

1035
 ATP7B GVPRVMRLLLLGDVA-TLPLRKVLAVVGTAEASSEHPLGVAVTKYCKEELGTETL-GYCT
 ATP7A GTPVVNQVKVLTESN-RISHHKILAIIVGTAESENSEHPLGTAITKYCKQELDTETL-GTCI
 CadA GVPVVTDFEVLNDQ---VEEKELFSIITAL EYRSQHPLASAIMKKAEQDNIPYSN-VQVE
 pacS GKPEVTDLVPLNG-----DERELLRLAAIAERRSEHPIAEAIVKKALEHGIELG---EPE
 CopA GKPQVVAVKTFAD----VDEAQALRLAAAL EQGSSHPLARAILDKAG--DMQLP---QVN
 ZntA GKPRVTAIHPATG----ISESELLTLAAAVEEQGATHPLAQAIVREAQVAELAI P---TAE
 CCC2 GFMVVKKFLKDSNWVGNVDEDEVLACIKATESISDHPVSKAIIRYCDGLNCKNALNAVVL
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1093
 ATP7B DFQAVPGCGIGCKVSNVEGILAHSERPLSAP-----ASHLNEAGSLPAEKDAVP
 ATP7A DFQVVPGCGISCKVTNIEGLLHKNWNWNIEDNNIKNASLVQIDASNEQSSTSSSMIIDAQI
 CadA EFTSITGRGIKGI VNGTT-----
 pacS KVEVIAGEGVVADG-----
 CopA GFRTLRLGLVSGEAEAGHA-----
 ZntA SQRALVGSGLIEAQVNGER-----
 CCC2 ESEYVLGKGI VSKCQVNG-----
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1142
 ATP7B -----QTFSVLIGNREWLRNGLT- ISSDVS DAMTDHEMKGQTAILVAIDGVLGMI AI
 ATP7A SNALNAQQHKVLI GNREWMIRNGLV- INNDVNDFMTEHERKGR TAVLVAVDDEL CGLIAI
 CadA -----YYIGSPKLFKELNVSD FSLGFENN VKILQNGKTAMIIGTEK TILGVIAV
 pacS -----ILVGNKRLMEDFGVA- VSNEVELALEKLEREAKTAVIVARNR VEGIIAV
 CopA -----LLLGNQALLNEQQVG--TKAIEAEIT AQASQGATPVLLAVD GKAVALLAV
 ZntA -----VLICAA GKH PADAFTGLINELES-----AGQTVVLVVRNDDVLGVIAL
 CCC2 -----NTYDICI GNEALILEDALK-----KSGFINSNVDQNTVSYVSVNGHV FGLFEI
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1195
 ATP7B |.....|.....|.....
 ATP7A ADAVKQEAALAVHTLQSMGVDVVL I-
 CadA ADTVKPEAELAIHILKSMGLEVVLM-
 pacS ADEVRETSKNVIQKLHQLGIKQTIML
 CopA SDTLKESAKPAVQELKRMGIKVGMI-
 ZntA RDPLRSDSVAALQRLHKAGYRLVML-
 CCC2 QDTLRADAATAISELNALGVKGVIL-
 NDEVKHDSYATVQYLQRNGYETYMI-
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