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VDMAPSGHTLNLFKLMDTFLNSLELFQEK-HKY--PNEVDEVLQNLKELAALLQNSSNTACLVVALPEPM

SFRETQRFLSSLEEIKIPYAGIVVNQIVV------DKDGNDRYHEQQKLVNDFI-K-LDKPVFLVPEKA-

EPLGVTALEKLTNI--------------------NKVPPGFTDFKGKRLLIVGGKGGVGKTTIAAAISWE

MAKRYPERVRAVSIDPAHSLGDASIISSNLKGQEIEANKVLEKFREDYLWELAEMMSGEKMAFAPKGWRQ

IVEQALPGIDEILSFITEEKQDLIVLDTAPTGHLLRFLEMPTAIYQDIIFMRLLRQRVVKAQKILKDPKK

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KTYIF------------------

>Q3MH41|Q3MH41\_A

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IDMAPSGHTLNLLRLKDVILNSLELFQEK-HRV--ADEVDSFLVEMKQLAELLQDEKFTGCLVVGISEPM

CFYETERFLNSLETLDVPYAGLFINHILL------NSELEDRYAEQQNLLNKYL-NLHNQPVFIVPQQRV

EPLGASQIQKIASE---------------------QVLPGFHDFEECKLIIIGGKGGVGKTTVAAAIAWA

SAQQHPDKIQVISIDPAHSLGDAISLSSNLCGQEIDANRVLEQFRRDYLWELADMISGEGVAYVPEAWRQ

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VASLLFEVEELTA----------

>Q8YUT7|Q8YUT7\_N

YDS----LHLVMFSGKGGVGKTTISCSFARYWA-RPQKILLISTDPAHSLGDVLQSEV-KDI-AL-----

LSVQALDAQKLLLEFKAEIRGSLAD--GGDLAPVWDLNW--PGLNELMGLLEIQRLLAD-----EADRVV

IDMAPSGHTLNLLRL-KDFLDVIFQEKH--RVI--ADEVDNFLVEMKQLAELLQDEKFTGCLVVGISEPM

CFSETERFLNSLETLDVPYAGLFINHILL------NSELEDRYAEQQNLLTKYL-N-LNQPVFIVPQRV-

EPLGV-ALDSLASI---------------------QVLPSFHDFEGCKLIIIGGKGGVGKTTVAAGIAWA

SAQQHPDKIQVISIDPAHSLGDAISLTSNLSGQEIDANRVLEQFRRDYLWELADMISGEGVAYVPEAWRQ

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VASLLFEVEELTA----------

>A0ZJM9|A0ZJM9\_N

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LSVRALDAEKLLVEFRAELRGSLAD--GEDLAPVWELNW--PGLNELMGLLEIQRLLSE-----TVDRIV

LDMAPSGHTLNLLQLEDVILNSFELFQQK-HRV--PDEVDDFLEHMKQLAELLQDETFTGCLVVTIAEPM

CLSETERFLDNLKTLNIHYTGILINRIIT-----DSDINTDRYAEQQNLTDKFL-K-INQPVFIVPQQAK

EPLGPLALDDLARI---------------------RILPSFSDFEGCQLIIVGGKGGVGKTTVAGALGWG

LANRHPQQIRIISIDPAHSLGDASSLATNLTGQEIDADEILDQFRTDYLWELADMISGEGIAYLPGAWRQ

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IANLLFDFD--------------

>D4TEP4|D4TEP4\_9

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VDMAPSGHTVSLLKLKDVILHSLELFQKK-YQV--PDAVDDFLIDFKQLSELLQDSQFTGFLIVGIAEPM

CLAETERFLEQLKTLEVPFGGILINRILT------DPNMDDRYAEQQNYVQKFL-NLSGQPVFIIPQQPA

APLGSQALDKLAGI---------------------RIPPSFTDFQGCKLIIVGGKGGVGKTTVSAAMGWA

FASHYPQKISVISIDPAHSLGDAQPITPNLCGQEIDADKILDQFRTDYLWELADMISGEGIAYLPEAWRQ

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IANLLFAFEK-------------

>D8G9S6|D8G9S6\_9

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VDMAPSGHTVNLFGLKDVMLASLELFQQK-HRV--TDEADRFLTDMKELAELLEDTDFSACNVVAIAEPM

SLLETQRFLDSLHKLEIPCGGLFVNHIIT-----NTDTNADRYSEQQQLLQKFL-Q-LNHHIFTVPQQNS

EPLGAEALDHLIAI---------------------KIPPSFSDFEERQLILVGGKGGVGKTTVAAAMGWA

MANRYPDKIRIISIDPAHSLGDAQQLSDNLSAQEIDAEIVLDQFREDYLWELAE-MISGEMAYSPEAWRQ

IVAQALPGIDEMLSLVADSKQDLIILDTAPTGHLLRFLEMPTALYQNVLLMRLLRQQVVQSQKKLKDPSH

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IANLLF-----------------

>F5UNY9|F5UNY9\_9

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VDMAPSGHTLNLLGIKNIVLNSLELFQEK-HRV--ADEVDDFLVKMKELAELLQNKDISACLVVAIAEPM

SLLETERFLESLQVLEIQSGGLFINRILT------DANTDDRYSEQQQLLKKFV-E-LKQPVFIVPQQAS

EPLGISQIQKIDTA---------------------KVLPSFCDFEGRQLILVGGKGGVGKTTVAAAIGWA

LASRYPDKIRLISIDPAHSLGDATQITTNLSGQEINADIVLEQFRNDYLWELAE-MMSGEIAYTPEAWRQ

IVAQALPGIDEMLSLIAERKQDLIILDTAPTGHLLRFLEMPSALYQNVLFMRLLRQQVVQAQKKLKDPNH

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IANLLF-----------------

>A8Y9S9|A8Y9S9\_M

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LKVRALDAEKLLLEFKEELRGSFVGE---DLTPVWDLDW--PGLDEIMGLLEIQRLLL------EVDRIV

VDMAPSGHTLNLLEIKEIILNSLELFQEK-HRV--ADDVDDFLVKTKELTELLQNRDFTLCLIVAIAEPM

SLLETERLLNSLHHLNIPCGNLFINRILT------DPNQNDRYSEQQQLLDKFL-KI-PGQIFTLPQQAK

EPLGGEALDQIMSI---------------------KILPSFSDFDKRQLIIIGGKGGVGKTTVAAAIGWA

LANRHPEQIRIISIDPAHSLGDATQLTDNLSGQEVDANIVLEKFRDDYLWELAE-MISGELAYTPEAWRQ

IVSQSLPGIDEMLSLVKDQKEDLIILDTAPTGHLLRFLEMPTALYQNVLLMRLLRQQVMSAQKKLKDLQH

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VADLLF-----------------

>B0JPL9|B0JPL9\_M

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VDMAPSGHTLNLLGIKEIILNSLELFQEK------FSDVDDFLVKTQELTEILQDRDFTLCLIVAIAEPM

SLLETERLLNSLHHLNIPCGSLFINRILT------DPNQNDRYSEQQQLLDKFL-K-IQETIFTLPQQSK

EPLG-EALDQIMSI---------------------KILPSFSDFDKRQLIIIGGKGGVGKTTVAAAIGWA

LANRHPDQIRIISIDPAHSLGDATQLTDNLSGQEVDANIILEKFRDDYLWELAE-MISGELAYTPEAWRQ

IVAQSLPGIDEMLSLVTDQKQDLIILDTAPTGHLLRFLEMPTALYQNVLLMRLLRQQVMSAQKKLKDPQH

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VADLLF-----------------

>Q08Z69|Q08Z69\_S

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LYAAELEPLKFAAKYIPALAGKGTH-SEEDLGKIFAQAV--PGLEELVGLFHLQTLLED-----EFDRIV

VDASPTSHTLRLFDLPRKFLGIVKTG-AE------VVFLEETGARAERLLALLKDGTRSAFHLVALAEPV

PEAQTRMLFAQLRERGIPVTEILVNQVEA------CPACHGRRGLQAPHVRKFQ-A-LNVPVHLVAKREL

APRGLDGLKEFSKW---------------------FSAAEGPPARATRLIFFVGQGGVGKSSCAAAAAVT

LTEKEGPVLISTDPAHSLSRLTDGLYARELDVAGWFNALRKRLKEKAEKAFEGAKSGND-VPPDLAALRN

LLECAPPGIDELAALSCVQERKRIVVDPAPMVTAMRVVELADTAYRAKGADVALKHVKRFE-EALASPNE

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MLGRHPAGLRELK----------

>F8CHQ0|F8CHQ0\_M

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VDAAPTSHTLRLFDLPRKFLGLVKAG-AD------AAFLEQVGQKAEKLLALLKDPARTAFHLVALAEPV

PEAQTRMLFTQLRERGLPVTEIVVNQIED------CPACQGRRGLQAPHVRKFQ-A-LTVPVHLLGRREV

APRGLEGLALFAKW---------------------FAAAEGPPARATRLIFFVGQGGVGKSSCAAAAAVT

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>Q1D553|Q1D553\_M

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VDAAPTSHTLRLFDLPRKFLGLVKAG-GD------AAFLEQVGQKAEKLLALLKDPARTAFHLVALAEPV

PEAQTRMLFTQLRERGLPVTEIVVNQIED------CPACQGRRGLQAPHVRKFQ-A-LTVPVHLLGRREV

APRGLDGLALFAKW---------------------FAAAEGPPARATRLIFFVGQGGVGKSSCAAAAAVT

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>E3K4G7|E3K4G7\_P

-------ILWKILMSKGGKGGVAS----------CRESVLLVSMDPAHNLADTFCQKFSKHAMRVS---E

LYGIEIELQGDQDG---------------GMMPDPVFTI--PGMDEAMRFAEIMKRVQS-----KYSVII

FDTAPTSHALRFLSFPENAIEKLSLLSGHGPIMQ-FGKLNGMRALIAEVNGQLKDPRFFIYIILAGPDDI

QLTEELRGVKSITNFKMLIAPVLAQQTIVNAQ--ERELAQARWSIRQRYWKALGGIFGAFKKLHLSVVAR

AIRGPNGLMILQKIWEMQSVKFAKGRDSRTTNRTQAENSSTYDRSLFK------SGDVGPNPTKNQLKEW

GKIRLSAFSMAVFFLYGVAGWWSQKDVWSIVQLAHVKNKWIYAPDHLPTQHADEPWYTTDETNMACRDMT

QIDWEFAPAFWAKHVTELNIAFALEDILNQVCAQNPLKSLNMHGKVSPDDARKEKIKASISSGWKSTFKS

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GVAESKRLAAELNYQGVSITDIVVNQCVGSEA--LQQYYDRRKDGQKKWIAKLEEGSSPIGITRVPFFDV

ELVGVPALGYFTELSFSSEPRVVGGKGGVGTSSALSMASKGHKVISTD------PAHSIGDAIEIDLSGG

KLVDVPLIIPTTDGSLSVLEIDPVVDQLIGGDDNPSDAGLRNTLRDLQEVFDTLAGTDEVLVKKGGFDRI

VLDTAPTGHTLRMLSTPGFLALIDRLLIIAEKVNSNTAIKMLIGSSARSNAATSTLLSFQLQMYDLENLF

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>F2NHZ5|F2NHZ5\_D

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LTAKEFNAQQALKSFQAQHRDKFVSFDEEDIRQVLELSL--PGLDELMALLEIAGWVET-----SYTQII

VDTAPTGHTLRLLTIPRNWLKALDALMH--RFM--YQEMDRFLASLTKVKQLLHHTRLCRFVPVMLAEEI

VISETLKLLGELRRRQIPVVEIIVNRLYP------CPRCAAGYQRQRQLLAELA-SLSSWG---LPLFPD

EIRG-ANLATLWLL---------------------TPSGPATIQSPPTFLIFAGKGGVGKSTVASATALR

LAREFPERCLLFSTDPAHLKLPVGLTAIEIDAPGEFAAFKKRYRQDLERFFQSTKNID--VPFDRQVLER

LLDLSPPGLDEIMALVIDQGSDLFILDAAPTGHLLRLLELPELIYQLAFLSEMISRKVKLLRKMWQDPVK

TALYTVSILTEMAFQETSDLLAACNQGLWTPVLFLNQATPASDCPLCAALNRREALIRAKYQESFAKLHQ

TRQTTPRGLDLLD----------

>Q1INY9|Q1INY9\_K

-------PSFTFVIGKGGVGKTTVAASLALHTAH-PRKTLLLSTDPAHSLADVLETKLGDTPKKL-----

LYARELDASAAVEEFLAAQREGILSLTRDEIAPLLDSAL--PGMAEVAALLAIHDLLES-----DYDEVI

VDTAPMGHTLRLFELPERFLH-LLEVSRD-AVLGGVARWQEMVRKVASLDH-----EHARLLLVTSSEKF

SLNEAIRAREQLQRAPVPIAEIVLNRAVT--ASG-CKRCTTAAKAARRFLKEFK-R---VPLREDP---G

SPIGVDALTAFGKV---------------------ALRLKQSKPEKTPLTLTLGKGGVGKTSAAMAFHAR

AKNAKEAVICSIDPAPSLDDVFQVLDDAKLFAAEIDAVGEYQRWAEEMRARVEDTSTEVRERDLFLAILD

VVPPGVDELFATFRILDLVERGRVQIDMAPTGHALEVLRTPARLHRTLPAAEIVSQRVRELSTTLSDSKR

SQVWVVMLAEPLPDRETRRLLCDLQ-----ELKAPVAGVFVNRVLMDETHCPRCSRAQAWQRQTLAKMKD

GVFVVPEMPEEIA----------

>A5G5D4|A5G5D4\_G

---------M--FGGKGGCGKTTSAAAASIYLARLGKKVVLISLDPAHSLGDCFES-VGGDITRV-----

LWLLEMDARKLFQDFRKKYEGVMKK-AERGTYEDVEGFF--PGLDEVMAVIEVVRLLKS-----EFDLIV

LDTAPTGHTLRLLALPKKWIAVFDLMQH--RLL--RDATDEFLKTMTDLDRLLKDGMMTEFVPVTIPEPA

AIEETGRLLASLKEYRIAVRSLIVNRVVE-----DCPFCSSRRKGIEGYLAEIG-E-RDCNLVFAPLIHH

EINGFENLCKFAEL-----------------PVKIAAFRNAIAERKLEFLLFGGKGGVGKTTMAASTALY

MARENPERILILSTDPAHFDRTISSAGGHLFALEMDASRMLNVFQKEYCADIEAFSPFVAKEVMLGLIEL

SPPGLDEIMGLKKMLEL-RGADLFVIDTAPTGHALRFLETPEIVYKEIVAAGILLRDVKNVKKALTDSLQ

TEFVAVTIPESLAILETERLLSGIR------RLGIPSRHIIVNMVTPPAGCRCCKGEQEKYLRQVTAKWG

NVAVVPLFLSPVK----------

>Q011W9|Q011W9\_O

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LSAIEIDPDVAAEEYRQETIEPMRALLGDEEIQTVEEQLNSPCVEEIAAFDNFVDFMDSP----EYDVVV

FDTAPTGHTIRLMELPSDWNAELEK--GGSTCIGPAASMDDKKADYERAIDTLSDESRTSFAFVGKPESS

SIDEIERSASDLAELGISSQLLVVNGYLPESV-CEDPFFEGKRADEQAVIDRVESTFDQQALATYPLQPG

EIAGLELLSDVGGLYDTVVDAATATNEDTVFFTDADAVAEELVPEETRYLFFTGKGGVGKSTIASTTAVS

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SIDEVERSAGDLAELGIESQLLILNGYLPESV-CEDPFFEGKREDEQAVIERAREEFDADATGTYPLQPG

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>C7P537|C7P537\_H

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FDTAPTGHTIRLMELPSDWNAELEK--GGSTCIGPAASMEERKHEYERAIDTLQNNNRTSFGFVGKPEDS

SIDEIKRSASDLGDLGIESQLLIINGYLPESV-CEDPFFEGKYEDEQAVIDRAQTEFDADAMATYPLQPG

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