\_K8AAD4 N T P I G S G Y C I V R P M T E T L R H D E D E L F I G I L E G G  
UniRef90\_Q6HSC4 V V S N V N S H C L R I A V F T G E Y D W H Y N S D E L F I V L E G G  
UniRef90\_H0HS88 Q T W N I E E A E G G V Y A G I W E S T P G K W R I E Y D E F C H I L S G G  
UniRef90\_UPI0002FB2843 I D R L I T P R A Q S K V Q V L R S H L I E P G A N G Y T I N C D E V L H V V S G G  
UniRef90\_D5SZ18 P L H I H S R E E E G F F V I E G G  
UniRef90\_UPI000474EE73 L K Q V Y N C S T T R N L G F L I E T Y Q P N S S T E E H E G E E I G T V I E G G  
UniRef90\_UPI00047E1573 I T P A V E K V D G G P L S A Y F G R G E R A D L P A P Y E E V W V V I R G G  
UniRef90\_D3PEG8 E T G S N F Y N H V G E E F G Y V L E G G  
UniRef90\_A2U2T1 Q V R V L D F D P G A F A P K H K H E E V I Y V L R G G  
UniRef90\_I1SAV0 D T L L S P P D D R R V T V L L E G G D E L Y H L P S Q E L C Y V V A G G  
UniRef90\_C7M2J9 I G R V L T L E A G A T S G P H G L V H S G H E F V I C L S G G  
UniRef90\_UPI000367ED6F W Q K E V S V F D W T F H E Q E Q A Y I L E G G  
UniRef90\_A3K8K8 A Q D E S R G G T V L T G I W E A T P G E T H I K G T T F E F C H I L S G G  
UniRef90\_F0LKHO V S R T I I D K K T G T V T V F A F D K D Q G L S E H T A P F D A L V Y I L S G G  
UniRef90\_E8UZD7 F K V L T R D T N G E L I I E H T P R H I H P N Q D E W F Y V I E G G  
UniRef90\_UPI0004782AB9 F A F E K G G E G W M H S H P H V I Q Y V A E G G  
UniRef90\_C7PBB5 F K T L V S P E Q G G S F A L L E M V L P Q G P A H L H E K E D E T F Y V L D G G  
UniRef90\_A5N519 L K E L I S Y Q E G P S V N I S L F S L D K G G I S T H S G D A M V Q I L D G G  
UniRef90\_D9S1S4 T L A Q G K N V N T L F A F D K G E E A H S S P G D A L V Q I L D G G  
UniRef90\_A1KBU8 A A E G G A L S I G D W A C E P G A W R F H P G R H E F F Q V L E G G  
UniRef90\_N9NES1 R L T Y S S Y E H P H M D C G I W Q C E I G A W Q F S D N K Q E F F Q V I E G G  
UniRef90\_A0A013XYE6 T W D S T P Y H R T Y R H Y E L M Y L L D G G  
UniRef90\_C6D5Q9 D P E S E M T F G M V Y I E A G Q S H I H P N C E E L I F V L S G G  
UniRef90\_X0RSY7 D P E S Q M T F G M V Y I E A G P R H I H P N C E E L I F V L S G G  
UniRef90\_UPI000368708E I T P V D Q P W C Q A H D E W V V V L K G

UniRef90\_K2IQK1 R L E I T V G E E R K L G P G D A Y Y F D S R T P H R F R G P E P C V M F S A  
UniRef90\_UPI0003B3CB70 T G E F F I N G E A T Q V K V G D M V F A E S N V L H G V R N T G K T R M I J F  
UniRef90\_I2BUU4 R C T F T D N G E D Q T L H L K A G D A L M L P A N S T G L W D I Q E T V R K T Y V  
UniRef90\_UPI0003082DB4 E A T F F V I E D G D Q T L K A T A G S F V S I P R G T K H A F Q I D E T A R L L N T  
UniRef90\_B2T2W5 E V V I T D D G R S E R Y A A G D A F I L H K G F S G T W H M P V A T K K Y S I  
UniRef90\_K8GNV5 R G E M R H L N E A Q F V L E R P G D A I Y I P P E N A R I R N H G A E P L V F I C L  
UniRef90\_K4KI55 E G R M R L G D K T F T L P P G D F V Q V P E G E V H  
UniRef90\_K9NKQ0 E G T F T D N G E T I Q F K P G D A L F F E A N S H G T W D I R E A V R K T Y L  
UniRef90\_G2NV76 T V H F T V G E T H V A P A G T L V M I P P G A P H T F H G D D Q A V V L N T  
UniRef90\_A5FV65 K F D L W L D G Q D L S A G P G D L V R M P M N R P H G I R S D A D V K C V F W  
UniRef90\_K1YTF0 M V Q V K T A K Q I F Q V H A G Q A I I S A G E W V Q Y S T P E G A E Y F A I  
UniRef90\_F8FHM3 E L T V R T D N A E Y T V K A G D A L R F K A D K P H D Y H N S G S V R M S M V  
UniRef90\_F1Z6G3 T L E L T V E G H T H V L K T A G D S F G F R S M R P H S Y R N P T E T V V I W A  
UniRef90\_C1CYJ4 R M G A L L G D Q V V Y A Q R G D L V F K P R N Q W H T F W N D E P C R I L E I  
UniRef90\_UPI00034A597A E T E F Q L D G Q S L T A T P G T F V H S P K G Q P H S F R N I G P A K F L C W  
UniRef90\_UPI00037F993C A L E V D L D G I T Y E L R P D Q G L M V P K N M R H R F R S D A D V R K V F Q  
UniRef90\_I4C873 R I E L Q V A D E T H V L K T G A S L H F N S G L K H F L K N L S H S K L I V V  
UniRef90\_UPI0002557CCF S A I I T P D G E P V E V G P G D A F V I E K D F V I G T W E I T A P I V K H F T  
UniRef90\_V9QU43 S V T L R A E G D S H H V R A G E T V I V P Q G A T N A W V S E E T V R K V F C  
UniRef90\_BOPEN9 R I K L N V D D E V M E M E E G D S Y Y L I D C S K S H Y S T E E T A R V L C V  
UniRef90\_UPI00046CEEC6 E C E L T V G N I T K H V S K N S A V F I E P N I E H S Y K N S D K L L K F L C  
UniRef90\_W5X583 F E W T L A G E V R R L S A G G F L S I P R G V H H R F V N V G D A S F V A W  
UniRef90\_UPI0003B65F10 S V T F V D E G R E Q T F R E G D I F L V E Q G A H C S W E S R E H V K K V Y A  
UniRef90\_C6DKQ1 E L L L T I N G G E P V V A Q P G T L V R M P A N I P H A V D A Q Q S S R M L  
UniRef90\_H6BK95 T L R F H L N G G Q T I D A K T G D Y V I V P T R S P H T F S N Q Q E A K F F N T  
UniRef90\_X0YBP3 E G S V L C K G S W K A F R P G D V I Y I P G E E H S F R A D R G C E V A F L  
UniRef90\_G2PCT6 D M E V D L D G E A H P L R P D Q A M L I P I N V R H R F R N V G E A R M V F H  
UniRef90\_G2FN78 Q Y T V I M H D K E Y V L N P G D E I L L I P K R T E  
UniRef90\_F9X8G8 S V R V S A A G E T F T L Q A G D V W F F P A G V P H N I Q A F G D G V E F L L  
UniRef90\_S9QG80 H V K L I D D G E E F R A G D S F L I P N G F R G T W H V L E T T T K H F V  
UniRef90\_J2W1S7 R S I I T E D G G E R H I E A G D S F V I K S G F R G T W E V L E T T R K E Y V  
UniRef90\_UPI0002FBF2D0 T V R L T D D G V A K T F G P G D S F V V A A G F K G T W E N L T P V R K V Y F  
UniRef90\_QORGV7 S L E F R S G G Q S R Q V G T G D F I H V P R G V G H S F R N N G A V R M V F L  
UniRef90\_A4YQR6 E C E D F W Q V G D K R R A T P G T Y L F L P P G V P H N I A N S A D A R V L M T  
UniRef90\_J2VTA8 A T E Y D V E G K P V T L R A G D V L F I P A G A V H A A K N V I G T  
UniRef90\_A6T5W2 E V E L T V G G E P Q R F A P G D S W F V K Q G T E V E W K  
UniRef90\_M0GX45 T Y T V G I G D E E Y D V E A G D S L L I P A G V P H W Y R N D E E G S F I C A  
UniRef90\_UPI00035CA569 E L Q V L T G D E I V T V G A G G A L L V P R F M P H A F G A A S P T R I L L I A  
UniRef90\_J1AMX3 E C E V W L A G E T H Q M T E G E T L I F P A N A P H A L S A V T P F K M M L I  
UniRef90\_UPI000255AFA6 K L E V T V G E T T T L E A G D L I F A P K N I P H S W K V V G D C K T I L S  
UniRef90\_A0A022H435 R A L A E V N G Q S R E L G P G D C C F F P A G S M H V F T V D E P V K L L V I  
UniRef90\_F4FC08 E F R F L N G S R D T L E V K A G S I V I V P A G V P H K F I N S G E G L  
UniRef90\_D6U5S0 Q A T F T V G S N D T L E V K A G S I V I V P A G V P H K F I N S G E G L  
UniRef90\_UPI0004014FD8 E V T I R V G E E D Y T V K Q G E S I R F R A D K P H A Y K N S G  
UniRef90\_J2UYW3 R A L F T V G E D Q Q I E A V A G Q D V F G P A N V P H K F I N L G P G R  
UniRef90\_UPI00037A3AB9 K G Y T E V E G E R V E W Q A G D A V Y I P S W A W H R H Q N T E P A R Y L A C  
UniRef90\_X0N0C2 R A A I T V G T E T E S V A R G S V V Y V P A G V P H K F H I S E D L R V V V V  
UniRef90\_I4EQE9 E V L V T L D G E E R L G G E Q A V H I P I G V R H R I V N D T A E Q A F F V  
UniRef90\_R5R0K3 V G K F T V S D G Q E Y V L K R G E T L V M P A N K V P H S Y G Q E A F K M L L V  
UniRef90\_UPI0002DB79D7 R L L Y T V G Q T T Y T L E A G D A I Y Y D A S L P H H Y K N D T D C V S I W V  
UniRef90\_C3MA39 H S I V T E N G G P V H L K A G D S M V L R P G F A G T W E V T E T T R K D Y V  
UniRef90\_R6ZJB8 M G E I T I D G V K Y E L K E G E S I V M P A G H P H A V Y G K E Q F K M L L V  
UniRef90\_UPI00037ABAC7 T L E A V L G D E V V T L G P G D T V L A P A G V K H G F V N R S E S K A  
UniRef90\_W0P6J7 T A D V E M D G E R G S M A G A G D C C F F P A D K K H I F T V P E P A R L L V I  
UniRef90\_X7FC05 R F D L L L N G V E T Y A E P G D L I R M P M G I P H G I K T E Q T I K C L F W  
UniRef90\_D6U572 S M T L Q L E K R D V K L N A G D V I F I P R N E P H G F G S D E T C R F L V  
UniRef90\_F1ZCP6 Q L S V W I L G Q E H F V L G P G D S A H F D Q R H P Y R M R N E G T V R M L W V  
UniRef90\_UPI00047E925E E I D Q T L D G Q T V R M R E G D S M Y S G H I A H S W T N P T K A R I L W T  
UniRef90\_E8W5V6 E G Y L R V G T E E R T I T P G D V V Y I P H G T D H V V T N T S G S E S I Y W  
UniRef90\_Q01QN4 T G E M C L G E E R M T L E T G Q A V Y I P S T V F H H Q L T N I G D T R M L Y C  
UniRef90\_UPI0004685005 S L R L W L D N Q A R H V L E A G D S F R F P S I V P H M F D N P T Q A R V I W V  
UniRef90\_B2T2Q0 Q I S L T L E G T T F V L Q A G D T A H Y E S T V P H S W S N T E A V V V W V  
UniRef90\_D3EK17 E V T I R V L H E E Y T V K Q G E S I T R M P A N V P H S L D A D E R T R M L L V  
UniRef90\_A7HE82 A M T L R L G G K P V A A P P G S I T R M P A N V P H S L D A D E R T R M L L V  
UniRef90\_A0YW47 M L R V E Y E G G E M E I H A G Q A V I A S K G E W V R Y S S P E G A E Y I A V  
UniRef90\_D6TD15 R A T F T V G E Q T L E V E A G N V V I G P A N V S P H K F S K A G E S L R L V T  
UniRef90\_K8AAD4 H A T V I I D D E T A Y P F T K G D Q V I F I P R G S H F V R N D G D A P F H F F  
UniRef90\_Q6HSC4 E L L I D F D G E T V V L K P N D S I L I P A C T I H R  
UniRef90\_H0HS88 V S V I E D G E A R T V R A G D S F V L R P G F K G T W E V V E T T R K E Y V  
UniRef90\_UPI0002FB2843 K V T V E F T G G T Q T L A A G D T L T F S G R E P H N W R N P G P A E V L W T  
UniRef90\_D5SZ18 E V T F Q I N D E T I V A G P G M F A N V P R G V K H C F R N E S D A R L L I T  
UniRef90\_UPI000474EE73 K I I R L R E E S T Y L L N Q G D S Y V I D T T Q P H T F I N P T D T R I V S A  
UniRef90\_UPI00047E1573 S L R I R S G R D I V E A G G F V Q V P E H S P G E L E A M D D T V L V C V  
UniRef90\_D3PEG8 E I V V V T G N E E Y V L K E G E S I Y F S S N L P H K I K N K T F A K A F W V  
UniRef90\_A2U2T1 K V E L I L G K E Q T I Q G K K G D I Y I P R G I P H G I K T N E T A K V L N Y  
UniRef90\_I1SAV0 A L E Y E V D G K A V T I Y E G E V I F I P A G V P H S A R N R G G  
UniRef90\_C7M2J9 R I E L V F A S E C Y T L D A G D S A T F A A D A A H T W R N D G E A R V L L W V  
UniRef90\_X1HDM9 Q L E Y E V I G G A P V S L S P G D S L F A S R L H R W R N P G K T V A  
UniRef90\_UPI000367ED6F E C V V T I G G A P V S F G K G D F V T F P A G L K V S W E V K Q P L H K H Y  
UniRef90\_A3K8K8 A T E I E T G G E T H K Y S A G D S F V M K P G F T G V W R T L E T V R K I Y V  
UniRef90\_F0LKHO K A E V V T S G K S Y Y L E E G D M I V M P A N E P H A L K A V D K F K M F L V  
UniRef90\_E8UZD7 K F L F E V G S G K R I V L R Q G E S I L L A P R Q I P H A W D G D K G K M L I S  
UniRef90\_UPI0004782AB9 L F E V T I D G R T E I L K A G D S F I V Q S G L R H G V K A L E K G R L V D C  
UniRef90\_C7PBB5 T V S F R I G S K T Y L A G A G E T I F A P R L I A H E F R T S S Q L H F I T L  
UniRef90\_A5N519 V A E I T I D N N T F T V K A G E A I I M P S N I P H A L E A G E R F K M L T  
UniRef90\_D9S1S4 E A E I T V G D R K F R L K A G Q M I V M P A G I P H A L Y A V I E R F K M F L A  
UniRef90\_A1KBU8 R I R I T D E G C A R E F G P G D A C V I P A G F A G V F E V L E A V K K R Y V  
UniRef90\_N9NES1 I V R L H D T N S F I E V T A G N A G I I P T F V I G T F E V I E A V K K Y Y V  
UniRef90\_A0A013XYE6 S V T F I D G G A Q G T F G K G D I F L V E Q G A S C S W S Q V H V K K I Y A  
UniRef90\_C6D5Q9 E C D H T L G D E I F H L E P G M M L R I P R G I P H N A T V T E P C R M I A  
UniRef90\_X0RSY7 E C E H S L G D E I H H L K P G M M L R I P Q D V P H  
UniRef90\_UPI000368708E E A G V I E V S G E V S E L Q P G D T L F I P A H A E H T F T A T D Q P T L W L A

UniRef90\_K2IQK1 C T P  
UniRef90\_UPI0003B3CB70  
UniRef90\_I2BUU4  
UniRef90\_UPI0003082DB4 Y V P A  
UniRef90\_B2T2W5 V Y  
UniRef90\_K8GNV5 V E P A W  
UniRef90\_K4KI55  
UniRef90\_K9NKQ0 I  
UniRef90\_G2NV76 F T P  
UniRef90\_A5FVB5 V A P  
UniRef90\_K1YTF0 C V P A  
UniRef90\_F8FHM3 I H Y A  
UniRef90\_F1Z6G3 V T P  
UniRef90\_C1CYJ4 I S P G  
UniRef90\_UPI00034A597A L T P  
UniRef90\_UPI00037F993C L A P  
UniRef90\_I4C873 V Y  
UniRef90\_UPI0002557CCF I  
UniRef90\_V9QU43 I  
UniRef90\_BOPEN9 T N P  
UniRef90\_UPI00046CEEC6 I T P H  
UniRef90\_W5X583 V T P A  
UniRef90\_UPI0003B65F10 I Y P A  
UniRef90\_C6DKQ1  
UniRef90\_H6BK95 Y T P A  
UniRef90\_X0YBP3 C  
UniRef90\_G2PCT6 L G P  
UniRef90\_G2FN78  
UniRef90\_F9X8G8 I F  
UniRef90\_S9QG80 I  
UniRef90\_J2W1S7 I  
UniRef90\_UPI0002FBF2D0 I  
UniRef90\_Q0RGV7 Y T P G  
UniRef90\_A4YQR6 V S P  
UniRef90\_J2VTA8  
UniRef90\_A6T5W2  
UniRef90\_M0GX45 V  
UniRef90\_UPI00035CA569 L T P G  
UniRef90\_J1AMX3  
UniRef90\_UPI000255AFA6 A F P A  
UniRef90\_A0A022H435 Y A P  
UniRef90\_F4FC08 Y S P A  
UniRef90\_D6U5S0  
UniRef90\_UPI0004014FD8  
UniRef90\_J2UYW3  
UniRef90\_UPI00037A3AB9  
UniRef90\_X0N0C2 F S P  
UniRef90\_I4EQE9  
UniRef90\_R5R0K3 V  
UniRef90\_UPI0002DB79D7 V T P  
UniRef90\_C3MA39 I  
UniRef90\_R6ZJB8 V  
UniRef90\_UPI00037ABAC7  
UniRef90\_W0P6J7 Y S P  
UniRef90\_X7FC05 V A P  
UniRef90\_D6U572 V A P  
UniRef90\_F1ZCP6 G T P A  
UniRef90\_UPI00047E925E G T  
UniRef90\_E8W5V6 L Q P A D  
UniRef90\_Q01QN4 Y G P A  
UniRef90\_UPI0004685005 T T  
UniRef90\_B2T2Q0 G T P  
UniRef90\_D3EK17  
UniRef90\_A7HE82  
UniRef90\_A0YW47 C L P A  
UniRef90\_D6TD15 I H P  
UniRef90\_K8AAD4 T  
UniRef90\_Q6HSC4  
UniRef90\_HOHS88 V  
UniRef90\_UPI0002FB2843 F V P A P W  
UniRef90\_D5SZ18 L A P A  
UniRef90\_UPI000474EE73 H T P  
UniRef90\_UPI00047E1573 S V P A  
UniRef90\_D3PEG8 G T P  
UniRef90\_A2U2T1 V I P G  
UniRef90\_I1SAV0  
UniRef90\_C7M2J9 L A P A  
UniRef90\_X1HDM9  
UniRef90\_UPI000367ED6F  
UniRef90\_A3K8K8 V  
UniRef90\_F0LKH0  
UniRef90\_E8UZD7 Y T P A  
UniRef90\_UPI0004782AB9 F T P H  
UniRef90\_C7PBB5 L T P G  
UniRef90\_A5N519 I  
UniRef90\_D9S1S4 V  
UniRef90\_A1KBU8  
UniRef90\_N9NES1 I  
UniRef90\_A0A013XYE6 I Y P A  
UniRef90\_C6D5Q9 Y S A P D  
UniRef90\_X0RSY7  
UniRef90\_UPI000368708E V H

	1	10	20	30	40
UniRef90_V5PQR4					
UniRef90_W7SNS2					
UniRef90_F6BZQ1					
UniRef90_D1P0G3					P E R L I S G N P A F K T W
UniRef90_T3DAJ9					
UniRef90_D7CWN8					P D S K D I
UniRef90_F2K809					E G E R L A G F P P G V E A Y
UniRef90_F3NGZ2					P F T P G S L G A N D P
UniRef90_Q46NQ0					
UniRef90_C6XDN6					
UniRef90_C6D075					F
UniRef90_UPI000370C08D					
UniRef90_UPI0003B5B8EA					M K V Y E L D T V E E R E L A P G F
UniRef90_Q898K6					
UniRef90_E6XCE1					V K K Y T I Q K T P F V V P T T D G K R I E E H
UniRef90_L9XCL1					E Y E P V D A A D G L E K G V
UniRef90_Q13H22					
UniRef90_UPI000465287E					
UniRef90_UPI0003468E8B					I I R S N E I E L A K T H F L N E N A K R T N K S
UniRef90_Q8KSW5					
UniRef90_D5WFX7					Q
UniRef90_UPI00041FEC5E					
UniRef90_R1GTA5					
UniRef90_G0FXQ1					G L P D A D I G
UniRef90_R0A0T9					
UniRef90_B8GJA4					
UniRef90_S9PCX4					M P T L I A A P T R V T S A G N K P K L I Y
UniRef90_I8ZWX4					
UniRef90_B4RDL5					
UniRef90_V9DGS2					T Y H L S Q Q E P L Q V G E P V S G V S
UniRef90_M0MDX3					E Y E P V D A A D G L E K G V
UniRef90_M1VWG5					E A P G G T V K
UniRef90_UPI0003717DB3					P S F V V H I P D A G L E P E P L D P A Q I V A G A P E V T
UniRef90_B2I46					N S Y K F A L M D Q T P I K T R S G T V R
UniRef90_S9S1U5					G G V Q
UniRef90_L0HE56					K G K V I R L P D L V E Y A D G T V A
UniRef90_Q6W103					P E R L I S G N P F F K T W
UniRef90_X1KFT5					V V
UniRef90_V2X5J2					
UniRef90_A4J4X8					
UniRef90_UPI00025567EE					V P L G E P V A
UniRef90_R5DM85					
UniRef90_L0MH28					P K V V I E A E D L I E I G S Q G V S
UniRef90_K9SWZ1					G D R T I
UniRef90_X0TEX8					
UniRef90_E4NJX2					E I L D S G G P D G S A H
UniRef90_D2S3S5					M T T I Q H P P S A K V R C G P T V H R A D T P P N R R R G G
UniRef90_H0JGE2					P E P E A T
UniRef90_I3D2Q1					S V Q R D S E I K S I Q G N E G T Q
UniRef90_UPI00037D025B					
UniRef90_UPI00041ACE27					K G K T F N L S E M I K Y S I G R V I
UniRef90_S4M8J6					V D L S E T E P N R K R G G D L R T L
UniRef90_UPI0004637868					
UniRef90_W1JMT0					
UniRef90_V4F896					A
UniRef90_UPI000475462A					
UniRef90_UPI00046A473A					
UniRef90_K4C3J0					
UniRef90_W9WH98					S G S A N T V V Y
UniRef90_J1SRL2					P E V G A P A A E R I I S G N P Q F
UniRef90_X5DJU0					
UniRef90_UPI0004791013					L I R V S D A L G V P L V R L V Q V A D E P P I R L F S P A R Q A V L W
UniRef90_UPI0003822155					E N G T Q V H
UniRef90_A4AF61					
UniRef90_A0A022KZZ6					
UniRef90_D6X9Z3					
UniRef90_X0N850					V D L S E T Q P N R R R G G D L R A M
UniRef90_C0D006					I F
UniRef90_UPI0002F17858					
UniRef90_D0MGN8					
UniRef90_W8QIJ4					E G Q
UniRef90_A8IPI3					P R Q T N K
UniRef90_MODTK4					T S G A
UniRef90_X5LWR8					P E S L R E G D P A E R E A
UniRef90_UPI00046620CF					R V I E G N P Q F R T W
UniRef90_UPI00016A4029					E S G E P T T S G
UniRef90_UPI0003957E66					
UniRef90_R1G4S3					P G G T V K
UniRef90_UPI0003F947E5					I D S V A T S K V Q H F N F D K M K S E T I G D G I Q
UniRef90_A9KLF4					Q V V F K R G D Y F E K V D N E L N N K
UniRef90_D3F2L8					
UniRef90_UPI000380CC3D					
UniRef90_Q21W54					
UniRef90_F8G0P5					
UniRef90_B8IME1					
UniRef90_I3E951					T F K H E L L K Q T P I K T P G G S V R
UniRef90_S6MSC7					G N F V I G N A R
UniRef90_UPI000469B3BC					V H F S S I S P I T E S N G H F K V Y
UniRef90_UPI0003671E0B					G D I F
UniRef90_UPI000475F634					Q V V V S Q D Q L I E L S D P K K N V S
UniRef90_W4EPG1					
UniRef90_D2R161					



UniRef90\_V5PQR4  
UniRef90\_W7SNS2  
UniRef90\_F6BZQ1  
UniRef90\_D1P0G3  
UniRef90\_T3DAJ9  
UniRef90\_D7CWN8  
UniRef90\_F2K809  
UniRef90\_F3NGZ2  
UniRef90\_Q46NQ0  
UniRef90\_C6XDN6  
UniRef90\_C6D075  
UniRef90\_UPI000370C08D  
UniRef90\_UPI0003B5B8EA  
UniRef90\_Q898K6  
UniRef90\_E6XCE1  
UniRef90\_L9XCL1  
UniRef90\_Q13H22  
UniRef90\_UPI000465287E  
UniRef90\_UPI0003468E8B  
UniRef90\_Q8KSW5  
UniRef90\_D5WFX7  
UniRef90\_UPI00041FEC5E  
UniRef90\_R1GTA5  
UniRef90\_G0FXQ1  
UniRef90\_ROA0T9  
UniRef90\_B8GJA4  
UniRef90\_S9PCX4  
UniRef90\_I8VWX4  
UniRef90\_B4RDL5  
UniRef90\_V9DGS2  
UniRef90\_M0MDX3  
UniRef90\_M1VVG5  
UniRef90\_UPI0003717DB3  
UniRef90\_B2I46  
UniRef90\_S9S1U5  
UniRef90\_L0HE56  
UniRef90\_Q6W103  
UniRef90\_X1KFT5  
UniRef90\_V2X5J2  
UniRef90\_A4J4X8  
UniRef90\_UPI00025567EE  
UniRef90\_R5DM85  
UniRef90\_L0MH28  
UniRef90\_K9SWZ1  
UniRef90\_X0TEX8  
UniRef90\_E4NJS2  
UniRef90\_D2S3S5  
UniRef90\_H0JGE2  
UniRef90\_I3D2Q1  
UniRef90\_UPI00037D025B  
UniRef90\_UPI00041ACE27  
UniRef90\_S4M8J6  
UniRef90\_UPI0004637868  
UniRef90\_W1JMT0  
UniRef90\_V4F896  
UniRef90\_UPI000475462A  
UniRef90\_UPI00046A473A  
UniRef90\_K4C3J0  
UniRef90\_W9WH98  
UniRef90\_J1SRL2  
UniRef90\_X5DJU0  
UniRef90\_UPI0004791013  
UniRef90\_UPI0003822155  
UniRef90\_A4AF61  
UniRef90\_A0A022KZZ6  
UniRef90\_D6X9Z3  
UniRef90\_X0N850  
UniRef90\_C0D006  
UniRef90\_UPI0002F17858  
UniRef90\_DOMGN8  
UniRef90\_W8QIJ4  
UniRef90\_A8IP13  
UniRef90\_M0DTK4  
UniRef90\_X5LWR8  
UniRef90\_UPI00046620CF  
UniRef90\_UPI00016A4029  
UniRef90\_UPI0003957E66  
UniRef90\_R1G4S3  
UniRef90\_UPI0003F947E5  
UniRef90\_A9KLF4  
UniRef90\_D3F2L8  
UniRef90\_UPI000380CC3D  
UniRef90\_Q21W54  
UniRef90\_F8G0P5  
UniRef90\_B8IME1  
UniRef90\_I3E951  
UniRef90\_S6MSC7  
UniRef90\_UPI000469B3BC  
UniRef90\_UPI0003671E0B  
UniRef90\_UPI000475F634  
UniRef90\_W4EPG1  
UniRef90\_D2R161

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

UniRef90\_V5PQR4  
UniRef90\_W7SNS2  
UniRef90\_F6BZQ1  
UniRef90\_D1P0G3  
UniRef90\_T3DAJ9  
UniRef90\_D7CWN8  
UniRef90\_F2K809  
UniRef90\_F3NGZ2  
UniRef90\_Q46NQ0  
UniRef90\_C6XDN6  
UniRef90\_C6D075  
UniRef90\_UPI000370C08D  
UniRef90\_UPI0003B5B8EA  
UniRef90\_Q898K6  
UniRef90\_E6XCE1  
UniRef90\_L9XCL1  
UniRef90\_Q13H22  
UniRef90\_UPI000465287E  
UniRef90\_UPI0003468E8B  
UniRef90\_Q8KSW5  
UniRef90\_D5WFX7  
UniRef90\_UPI00041FEC5E  
UniRef90\_R1GTA5  
UniRef90\_G0FXQ1  
UniRef90\_ROA0T9  
UniRef90\_B8GJA4  
UniRef90\_S9PCX4  
UniRef90\_I8ZWX4  
UniRef90\_B4RDL5  
UniRef90\_V9DGS2  
UniRef90\_M0MDX3  
UniRef90\_M1VVG5  
UniRef90\_UPI0003717DB3  
UniRef90\_B2I46  
UniRef90\_S9S1U5  
UniRef90\_L0HE56  
UniRef90\_Q6W103  
UniRef90\_X1KFT5  
UniRef90\_V2X5J2  
UniRef90\_A4J4X8  
UniRef90\_UPI00025567EE  
UniRef90\_L5DM85  
UniRef90\_L0MH28  
UniRef90\_K9SWZ1  
UniRef90\_X0TEX8  
UniRef90\_E4NSJ2  
UniRef90\_D2S3S5  
UniRef90\_H0JGE2  
UniRef90\_I3D2Q1  
UniRef90\_UPI00037D025B  
UniRef90\_UPI00041ACE27  
UniRef90\_S4M8J6  
UniRef90\_UPI0004637868  
UniRef90\_W1JMT0  
UniRef90\_V4F896  
UniRef90\_UPI000475462A  
UniRef90\_UPI00046A473A  
UniRef90\_K4C3J0  
UniRef90\_W9WH98  
UniRef90\_J1SRL2  
UniRef90\_X5DJU0  
UniRef90\_UPI0004791013  
UniRef90\_UPI0003822155  
UniRef90\_A4AF61  
UniRef90\_A0A022KZZ6  
UniRef90\_D6X9Z3  
UniRef90\_X0N850  
UniRef90\_C0D006  
UniRef90\_UPI0002F17858  
UniRef90\_DOMGN8  
UniRef90\_W8QIJ4  
UniRef90\_A8IP13  
UniRef90\_M0DTK4  
UniRef90\_X5LWR8  
UniRef90\_UPI00046620CF  
UniRef90\_UPI00016A4029  
UniRef90\_UPI0003957E66  
UniRef90\_R1G4S3  
UniRef90\_UPI0003F947E5  
UniRef90\_A9KLF4  
UniRef90\_D3F2L8  
UniRef90\_UPI000380CC3D  
UniRef90\_Q21W54  
UniRef90\_F8G0P5  
UniRef90\_B8IME1  
UniRef90\_I3E951  
UniRef90\_S6MSC7  
UniRef90\_UPI000469B3BC  
UniRef90\_UPI0003671E0B  
UniRef90\_UPI000475F634  
UniRef90\_W4EPG1  
UniRef90\_D2R161

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

UniRef90_V5PQR4	V S			
UniRef90_W7SNS2	I T	P	G	
UniRef90_F6BZQ1	T			
UniRef90_D1P0G3	Y T	P		
UniRef90_T3DAJ9	I			
UniRef90_D7CWN8	N A	P H S W		
UniRef90_F2K809				
UniRef90_F3NGZ2				
UniRef90_Q46NQ0				
UniRef90_C6XDN6				
UniRef90_C6D075	A Y			
UniRef90_UPI000370C08D	V S			
UniRef90_UPI0003B5B8EA	F C	P		
UniRef90_Q898K6	V			
UniRef90_E6XCE1	C L	P A		
UniRef90_L9XCL1	V			
UniRef90_Q13H22	I F			
UniRef90_UPI000465287E	I I	P		
UniRef90_UPI0003468E8B				
UniRef90_Q8KSW5	L S	P		
UniRef90_D5WFX7	G S	P		
UniRef90_UPI00041FEC5E	S S	P G		
UniRef90_R1GTA5	V			
UniRef90_G0FXQ1	V			
UniRef90_R0A0T9	I			
UniRef90_B8GJA4				
UniRef90_S9PCX4	C L	P A		
UniRef90_I8ZWX4	N T	P A		
UniRef90_B4RDL5	I F			
UniRef90_V9DGS2				
UniRef90_M0MDX3	C			
UniRef90_M1VWG5				
UniRef90_UPI0003717DB3	I T			
UniRef90_B2I46	F T			
UniRef90_S9S1U5				
UniRef90_L0HE56				
UniRef90_Q6W103	C			
UniRef90_X1KFT5				
UniRef90_V2X5J2				
UniRef90_A4J4X8	V			
UniRef90_UPI00025567EE				
UniRef90_R5DM85				
UniRef90_L0MH28	H T	P		
UniRef90_K9SWZ1	V D	P A W		
UniRef90_X0TEX8	A S	P A W		
UniRef90_E4NJS2	F A	P A		
UniRef90_D2S3S5	C G	P		
UniRef90_H0JGE2	I			
UniRef90_I3D2Q1	V E	P A W		
UniRef90_UPI00037D025B	V T			
UniRef90_UPI00041ACE27				
UniRef90_S4M8J6	F H			
UniRef90_UPI0004637868				
UniRef90_W1JMT0	I T	P		
UniRef90_V4F896	I Y			
UniRef90_UPI000475462A	I A	P		
UniRef90_UPI00046A473A	C T	P		
UniRef90_K4C3J0				
UniRef90_W9WH98				
UniRef90_J1SRL2	I			
UniRef90_X5DJU0	V T	P P N		
UniRef90_UPI0004791013	V			
UniRef90_UPI0003822155	F T	P G		
UniRef90_A4AF61				
UniRef90_A0A022KZZ6	I V	P G		
UniRef90_D6X9Z3	L G	P		
UniRef90_X0N850	L G	P		
UniRef90_C0D006				
UniRef90_UPI0002F17858	I T	P G		
UniRef90_D0MGN8	F S	P P D W		
UniRef90_W8QIJ4	L L	P G		
UniRef90_A8IPI3				
UniRef90_MODTK4	S A	P A		
UniRef90_X5LWR8	I Y			
UniRef90_UPI00046620CF	V			
UniRef90_UPI00016A4029	I F			
UniRef90_UPI0003957E66	Y S	P		
UniRef90_R1G4S3				
UniRef90_UPI0003F947E5	H  V P	V D W		
UniRef90_A9KLF4	S T	P		
UniRef90_D3F2L8				
UniRef90_UPI000380CC3D	F F	P H		
UniRef90_Q21W54	N T	P		
UniRef90_F8G0P5	I			
UniRef90_B8IME1	C T	P		
UniRef90_I3E951				
UniRef90_S6MSC7				
UniRef90_UPI000469B3BC				
UniRef90_UPI0003671E0B				
UniRef90_UPI000475F634	H T	P A		
UniRef90_W4EPG1				
UniRef90_D2R161	F H	P		

UniRef90\_A7HPR7  
 UniRef90\_M0EJG4  
 UniRef90\_W4E732  
 UniRef90\_A0A037XIF4  
 UniRef90\_UPI000476D983  
 UniRef90\_UPI0003F67930  
 UniRef90\_UPI0003B715FC  
 UniRef90\_I6B1S3  
 UniRef90\_F4CRM8  
 UniRef90\_UPI00037C697B  
 UniRef90\_UPI00029B28D9  
 UniRef90\_L0H9A9  
 UniRef90\_E5WL09  
 UniRef90\_K0WHS9  
 UniRef90\_B4EMU4  
 UniRef90\_K2DZ97  
 UniRef90\_H0Q3W5  
 UniRef90\_UPI000478F90C  
 UniRef90\_UPI0003B6FF5E  
 UniRef90\_F0K914  
 UniRef90\_N9XGQ9  
 UniRef90\_N8U0J2  
 UniRef90\_UPI000406965C  
 UniRef90\_A8TMW2  
 UniRef90\_UPI00024837A4  
 UniRef90\_UPI00037576DD  
 UniRef90\_I4A5M6  
 UniRef90\_L7U1E3  
 UniRef90\_UPI0003778E57  
 UniRef90\_W0NDZ7  
 UniRef90\_UPI00029A936A  
 UniRef90\_Q5FTE9  
 UniRef90\_V4PD29  
 UniRef90\_X5LZ68  
 UniRef90\_G7DI70  
 UniRef90\_UPI0003797C44  
 UniRef90\_K6A106  
 UniRef90\_E1SIJ3  
 UniRef90\_M0CUU5  
 UniRef90\_A8LG54  
 UniRef90\_V8BKW5  
 UniRef90\_UPI000262E4D1  
 UniRef90\_Q0W7L8  
 UniRef90\_I2MUT3  
 UniRef90\_R7JU65  
 UniRef90\_I0JIC3  
 UniRef90\_A0A024HFx7  
 UniRef90\_G5IM24  
 UniRef90\_V2E5C0  
 UniRef90\_A3XKK6  
 UniRef90\_V9VP78  
 UniRef90\_M0EFC1  
 UniRef90\_W9XC57  
 UniRef90\_Q8RFx4  
 UniRef90\_L0JWA0  
 UniRef90\_UPI0002F5DD1C  
 UniRef90\_E1YJ35  
 UniRef90\_D5BNJ9  
 UniRef90\_H0P428  
 UniRef90\_W4LFZ6  
 UniRef90\_I3R6C5  
 UniRef90\_G9XD75  
 UniRef90\_F7UAH7  
 UniRef90\_A7BQE2  
 UniRef90\_UPI000366552D  
 UniRef90\_UPI000381E298  
 UniRef90\_A4X7U7  
 UniRef90\_F4XZ21  
 UniRef90\_T5KBW6  
 UniRef90\_F5LRV0  
 UniRef90\_V9HHG5  
 UniRef90\_A0A016P6H5  
 UniRef90\_UPI0003A3FB5D  
 UniRef90\_R7ERJ1  
 UniRef90\_V2Y750  
 UniRef90\_S6EPG4  
 UniRef90\_M5PA22  
 UniRef90\_W6RX87  
 UniRef90\_UPI0002F5EB38  
 UniRef90\_U1H628  
 UniRef90\_X7EKE3  
 UniRef90\_K0DVZ2  
 UniRef90\_G0H1U3  
 UniRef90\_UPI000466128B  
 UniRef90\_UPI0003758AA1  
 UniRef90\_F8TBT4  
 UniRef90\_F0T2L1  
 UniRef90\_B3RCZ6  
 UniRef90\_L7F6V0  
 UniRef90\_V7I6R2  
 UniRef90\_Y1HD95  
 UniRef90\_D8Q473

1  
 10  
 20  
 30  
 40

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

UniRef90\_A7HPR7  
UniRef90\_M0EJG4  
UniRef90\_W4E732  
UniRef90\_A0A037XIF4  
UniRef90\_UPI000476D983  
UniRef90\_UPI0003F67930  
UniRef90\_UPI0003B715FC  
UniRef90\_I6B1S3  
UniRef90\_F4CRM8  
UniRef90\_UPI00037C697B  
UniRef90\_UPI00029B28D9  
UniRef90\_L0H9A9  
UniRef90\_E5WL09  
UniRef90\_K0WHS9  
UniRef90\_B4EMU4  
UniRef90\_K2DZ97  
UniRef90\_H0Q3W5  
UniRef90\_UPI000478F90C  
UniRef90\_UPI0003B6FF5E  
UniRef90\_F0K914  
UniRef90\_N9XGQ9  
UniRef90\_N8U0J2  
UniRef90\_UPI000406965C  
UniRef90\_A8TMW2  
UniRef90\_UPI00024837A4  
UniRef90\_UPI00037576DD  
UniRef90\_I4A5M6  
UniRef90\_L7U1E3  
UniRef90\_UPI0003778E57  
UniRef90\_WONDZ7  
UniRef90\_UPI00029A936A  
UniRef90\_Q5FTE9  
UniRef90\_V4PD29  
UniRef90\_X5LZ68  
UniRef90\_G7DI70  
UniRef90\_UPI0003797C44  
UniRef90\_K6A106  
UniRef90\_E1SIJ3  
UniRef90\_M0CUU5  
UniRef90\_A8LG54  
UniRef90\_V8BKW5  
UniRef90\_UPI000262E4D1  
UniRef90\_Q0W7L8  
UniRef90\_I2MUT3  
UniRef90\_R7JU65  
UniRef90\_I0JIC3  
UniRef90\_A0A024HF7  
UniRef90\_G5IM24  
UniRef90\_W2E5C0  
UniRef90\_A3XKK6  
UniRef90\_V9VP78  
UniRef90\_M0EFC1  
UniRef90\_W9XC57  
UniRef90\_Q8RF74  
UniRef90\_L0JWA0  
UniRef90\_UPI0002F5DD1C  
UniRef90\_E1YJ35  
UniRef90\_D5BNJ9  
UniRef90\_H0P428  
UniRef90\_W4LFZ6  
UniRef90\_I3R6C5  
UniRef90\_G9XD75  
UniRef90\_F7UAH7  
UniRef90\_A7BQE2  
UniRef90\_UPI000366552D  
UniRef90\_UPI000381E298  
UniRef90\_A4X7U7  
UniRef90\_F4XZ21  
UniRef90\_T5KBW6  
UniRef90\_F5LRV0  
UniRef90\_V9HHG5  
UniRef90\_A0A016P6H5  
UniRef90\_UPI0003A3FB5D  
UniRef90\_R7ERJ1  
UniRef90\_V2Y750  
UniRef90\_S6EPG4  
UniRef90\_M5PA22  
UniRef90\_W6RX87  
UniRef90\_UPI0002F5EB38  
UniRef90\_U1H628  
UniRef90\_X7EKE3  
UniRef90\_K0DVZ2  
UniRef90\_G0H1U3  
UniRef90\_UPI000466128B  
UniRef90\_UPI0003758AA1  
UniRef90\_F8TBT4  
UniRef90\_F0T2L1  
UniRef90\_B3RCZ6  
UniRef90\_L7F6V0  
UniRef90\_V7I6R2  
UniRef90\_Y1HD95  
UniRef90\_D8Q473

50 60 70 80

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



UniRef90\_A7HPR7  
UniRef90\_M0EJG4  
UniRef90\_W4E732  
UniRef90\_A0A037XF4  
UniRef90\_UPI000476D983  
UniRef90\_UPI0003F67930  
UniRef90\_UPI0003B715FC  
UniRef90\_I6B1S3  
UniRef90\_F4CRM8  
UniRef90\_UPI000293C697B  
UniRef90\_UPI00029B28D9  
UniRef90\_L0H9A9  
UniRef90\_E5WL09  
UniRef90\_K0WHS9  
UniRef90\_B4EMU4  
UniRef90\_K2DZ97  
UniRef90\_H0Q3W5  
UniRef90\_UPI000478F90C  
UniRef90\_UPI0003B6FF5E  
UniRef90\_F0K914  
UniRef90\_N9XGQ9  
UniRef90\_N8U0J2  
UniRef90\_UPI000406965C  
UniRef90\_A8TMW2  
UniRef90\_UPI00024837A4  
UniRef90\_UPI00037576DD  
UniRef90\_I4A5M6  
UniRef90\_L7U1E3  
UniRef90\_UPI0003778E57  
UniRef90\_W0NDZ7  
UniRef90\_UPI00029A936A  
UniRef90\_Q5FTE9  
UniRef90\_V4PD29  
UniRef90\_X5LZ68  
UniRef90\_G7DI70  
UniRef90\_UPI0003797C44  
UniRef90\_K6A106  
UniRef90\_E1SIJ3  
UniRef90\_M0CUU5  
UniRef90\_A8LG54  
UniRef90\_V8BKW5  
UniRef90\_UPI000262E4D1  
UniRef90\_Q0W7L8  
UniRef90\_I2MUT3  
UniRef90\_R7JU65  
UniRef90\_I0JIC3  
UniRef90\_A0A024HF7  
UniRef90\_G5IM24  
UniRef90\_W2E5C0  
UniRef90\_A3XKK6  
UniRef90\_V9VP78  
UniRef90\_M0EFC1  
UniRef90\_W9XC57  
UniRef90\_Q8RFX4  
UniRef90\_L0JWA0  
UniRef90\_UPI0002F5DD1C  
UniRef90\_E1YJ35  
UniRef90\_D5BNJ9  
UniRef90\_H0P428  
UniRef90\_W4LFZ6  
UniRef90\_I3R6C5  
UniRef90\_G9XD75  
UniRef90\_F7UAH7  
UniRef90\_A7BQE2  
UniRef90\_UPI000366552D  
UniRef90\_UPI000381E298  
UniRef90\_A4X7U7  
UniRef90\_F4XZ21  
UniRef90\_T5KBW6  
UniRef90\_F5LRV0  
UniRef90\_V9HHG5  
UniRef90\_A0A016P6H5  
UniRef90\_UPI0003A3FB5D  
UniRef90\_R7ERJ1  
UniRef90\_V2Y750  
UniRef90\_S6EPG4  
UniRef90\_M5PA22  
UniRef90\_W6RX87  
UniRef90\_UPI0002F5EB38  
UniRef90\_U1H628  
UniRef90\_X7EKE3  
UniRef90\_K0DVZ2  
UniRef90\_G0H1U3  
UniRef90\_UPI000466128B  
UniRef90\_UPI0003758AA1  
UniRef90\_F8TBT4  
UniRef90\_F0T2L1  
UniRef90\_B3RCZ6  
UniRef90\_L7F6V0  
UniRef90\_V7I6R2  
UniRef90\_Y1HD95  
UniRef90\_D8Q473

UniRef90_A7HPR7	C T P
UniRef90_M0EJG4	V
UniRef90_W4E732	
UniRef90_A0A037XIF4	
UniRef90_UPI000476D983	M V P
UniRef90_UPI0003F67930	Y T P G
UniRef90_UPI0003B715FC	S L P
UniRef90_I6B1S3	
UniRef90_F4CRM8	L V P A
UniRef90_UPI00037C697B	L G P
UniRef90_UPI00029B28D9	V T P A
UniRef90_L0H9A9	V S P
UniRef90_E5WL09	F Y P A E
UniRef90_KOWHS9	S T
UniRef90_B4EMU4	
UniRef90_K2DZ97	
UniRef90_HOQ3W5	I Y P A
UniRef90_UPI000478F90C	C T P
UniRef90_UPI0003B6FF5E	V
UniRef90_F0K914	S T P
UniRef90_N9XGQ9	
UniRef90_N8U0J2	
UniRef90_UPI000406965C	C T P
UniRef90_A8TMW2	T H P A D W
UniRef90_UPI00024837A4	
UniRef90_UPI00037576DD	
UniRef90_I4A5M6	I Y
UniRef90_L7U1E3	
UniRef90_UPI0003778E57	
UniRef90_W0NDZ7	V S P
UniRef90_UPI00029A936A	I I P A
UniRef90_Q5FTE9	C T P
UniRef90_V4PD29	A
UniRef90_X5LZ68	
UniRef90_G7DI70	
UniRef90_UPI0003797C44	I T P
UniRef90_K6A106	
UniRef90_E1SIJ3	H T P A N
UniRef90_M0CUU5	G A P K D
UniRef90_A8LG54	S S P G G W
UniRef90_V8BKW5	A
UniRef90_UPI000262E4D1	
UniRef90_Q0W7L8	
UniRef90_I2MUT3	S S P
UniRef90_R7JU65	F N P A
UniRef90_I0JIC3	
UniRef90_A0A024HFX7	V
UniRef90_G5IM24	S S P
UniRef90_W2E5C0	
UniRef90_A3XKK6	F S P
UniRef90_V9VP78	G T P A E
UniRef90_M0EFC1	
UniRef90_W9XC57	V I P S E
UniRef90_Q8RFX4	V S P
UniRef90_L0JWA0	L A P P D W
UniRef90_UPI0002F5DD1C	I F
UniRef90_E1YJ35	I Y
UniRef90_D5BNJ9	I F
UniRef90_H0P428	
UniRef90_W4LFZ6	L M P G
UniRef90_I3R6C5	S T
UniRef90_G9XD75	I F P S E
UniRef90_F7UAH7	I
UniRef90_A7BQE2	
UniRef90_UPI000366552D	L T P A
UniRef90_UPI000381E298	
UniRef90_A4X7U7	F H
UniRef90_F4XZ21	
UniRef90_T5KBW6	
UniRef90_F5LRV0	
UniRef90_V9HHG5	A
UniRef90_A0A016P6H5	
UniRef90_UPI0003A3FB5D	I
UniRef90_R7ERJ1	V S
UniRef90_V2Y750	
UniRef90_S6EPG4	
UniRef90_M5PA22	
UniRef90_W6RX87	S T P
UniRef90_UPI0002F5EB38	V
UniRef90_U1H628	C T P
UniRef90_X7EKE3	
UniRef90_K0DVZ2	
UniRef90_G0H1U3	I Y
UniRef90_UPI000466128B	V P P
UniRef90_UPI0003758AA1	
UniRef90_F8TBT4	F T P G
UniRef90_F0T2L1	V
UniRef90_B3RCZ6	
UniRef90_L7F6V0	T T P G
UniRef90_V7I6R2	
UniRef90_Y1HD95	
UniRef90_D8Q473	T

UniRef90\_A9P212  
UniRef90\_UPI00045E6A82  
UniRef90\_B9QZ35  
UniRef90\_B9K1L0  
UniRef90\_K6XLB6  
UniRef90\_UPI000407995C  
UniRef90\_F4C8T8  
UniRef90\_UPI00037D6BBF  
UniRef90\_UPI00044153C9  
UniRef90\_F7ZIH4  
UniRef90\_F2AEB8  
UniRef90\_UPI00041E0181  
UniRef90\_I1XGB6  
UniRef90\_A6X2T5  
UniRef90\_UPI000370ECE4  
UniRef90\_L0R525  
UniRef90\_K2RKT9  
UniRef90\_C7NWU6  
UniRef90\_K2MN94  
UniRef90\_R6ISW9  
UniRef90\_D2SYZ8  
UniRef90\_A0A023XUL9  
UniRef90\_D8HIF3  
UniRef90\_I4C0Q3  
UniRef90\_R3TMV3  
UniRef90\_L8PKS3  
UniRef90\_G2WY50  
UniRef90\_A3K8C9  
UniRef90\_V6ATM6  
UniRef90\_UPI0004021DFE  
UniRef90\_B2J8L8  
UniRef90\_B1T1E6  
UniRef90\_UPI000467CDA5  
UniRef90\_Q0RZZ3  
UniRef90\_W9GDP4  
UniRef90\_UPI0003B49BBA  
UniRef90\_Q9FCA5  
UniRef90\_F2JU90  
UniRef90\_B5EIW7  
UniRef90\_W1N0S7  
UniRef90\_I0I732  
UniRef90\_C6BCN4  
UniRef90\_A8TWQ8  
UniRef90\_I1PMX5  
UniRef90\_UPI00029CC4E0  
UniRef90\_H1V6K2  
UniRef90\_UPI00026275F5  
UniRef90\_M1ACT8  
UniRef90\_C6C2Z0  
UniRef90\_R5KX51  
UniRef90\_C3H108  
UniRef90\_L0JWL1  
UniRef90\_UPI0004648C67  
UniRef90\_L5K1L7  
UniRef90\_UPI00037BFFC4  
UniRef90\_F8B666  
UniRef90\_I2GLF0  
UniRef90\_N9X126  
UniRef90\_B5YB44  
UniRef90\_UPI0004299A03  
UniRef90\_F8F491  
UniRef90\_A1U2J4  
UniRef90\_UPI00046A64DB  
UniRef90\_D6U7X2  
UniRef90\_F8F8T2  
UniRef90\_UPI00045E5929  
UniRef90\_D3CYF8  
UniRef90\_UPI000373013C  
UniRef90\_T0LMU4  
UniRef90\_M0W117  
UniRef90\_A3JYP4  
UniRef90\_UPI00035E9BC7  
UniRef90\_E4N4H9  
UniRef90\_UPI0003B598D8  
UniRef90\_K0Q1Q7  
UniRef90\_M2QDP8  
UniRef90\_UPI00042B3B02  
UniRef90\_S0FYM1  
UniRef90\_Q307N7  
UniRef90\_B8KXZ4  
UniRef90\_N1PT54  
UniRef90\_C1DUM8  
UniRef90\_R4SXH2  
UniRef90\_B2JTA8  
UniRef90\_S7ZF55  
UniRef90\_F8NWL4  
UniRef90\_R6EDM8  
UniRef90\_J5HD65  
UniRef90\_L9WB09  
UniRef90\_W6XAD2  
UniRef90\_UPI0002E44349  
UniRef90\_UPI000440CB69

1

10

20

30

40

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

UniRef90\_A9P212  
UniRef90\_UPI00045E6A82  
UniRef90\_B9QZ35  
UniRef90\_B9K1L0  
UniRef90\_K6XLB6  
UniRef90\_UPI000407995C  
UniRef90\_F4C8T8  
UniRef90\_UPI00037D6BBF  
UniRef90\_UPI00044153C9  
UniRef90\_F7ZIH4  
UniRef90\_F2AEB8  
UniRef90\_UPI00041E0181  
UniRef90\_I1XGB6  
UniRef90\_A6X2T5  
UniRef90\_UPI000370ECE4  
UniRef90\_L0R525  
UniRef90\_K2RKT9  
UniRef90\_C7NWXU6  
UniRef90\_K2MNN94  
UniRef90\_R6ISW9  
UniRef90\_D2SYZ8  
UniRef90\_A0A023XUL9  
UniRef90\_D8HIF3  
UniRef90\_I4COQ3  
UniRef90\_R3TMV3  
UniRef90\_L8PKS3  
UniRef90\_G2WY50  
UniRef90\_A3K8C9  
UniRef90\_V6ATM6  
UniRef90\_UPI0004021DFE  
UniRef90\_B2J8L8  
UniRef90\_B1T1E6  
UniRef90\_UPI000467CDA5  
UniRef90\_Q0RZZ3  
UniRef90\_W9GDP4  
UniRef90\_UPI0003B49BBA  
UniRef90\_Q9FCA5  
UniRef90\_F2JU90  
UniRef90\_B5EIW7  
UniRef90\_W1N0S7  
UniRef90\_I0I732  
UniRef90\_C6BCN4  
UniRef90\_A8TWQ8  
UniRef90\_I1PMX5  
UniRef90\_UPI00029CC4E0  
UniRef90\_H1V6K2  
UniRef90\_UPI00026275F5  
UniRef90\_M1ACT8  
UniRef90\_C6CZ20  
UniRef90\_R5KX51  
UniRef90\_C3H108  
UniRef90\_L0JWL1  
UniRef90\_UPI0004648C67  
UniRef90\_L5K1L7  
UniRef90\_UPI00037BFFC4  
UniRef90\_F8B666  
UniRef90\_I2GLF0  
UniRef90\_N9X126  
UniRef90\_B5YB44  
UniRef90\_UPI0004299A03  
UniRef90\_F8F491  
UniRef90\_A1U2J4  
UniRef90\_UPI00046A64DB  
UniRef90\_D6U7X2  
UniRef90\_F8F8T2  
UniRef90\_UPI00045E5929  
UniRef90\_D3CYF8  
UniRef90\_UPI000373013C  
UniRef90\_T0LMU4  
UniRef90\_M0W117  
UniRef90\_A3JYP4  
UniRef90\_UPI00035E9BC7  
UniRef90\_E4N4H9  
UniRef90\_UPI0003B598D8  
UniRef90\_K0Q1Q7  
UniRef90\_M2QDP8  
UniRef90\_UPI00042B3B02  
UniRef90\_S0FYM1  
UniRef90\_Q307N7  
UniRef90\_B8KXZ4  
UniRef90\_N1PT54  
UniRef90\_C1DUM8  
UniRef90\_R4SXH2  
UniRef90\_B2JTA8  
UniRef90\_S7ZF55  
UniRef90\_F8NWL4  
UniRef90\_R6EDM8  
UniRef90\_J5HD65  
UniRef90\_L9WB09  
UniRef90\_W6XAD2  
UniRef90\_UPI0002E44349  
UniRef90\_UPI000440CB69

50 60 70 80

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

UniRef90\_A9P212 K V R V C V K G S S V E L T A G D L V V L P K G L S C I W D V S V A V D K H Y T  
UniRef90\_UPI00045E6A82 A L R V D A L D K Q N L L E E G A L L K I P K G E W H R W E T P S H V L F L F  
UniRef90\_B9QZ35 R Y L Y E M D G H R F V Y A E E G D L V L T I P S G A I Y A F R N E T D A R Q L I T  
UniRef90\_B9X1L0 V V E I T P E G E R F V I Y K A G D H F I M K P G F V G V W K T I E T V K K I Y V  
UniRef90\_K6XLB6 E F H F N I D G V T K L L K A G D S C L I P P H A D H G A T C P T G G I L I D T  
UniRef90\_UPI000407995C T G W I Q A G G E K Q A L K P G D V I W T P P G V K H W H G A T S T T  
UniRef90\_F4C8T8 A G E Q R I N E N K F T Y Q A G D M F L L T P G D S H C F D I Q E T T T F F F  
UniRef90\_UPI00037D6BBF V G C T T I D G Q S Y A L K A G E S I V M P A H H P H A V H G T E N F K M L L V  
UniRef90\_UPI00044153C9 T G S L W L D G H I L E V G P G D C V G F P A G T A H T F L N D S N A L W L F V  
UniRef90\_F7ZIH4 T L T V E N G V E T V V G A G D A C C C W K A R G T A H T L R N N S D A P A T Y L  
UniRef90\_F2AEB8 R L E L V L D G Q F F D L G P G D S L Y F E S R R Y H S W R N D G E T V L L W I  
UniRef90\_UPI00041E0181 E C R T T V D G H A Y T F E P G D V W Y F P R G Y G H S I Q Q P D E C H F L L I  
UniRef90\_I1XGB6 E C V M T D G G P T T F K A G D L V V F P N G Y K G T W E V K K A L K K Q F  
UniRef90\_A6X2T5 N A L F I V G D E Q I E A T E G Q V V F G P A N I P H K F I N L I G P G R  
UniRef90\_UPI000370ECE4 I L E L L Y L N N E M L T L N K G D S V K I P S Y G K H K W E N S E N V I V I F G  
UniRef90\_L0R525 L L E L T L E G K P H K L M A G E S M K F N S Q T P H Q L K S L G  
UniRef90\_K2RKT9 E V E L V L D G E K R I M K R G D I S I Q R G T N H A W R N T E W A R M L Y I  
UniRef90\_C7NWWU6 S A T L W L G G E R E E L E A G D F A V F P R G E D G Q H E G P D G L R Y L A M  
UniRef90\_R2MNN94 R G L F V V G G E R I L E A G P G D I L V V P A D T P H R F E N L G P G  
UniRef90\_R6ISW9 V G Q F T I D G V P Y L V K P G E A L V M P A Q K P H S V Y A P E N F K M L T V  
UniRef90\_D2SYZ8 Q I T M R I D T E Y V D L G P G E A C L V P I N V K H R V E N Q E P A Q V I E H  
UniRef90\_A0A023XUL9 Q V K Y L V G D Q T E V A G P G S R L L V P R G V V H G F T N P A D A R H I L V  
UniRef90\_D8HIF3 D L G V E F D D R A F T A P K G T F V L L P H G V P H A L R S D P P P R V L Q V  
UniRef90\_I4COQ3 Q L E L E L D G A I H R V I E N E S F Y H T S S L P H K W T N P G T T E V V W V  
UniRef90\_R3TMV3 T L P M E V D N E F F E I E A G Q M M I I P G V P H K F K T Q G T I R F L V  
UniRef90\_L8PKS3 R L R L R L G D T T H R L A P G D S A H F D S L T P H R I A A P G G V E L L F V  
UniRef90\_G2WY50 S L K L W N G D K C R I M G P G D F A Y V P P K V I H N P E M L G H T E A Y G L  
UniRef90\_A3K8C9 E L V L V E D S G E T V L H P G D F C A F P A G S E H H L V N R S E A E A F L  
UniRef90\_V6ATM6 S G T I Y V D K E S A D V G P G K S V Y V P P N S R Q S I K N T S D E V E F L C I  
UniRef90\_UPI0004021DFE R A K L K T P D R T A D V G P G T V F E V P A G E E H R F D V T E D L A L L V V  
UniRef90\_B2J8L8 E A I A M C D K R S A T I K A G D S L L V P P T G T H L I K N T G S T R L L Y T L  
UniRef90\_B1T1E6 S V E V F S Q G K R F V V S A G Q I V F P A N V P H E F R A L E D G T V I D I  
UniRef90\_UPI000467CDA5 A V E F V L N G D V R R C G K G D F I Y V R P G D V H A F R N A G P T R I L I I  
UniRef90\_Q0RZZ3 Q A H L E E T G E Y R D F K A G D I A L P S G L N V T W Z S K P F V K K F W V  
UniRef90\_W9GDP4 R M R L E S G G E V V E A G P G D F L H V P A G A I H R E S N P G E S R S H A V  
UniRef90\_UPI0003B49BBA T A K V T I G E K V L Y V H E N E S V Y V P K S T L H R L E N P K V  
UniRef90\_Q9FCA5 E L D V T S G N R V R A T P G T V I V V P G C P H A F A N P E P A K M F F Q  
UniRef90\_F2JU90 R V N I D T K D G T I E L L T G Q S H T V L A G V E H R A R V K G R A E L I  
UniRef90\_B5EIW7 K V Q L R I D D K L Y T V D K G E C F Y F A S D R K H A V K N V I G K A K L L W V  
UniRef90\_W1N0S7 R A R V R T I G D Y E Q E L G P G E S C F F A A D M A H T F T A T G D  
UniRef90\_I0I732 G C E V Q V G D E L L H P Q P G D E I W I P A H T R H R L A S R G R V R V L E V  
UniRef90\_C6BCN4 Q L R L R T G D E A V T V S R G E L Y V V P A G V P H  
UniRef90\_A8TWQ8 V L A I E V D G Q R I D L A A G D G M T F A G D R R H A Y A V S D L V R F T M A  
UniRef90\_I1PMX5 R V R A S V T G R C V E F G A G D L V V F P K G L S C T W D V V V G I D K H Y  
UniRef90\_UPI00029CC4E0 E G H V S D E N G L V T V R A G D M V W T P P G V R H W H G A A D D R F M  
UniRef90\_H1V6K2 R A R V T I N A R T F D Y V P G D V G I V P K N M G H  
UniRef90\_UPI00026275F5 R L D V L L D E E V T L G E G D F L T V P P R V P H A F A A G S P A D V L V T  
UniRef90\_M1ACT8 K V K V Y P K N T K V E F G A G D L V I P K G L C C T W D V T L A V D K Y Y K  
UniRef90\_C6C2Z0 S F E D E N G V Y L P G D L V C Y A P G S Q H A W R T P Q G A L I Y A  
UniRef90\_R5KX51 E A T I I M D G K T E L L K P G M C H Y C P M G H T H G M E N K G D E L V I F A  
UniRef90\_C3H108 E L T I D I D G C Q Y T L N N G D S I R F K A D R P H T Y T N S G R T L T M T I  
UniRef90\_L0JWL1 E L T F H S D G E E L V C G P G D S Y A I P G E Q S H A E N D E T V R G V D V  
UniRef90\_UPI0004648C67 T A Q V E L D D Q L L L S E N E S T Y I P V G T R H R L S N P G K  
UniRef90\_L5K1L7 T I G V V D D G H V V T V T A G Q V I F F P K N T L H W I K N V I G  
UniRef90\_UPI00037BFFC4 T C T L W I D E R S Y R L S A G D V V R C D P G E M H Y F E S D E L F R A L F V  
UniRef90\_F8B666 Q V V A R L D G E H T A L P A E H G L L I P I G T R H R I V N D G D E T A F L V  
UniRef90\_I2GLF0 R I G Y Q M A G Q P A Q A G P G E S V V F K R G V S H R F W N A G S E V L H C W  
UniRef90\_N9X126 T L K V V V G E E T I V L R E G D T T I I K E D F P H T C I N D D Y T E V I S V  
UniRef90\_B5YB44 V A E A E I E N R K Y Y V Y E G E S I F V P K G K P H Q L K N A G D T  
UniRef90\_UPI0004299A03 E V N I V V D G K E T V H H L K Q G D S I H I E P S E T H Y C F N P N I V K M I S T  
UniRef90\_F8F491 A V E I V F Y G K E T Y V L H E G D S I Y L D S I V E H H S T A G E A R I L A V  
UniRef90\_A1U2J4 K A F L N V A G E P Y T V T A G D L L L P A G V S H R Y T A D  
UniRef90\_UPI00046A64DB K A E L T S D G E V V D L Q P G D F L T I E Q G A S A I W K I M E P I R N S Y V  
UniRef90\_D6U7X2 S G R M T V F G R T F D Y Q A G D V G Y V P T N M G H Y I E N T G D S L R F L  
UniRef90\_F8F8T2 E A V F R I G Q Q R H Q A G P G D L L F V N G G E L H E G S S L T H A E Y Y A V  
UniRef90\_UPI00045E5929 S G R A T V E G Q E V R Y T A G D T L L P A N A V H Q  
UniRef90\_D3CYF8 L A E V E I D G E L T T L E Y P D T T Y V E A G I P H L F R N I G D V  
UniRef90\_UPI000373013C A A E V L S G D D I V T A E R G D L I T V P P E R P H A F A A V P G S R A L V V  
UniRef90\_T0LMU4 K G L A Q V I G G K E Q E V K A G D M V I V P A G T K H Q F L N K G P T L I L Y T  
UniRef90\_M0W117 K V K A H I K G E C V E F G A G D L V V F P K G L S C T W D V V A A V D K Y Y  
UniRef90\_A3JYP4 H S I T T E E G G A A D V R A G D S F I L R P G F R G T W E V V E T T T K E Y V  
UniRef90\_UPI00035E9BC7 V S E L I E D G E P K R I V A G D T F V M H P G F T G T W K V I E T T R K L W V  
UniRef90\_E4N4H9 R A T V A F E G G P V E I L G P G D L A V L R E G D R T W T V H E T L R K V Y T  
UniRef90\_UPI0003B598D8 T F R L E S G A E V V E A G P G D F V R V P A G A V H R E S N P G D  
UniRef90\_K0Q1Q7 H F G F W C A N D A Y V E L A E G G S I A L P R G V A H R F R N I G K T E L M V V  
UniRef90\_M2QDP8 Q A R V T L N A Q T Y D Y G G D I A Y I P  
UniRef90\_UPI00042B3B02 K V K V Y P K G E F V E F G A G D L V T I P Q G L S C T W D V S A P I D K H Y  
UniRef90\_S0FYM1 V A N L T I A K E S Y D L E P G D S A Y L S T T P H Y L T A T E K A T I L A V  
UniRef90\_Q307N7 E G E V E D D G K V Y P I L G P T L Y I L D R H D K H L R A F K E M T M A C V  
UniRef90\_B8KXZ4 E L I D C D D S T Y R A G D Y V R F L Q G S K H T S R S P D G C T L L V I  
UniRef90\_N1PT54 Q G R L T A S S R T F D F Q A G D T G Y V P V V T A H Y L E N T G D E D L I Y  
UniRef90\_C1DUM8 S I V I G T E E G V Y H L K E G D L E V K A G T R H W A K T E E G V C Y L C  
UniRef90\_R4SXH2 K L E V L V G E E I V T V S E G D M L V V P P L T T H A F R A D S P A D V L I V  
UniRef90\_B2JTA8 R G W I Q C N R E R Q E I A A G D V I S I P A G V K H W H G A T S A  
UniRef90\_S7ZF55 E I E L L D G E T R L K R G D V A V Q R G T N H A W R N P Q W G R M L Y V  
UniRef90\_F8NWL4 S V I Q L T S N G Q N F T I G P G D V W Y F P A G M P H T N E S V D G A E F I L V  
UniRef90\_R6EDM8 E G E Y N D N G N L R P V K A G D V T F T P D G C G H G L R N T G  
UniRef90\_J5HD65 E M E L T V E D N T V F T I K A G E S F V I P S G A R H S V K A R R F K M I  
UniRef90\_L9WB09 E Y T V G I G G E Y M V E A G D S L L I P A G T V H W Y R N D E P G A F L C A  
UniRef90\_W6XAD2 V F T D D D G T D F L P G Q T V C Y A A G S R H S T S S E G C T V L V V  
UniRef90\_UPI0002E44349 E L H V V I G K T Y V L H P S M A M R F T A N Q S H T Y T D K P I R F I L  
UniRef90\_UPI000440CB69 S T Q V T A N G K N F T V E P G D L W Y F P P G I P H T N E S T E G S E F L L V



UniRef90\_A9P212  
 UniRef90\_UPI00045E6A82 S P A  
 UniRef90\_B9QZ35 I C P G  
 UniRef90\_B9K1L0 T  
 UniRef90\_K6XLB6 F S P A  
 UniRef90\_UPI000407995C  
 UniRef90\_F4C8T8  
 UniRef90\_UPI00037D6BBF V  
 UniRef90\_UPI00044153C9 V Y P A N  
 UniRef90\_F7ZIH4 V  
 UniRef90\_F2AEB8 N T P  
 UniRef90\_UPI00041E0181  
 UniRef90\_I1XGB6  
 UniRef90\_A6X2T5  
 UniRef90\_UPI000370ECE4 V T P  
 UniRef90\_L0R525  
 UniRef90\_K2RKT9 L L P  
 UniRef90\_C7NWU6 S T  
 UniRef90\_K2MN94  
 UniRef90\_R6ISW9 I F P H N  
 UniRef90\_D2SYZ8 L C P  
 UniRef90\_A0A023XUL9 S T P  
 UniRef90\_D8HIF3 S S P G G W  
 UniRef90\_I4C0Q3 I S P  
 UniRef90\_R3TMV3  
 UniRef90\_L8PKS3 H T  
 UniRef90\_G2WVY50 V A P G D W  
 UniRef90\_A3K8C9 V  
 UniRef90\_V6ATM6 V D P A W  
 UniRef90\_UPI0004021DFE F G P A  
 UniRef90\_B2J8L8 T  
 UniRef90\_B1T1E6 F T P A D W  
 UniRef90\_UPI000467CDA5 N L P A  
 UniRef90\_Q0RZZ3 I T  
 UniRef90\_W9GDP4 V  
 UniRef90\_UPI0003B49BBA  
 UniRef90\_Q9FCA5 A S P  
 UniRef90\_F2JU90  
 UniRef90\_B5E1W7 V T P  
 UniRef90\_W1N0S7  
 UniRef90\_I0I732 A F G D W  
 UniRef90\_C6BCN4  
 UniRef90\_A8TWQ8 V H P A T W  
 UniRef90\_I1PMX5  
 UniRef90\_UPI00029CC4E0  
 UniRef90\_H1V6K2  
 UniRef90\_UPI00026275F5 F T P G  
 UniRef90\_M1ACT8 F Q P  
 UniRef90\_C6C2Z0 T W  
 UniRef90\_R5KX51 V V P  
 UniRef90\_C3H108 Y Y P A  
 UniRef90\_L0JWL1 F S P  
 UniRef90\_UPI0004648C67  
 UniRef90\_L5K1L7  
 UniRef90\_UPI00037BFFC4 K A P Y D  
 UniRef90\_F8B666 F H  
 UniRef90\_I2GLF0 L K P A N  
 UniRef90\_N9X126 I T P P I W  
 UniRef90\_B5YB44  
 UniRef90\_UPI0004299A03 L A P  
 UniRef90\_F8F491 V Y  
 UniRef90\_A1U2J4  
 UniRef90\_UPI00046A64DB Y H  
 UniRef90\_D6U7X2 V  
 UniRef90\_F8F8T2 V Y P A  
 UniRef90\_UPI00045E5929  
 UniRef90\_D3CYF8  
 UniRef90\_UPI000373013C I T P G  
 UniRef90\_T0LMU4 V Y P A E  
 UniRef90\_M0W117  
 UniRef90\_A3JYP4 I  
 UniRef90\_UPI00035E9BC7 C  
 UniRef90\_E4N4H9 I  
 UniRef90\_UPI0003B598D8  
 UniRef90\_K0Q1Q7 V T P G  
 UniRef90\_M2QDP8  
 UniRef90\_UPI00042B3B02  
 UniRef90\_S0FYM1 L Y  
 UniRef90\_Q307N7 F N P  
 UniRef90\_B8KXZ4  
 UniRef90\_N1PT54  
 UniRef90\_C1DUM8  
 UniRef90\_R4SXH2 F V P G  
 UniRef90\_B2JTA8  
 UniRef90\_S7ZF55 L T P  
 UniRef90\_F8NWL4  
 UniRef90\_R6EDM8  
 UniRef90\_J5HD65  
 UniRef90\_L9WB09 V  
 UniRef90\_W6XAD2 A H  
 UniRef90\_UPI0002E44349 I Y P A  
 UniRef90\_UPI000440CB69

UniRef90\_MOD231  
UniRef90\_F8A414  
UniRef90\_A9D1P6  
UniRef90\_W9YGJ1  
UniRef90\_M0AC33  
UniRef90\_B5H4K7  
UniRef90\_S7ZM77  
UniRef90\_A9GQN8  
UniRef90\_F9X4Y0  
UniRef90\_UPI00035D22E0  
UniRef90\_A4AMC0  
UniRef90\_B9JVD2  
UniRef90\_UPI00047681AC  
UniRef90\_F0T8C5  
UniRef90\_Q5AVE2  
UniRef90\_UPI000469B490  
UniRef90\_UPI000362C1E3  
UniRef90\_V4P020  
UniRef90\_A7HQJ1  
UniRef90\_V4M1Z1  
UniRef90\_UPI0003B68C0B  
UniRef90\_C5B359  
UniRef90\_R5C4Y8  
UniRef90\_L0JMJO  
UniRef90\_UPI00036A1D2F  
UniRef90\_I5B1V0  
UniRef90\_W2D2M6  
UniRef90\_B8KY58  
UniRef90\_B5I9I2  
UniRef90\_UPI00035F57D5  
UniRef90\_Q7SFG6  
UniRef90\_R6V0Z0  
UniRef90\_D6B768  
UniRef90\_X1AEY3  
UniRef90\_UPI000476E208  
UniRef90\_R5U8Z7  
UniRef90\_H0FU70  
UniRef90\_R7Z7H9  
UniRef90\_V7F0W4  
UniRef90\_Q47V49  
UniRef90\_W4D4N6  
UniRef90\_UPI00037D84A2  
UniRef90\_UPI000379B162  
UniRef90\_X6GI07  
UniRef90\_S9SYA0  
UniRef90\_W9RQL7  
UniRef90\_W4C9T0  
UniRef90\_M5A442  
UniRef90\_UPI000376E741  
UniRef90\_R5RBL2  
UniRef90\_UPI0002630463  
UniRef90\_B1X1D2  
UniRef90\_UPI00034AFA35  
UniRef90\_UPI000363586D  
UniRef90\_S9S1G9  
UniRef90\_A3Y6W7  
UniRef90\_A0A031HP96  
UniRef90\_X1A712  
UniRef90\_UPI00037605F8  
UniRef90\_E8TBX0  
UniRef90\_K9R6X7  
UniRef90\_Q2J3P9  
UniRef90\_R4V VX7  
UniRef90\_W3WYU5  
UniRef90\_B9M652  
UniRef90\_A0A023NQ56  
UniRef90\_E0NWX4  
UniRef90\_L0ALQ4  
UniRef90\_D2S111  
UniRef90\_X2GSY0  
UniRef90\_J3HG18  
UniRef90\_I3XVZ8  
UniRef90\_I1ATB4  
UniRef90\_S5UM98  
UniRef90\_S0FH41  
UniRef90\_I3ZUH5  
UniRef90\_Q83VZ0  
UniRef90\_R5SB98  
UniRef90\_J9NP35  
UniRef90\_UPI0003FE8C59  
UniRef90\_X1T9U4  
UniRef90\_R4W158  
UniRef90\_Q3JK56  
UniRef90\_R5AJ00  
UniRef90\_R9JYB8  
UniRef90\_UPI0003782C8A  
UniRef90\_Q9X113  
UniRef90\_Q1EHY9  
UniRef90\_M4Z6P1  
UniRef90\_K2P1Z6  
UniRef90\_G1XYI4  
UniRef90\_Q8ESU7

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

UniRef90\_MOD231 DTDELAENYIELD PGDYHRHPDQE E V F Y V V E 80  
UniRef90\_F8A414 I M T L P G G S E E V H Q N T D D Q I L T F I S G G  
UniRef90\_A9D1P6 K G E F N W H P D T D D L F F V L T A G G  
UniRef90\_W9YGJ1 S L T A G L A T C P P R T C P H R H R Q A E I Y H V L T Q G G  
UniRef90\_M0AC33 E D C E L D A R T H E S D K A S E L H T H D E T E H L I F M R T G G  
UniRef90\_B5H4K7 A L R V F V P H I V D P L T T F P I A S N F S A A G V V T V H Q G G D L V R V H P G G E E W L H V V I S G G  
UniRef90\_S7ZM77 M A Q L L G R D R G N A F G F Y R G T M G P G C E E L H T E T T E T I Y I L A G G  
UniRef90\_A9GQN8 H W H E M H D E T C D I L A G G  
UniRef90\_F9X4Y0 H V H T R S E E L F Y V L L E G G  
UniRef90\_UPI00035D22E0 M S L A F W E V E Q G K V P E H F H M N E V M Q V L L E G G  
UniRef90\_A4AMC0 S I D E P G Q G L Y A G V W Q S T P G T W R I V Y D E W E Y V L L E G G  
UniRef90\_B9JVD2 I E P L L G E K E L A G Q C G L Y A L E P G C Y H F H H S E S E T Y Y I L L E G G  
UniRef90\_UPI00047681AC S R E I I R K E T G T V T I F A F D K G E G E H T A P F D A M V Q V V D G G  
UniRef90\_F0T8C5 S S N M C A G L A S C P P H T G Q H R H T Q S A E I Y Y I T S G G  
UniRef90\_Q5AVE2 M D A E V W T I D P S D G F Y A H E G E E L I Y V L L E G G  
UniRef90\_UPI000469B490 V G V W E M T P G T M R D V S E D E L F V I T A G G  
UniRef90\_UPI000362C1E3 T L D A N M D E T R F A G Y W A S T P G T W R V S Y D E W E Y C V L L E G G  
UniRef90\_V4P020 L G D M A G L E D V G V H V V R V E P G R D T T E H H F E E F L F I L L S G G  
UniRef90\_A7HQJ1 Y G Q G I S V E V S R R R Q G L P F H R N M D A D E L I I C V L L S G G  
UniRef90\_UPI0003B68C0B I T D S S I F P A S A T I A A A L V E L E P G E L H W H P N G D E W Y Y L S G G  
UniRef90\_C5B359 T R Q T V G Y N E N I M M V K V K F E K G G V G T A H T H K H T Q V T Y V V L S G G  
UniRef90\_R5C4Y8 R K E L S N A V D A D D L G C S L Y E L P P G G E R S W P Y H Y E E A I Y V L A G G  
UniRef90\_L0JMJO H K K Q N R H M E P F L V T L T P S G A P H T T P N E E I L F V L L E G G  
UniRef90\_UPI00036A1D2F G K M T F G A P T D K V S S A Y F G T T Q G K F R M V Y P F N E Q A T V V L S G G  
UniRef90\_I5B1V0 G D V P Y T H Q G E E A G I L S G G  
UniRef90\_W2D2M6 E T S M H Y H P R K D E T M H I M Y G G  
UniRef90\_B8KY58 F H T H G D A V K Y Y L L E G G  
UniRef90\_B5I9I2 I T D S K N F P V S K T V A A A H V I I E P G A L H W H P N A D E W S Y F I L L S G G  
UniRef90\_UPI00035F57D5 L C C I P M D F T H V P I H W H N E M E L I V I Q K G G  
UniRef90\_Q7SFG6 H G R L L A G A E A P P L E L W E W R L G N S S D P H P Q G T W E L L H V T A G G  
UniRef90\_R6V0Z0 G T P Y H K H V E L A E T I Y V V S G G  
UniRef90\_D6B768 I K H L L G E K E M N G K C G L Y T P L E P G C Y H E H H G E S E T Y Y I L T G G  
UniRef90\_X1AEY3 L H A T A A E T G G A F G M W F T P P G G P A P H T H T R E E T Y Y R V I L R G G  
UniRef90\_UPI000476E208 H T L F S T P S T P T M S A G I A V C P P G R L H Q H H A Q A E I Y Y I L L E G G  
UniRef90\_R5U8Z7 C G L W V C T P G K W H C H V T R D E E F C H F L E G G  
UniRef90\_H0FU70 K K D T L T P Q P D S K L A F L I E R Y Q P G S T G T H I G D E E A G T V L L E G G  
UniRef90\_R7Z7H9 I V D S S N F P I S K T V A A A L V E I E P G E L H W H P N N D E W Q Y Y L T G G  
UniRef90\_V7F0W4 R N E V L T T V N D K H D V H I S V M N A P Y F W H P D S D E T F L A I D G G  
UniRef90\_Q47V49 T G I A A E T V G S T G I C M H L L T M P P G K A H M H E S H E T A I Y V L S G G  
UniRef90\_W4D4N6 S N P S S S R L S L G I N S W P K G K F L L K F D A S E T C Y L L K G G  
UniRef90\_UPI00037D84A2 I G Y F S M T D D H L H D H Y E L Y Y L L S G G  
UniRef90\_UPI000379B162 V D D L R A D V S H P L Q A N A Y L T P P N S T P H S D R H D V I V L Q L L E G G  
UniRef90\_X6GI07 I Q P L I N E E T G K D F N M I N V N F H A G S I F H T H S D Q V L I V T Y G G  
UniRef90\_S9SYA0 A N F V E V A P G N F A Y G Y H Y E E V F Y I I T S G G  
UniRef90\_W9RQL7 W K P V V R D G S N I A A T E I W K K P G K P A F H P D Q A E Y A L V L E G G  
UniRef90\_W4C9T0 L A I V F D A D S L T V C V E I F D P G G S T P T H R H N F A E M F L L K G G  
UniRef90\_M5A442 L A D T S N F P I S T E V A A A L V E I N P G H L H W H P N S D E W Q F Y V S G G  
UniRef90\_UPI0002630463 Y E G I A T Q R S G K T L L P F V I F P A D F S K E H D N G E E L L F V H R G G  
UniRef90\_B1X1D2 V G L L R F R G S T P W E E H P N D E F L L V V L E G G  
UniRef90\_UPI00034AFA35 C E S T E Q H C H Y H E D E C V Y I L L E G G  
UniRef90\_UPI000363586D H G A M P H R H S K E E S F L M L D G G  
UniRef90\_S9S1G9 F F E F A P N S I E H K H P H E Q I T V V T A G G  
UniRef90\_A3Y6W7 T R L H R H A K T E E L Y H I T R G G  
UniRef90\_A0A031HP96 S S P A H Y H I F E E E H V I Y L L E G G  
UniRef90\_X1A712 L S E A V G L Q R I G F H L A K I A Q S G K E S F I Y H E E E F I Y L L S G G  
UniRef90\_UPI00037605F8 I T D V R N F P V T N M A A L I I D L E P G A L H W H P D A D E W Q Y Y I Q G G  
UniRef90\_E8TBX0 L S L L A G E T R M N V Q G F A I E P G A V E H S H D N E Q G F V V Y E G G  
UniRef90\_K9R6X7 G E H T D N R I M G C M L L E I E P A G P M H W H R H D E C G F V T K G G  
UniRef90\_Q2J3P9 V E L L I P A A Q N R D M D P A M V T L E P G E E M E E H E G E E F G F V L S G G  
UniRef90\_R4VVX7 S E W E R H P N G D E V V L V L E G G  
UniRef90\_W3WYU5 Y A D V V S K T Q N K G L G I T L F A F A K G E G I S T H E S D A F V T A L D G G  
UniRef90\_B9M652 R R A L A G S D Q C S F E W F E K P P G H H S H E N E Q V C L C L E G G  
UniRef90\_A0A023NQ56 A P L H R H S R E D E I S Y V L L E G G  
UniRef90\_E0NWX4 H R E L L S A K E A N E L G V S V I E V G G A V L P H Y H D V A E V I H I T K G G  
UniRef90\_L0ALQ4 I A D F D P V A A G L E L C A R L F E A D H P G F H C T D T I D Y G V V L E G G  
UniRef90\_D2S111 L K H L V T S A Q S G A F S F H L V R I A P H K A I Q T H V H E E T H E V I L G G  
UniRef90\_X2GSY0 H W H A A E D E M V Y M L E G G  
UniRef90\_J3HG18 M A S T F E V E V P P G F D V G A H V H T R S E E L F Y V L L E G G  
UniRef90\_I3XVZ8 I R W L V S N A Q K N M M E P L I T L S P S E A I D N P H E G E E F G F V M R G G  
UniRef90\_I1ATB4 I R W L V S P K L G A N F A M R Y F V L R K N S E I Q H H D W E H E I F I V S G G  
UniRef90\_S5UM98 T S L L V G A D V R G P L E L W D W R L V S G D S P H P P G T V E M L T V R S G G  
UniRef90\_S0FH41 T R Q I V G Y N E D I M M V K V K F E K G I G G S A H K H E H T Q V T Y V A S G G  
UniRef90\_Q83VZ0 T K S I I Y R S E D G K V V V G M L R E K G G D T L V W P V D E F L F V T E G G  
UniRef90\_R5SB98 H L R F G L L A Y D A G A T P L G H E G T E Y G Y L L S G G  
UniRef90\_J9NP35 F F D V V A G T D R S Q A A T M L E P P A P E H I H A K E E D I Y F I T G G  
UniRef90\_UPI0003FE8C59 G D A L T M A R L Y L K K G A F V G T H S H E Q L T Y I L L E G G  
UniRef90\_X1T9U4 I R W L V T N A Q K N A L E A G I S T V A D D P R D S E I P I V H H E S E E T L I V L S G G  
UniRef90\_R4W158 S K E F P I S K T M T G S V I E L Q P G E M H W H P D A D E W Q Y Y L S G G  
UniRef90\_Q3JK56 M A H L L S K E A M H N K A R L F A R M K P G S S V G L H K H E E I Y Y I L L G G  
UniRef90\_R5AJ00 L G D A L G L K K N F G A N L T R L P P G N A H W H R Q D E F V Y I V L E G G  
UniRef90\_R9JYB8 L R N G A T S E I G D P H A S T V T T E S P H P L M H R T E T I D Y G I V L S G G  
UniRef90\_UPI0003782C8A I T E L M N T D A S P E T S L A V A R V I E A G V T T Q L L H R L E E R Y V V R K G G  
UniRef90\_Q9X113 S R T M S G G Y M T L K P G K L H W N V N A N E W H Y V L R G G  
UniRef90\_Q1EHY9 S Y F W Y K N H I E A V Y C I E G  
UniRef90\_M4Z6P1  
UniRef90\_K2P1Z6  
UniRef90\_G1XYI4  
UniRef90\_Q8ESU7

UniRef90\_MOD231 T A T F E T E D G E V A V S A G E A V R F A P G E W Q L G R N A G D G R  
UniRef90\_F8A414 T G Q A D L N G H T H P I E A G D Q C A I P A G T R H N F R N T G E E P L V L Y T  
UniRef90\_A9D1P6 R L T I Q M R D G D V L G P G E M Y V V P K G V E H C P R A D E E T H L I T  
UniRef90\_W9YGJ1 H G V V E I D G V E S A V Q A G T V V Y I P G N A K H G I R N T D E P E R W F Y V I  
UniRef90\_M0AC33 E M Y W E V G D E G F H A T P G D T I V I T P P D T E H K F E V D E P S K T L C L  
UniRef90\_B5H4K7 R L R L G L G D A V H E L A A G D S A H F D S L T P H R I A T P E G A E I L L F V  
UniRef90\_S7ZM77 Q G R A T D A A T F E D Y R A G D V A Y F P K S N S H Y I E N T G  
UniRef90\_A9GQN8 Q A L G I V G D R E V P L G P G G Q M M H V E T N V H H G L R N T G A G E F L V I  
UniRef90\_F9X4Y0 T V R F H V D K K T V D A H A G D Y M V V P I R A P H T F S N P G D A K I L L F T  
UniRef90\_UPI00035D22E0 E L D V L A G D K K V R A T P G T V I V V P P G C P H A F A N P T D A K M F F Q  
UniRef90\_A4AMC0 Q F E F T L N G I T K V Y T P G D L V V I D P E V P H S G K A L T P C K L M D V  
UniRef90\_B9JVD2 Y S I V T D G G E P M H L R K G D R M L L R P G F T G L W E V V E T T T K D Y V  
UniRef90\_UPI00047681AC Q G T Y N N N G K N I V K A G D V T F C P D G E G H S L E N T E K T  
UniRef90\_F0T8C5 T A E I I T S G E K N I V N K G E L I T M P A N E P H A L N A I E R Y K M V  
UniRef90\_Q5AVE2 R G I V N L E G F Q H E I V S A G S V L F I P G D A E H G V R G E E T L E W F Y V  
UniRef90\_UPI000469B490 H A T V R A T G E V M E I S P G D V V R L T A G D E T V W T V T E T L R K V Y V  
UniRef90\_UPI000362C1E3 S L E L A L A D R A E V L S P G D G A Y F N S R I A H R W R N T G T A K V L W I  
UniRef90\_V4P020 H A I V K E D G E P V H L H P G D H F I F R P K G Y S G Q W Q V I E P V L K T F V  
UniRef90\_A7HQJ1 R A L A T I G D D T F G V G P G D F M A F P K N S P H S M H V P E D A K  
UniRef90\_V4M1Z1 W A K W E T E T G S F E V R A G D A I L I P R G I A H R  
UniRef90\_UPI0003B68C0B E F I M S V F G G Q E K Q L S V D D S V I P A N V E H G G S A L S D C M L M D V  
UniRef90\_C5B359 R G R M T V F G R S F D Y K A G D V G Y V P F A M G H Y I E N T G D T  
UniRef90\_R5C4Y8 A F E F T I G N E K K V V K A G D A L Y M E P N V E H  
UniRef90\_L0JMJO D G R L K T E D G L E S L E A G D Y A T F P A D E S G G H R V V N D G  
UniRef90\_UPI00036A1D2F Q V E V S L A G H T D I F N P G D S I Y D D S T L P H T C H G D Q T A T L F A V  
UniRef90\_I5B1V0 C I N L Y I G S E C H N A V I P G D S W C I E S G A E H R A E V L E D S V A I E V  
UniRef90\_W2D2M6 E V R L T D E G Q T T T Y K A G D S W F V T Q G T P V L W E V E S F V K H Y F A  
UniRef90\_B8KY58 K L N L W I E D T H I V L E E G D S F A F A S S K S H R Y A N L E D V E V I W T  
UniRef90\_B5I9I2 Q G Y I E V E G E K N V V R K N D V F R I P P N K K H R I V A V I E N M L L Y E Y  
UniRef90\_UPI00035F57D5 K G K E I I D D Q E V E V L P G D L A F I P A N I W H G T E N T G D E P M V F I  
UniRef90\_Q7SFG6 R A R V T V N A R T F N Y L P G D V G I V P R N M G H  
UniRef90\_R6V0Z0 S G I I S V D F I T H E V K A G D I V F V L P G Q L H S I K Q K K E A R M E Y  
UniRef90\_D6B768 T L T L V T D G E A H R V P A G S V A F A A D A P H A Y R N E D G  
UniRef90\_X1AEY3 R G E V V I G E A K Y Q L E P D I V F Y V P K E V F H T N K T A E T L K I I N V  
UniRef90\_UPI000476E208 R A E L D V D G E R Y G F V A G D V H L P P G C T H K V V N D G T E D F E Y  
UniRef90\_R5U8Z7 E G N Y D D N G R I R P V K A G D V T F T P D G C G H A L T N T G D T D L V F M  
UniRef90\_H0FU70 L Y R F Q C G D E E F D A P S G T V V V L P P H V R H S W R N D E P G Q M F G I  
UniRef90\_R7Z7H9 R G T V A V N G V E H P V E K G C A M F I P G D A D H A V D S E D E L K W L Y V  
UniRef90\_V7F0W4 R C T V H E S G E V I E I E P D T A A F F P Q D W K G V C T V H E T L K K V Y M  
UniRef90\_Q47V49 S I E L T V A G R S F K L T K G D S Y K F S T S L P H K F K N T S K C K I I S A  
UniRef90\_W4D4N6 K G R M T V N G R T F N Y R A G D V G Y V P  
UniRef90\_UPI00037D84A2 T L I T D F D D G Q E E L R R G Q M L T I V A G V R H R  
UniRef90\_UPI000379B162 E G T F W I D D P V E E A A P Q Q V I F P R R A V H S V P G P V V F F S I  
UniRef90\_X6GI07 E V H T W Y G D Q Q T V I A K A G D L F Y I P A G V P H  
UniRef90\_S9SYA0 S G E Y I D D G K H Y L F S S G T A F C S R P G I W H Q I R S D E G L A L C Y Y  
UniRef90\_W9RQL7 K V K V Y P K G E F V E F S A G D L V I I P K G L S C T W D I L V A V D K Y Y  
UniRef90\_W4C9T0 E R I Y F I K D R T Y R V K A G D L V F V D R N T V H T L E S P D H E R M V L Y  
UniRef90\_M5A442 S K Q W A V D G G E F E L R P G D V L Y V P A G H E H A A T S T E R  
UniRef90\_UPI000376E741 T G I V A T E N S R A I V T T G D L I H V P A G E K H  
UniRef90\_R5RBL2 T A A V K T E T G E I R L K A G D A I C F P A N I S H V I R N D S  
UniRef90\_UPI0002630463 A G T L V S G G D T R T L G P G D V I L V P A G V P H W F G I T G E R L V L  
UniRef90\_B1X1D2 E G L A V C G D K D I P L H P G D S L L V P T G I H E I R N I G K S R L Y A I  
UniRef90\_UPI00034AFA35 Q G R M S V I E G R T F D Y Q A G D V G F V P M S A S H F I E N  
UniRef90\_UPI000363586D E T M L T L N G E T T T A K K G D V L V V P G K I W H R Q D A P D P V T L M F I  
UniRef90\_S9S1G9 E V E V A F A G Q T V Q L A A G D S V V F D A R I P H R T R S A E Q A E V L V V  
UniRef90\_A3Y6W7 Q G T A V I G E E R F E V A G D F I Y R A G G L S H T L N T S D K T L K C I V  
UniRef90\_A0A031HP96 V L T V R S G D R A L E L R A G D F V T F P E G C T Y G F R N E T D A R F I T F  
UniRef90\_X1A712 S L K M T V E G E T K T L Q T G E G V V I P N V E H K I S N Q I T K A F D T  
UniRef90\_UPI00037605F8 H G E M R L D A Q T F E V T V G D T V C I H P G T P H N I R N S E P L H I L C S  
UniRef90\_E8TBX0 A L T A Y V G G A A Y A M K S G D Y L C F P A G A A H C L I N T S D A L C R Y V  
UniRef90\_K9R6X7 K G I A E I D N Q E F A V G E G D F M G F P S V A H H L R N P F E Q E L I Y I  
UniRef90\_Q2J3P9 E A R M T V K A R T F N Y R A G D V G Y V P K T L A H Y I E N I G T T  
UniRef90\_R4VXV7 E L T F L L D D E E L V V G P G D T Y A I P A D E P H G A E N E T V R G L D V  
UniRef90\_W3WYU5 R V T F V T P D A N V V V G V G E L M T V P P R A I H T F K N S E P A E F F M T  
UniRef90\_B9M652 K V Q L K L D D K L Y T V K K D E C F Y F G S D K K H S I K N I G R A R I L W V  
UniRef90\_A0A023NQ56 T T T V I L S E E R H F L A R N E L V V I P V G V W H R F E G S D R V K V M T I I  
UniRef90\_E0NWX4 A G I I T I D G E K Y E L H A G E S I V M P A N H P H S V Y A T K D R V K M L L V  
UniRef90\_L0ALQ4 E L T V T D G D S V T L G Q Y D S V L L E S E E P H R V E N T G D E L A V  
UniRef90\_D2S111 E M T V L A G D E I W T V P A D E A T V K G R N V W H T F W N D E P L R F L E I  
UniRef90\_X2GSY0 K V K L L Q N G E W K S Y Q E G D T F L V P K G V V H S V A N D D  
UniRef90\_J3HG18 E V D L E L D G C T N R L R Q G D I V V Q M G T R H A W R N P G P A R L L F V  
UniRef90\_I3XVZ8 S G Y C I K E G S T F S Y A T G T M S L F P K K T E H S I H A D E K G L Y L L A  
UniRef90\_I1ATB4 T A T V E G E D D T F P L V P G E A A T F K A G T P I V N H G E T P L R Y L V I  
UniRef90\_S5UM98 E L D V V S G T R V V R A T P G T V I V V P P G C P H A F A N P T P A K M F F Q  
UniRef90\_S0FH41 V I T V C L I G T K F K V K K G E S F Y F K P S A P H N I L N A G K A V V L W V  
UniRef90\_I3ZUH5 E G V I T N G K E E Y H V K A G N F L Y V P P N E P H G Y K A L T D T F E F L C  
UniRef90\_Q83VZ0 R L T L V D I G E E H E V A A G T S A T F E A D A P H T Y R N D G T  
UniRef90\_R5SB98 A F E F T I G G E K K I V K A G D A L Y M E P N V E H G C V C L I E P G L L I D C  
UniRef90\_J9NP35 S I K M E V G G E S F V L K G A G D V M V M K K Q T I T F E C S D D  
UniRef90\_UPI0003FE8C59 T L E L T V D D E K Y V L Q T G D S F E L D A R V P H T L F N P G  
UniRef90\_X1T9U4 Y G E M F F D G K P E K I R E G S I A Y I P P G V A H S I K N N S G K V M H Y V  
UniRef90\_R4W158 S G E A T I D G D T H D L Q A G T L V L I E P G E P H E I T A T G D  
UniRef90\_Q3JK56 R L L F R Y G E H E I E V G P G E I L H L P A N V P H N A L C L I E D A V D L D V  
UniRef90\_R5AJ00 S V T L Y L G E K K Y R I H R G D S F C F R S T A V H F L Q N T G K A L V L W V  
UniRef90\_R9JYB8 T L H L M L G D D L I V L R E G D T I I R E D I P H T C D T D D I T E V L C T  
UniRef90\_UPI0003782C8A T A E M T V T A V T E Q F E A G D A G Y V P M G A G H Y I K N T G T  
UniRef90\_Q9X113 E G V F H D N G K D V P I K A G D V C F T D S G E S H S I E N T G  
UniRef90\_Q1EHY9 E V V L V T D A G E Q V L T A G M V A G F P A G T  
UniRef90\_M4Z6P1 E V T L V L D K G T A D L K A G D V V I Q R G T N H A W R S D R P C R M L F I  
UniRef90\_K2P1Z6 E G I V E I D G V R Q F L S V G D Q A L I P P G A A Q R I A N T G S T E F Y C V  
UniRef90\_G1XYI4 K A Q V A L R G K V A E F G P G D V A Y I P M G F G H A I Q N V I G T  
UniRef90\_Q8ESU7 E G E V E D T G E V W Q L K P G T M Y L L N D N D K H Y L R A K T Q M R M V C V

UniRef90_MOD231	
UniRef90_F8A414	<input checked="" type="checkbox"/> Y
UniRef90_A9D1P6	<input type="checkbox"/> E P A
UniRef90_W9YGJ1	
UniRef90_M0AC33	<input type="checkbox"/> A P A
UniRef90_B5H4K7	H T
UniRef90_S7ZM77	
UniRef90_A9GQN8	G H P
UniRef90_F9X4Y0	S T P
UniRef90_UPI00035D22E0	A S P
UniRef90_A4AMC0	F S P
UniRef90_B9JVD2	<input checked="" type="checkbox"/>
UniRef90_UPI00047681AC	
UniRef90_F0T8C5	
UniRef90_Q5AVE2	
UniRef90_UPI000469B490	
UniRef90_UPI000362C1E3	N T D S D
UniRef90_V4P020	<input checked="" type="checkbox"/>
UniRef90_A7HQJ1	
UniRef90_V4M1Z1	
UniRef90_UPI0003B68C0B	F T P
UniRef90_C5B359	
UniRef90_R5C4Y8	
UniRef90_L0JMJO	
UniRef90_UPI00036A1D2F	<input type="checkbox"/> Y
UniRef90_I5B1V0	F S P
UniRef90_W2D2M6	<input checked="" type="checkbox"/>
UniRef90_B8KY58	<input type="checkbox"/> T P
UniRef90_B5I9I2	S T P H
UniRef90_UPI00035F57D5	A F P A S W
UniRef90_Q7SFG6	
UniRef90_R6V0Z0	
UniRef90_D6B768	
UniRef90_X1AEY3	F A P A
UniRef90_UPI000476E208	
UniRef90_R5U8Z7	A
UniRef90_H0FU70	<input checked="" type="checkbox"/> <input type="checkbox"/> P G
UniRef90_R7Z7H9	
UniRef90_V7F0W4	<input type="checkbox"/>
UniRef90_Q47V49	H T P
UniRef90_W4D4N6	
UniRef90_UPI00037D84A2	
UniRef90_UPI000379B162	D T P
UniRef90_X6GI07	
UniRef90_S9SYA0	A F
UniRef90_W9RQL7	
UniRef90_W4C9T0	<input type="checkbox"/> K P
UniRef90_M5A442	
UniRef90_UPI000376E741	
UniRef90_R5RBL2	
UniRef90_UPI0002630463	
UniRef90_B1X1D2	C F
UniRef90_UPI00034AFA35	
UniRef90_UPI000363586D	T
UniRef90_S9S1G9	<input checked="" type="checkbox"/> S P
UniRef90_A3Y6W7	V
UniRef90_A0A031HP96	<input type="checkbox"/> <input type="checkbox"/> P G
UniRef90_X1A712	W Y P
UniRef90_UPI00037605F8	C S P
UniRef90_E8TBX0	<input type="checkbox"/>
UniRef90_K9R6X7	
UniRef90_Q2J3P9	
UniRef90_R4VVX7	F S P
UniRef90_W3WYU5	A T P G
UniRef90_B9M652	<input checked="" type="checkbox"/> T P
UniRef90_A0A023NQ56	T
UniRef90_E0NWX4	<input checked="" type="checkbox"/>
UniRef90_L0ALQ4	
UniRef90_D2S111	<input type="checkbox"/> A P G E
UniRef90_X2GSY0	
UniRef90_J3HG18	
UniRef90_I3XVZ8	F F P A
UniRef90_I1ATB4	G T P A D
UniRef90_S5UM98	A S P
UniRef90_S0FH41	S S P P N
UniRef90_I3ZUH5	<input type="checkbox"/> <input type="checkbox"/> P A
UniRef90_Q83VZ0	
UniRef90_R5SB98	F S P
UniRef90_J9NP35	
UniRef90_UPI0003FE8C59	
UniRef90_X1T9U4	F S P
UniRef90_R4W158	
UniRef90_Q3JK56	F T P <input checked="" type="checkbox"/> D W
UniRef90_R5AJ00	S T P
UniRef90_R9JYB8	<input type="checkbox"/> S P P <input checked="" type="checkbox"/> W
UniRef90_UPI0003782C8A	
UniRef90_Q9X113	
UniRef90_Q1EHY9	
UniRef90_M4Z6P1	
UniRef90_K2P1Z6	C T P
UniRef90_G1XYI4	
UniRef90_Q8ESU7	F N P A











UniRef90_Q65GV1	T
UniRef90_W4ME69	S <span style="border: 1px solid black; padding: 0 2px;">V</span> P A E
UniRef90_R5VES3	
UniRef90_N8RAL0	
UniRef90_M5FY83	P A E H N W
UniRef90_K4LF35	Q Y
UniRef90_B6GY63	
UniRef90_UPI000378E697	Y S
UniRef90_B7KPE3	
UniRef90_A0A038IPJ7	A S P
UniRef90_C7P3E7	F S P P N W
UniRef90_F2LNG6	
UniRef90_Q0JYD5	K K P
UniRef90_G8PJ27	
UniRef90_K5YM78	
UniRef90_U5W6A7	
UniRef90_B8PD86	
UniRef90_J3PF34	
UniRef90_G9PAM9	<span style="border: 1px solid black; padding: 0 2px;">I</span> T
UniRef90_S4ZGQ5	<span style="border: 1px solid black; padding: 0 2px;">I</span> T P G
UniRef90_G9YCT5	
UniRef90_N2JC44	
UniRef90_UPI00035E2FF9	<span style="border: 1px solid black; padding: 0 2px;">V</span> T
UniRef90_L9WLM2	<span style="border: 1px solid black; padding: 0 2px;">L</span> G P
UniRef90_D7BSQ5	F N D G D
UniRef90_H3SJ98	
UniRef90_U1XGN1	<span style="border: 1px solid black; padding: 0 2px;">I</span> H E P D

lupas_21	
lupas_14	
lupas_28	
jnet	
conf	8 5 4 8 9 9
sol25	B B B
sol5	B
sol0	
jhmm	
jpssm	