

sp|Q7K1U0|ARC1\_DROME

20 30 40 50 60 70

1 sp|Q7K1U0|ARC1\_DROME  
 2 NP\_001096619.1-PNMA-5-363  
 NP\_001338223.1-PNMA-1-48  
 NP\_037496.4-PNMA-1-326  
 NP\_001269464.1-PNMA-1-326  
 NP\_001299820.1-PNMA-15-212  
 NP\_116271.3-PNMA-1-318  
 XP\_011525369.1-PNMA-5-363  
 XP\_011542667.1-PNMA-1-328  
 XP\_016884741.1-PNMA-1-322  
 XP\_011529314.1-PNMA-12-212  
 NP\_006020.4-PNMA-1-324  
 NP\_114429.2-PNMA-2-80  
 NP\_060685.2-PNMA-5-363  
 NP\_001354699.1-PNMA-1-123  
 NP\_001341909.1-PNMA-1-124  
 NP\_065760.1-PNMA-1-138  
 NP\_071434.2-PNMA-1-326  
 Gypsy156-I\_DR\_1  
 Gypsy-251\_DR-I\_5  
 Gypsy-20-I\_DR\_1  
 Gypsy13-I\_DR\_1  
 Gypsy-14-I\_DR\_2  
 Gypsy-17-I\_DR\_1  
 Gypsy-18-I\_DR\_1  
 Gypsy100-I\_DR\_1  
 Gypsy8-I\_DR\_1  
 Gypsy-19-I\_DR\_2  
 Gypsy144-I\_DR\_2  
 Gypsy-16-I\_DR\_1  
 Gypsy-15-I\_DR\_1  
 Gypsy-202\_DR-I\_3  
 Gypsy-21-I\_DR\_1  
 Gypsy8-I\_SP\_2  
 Gypsy-23-I\_XT\_3  
 Gypsy-30\_XT-I\_1  
 Gypsy-24-I\_XT\_1  
 Gypsy-17\_XT-I\_3  
 Gypsy-30\_CPB-I\_3  
 Gypsy-11\_AMi-I\_2  
 Gypsy-41\_AMi-I\_2  
 3 sp|Q7JV70|ARC2\_DROME  
 sp|Q7JV70|ARC2\_DROME

RAAAVGGAAGS...AAAAGGADASRGKGNFSACTHSFGGTRDHDVVEEFIGNETETKDV  
 GVLLGAVV...QIIFCMDAIEIRSRREARAQEAEEFEEMAAW...  
 ...REQPGCEEEFES...WVEHAKDMLQL  
 GAAVQPLL...EQMLYRELRFVSGNTISIPGALAFDA...WLEHTTEMLQM  
 GAAVQPLL...EQMLYRELRFVSGNTISIPGALAFDA...WLEHTTEMLQM  
 GRSLGPIM...ASMAERNMKLFGSRVVPAGKETFEN...WLIQVNGVLPD  
 GOAVQPNV...EAVRCQSLGVFSGRDQPAPGEESFEV...WLDHTTEMLHV  
 GVLLGAVV...QIIFCMDAIEIRSRREARAQEAEEFEEMAAW...  
 AHAPQPLL...PMRYRKLRFVSGSAVPAPGEESFEV...WLEQATEIVKE  
 SPPLPEPK...ESMWYRKLRFVSGTASPSGGEETFED...WLEQATEIMPI  
 GRSLCPLV...VKMAERNMKLFGSRVVPAGKETFEN...WLIQVNGVLPD  
 DNVIQPLV...ESIWKRLTLFSGRDIPGPGGEETFDP...WLEHTNEVLEE  
 ...TPPRLVGTYDSNASDSEFSDFET...SRDKSRQ...  
 GVLLGAVV...QIIFCMDAIEIRSRREARAQEAEEFEEMAAW...  
 RCTLQPV...ENRAYRELRFVSGREQPGCEEEFES...WVEHAKDMLQL  
 RQTLRPLV...KTMAYRELRFVSGREQPGCEEEFES...WLEHTAKDMLQL  
 GAARNPRRGRRRNRTRNRRLTKQKGGSRGGRPSAPARSEAEDESSDESLGTIVEEIDQ  
 ...EALQPAL...CQLKYKKLRFVSGRESPEPGEFEFGR...WMFHTTQMIIKA  
 VKHDPEYQG...HHLSPPKLRFVSGHCPKPNGEVDFTT...WQLYVKQLLPD  
 IRS.DSTP...SSYSQSRIRTFSGRLPKPNGEVDYDS...WRTQVDDLKSD  
 IRN.ESAH...SPMRQSRIRTFSGRTPKPNGEVDYET...WRTQVDDLKSD  
 VRTGEVAT...QGLMQQRRLRFVSGKCPKPGSEVDYDT...WRSSVELMLKD  
 VRSGEVA...QAHIPMRRLRFVSGRKPRPANETDYDT...WRSSVDLVLKD  
 VRS.DTPS...HSLTTMRRLRFVSGKPSYSANETDYDT...WRTNEFFCTD  
 IRTSDTV...APHVSLRLKAFSGRIPRPGSEPDFTD...WSATVDFLLND  
 VKTSDPVP...SSHVAFRLKIFSGKIPRPSHEPDFTD...WRASVDFLLND  
 VKMSETVP...QHSASFRLKAFSGRMPPRGNEPDFTD...WRTSVDFLLNE  
 VKTSDAVS...SNSAAYRLKAFSGRSPRQNTPEPFET...WRASVDFLLNE  
 ...LDD  
 VRTNDTAP...MHTTSFRLRFVSGKIPRPNVEPDFTD...WRASVDFLLND  
 VKTSDAMM...SQOTSIRLRFVSGKSPRPNEPDFTD...WRASVDFLLND  
 VRSNEMAT...QSHTPVKLRTFSGRVPILNFEVDFDA...WRANVGLYKND  
 VKSEEAIS...HMHAPLKLRFVSGRSPRANVEVDYEI...WHSNVDLMLQD  
 ...NAPRLRPLGLFSGKEPVKQGEVDWET...FKDVAIEVASM  
 QKVTEASIRLW...QETVMSVKKYFSGNEPVKQGEVFESE...WIEYTRPLLEE  
 ADSLKQAW...EAGPYKRFKQFSGSKPVPAEEDYDA...WKAQAEQISQD  
 EKCVRVPVQPH...SGFGYRKLHIFSGKQPTPEGEDDFA...WMDQATQALEE  
 ...  
 EKVVLSHA...RNSCRKLRLFAG...EEEFEP...WLEHTTEMLRE  
 REVTHSS...DQAAAYKRLRFVSGTLVPVPAEEDFDS...WLSHTQETLLT  
 REVVNSSN...DRAAYKRLRFVSGNLPVPAGEEGFES...WTAHQETLMT  
 K...SLGPIKEEPPSKGFSNCTVRFSGQRDHDVDEFINAVETYEK

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sp|Q7K1U0|ARC1\_DROME

80 90 100 110 120

1 sp|Q7K1U0|ARC1\_DROME  
 2 NP\_001096619.1-PNMA-5-363  
 NP\_001338223.1-PNMA-1-48  
 NP\_037496.4-PNMA-1-326  
 NP\_001269464.1-PNMA-1-326  
 NP\_001299820.1-PNMA-15-212  
 NP\_116271.3-PNMA-1-318  
 XP\_011525369.1-PNMA-5-363  
 XP\_011542667.1-PNMA-1-328  
 XP\_016884741.1-PNMA-1-322  
 XP\_011529314.1-PNMA-12-212  
 NP\_006020.4-PNMA-1-324  
 NP\_114429.2-PNMA-2-80  
 NP\_060685.2-PNMA-5-363  
 NP\_001354699.1-PNMA-1-123  
 NP\_001341909.1-PNMA-1-124  
 NP\_065760.1-PNMA-1-138  
 NP\_071434.2-PNMA-1-326  
 Gypsy156-I\_DR\_1  
 Gypsy-251\_DR-I\_5  
 Gypsy-20-I\_DR\_1  
 Gypsy13-I\_DR\_1  
 Gypsy-14-I\_DR\_2  
 Gypsy-17-I\_DR\_1  
 Gypsy-18-I\_DR\_1  
 Gypsy100-I\_DR\_1  
 Gypsy8-I\_DR\_1  
 Gypsy-19-I\_DR\_2  
 Gypsy144-I\_DR\_2  
 Gypsy-16-I\_DR\_1  
 Gypsy-15-I\_DR\_1  
 Gypsy-202\_DR-I\_3  
 Gypsy-21-I\_DR\_1  
 Gypsy8-I\_SP\_2  
 Gypsy-23-I\_XT\_3  
 Gypsy-30\_XT-I\_1  
 Gypsy-24-I\_XT\_1  
 Gypsy-17\_XT-I\_3  
 Gypsy-30\_CPB-I\_3  
 Gypsy-11\_AMi-I\_2  
 Gypsy-41\_AMi-I\_2  
 3 sp|Q7JV70|ARC2\_DROME  
 sp|Q7JV70|ARC2\_DROME

E.GISDENALKGISILFYGMASSTWWQGV...KEATTWKEAIALIREHFSF...  
 ...AAGGRVKK...EPGLAEVGSALK...AETPNWNNA...  
 WCHASEREKKRWLLESGLGPALEVVSGLL...EEDTNLSALDCLALIGQVFRN...  
 W.QVPEGEKKRRRLMECLRGPALVVSGLR...ASNASTVEECALAIQQVFGP...  
 W.QVPEGEKKRRRLMECLRGPALVVSGLR...ASNASTVEECALAIQQVFGP...  
 W.NMSEEEKLRLMLKTLRGPAEVMRVLQ...ATNPNSVADFLRAMKLVFGE...  
 WQGVSEEREKKRRRLLEGLRGTAQLVHALL...AENPARTAQDCLALIAQVFGD...  
 ...AAGGRVKK...EPGLAEVGSALK...AETPNWNNA...  
 W.PVTEAEKKRWLLESGLGPALEVVSGLL...ADNPISIVEECLEAFKQVFGS...  
 W.QVSEVEKKRRRLLESGLGPALEVVSGLL...ANNDSITVEQCLALIKQIFGD...  
 W.SMSEEEKLRLMLKTLRGPAEVMRVLQ...AANPNLSVADFLRAMKLVFGE...  
 W.QVSDVEKKRRRLMEGLGPAADVIRILK...SNNPAITTAECLEALKEVFGS...  
 ...GPRRGKKVKKMPVSYLG...  
 ...AAGGRVKK...EPGLAEVGSALK...AETPNWNNA...  
 WCHASEREKKRWLLESGLGPALEVVSGLL...EEDTNLSALDCLALIGQVFRN...  
 WCHASEREKKRWLLESGLGPALEVVSGLL...EEDPDFSAQDCLALIGQVFRS...  
 G.DLSGEEDQSALYATLQAAARELVROWAPCNSGEEDGPREFLALVTVTDKSKKEEA EK  
 W.QVPEGEKKRRRLLESGLGPALEVVSGLR...INNPLITVDECLALIEKEVFGV...  
 T.SLTERHKKRRHILSLPPALTVLGA...GTNAPPEVYVLELEKAFGS...  
 V.SVSDSQKVRRILESLLSPAADVVKPL...GTDATPQAYLTQLESAFGV...  
 P.SSPDPQKVRRILESLLSPAADVVKPL...GLNSSPSSYLNQIESAFGE...  
 S.TSLDLNVSRRIVDSLPPAADVIKHL...SSEAPSSAYLQLDSAFGV...  
 P.AISDLHGSRRILDSLPPAADVIKQL...SADAAPSAYLQLDSAFGT...  
 S.TLTDQKRSQRIILSLPPAADVIKHL...GPHSPSSDYLELLESAFGT...  
 K.SLSDSQKTGKIILSLPPASDVVKHI...GPYALPSECKLLESVYGS...  
 K.SFSDLYKTGKIILSLPPASDVIRHV...SPNAPPSQCLELLESVYGS...  
 L.SLSESHKMQKIILSLPPASDVIRHV...SPNAPASECKLLESVYGS...  
 Q.SLSDSHKTGKIILSLPPASDVIRHV...GPDVSPTKCLELLESVYGS...  
 P.SISDLSRTRNILDSLPPASDVVKHV...NPQALPTVYLDLLESVYGS...  
 P.SISDLNRARKIILSLPPAADVIKHV...SPNSLPNAVYLELLESVYGS...  
 P.SISDLNRARKIILSLPPAADVIKHV...RPPALPAVYLELLESVYGS...  
 S.TISDALVVRKIILGSLASLANSIVKPL...GPLASSQANDLDSAFAA...  
 P.AVSDLVRRKIILSLPPASDIVRTL...GLHATPRAYLQLDSAFGT...  
 A.SIDEQTKRREIVTRLGPAKDFARQV...SPSSTAHGLVSLDNVYGA...  
 W.EGTDKMKQRRRLLEVRHPALIFLQAQK...TKQPDCTVHDLQALINRYEK...  
 W.SCSDMEMMRKRITLESGLGPASDLIYSLR...MSNPAATASDYFTALENAFGS...  
 W.DVPEEQKKQRITESLRGAADVIRALK...QSKRDCCASDYLQALHDVYGR...  
 ...KGLAADTIRNLK...MSKYDCTAKDYLEVLHDFGR...  
 W.AVPDAKKRCLLESGLGPALEVVIRL...LIDPEVSVKDCLEALDHTFGS...  
 W.QIPDEEKRRRLLESGLGPALEVVIRL...LRNPATITQQCQVQLQDFAFGQ...  
 W.QIPDEEKRRRLLESGLGPALEVVIRL...LQNPGITQQCQLQTLQDFGFW...  
 E.GISDENALKGILPILFKSIAVVMWKGVR...RDAKTWSDALQLLRDHFSP...

α2 η1 α3 η2 α4

*sp|Q7K1U0|ARC1\_DROME*  
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 130 140

1 *sp|Q7K1U0|ARC1\_DROME*  
 2 NP\_001096619.1-PNMA-5-363  
 NP\_001338223.1-PNMA-1-48  
 NP\_037496.4-PNMA-1-326  
 NP\_001269464.1-PNMA-1-326  
 NP\_001299820.1-PNMA-15-212  
 NP\_116271.3-PNMA-1-318  
 XP\_011525369.1-PNMA-5-363  
 XP\_011542667.1-PNMA-1-328  
 XP\_016884741.1-PNMA-1-322  
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 NP\_114429.2-PNMA-2-80  
 NP\_060685.2-PNMA-5-363  
 NP\_001354699.1-PNMA-1-123  
 NP\_001341909.1-PNMA-1-124  
 NP\_065760.1-PNMA-1-138  
 NP\_071434.2-PNMA-1-326  
 Gypsy156-I\_DR\_1  
 Gypsy-251\_DR-I\_5  
 Gypsy-20-I\_DR\_1  
 Gypsy13-I\_DR\_1  
 Gypsy-14-I\_DR\_2  
 Gypsy-17-I\_DR\_1  
 Gypsy-18-I\_DR\_1  
 Gypsy100-I\_DR\_1  
 Gypsy8-I\_DR\_1  
 Gypsy-19-I\_DR\_2  
 Gypsy144-I\_DR\_2  
 Gypsy-16-I\_DR\_1  
 Gypsy-15-I\_DR\_1  
 Gypsy-202\_DR-I\_3  
 Gypsy-21-I\_DR\_1  
 Gypsy8-I\_SP\_2  
 Gypsy-23-I\_XT\_3  
 Gypsy-30\_XT-I\_1  
 Gypsy-24-I\_XT\_1  
 Gypsy-17\_XT-I\_3  
 Gypsy-30\_CPB-I\_3  
 Gypsy-11\_AMI-I\_2  
 Gypsy-41\_AMI-I\_2  
 3 *sp|Q7JV70|ARC2\_DROME*  
*sp|Q7JV70|ARC2\_DROME*

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

$\alpha 5$   
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*sp|Q7K1U0|ARC1\_DROME*  
 $\alpha 6$   
 0000000000  
 150 TT 160  $\alpha 7$

1 *sp|Q7K1U0|ARC1\_DROME*  
 2 NP\_001096619.1-PNMA-5-363  
 NP\_001338223.1-PNMA-1-48  
 NP\_037496.4-PNMA-1-326  
 NP\_001269464.1-PNMA-1-326  
 NP\_001299820.1-PNMA-15-212  
 NP\_116271.3-PNMA-1-318  
 XP\_011525369.1-PNMA-5-363  
 XP\_011542667.1-PNMA-1-328  
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 XP\_011529314.1-PNMA-12-212  
 NP\_006020.4-PNMA-1-324  
 NP\_114429.2-PNMA-2-80  
 NP\_060685.2-PNMA-5-363  
 NP\_001354699.1-PNMA-1-123  
 NP\_001341909.1-PNMA-1-124  
 NP\_065760.1-PNMA-1-138  
 NP\_071434.2-PNMA-1-326  
 Gypsy156-I\_DR\_1  
 Gypsy-251\_DR-I\_5  
 Gypsy-20-I\_DR\_1  
 Gypsy13-I\_DR\_1  
 Gypsy-14-I\_DR\_2  
 Gypsy-17-I\_DR\_1  
 Gypsy-18-I\_DR\_1  
 Gypsy100-I\_DR\_1  
 Gypsy8-I\_DR\_1  
 Gypsy-19-I\_DR\_2  
 Gypsy144-I\_DR\_2  
 Gypsy-16-I\_DR\_1  
 Gypsy-15-I\_DR\_1  
 Gypsy-202\_DR-I\_3  
 Gypsy-21-I\_DR\_1  
 Gypsy8-I\_SP\_2  
 Gypsy-23-I\_XT\_3  
 Gypsy-30\_XT-I\_1  
 Gypsy-24-I\_XT\_1  
 Gypsy-17\_XT-I\_3  
 Gypsy-30\_CPB-I\_3  
 Gypsy-11\_AMI-I\_2  
 Gypsy-41\_AMI-I\_2  
 3 *sp|Q7JV70|ARC2\_DROME*  
*sp|Q7JV70|ARC2\_DROME*

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

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 $\alpha 7$

*sp|Q7K1U0|ARC1\_DROME* .....00 0.....  
 170  
 1 *sp|Q7K1U0|ARC1\_DROME* .....LFFGLNT.....  
 2 NP\_001096619.1-PNMA-5-363 .....PCVNKEELALK..KPMAK.....CA.....  
 NP\_001338223.1-PNMA-1-48 .....ALQDTLRG.....M.....  
 NP\_037496.4-PNMA-1-326 .....KLDRDKLKL.....M.....  
 NP\_001269464.1-PNMA-1-326 .....KLDRDKLKL.....M.....  
 NP\_001299820.1-PNMA-15-212 .....DLRLRLKDFLRMYA.....  
 NP\_116271.3-PNMA-1-318 .....PLDEALRK.....L.....  
 XP\_011525369.1-PNMA-5-363 .....PCVNKEELALK..KPMAK.....CA.....  
 XP\_011542667.1-PNMA-1-328 .....MLWCRRLRE.....L.....  
 XP\_016884741.1-PNMA-1-322 .....ALRGKLEL.....L.....  
 XP\_011529314.1-PNMA-12-212 .....DLRFRLKHLRLMYA.....  
 NP\_006020.4-PNMA-1-324 .....AIRROLWL.....TG.....  
 NP\_114429.2-PNMA-2-80 RVKGWAPRAGPGVGEARLASTAVESAGVSSAPEGTSPGD.....RLGNAGD..VCVPQAS  
 NP\_060685.2-PNMA-5-363 .....PCVNKEELALK..KPMAK.....CA.....  
 NP\_001354699.1-PNMA-1-123 .....ALQDTLRG.....M.....  
 NP\_001341909.1-PNMA-1-124 .....ALQDTLRR.....M.....  
 NP\_065760.1-PNMA-1-138 .....NG.....TRVKV.....EEAGREV.....DAVVLRKAGDDGDLRECISTL.  
 NP\_071434.2-PNMA-1-326 .....TIRRELNL.....  
 Gypsy156-I\_DR\_1 .....ALITQRL.....KELLT.....  
 Gypsy-251\_DR-I\_5 .....SLIIGQL.....E.....  
 Gypsy-20-I\_DR\_1 .....TMIIQL.....E.....  
 Gypsy13-I\_DR\_1 .....DLITDQL.....E.....  
 Gypsy-14-I\_DR\_2 .....GLIADLRL.....A.....  
 Gypsy-17-I\_DR\_1 .....ALITEQL.....E.....  
 Gypsy-18-I\_DR\_1 .....SLIIDLQL.....E.....  
 Gypsy100-I\_DR\_1 .....SLIADLQL.....E.....  
 Gypsy8-I\_DR\_1 .....ALIVEQL.....E.....  
 Gypsy-19-I\_DR\_2 .....NLISDQL.....E.....  
 Gypsy144-I\_DR\_2 .....QLLVNLHL.....E.....  
 Gypsy-16-I\_DR\_1 .....SLIADLQL.....E.....  
 Gypsy-15-I\_DR\_1 .....RLIVDLQL.....E.....  
 Gypsy-202\_DR-I\_3 .....ALISNLQL.....E.....  
 Gypsy-21-I\_DR\_1 .....ALISEQL.....E.....  
 Gypsy8-I\_SP\_2 .....YILSVTNL.....  
 Gypsy-23-I\_XT\_3 .....PVLAVQS.....  
 Gypsy-30\_XT-I\_1 .....LLILOLKV.....K.....  
 Gypsy-24-I\_XT\_1 .....PIMWKLRM.....P.....  
 Gypsy-17\_XT-I\_3 .....PIMWKLRM.....  
 Gypsy-30\_CPB-I\_3 .....PILHLRL.....R.....  
 Gypsy-11\_AMi-I\_2 .....DLRLNL.....A.....  
 Gypsy-41\_AMi-I\_2 .....F.....  
 3 *sp|Q7JV70|ARC2\_DROME* .....FYGLMQE.....  
*sp|Q7JV70|ARC2\_DROME* .....00 0.....  
 08

*sp|Q7K1U0|ARC1\_DROME* .....000 180 190 000000000  
 1 *sp|Q7K1U0|ARC1\_DROME* .....KYRKHISRHVSHT.....FKDLEEQGR  
 2 NP\_001096619.1-PNMA-5-363 .....WKGPREPQDAR.....  
 NP\_001338223.1-PNMA-1-48 .....QLEKRPFG.....FLGLELRLIR  
 NP\_037496.4-PNMA-1-326 .....KQRRKPG.....FLALVKLLLR  
 NP\_001269464.1-PNMA-1-326 .....KQRRKPG.....FLALVKLLLR  
 NP\_001299820.1-PNMA-15-212 .....NEQERLNN.....FLELIRMVVR  
 NP\_116271.3-PNMA-1-318 .....RMAGRSPS.....FLEMLGLVVR  
 XP\_011525369.1-PNMA-5-363 .....WKGPREPQDAR.....  
 XP\_011542667.1-PNMA-1-328 .....KDQGPSPS.....FLELMKVIR  
 XP\_016884741.1-PNMA-1-322 .....DQRGCPNN.....FLELMKLIR  
 XP\_011529314.1-PNMA-12-212 .....NKQERLNN.....FLELIKMIIR  
 NP\_006020.4-PNMA-1-324 .....AGEGPANN.....LFQLLVQIR  
 NP\_114429.2-PNMA-2-80 PRRWRPKINWASFRRRRKEQTATGQGA.....DIEADQGGEAADSQREEAIAADQR  
 NP\_060685.2-PNMA-5-363 .....WKGPREPQDAR.....  
 NP\_001354699.1-PNMA-1-123 .....QLEKRPFG.....FLGLELRLIR  
 NP\_001341909.1-PNMA-1-124 .....QLERRPD.....FLRLRLIR  
 NP\_065760.1-PNMA-1-138 .....AQPDLPQAQKAGRGLFGGWSEHREDEGG.....LLELVALLA  
 NP\_071434.2-PNMA-1-326 .....PEDGPAFG.....FLOLVVLIR  
 Gypsy156-I\_DR\_1 .....EQTPSELS.....YSSILFKLR  
 Gypsy-251\_DR-I\_5 .....HRKPNPNS.....FPELLELIR  
 Gypsy-20-I\_DR\_1 .....HLKDHPS.....FSELLSVR  
 Gypsy13-I\_DR\_1 .....RRRNNSPS.....FGQLLMLLR  
 Gypsy-14-I\_DR\_2 .....QKRDDPT.....FAQLLMLLR  
 Gypsy-17-I\_DR\_1 .....QKRKNPFA.....FSDLELRLR  
 Gypsy-18-I\_DR\_1 .....RKRATPP.....FAELVILIR  
 Gypsy100-I\_DR\_1 .....GKKDTPPP.....FAELVVILIR  
 Gypsy8-I\_DR\_1 .....RIKADPLS.....FAELAVLIR  
 Gypsy-19-I\_DR\_2 .....RRKAAPPS.....FAELIVLIR  
 Gypsy144-I\_DR\_2 .....QRKTNPSS.....FAELVVAIR  
 Gypsy-16-I\_DR\_1 .....RKRATPP.....FAELVVILIR  
 Gypsy-15-I\_DR\_1 .....KKEGQLLT.....FAELTILIR  
 Gypsy-202\_DR-I\_3 .....KRKTNSQL.....FPEFLMLLR  
 Gypsy-21-I\_DR\_1 .....QKKANPSS.....FSELLLIR  
 Gypsy8-I\_SP\_2 .....HQIIVAPP.....FHRLLISLIR  
 Gypsy-23-I\_XT\_3 .....YLRYNPNA.....STGDLIRTAE  
 Gypsy-30\_XT-I\_1 .....DRLNPD.....FPOLLEVR  
 Gypsy-24-I\_XT\_1 .....KEDRAVPT.....YPOLLIKQVR  
 Gypsy-17\_XT-I\_3 .....RDRRETLT.....YSQLVKEVR  
 Gypsy-30\_CPB-I\_3 .....ERREHPPS.....YSQLVKEVR  
 Gypsy-11\_AMi-I\_2 .....GSRSSPPD.....FSHLLREIR  
 Gypsy-41\_AMi-I\_2 .....  
 3 *sp|Q7JV70|ARC2\_DROME* .....KYRESIRHEVKT.....FRELDRGR  
*sp|Q7JV70|ARC2\_DROME* .....000 TT 000000000

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sp|Q7K1U0|ARC1\_DROME      Q.....QQQQ      210

200

1 sp|Q7K1U0|ARC1\_DROME      I.....IHHNQEDDEE

2 NP\_001096619.1-PNMA-5-363      .A.AESPPGGAS

NP\_001338223.1-PNMA-1-48      E.....M.AWAFFPAR

NP\_037496.4-PNMA-1-326      E.....E.EWEATLGP

NP\_001269464.1-PNMA-1-326      E.....E.EWEATLGP

NP\_001299820.1-PNMA-15-212      E.....E.DWDDAFIK

NP\_116271.3-PNMA-1-318      E.....S.AWEASLAR

XP\_011525369.1-PNMA-5-363      .A.AESPPGGAS

XP\_011542667.1-PNMA-1-328      E.EEEASFEN

XP\_016884741.1-PNMA-1-322      D.....E.EWENTAV

XP\_011529314.1-PNMA-12-212      E.....E.DWDDAFIK

NP\_006020.4-PNMA-1-324      E.....E.AKEEEEEEA

NP\_114429.2-PNMA-2-80      EGAAGNQRAGAPADQGAEAADNQREEAADNQAGAPAE.GAEAADNQ

NP\_060685.2-PNMA-5-363      .A.AESPPGGAS

NP\_001354699.1-PNMA-1-123      E.....M.AWAFFPAR

NP\_001341909.1-PNMA-1-124      D.....M.AWAASLAR

NP\_065760.1-PNMA-1-138      A.....Q.DMAEVMKEE

NP\_071434.2-PNMA-1-326      D.....Y.AAEEEAAL

Gypsy156-I\_DR\_1      S.....Y.HEKQLKEN

Gypsy-251-DR-I\_5      T.....E.DRRAAKMD

Gypsy-20-I\_DR\_1      T.....E.DKRAAKLD

Gypsy13-I\_DR\_1      T.....E.DKHTAKVT

Gypsy-14-I\_DR\_2      T.....E.DKHTAKTI

Gypsy-17-I\_DR\_1      I.....E.DKQSIKAV

Gypsy-18-I\_DR\_1      T.....A.DKQSLKEE

Gypsy100-I\_DR\_1      T.....A.DKQSLKEE

Gypsy8-I\_DR\_1      T.....A.EKKTSKEE

Gypsy-19-I\_DR\_2      T.....A.DKLLLEKEE

Gypsy144-I\_DR\_2      A.....E.ENKQASKDE

Gypsy-16-I\_DR\_1      T.....E.DKNASKEE

Gypsy-15-I\_DR\_1      T.....Q.DKNASKEE

Gypsy-202-DR-I\_3      T.....E.ERQATKSK

Gypsy-21-I\_DR\_1      T.....A.DKISTKEL

Gypsy8-I\_SP\_2      E.....A.ATRDACYT

Gypsy-23-I\_XT\_3      E.....E.ARIDFYA

Gypsy-30\_XT-I\_1      E.....E.SKRSAREQ

Gypsy-24-I\_XT\_1      E.....E.ALMEAKLL

Gypsy-17\_XT-I\_3      E.....E.ALLEAKSQ

Gypsy-30\_CPB-I\_3      E.....E.ERQAASEF

Gypsy-11\_AMi-I\_2      E.....E.EISRLRET

Gypsy-41\_AMi-I\_2      .I.....

3 sp|Q7JV70|ARC2\_DROME      T.....V.RTRH....

sp|Q7JV70|ARC2\_DROME      Q.....QQQQ

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