Table S3 The protein sequences used in this study

CsFtsH5	MASTKPLLSSSFHGNQIFLSPPTPKTTKCSKLLIPQSILNRRPSNTTLKNLPSQATLAALLFSS ITPQQTLALDTINPPNAPPPAIQAEAPKPIPSPFSQNLLMTAPKPQTQSDIPDGTQWRYSEFL SAVKKGKVERVRFSKDGTALQLTAVDGRRATVTVPSDPDLIDILASNAVDISVAEGDSGN GLFSFIGNLIFPFLAFAGLFLLFRRSQGGPGGPGGFGGPMDFGRSKSKFQEVPETGVSFSDV AGADQAKLELQEVVDFLKNPDKYTALGAKIPKGCLLVGPPGTGKTLLARAVAGEAGVPF FSCAASEFVELFVGVGASRVRDLFEKAKSKAPCIVFIDEIDAVGRQRGAGLGGGNDEREQ TINQLLTEMDGFSGNSGVIVLAATNRPDVLDSALLRPGRFDRQVTVDRPDVAGRVRILQV HSRGKALAKDVDFEKISRRTPGFTGADLQNLMNEAAILAARRDLKEISKDEISDALERIIAG PEKKNAVVSEAKKKLVAYHEAGHALVGALMPEYDPVAKISIIPRGQAGGLTFFAPSEERL ESGLYSRSYLENQMAVALGGRVAEEVIFGDDNVTTGASNDFMQVSRVARQMVERFGFSK KIGQVAIGGSGGNPFLGQQVSSQKDYSMATADVVDTEVRELVEKAYERAKQIITTHIDILH KLALLLVEKETVDGEEFMSLFIDGKAELFVA
AtFtsH1	MASNSLLRSSSNFFLGSHIIISSPTPKTTRKPSFPFSFVSRAKYQITRSSQDENSPNGKPNSPFS SQVALAAILLSSISSSPLALAVVDEPASPSVVIESQAVKPSTPSPLFIQNEILKAPSPKSSDLPE GSQWRYSEFLNAVKKGKVERVRFSKDGSVVQLTAVDNRRASVIVPNDPDLIDILAMNGV DISVSEGESSGNDLFTVIGNLIFPLLAFGGLFLLFRRAQGGPGGGPGGLGGPMDFGRSKSKF QEVPETGVSFADVAGADQAKLELQEVVDFLKNPDKYTALGAKIPKGCLLVGPPGTGKTL LARAVAGEAGVPFFSCAASEFVELFVGVGASRVRDLFEKAKSKAPCIVFIDEIDAVGRQRG AGMGGGNDEREQTINQLLTEMDGFSGNSGVIVLAATNRPDVLDSALLRPGRFDRQVTVD RPDVAGRVKILQVHSRGKALGKDVDFDKVARRTPGFTGADLQNLMNEAAILAARRELKE ISKDEISDALERIIAGPEKKNAVVSEEKKRLVAYHEAGHALVGALMPEYDPVAKISIIPRGQ AGGLTFFAPSEERLESGLYSRSYLENQMAVALGGRVAEEVIFGDENVTTGASNDFMQVSR VARQMIERFGFSKKIGQVAVGGPGGNPFMGQQMSSQKDYSMATADIVDAEVRELVEKA YKRATEIITTHIDILHKLAQLLIEKETVDGEEFMSLFIDGQAELYIS
AtFtsH2	MNFQMAASSACLVGNGLSVNTTTKQRLSKHFSGRQTSFSSVIRTSKVNVVKASLDGKKK QEGRRDFLKILLGNAGVGLVASGKANADEQGVSSSRMSYSRFLEYLDKDRVNKVDLYEN GTIAIVEAVSPELGNRVERVRVQLPGLSQELLQKLRAKNIDFAAHNAQEDQGSVLFNLIGN LAFPALLIGGLFLLSRRSGGGMGGPGGPGNPLQFGQSKAKFQMEPNTGVTFDDVAGVDE AKQDFMEVVEFLKKPERFTAVGAKIPKGVLLIGPPGTGKTLLAKAIAGEAGVPFFSISGSEF VEMFVGVGASRVRDLFKKAKENAPCIVFVDEIDAVGRQRGTGIGGGNDEREQTLNQLLT EMDGFEGNTGVIVVAATNRADILDSALLRPGRFDRQVSVDVPDVKGRTDILKVHAGNKK FDNDVSLEIIAMRTPGFSGADLANLLNEAAILAGRRARTSISSKEIDDSIDRIVAGMEGTVM TDGKSKSLVAYHEVGHAVCGTLTPGHDAVQKVTLIPRGQARGLTWFIPSDDPTLISKQQL FARIVGGLGGRAAEEIIFGDSEVTTGAVGDLQQITGLARQMVTTFGMSDIGPWSLMDSSA QSDVIMRMMARNSMSEKLAEDIDSAVKKLSDSAYEIALSHIKNNREAMDKLVEVLLEKE TIGGDEFRAILSEFTEIPPENRVPSSTTTTPASAPTPAAV
AtFtsH3	MTMIFFSKLNRSISRSKGFLYGGGVRSAARLLTSPGLEAASVNEVEGGLGFIRRHFASL ASRKGLVNNDLIGVFANPRLRRFFSDEAPKKKNYENYFPKDKQEPKSDQKSEHKEGS EKNENENVGDMFMNRFQNLLIPLLALAVFFSTFSFGSGEQQQISFQEFKNKLLEPGLV DHIDVSNKSVAKVYVRSTPKDQQTTDVVHGNGNGIPAKRTGGQYKYYFNIGSVDSFE EKLEEAQEALGVDRHEYVPVTYVSEMVWYQEFMRFAPTLLLLGTLIYGARRMQGGL GVGGTGGKNGRGIFNIGKATITRADKHSKNKIYFKDVAGCDEAKQEIMEFVHFLKNP

	KKYEDLGAKIPKGALLVGPPGTGKTLLAKATAGESGVPFLSISGSDFMEMFVGVGPSR VRHLFQEARQAAPSIIFIDEIDAIGRARGRGGLGGNDERESTLNQLLVEMDGFGTTAG VVVLAGTNRPDILDKALLRPGRFDRQITIDKPDIKGRDQIFKIYLKKIKLDHEPSYYSQ RLAALTPGFAGADIANVCNEAALIAARHEGATVTMAHFESAIDRVIGGLEKKNRVISK LERRTVAYHESGHAVVGWFLEHAEPLLKVTIVPRGTAALGFAQYVPNENLLMTKEQL FDMTCMTLGGRAAEQVLIGKISTGAQNDLEKVTKMTYAQVAVYGFSDKVGLLSFPPR DDGYDFSKPYSNKTGAIIDEEVRDWVAKAYERTVELVEEHKVKVAEIAELLLEKEVLH QDDLLKILGERPFKSAEVTNYDRFKSGFEETEKDSAATPTVEPVVDDGAPPPFEPQVV PT
AtFtsH4	MAWRRIITKVSSHERELSSLRSLLVRAYSSFPRVGVTGAVGGGGASLPRTRFQSSYVGS FARRVRDREEVNEVAHLRELIRRNDPEAVIRMFESQPSLHANASALSEYIKALVKVDR LDQSELVRTLQRGIAGVAREEETFGGLGAFRNVGKPTKDGVLGTASAPIHTISTERTHF KEQLWSTIRTIGVGFLLISGIGALIEDRGIGKGLGLHEEVQPSMDSSTKFSDVKGVDEA KAELEEIVHYLRDPKRFTRLGGKLPKGVLLVGPPGTGKTMLARAIAGEAGVPFFSCSG SEFEEMFVGVGARRVRDLFSAAKKCSPCIIFIDEIDAIGGSRNPKDQQYMKMTLNQML VELDGFKQNEGIIVVAATNFPESLDKALVRPGRFDRHIVVPNPDVEGRRQILESHMSK VLKAEDVDLMIIARGTPGFSGADLANLVNVAALKAAMDGSKDVTMSDLEFAKDRIM MGSERKSAVISDESRKLTAFHEGGHALVAIHTEGALPVHKATIVPRGMALGMVSQLPD KDETSISRKQMLARLDVCMGGRVAEELIFGESEVTSGASSDLEQATKLARAMVTKFG MSKEVGLVAHNYDDNGKSMSTETRLLIESEVKQLLEKAYNNAKTILTVYNKELHALA NALLQHETLSGKQIKELLTDLNSPLLQKRQEVVTKQSNPVPPSTPSSASSAAAAAAAA AAAAAAAAATAATKGKDMAPVS
AtFtsH5	MATTSSNPLLLSSNFLGSQIIISAPTPKTTTKSLPFSVISRKRYQISQSEKLMKSLPSQAA LAALLFSSSSPQALAVNEPVQPPAPTITAEAQSPNLSTFGQNVLMTAPNPQAQSSDLPD GTQWRYSEFLNAVKKGKVERVKFSKDGSVLQLTAVDNRRATVIVPNDPDLIDILAMN GVDISVSEGEGGNGLFDFIGNLLFPLLAFGGLFYLFRGGQGGAGGPGGLGGPMDFGR SKSKFQEVPETGVTFGDVAGADQAKLELQEVVDFLKNPDKYTALGAKIPKGCLLVGP PGTGKTLLARAVAGEAGVPFFSCAASEFVELFVGVGASRVRDLFEKAKSKAPCIVFID EIDAVGRQRGAGMGGGNDEREQTINQLLTEMDGFSGNSGVIVLAATNRPDVLDSALL RPGRFDRQVTVDRPDVAGRVQILKVHSRGKAIGKDVDYEKVARRTPGFTGADLQNL MNEAAILAARRELKEISKDEISDALERIIAGPEKKNAVVSEEKKRLVAYHEAGHALVG ALMPEYDPVAKISIIPRGQAGGLTFFAPSEERLESGLYSRSYLENQMAVALGGRVAEEVI FGDENVTTGASNDFMQVSRVARQMVERFGFSKKIGQVAVGGAGGNPFLGQSMSSQK DYSMATADVVDAEVRELVEKAYVRAKEIITTQIDILHKLAQLLIEKETVDGEEFMSLFI DGQAELYVS
AtFtsH6	MKMASSSSALSFPLSNIPTCSKKSQQFQKPASLSKSSHTHKPSLKTQILHHKFTKRNLL SLTTALGFTSALGTVLAHPAKAEPEAPIEATSNRMSYSRFLQHLKENEVKKVDLIENGT VAIVEISNPVVGKIQRVRVNLPGLPVDLVREMKEKNVDFAAHPMNVNWGAFLLNFLG NLGFPLILLVSLLLTSSSRRNPAGPNLPFGLGRSKAKFQMEPNTGITFEDVAGVDEAKQ DFEEIVEFLKTPEKFSALGAKIPKGVLLTGPPGTGKTLLAKAIAGEAGVPFFSLSGSEFI EMFVGVGASRARDLFNKAKANSPCIVFIDEIDAVGRMRGTGIGGGNDEREQTLNQILT EMDGFAGNTGVIVIAATNRPEILDSALLRPGRFDRQVSVGLPDIRGREEILKVHSRSKK LDKDVSLSVIAMRTPGFSGADLANLMNEAAILAGRRGKDKITLTEIDDSIDRIVAGME GTKMIDGKSKAIVAYHEVGHAICATLTEGHDPVQKVTLVPRGQARGLTWFLPGEDPTL

	VSKQQLFARIVGGLGGRAAEDVIFGEPEITTGAAGDLQQVTEIARQMVTMFGMSEIGP WALTDPAVKQNDVVLRMLARNSMSEKLAEDIDSCVKKIIGDAYEVAKKHVRNNREAI DKLVDVLLEKETLTGDEFRAILSEYTDQPLNTDGDVRIRINDLISV
AtFtsH7	MTTTFEFLQPRIHGFATCCSSNSLLYSKASRFFNDRCRVYRQNPNRFVSNSITLPLQKK QVTVLRNHERFNLWDGFSRKKSRLVVNCQEDDQNESSSEEEESSQSTPAKSERKREK KEDKVWWSKGKKWQWQPIIQAQGIGVLLLQLSVVMFVMRLLRPGIPLPGSEPRIQTT FVSVPYSEFLSKVNSNQVQKVEVDGVQVLFKLRDDGKWQESETSRLSQSSESLLRTV APTKRVVYSTTRPGDIKTPYEKMLGNNVEFGSPEKRSGGFFNSALIALFYIAVLAGLIR FPVSFSTSSTGQLRTRKAGGPDGGKVSGGGETITFADVAGVDEAKEELEEIVEFLRNPE KYVRLGARPPRGVLLVGLPGTGKTLLAKAVAGEAEVPFISCSASEFVELYVGMGASRV RDLFARAKKEAPSIIFIDEIDAVAKSRDGKFRMGSNDEREQTLNQLLTEMDGFDSNSAV IVLGATNRADVLDPALRRPGRFDRVVTVETPDKIGRESILRVHVSKKELPLGDDVNLG SIASMTTGFTGADLANLVNEAALLAGRKNKTNVEKIDFIQAVERSIAGIEKKSARLKG NEKAVVARHEAGHAVVGTAVANLLTGQPRVEKLSILPRTGGALGFTYIPPTSEDRYLLFI DELLGRLVTLLGGRAAEEVVYSGRISTGAFDDIRRATDMAYKAVAEYGLNQKIGPVSV ATLSGGGIDDSGGSPWGRDQGKLVDLVQKEVTILLQSALDVALSVVRANPDVLEGLG AQLEEKEKVEGEELQKWLSMVVAPEELAVFVEGKQELLLPAQASSS
AtFtsH8	MAASSACLLGNGLSVYTTKQRFQKLGLDRTSKVTVVKASLDEKKHEGRRGFFKLLL GNAAAGVGLLASGNANADEQGQGVSSSRMSYSRFLEYLDKGRVEKVDLYENGTIAI VEAVSPELGNRIQRVRVQLPGLSQELLQKLRAKNIDFAAHNAQEDQGSPILNLIGNLAF PVILIGGLFLLSRRSSGGMGGPGGPGFPLQIGQSKAKFQMEPNTGVTFDDVAGVDEAK QDFMEVVEFLKKPERFTAVGARIPKGVLLVGPPGTGKTLLAKAIAGEAGVPFFSISGSE FVEMFVGVGASRVRDLFKKAKENAPCIVFVDEIDAVGRQRGTGIGGGNDEREQTLNQ LLTEMDGFEGNTGVIVVAATNRADILDSALLRPGRFDRQVSVDVPDVKGRTDILKVHS GNKKFESGVSLEVIAMRTPGFSGADLANLLNEAAILAGRRGKTAISSKEIDDSIDRIVA GMEGTVMTDGKSKSLVAYHEVGHAICGTLTPGHDAVQKVTLIPRGQARGLTWFIPSD DPTLISKQQLFARIVGGLGGRAAEEVIFGESEVTTGAVSDLQQITGLAKQMVTTFGMS EIGPWSLMDSSEQSDVIMRMMARNSMSEKLANDIDTAVKTLSDKAYEIALSQIRNNRE AMDKIVEILLEKETMSGDEFRAILSEFTEIPPENRVASSTSTSTPTPASV
AtFtsH9	MTSIELLSPLIHDKFRFSTCCSTSSLLYLHASSFFRDRSFGFRQNPNRFVSNSSIQLPQSV PGSINQERFNLWQGFSRKKSTSSSRTIVNCQEGDQKASSSEGEGKTNKDKGRKQGKN ELWWSKGKKWQWKPIIQAQEIGVMLLQLGIVMFVVRLLRPGIPLPGSEPRTQTTFMS VPYSDFLSKVNNDEVQKVEVDGFHVLFKLKDDGNLQESETSSSSIKLSESSETMLRSV APTKRVVYSTTRPRDIKTPYEKMLENNVEFGSPDKRSGGFFNSGLIVLFYIAVLAGLLH RFPVNFSQSTTGQLRTRKSGGPGGGKVSGDGETITFADVAGVDEAKEELEEIVEFLKN PDRYVRLGARPPRGVLLVGLPGTGKTLLAKAVAGESDVPFISCSASEFVELYVGMGAS RVRDLFARAKKEAPSIIFIDEIDAVAKSRDGKFRMVSNDEREQTLNQLLTEMDGFDSSS AVIVLGATNRADVLDPALRRPGRFDRVVTVESPDKVGRESILKVHVSKKELPLGDDVN LASIASMTTGFTGADLANLVNEAALLAGRKSKMTVDKIDFIHAVERSIAGIEKKTARL KGSEKAVVARHEAGHAVVGTAVASLLSGQSRVEKLSILPRSGGALGFTYIPPTHEDRYL LFIDELHGRLVTLLGGRAAEEVVYSGRISTGALDDIRRATDMAYKAVAEYGLNEKIGP VSVATLSAGGIDDSGGSPWGRDQGHLVDLVQREVTNLLQSALDVALTVVRANPDVLE GLGAQLEDEEKVEGEELQKWLNRVVPSEELAVFIKGKQTALLPAQASSS
AtFtsH10	MIFSKLGSSLARSSRSKGFVYGGGVRSAVFNQGRLRAPQNLEAAVNQVDGGLGFLRR

	HFASFAARKGLEAGDLSRAFANPRLRRFFSSQTPKKKNYENYYPKDSKKAPKNEQKS ESRDGSKKNENENAGDAFSNEYQNMLIPLMAIALILSTFSLGSREQQQISFQEFKNKLL EAGLVDHIDVSNKEVAKVYVRSSPKSQTTEEVVQGPGNGVPAKGRGGQYKYYFNIGS VESFEEKLEEAQEAIGVNSHDFVPVTYVSETIWYQELLRFAPTLLLVATLIFGARRMQG GLGGLGGPGGKAGRGIFNIGKAQITRADKNSKNKIYFKDVAGCEEAKQEIMEFVHFL QNPKKYEDLGAKIPKGALLVGPPGTGKTLLAKATAGESAVPFLSISGSDFMEMFVGVG PSRVRNLFQEARQCAPSIIFIDEIDAIGRARGRGGFSGGNDERESTLNQLLVEMDGFGT TAGVVVLAGTNRPDILDKALLRPGRFDRQITIDKPDIKGRDQIFQIYLKKIKLDHEPSY YSQRLAALTPGFAGADIANVCNEAALIAARHEGATVTMAHFDSAIDRVIGGLEKKNR VISKLERRTVAYHESGHAVAGWFLEHAEPLLKVTIVPRGTAALGFAQYVPNENLLMTK EQLFDMTCMTLGGRAAEQVLIGRISTGAQNDLEKVTKMTYAQVAVYGFSDKIGLLSF PQREDEFSKPYSNRTGAMIDEEVREWVGKAYKRTVELIEEHKEQVAQIAELLLEKEVL HQDDLTKVLGERPFKSGETTNYDRFKSGFEESEKESQKESVPVKPVEDDGIPPLEPQV VPT
AtFtsH11	MSSSTLQASLFLRPPLHTSSFKLYPCLFSSSSLSFCPQSLSSFYRLSSVLHNSRFRPLPCS LRQDNVASDSDFIPKDSAFEVTDSAESNRLVSDTEVSELETNDRFVGGEETKSGGEEA EVSNGVTEGKEEDQKKSKFRIVVLMMALWAAIKRAIEKVMEWEWLSWWPFSRQEK RLEKLIAEADANPKDAALQGALLAELNKHIPEAVVQRFEQREHTVDSRGVAEYIRALV ITNAISEYLPDEQTGKPSSLPALLQELKHRASGNMDESFVNPGISEKQPLHVTMVNPK VSNKSRFAQELVSTILFTVAVGLVWIMGAAALQKYIGSLGGIGTSGVGSSSSYSPKELN KEITPEKNVKTFKDVKGCDDAKQELEEVVEYLKNPSKFTRLGGKLPKGILLTGAPGT GKTLLAKAIAGEAGVPFFYRAGSEFEEMFVGVGARRVRSLFQAAKKKAPCIIFIDEIDA VGSTRKQWEGHTKKTLHQLLVEMDGFEQNEGIIVMAATNLPDILDPALTRPGRFDRHI VVPSPDVRGREEILELYLQGKPMSEDVDVKAIARGTPGFNGADLANLVNIAAIKAAVE GAEKLSSEQLEFAKDRIVMGTERKTMFVSEDSKKLTAYHESGHAIVALNTKGAHPIHK ATIMPRGSALGMVTQLPSNDETSVSKRQLLARLDVCMGGRVAEELIFGLDHITTGASS DLSQATELAQYMVSSCGMSEAIGPVHIKERPSSDMQSRIDAEVVKLLREAYERVKSLL KRHEKQLHTLANALLEYETLTAEDIKRILLPKQEGEKFEEQQQEEGDLVLA
AtFtsH12	MEIAISYKPNPLISSSTQLLKRSKSFGLVRFPAKYGLGATRKKQLFRVYASESSSGSSSN SDGGFSWVRLAQSIRLGAERIGEKIGESVKTEIGFDSEEASGRVNEYVARVKDSVHKG HHELTRFKNETVPSFIDWNKWEHWKDIRNWDGKRVAALFIYAFALLLSCQRVYVAIQ APRVERERRELTESFMEALIPEPSPGNIEKFKRNMWRKATPKGLKLKRFIEAPDGTLVH DSSYVGENAWDDDLETTEGSLKKIIGRNARIQTEAKKKLSQDLGVSGEIGDSVGNWR ERLATWKEMLEREKLSEQLNSSAAKYVVEFDMKEVEKSLREDVIGRTSETEGTRALW ISKRWWRYRPKLPYTYFLQKLDSSEVAAVVFTEDLKRLYVTMKEGFPLEYIVDIPLDP YLFETICNAGVEVDLLQKRQIHYFMKVFIALLPGILILWFIRESAMLLLITSKRFLYKKY NQLFDMAYAENFILPVGDVSETKSMYKEVVLGGDVWDLLDELMIYMGNPMQYYEK DVAFVRGVLLSGPPGTGKTLFARTLAKESGLPFVFASGAEFTDSEKSGAAKINEMFSIA RRNAPAFVFVDEIDAIAGRHARKDPRRRATFEALIAQLDGEKEKTGIDRFSLRQAVIFIC ATNRPDELDLEFVRSGRIDRRLYIGLPDAKQRVQIFGVHSAGKNLAEDIDFGKLVFRTV GFSGADIRNLVNEAAIMSVRKGRSYIYQQDIVDVLDKQLLEGMGVLLTEEEQQKCEQ SVSYEKKRLLAVHEAGHIVLAHLFPRFDWHAFSQLLPGGKETAVSVFYPREDMVDQG YTTFGYMKMQMVVAHGGRCAERVVFGDNVTDGGKDDLEKITKIAREMVISPQSARL GLTQLVKKIGMVDLPDNPDGELIKYRWDHPHVMPAEMSVEVSELFTRELTRYIEETEE

	LAMNALRANRHILDLITRELLEKSRITGLEVEEKMKDLSPLMFEDFVKPFQINPDDEEL LPHKDRVSYQPVDLRAAPLHRS
AcFtsH5	MASTTTNPLFSSRFLGNQILLSPPTPNTTKFPSLSRRKFLVPQSILNRKPNHLNSIPSQAT LAALIFSSITPQALAVDTANPPNPPPVISAEAPKPIPSNSSSPFSQNLLLTAPKPQTQTTSD LPEGSQWRYSEFLNAVKKGKVERVRFSKDGSALQLTAVDGRRASVIVPNDPDLIDILA MNGVDISVSEGDSGNGLFSFIGNLLFPFLAFAGLFFLFRRSQGGPGGPGGLGGPMDFG RSKSKFQEVPETGVTFADVAGADQAKLELQEVVDFLKNPDKYTALGAKIPKGCLLVG PPGTGKTLLARAVAGEAGVPFFSCAASEFVELFVGVGASRVRDLFEKAKSKAPCIVFID EIDAVGRQRGAGLGGGNDEREQTINQLLTEMDGFSGNSGVIVLAATNRPDVLDSALL RPGRFDRQVTVDRPDVAGRVKILQVHSRGKALAKDVDFEKISRRTPGFTGADLQNLM NEAAILAARRDLKEISKDEISDALERIIAGPEKKNAVVSEEKKKLVAYHEAGHALVGAL MPEYDPVAKISIIPRGQAGGLTFFAPSEERLESGLYSRSYLENQMAVALGGRVAEEVIFG EDNVTTGASNDFMQVSRVARQMVERFGFSKKIGQIAIGGPGGNPFLGQQMSSQKDYS MATADIVDAEVRELVEKAYSRSKQIITTHIDILHKLAQLLIEKETVDGEEFMSLFIDGKA ELFVA
NtFtsH5	MANSLLSSNFMGSQIFVSPPTPKTTKYFHFHSKRKSLIPQSILNKKPNSDNSKNIPSKAA LAALLFSSITPHAYALDNTTPTVPTPRVIQAEAANPTTSNPFSQNIILNAPKPQAQTNPE LPEVSQWRYSEFLNAVKKGKVERVRFSKDGSALQLTAVDGRRATVTVPNDPDLIDILA MNGVDISVSEGDSAGNGLFNLIGNLFPFIAFAGLFYLFQRSQGGPGGPGGLGGPMDFG RSKSKFQEVPETGVTFADVAGADQAKLELQEVVDFLKNPDKYTALGAKIPKGCLLVG PPGTGKTLLARAVAGEAGVPFFSCAASEFVELFVGVGASRVRDLFEKAKSKAPCIVFID EIDAVGRQRGAGMGGGNDEREQTINQLLTEMDGFSGNSGVIVLAATNRPDVLDSALL RPGRFDRQVTVDRPDVAGRIKILQVHSRGKALTKDVDFEKIARRTPGYTGADLQNLM NEAAILAARRELKEISKDEISDALERIIAGPEKKNAVVSDEKKKLVAYHEAGHALVGAL MPEYDPVAKISIIPRGQAGGLTFFAPSEERLESGLYSRSYLENQMAVALGERVAEEVIFG QDNVTTGASNDFMQVSRVARQMVERLGFSKKIGQVAIGGGGGNPFLGQQMSTQKDY SMATADVVDAEVRELVERAYERATEIITTHIDILHKLAQLLIEKETVDGEEFMSLFIDGK AELYISWVSKEED
OsFtsH1	MAPPCSISSASHLLITASLPKPSLRPPRLPHPKPLPAALLALAAAAPTLPALADVPAPPPS PTQDVQVLEAPSPAANPFSNALLTAPKPTSSAAADLPEGAQWRYSEFLSAVKKGKVER VRFSKDGGLLQLTAIDGRRATVVVPNDPDLIDILATNGVDISVAEGDAAGPGGFLAFV GNLLFPFLAFAGLFFLFRRAQGGPGAGPGGLGGPMDFGRSKSKFQEVPETGVTFVDV AGADQAKLELQEVVDFLKNPDKYTALGAKIPKGCLLVGPPGTGKTLLARAVAGEAG VPFFSCAASEFVELFVGVGASRVRDLFEKAKAKAPCIVFIDEIDAVGRQRGAGLGGGN DEREQTINQLLTEMDGFAGNSGVIVLAATNRPDVLDAALLRPGRFDRQVTVDRPDVA GRVKILEVHSRGKALAKDVDFEKIARRTPGFTGADLQNLMNEAAILAARRDLKEISK DEISDALERIIAGPEKKNAVVSEEKRRLVAYHEAGHALVGALMPEYDPVAKISIIPRGQ AGGLTFFAPSEERLESGLYSRSYLENQMAVALGGRVAEEVIFGQENVTTGASNDFMQV SRVARQMVERFGFSKKIGQVAIGGPGGNPFLGQQMSSQKDYSMATADVVDAEVRELV EKAYSRATQIITTHIDILHKLAQLLMEKETVDGEEFMSLFIDGQAELFVA
PtFtsH5	MASSTRNPLLSSDLFGSKVLLSPPTPKTTKSSFLLSKNLLKIVNKKKSGSFKSLQSQATI AAALLFSSLTPQALAIDNPAPPPTPPPVIEALPTKPSSPFAQNLLVTAPKPQSESTSDLPE GSQWRYSEFLNAVKKGKVERVRFSKDGSTLQLSAVDGRRASVVVLNDPDLIDILARS GVDISVSEGDSGNGFFNVIGSLFFPILAVAGLFLLFRRVQGGPGGPGGLGGPMDFGRSK

	SKFQEVPETGVSFADVAGADQAKLELQEVVDFLKNPDKYTALGAKIPKGCLLVGSPG TGKTLLARAVAGEAGVPFFSCAASEFVEMFVGVGASRVRDLFEKAKSKAPCIVFIDEI DAVGRQRGAGLGGGNDEREQTINQLLTEMDGFSGNSGVIVLAATNRPDVLDSALLRP GRFDRQVTVDRPDIAGRVKILQVHSRGKALAKDVDFEKIARRTPGFTGADLQNLMNE AAIVAARRDLKEISKDEISDALERIIAGPEKKNAVVSDEKKRLVAYHEAGHALVGALM PEYDPVAKISIIPRGQAGGLTFFAPSEERLESGLYSRSYLENQMAVALGGRVAEEVIFGQ DNVTTGASSDFMQVSRVARQMVERFGFSKKIGQVAIGGSGGNPFLGQQMSSQKDYS MATADVVDTEVRELVETAYSRAKQIMTTHIDILHKLAQLLIEKETVDGEEFMSLFIDGK AELYIA
VvFtsH5	MASSSTTNPLLSSTLFGNRISTPKTTKSSIPLQFFSRRRFEVTRSILNGKPRSELPSKAAL AAIIASSLAPQALAVDNATPPVPPPVIEAQPTKPSPSNSSPFAQNLLLTAPKPQTQSDLPE GSQWRYSEFLNAVKKGKVERVRFSKDGSALQLTAVDGRRATVIVPNDPDLIDILAMN GVDISVSEGDSGNGLFNFIGNLLFPFLAFAGLFFLFRRAQGGPGGPGGLGGPMDFGRS KSKFQEVPETGVTFADVAGADQAKLELQEVVDFLKNPDKYTALGAKIPKGCLLVGPP GTGKTLLARAVAGEAGVPFFSCAASEFVELFVGVGASRVRDLFEKAKSKAPCIVFIDEI DAVGRQRGAGLGGGNDEREQTINQLLTEMDGFSGNSGVIVLAATNRPDVLDSALLRP GRFDRQVTVDRPDVAGRVKILQVHSRGKALAKDVDFEKIARRTPGFTGADLQNLMN EAAILAARRDLKEISKDEISDALERIIAGPEKKNAVVSDEKKKLVAYHEAGHALVGAL MPEYDPVAKISIIPRGQAGGLTFFAPSEERLESGLYSRSYLENQMAVALGGRVAEEVIFG EDNVTTGASNDFMQVSRVARQMVERFGFSKKIGQVAIGGPGGNPFLGQQMSSQKDY SMATADIVDAEVRELVEKAYSRAKQIMTTHIDILHKLAQLLIEKETVDGEEFMSLFIDG KAELFVA
ZmFtsH5	MAPPSVSASHLLITASLPKPKPSSLRPPRLPLAKPLPASAALLALAASPALAADAPAPAP APTPAPAPELQAEAPTPTVNPFSSSLLTAPKPSAAASDLPEGAQWRYSEFLSAVKRGKV ERVRFSKDGGLLQLTAVDGRRATVVVPNDPDLIDILATNGVDISVSEGESAGPGGFVAF VGNLLFPFIAFAGLFFLFRRAQGGPGAGPGGLGGPMDFGRSKSKFQEVPETGVTFLDV AGADQAKLELQEVVDFLKNPDKYTALGAKIPKGCLLVGPPGTGKTLLARAVAGEAG VPFFSCAASEFVELFVGVGASRVRDLFEKAKAKAPCIVFIDEIDAVGRQRGAGLGGGN DEREQTINQLLTEMDGFAGNSGVIVLAATNRPDVLDSALLRPGRFDRQVTVDRPDVA GRVKILEVHSRGKALAKDVDFDKIARRTPGFTGADLQNLMNEAAILAARRDLKEISK DEISDALERIIAGPEKKNAVVSEEKKRLVAYHEAGHALVGALMPEYDPVAKISIIPRGQ AGGLTFFAPSEERLESGLYSRSYLENQMAVALGGRVAEEVIFGQDNVTTGASNDFMQV SRVARQMVERFGFSKKIGQVAIGGPGGNPFLGQQMSSQKDYSMATADVVDAEVRELV EKAYSRARQIITTHIDILHKLAQLLIEKETVDGEEFMSLFIDGQAELFVA