

>AUM61936

NSDFIKVDDDRINMKQVFNFMNMIINQTNKVTKAHPEVTPFYKYIMFGGIEFGKK-----  
TNRMHVHGYYVYCTKQKSIKE  
LKKHWG-----TEAHFDVALMCDPIYEE-----GERPKQGNRSDIASAIEECETIGELMDSNPELYCKYRNLK  
DIYARKEALKPKTYEQ-----PEIIWNYGQTGLGKTRMAFEDEECVN-----YDNSFFSDWHES--  
-KVISLEEFNGKIPYKT--LLQLTDGYH--NYYRINIKGGDKLVDLKRIYISSSVHPRDIYRQQDMKE---NEGGIDQL  
MRRITKINHF-

>Circo\_AAZ78351

KRWVFTLNNPSEDERKK---IRELPIS--EEGNEE-GTPHLQGFANFVKKQTFNK----VKWYFG-AR---CHIEKAKG  
-TDQQ-----NKEYCSKEGS-----QGQRSDLSTAVSTLLES-G-SLVTVAEQHPVTFVRNFRGLA  
ELLKVSQKMQKRDWK-----TNVHVIVGPPGCGKSKWAANFAT-----YWKPRNKWWDGYHGE--  
-EVVVIDDF-YGWLPWD--DLLRLCDRYP--LTVETKGG-TVPFLARSILITSNQTPLEWYSSTA-----VP-AVEAL  
YRRITSLVFW-

>Circo\_ABU48445

KRWVFTINNPTFEDYVS---VIEFCTA-EEEEKGEKEGTPHLQGFSLRKNARAAA----LEENLG-GR---AWLSRAVG  
-SDEE-----NEEYCSKETR-----KGRSSDLNAAASEVLAG-A-LMTDVARKYPTTYIMFGRGLE  
RLRQLIVETP-RDWK-----TEVIVLIGPPGSGKSRYAFEFK-----YYKARGKWWWDGYEGN--  
-DVVVMDDF-YGWLPYD--DLLRICDRYP---IRVEYKGG-MTQFVAKTLIITSNREPREWYKCEV-----DC---TAL  
YRRIDRYLVM-

>Circo\_ADD62451

RRFCFTWNDHPVEAYEK---CEKFIEK-FEEYAPTTGMPHLQGFNCNLKPTRFST---IKKHLD-NS---IHIEKANG  
-TDEQ-----NQKYCSKSGK-----QGQRNDLQSLVEFIHEKRP-TIRDIATEHPTTYIRYFRGIE  
RMLQLVNPQKQDFK-----TEVYYYWGPPGTGKSRRALEEAQ-----AIYYKPRGLWWDGYEQQ--  
-DSVIIDDF-YGWIKYD--EMLKIMDRYP---YKVQVKGGA-FQEFTSKKIFITSNVDTDELYKFGV-----YT--TAAF  
ERRITNKEYM-

>Circo\_ADD62453

RRFCFTWNNYTVADTLT---VKDYFVK-YEELAPETGTPHLQGFNCNLKPKRQFSA---IKKHLS-DR---IHIEKANG  
-SDEQ-----NQSYCKKAGK-----QGDRSDLKSVSTIADGAN-TAQAIKHPVEFIKYYKGIS  
EYLRLAPIAPRKFK-----TYVYYYWGPPGSGKSRRALEEAE-----SIYYKPRGLWWDGYRQQ--  
-QSVIIDDF-YGWIKYD--ELLKITDRYP---YKVQVKGGA-FEFTSTRIWFTSNVDTDRLYRFDG-----FT--PEAF  
ERRITAKIHI-

>Circo\_ADD62455

RRFCFTWNNYPTAYEK---CETFIQK-FEELAPTTGTPHLQGFNCNLKPKRQFSA---IKKHLD-NS---IHIEKANG  
-SDEQ-----NQAYCSKTGK-----QGQRNDLQLLVDDVGHPI-KTKDIAAKYPSTFVRYFRGIK  
ELQRVHPVAERMFK-----TEVYYYWGPPGTGKSRRALEEAQ-----AIYYKPRGLWWDGYEQQ--  
-DSVIIDDF-YGWIKYD--ELLKITDRYP---YKVQIKGG-FEFTSKKIFITSNVDTDELYKFNG-----YN--TAAL  
ERRITVKEYM-

>Circo\_ADD62457

RRFCFTWNNYTELNYAL---CQEFIKK-YKELAPTTNTPHLQGFNCNLKQPMRFST---IKKRLD-NG---IHIEKSMG  
-SDTQ-----NQTYCSKSGC-----QGKRNDLQSVVDTIQAGNG-SLSSIANEHPTAYIRYFRGIQ  
EYIKTVRPIPPRYHK-----TEVRYHGGPPGSGKSRRALEEAT-----AIYYKPRGTWWDGYKQQ--  
-SCVIIDDF-YGWIKYD--EMLKICDRYP---YKVQIKGG-FEFTSKYIWITSNIDTNLLYKFND-----YN--DTAF  
VRRIEIKLLI-

>Circo\_ADD62461

RKFCFTWNNYEFDAYAK---CETFLNN-FEELCPSTGTPHLQGYVNLKPTRFST---IKKHLH-NA---IHIEKANG  
-SDEQ-----NQTYCRKSGK-----QGQRDLQLLVKDTMEPSN-TLKDIATKHPIAYIRYFRGIQ  
ELRRMVLPPPRNYP-----TEVRYHGGPPGSGKSRRALQEAT-----EIYYKPRGQWWDGYEQQ--  
-SCVIIDDF-YGWIKYD--EILKICDRYP---YKVQIKGG-YEFTSTHIWFTSNVDTDLLYKFNN-----YI--NTAF  
ERRITIKEHI-

>Circo\_ADD62471

RRFVFTLNNYTEDQYQK---CVEFIST-KKEVGEENGTPHLQGFCNLHKPMRFGT---IKKSID-NA---IHIEKANG  
-SDID-----NQKYCSKAGQ-----QGRRTDLESLVAGIAAGAN-TTSKVATEFPAMYIKYHRGIN  
EYLKLAFFPIKPRTEK-----TWVYYYWGPTGSGKSRRALEEAQ-----SIYYKPRGLWWDGYHQ--  
-ENVIIDDF-YGWIKYD--ELLKITDRYP---YKVQVKGK-FEFTSTRIWITSEKDTCDLYKYEG-----YN--PASF  
ERRITCKINI-

>Circo\_ADD62473

RRFCFTWNNYSELEYVL---CCEFIKK-YKEIAPNTGTHHLQGFCNLEKPMRFST---IKKRLD-SR---IHIEKAAG  
-SDSE-----NQTYCSKTGQ-----QGRRTDLQAVVSAIQNGEITTPKMVAELHGAVYIKYHRGIE  
KILHQLHPVPPRDIP-----TELRVYWGPPGSGKSRRALEEAR-----TIYYKPRGLWWDGYEQ--  
-NCVIIDDF-YGWIKYD--ELLKICDRYP---YKVQIKGS-FQEFTSKYIFITSNVDTCDWYKFAG-----YN--VNAI  
ERRITIKIYM-

>Circo\_ADD62475

KRWCFTLNNYTQLEAIT---IEQLLCT-EEEIG-ENGTPHLQGFFNLKKKRLTS---LKAWLN-DR---AHYEEAKG  
-SDEQ-----NRRYCSKSGK-----QGQRNDLVLAELLES-G-NMAAVADLYPSAVIRYGRGLQ  
QYWQLIGFS-ARDFK-----TEVFVYVGPPGCGKSRAAAELG-A---AVYYKPRGEWWDGYNGE--  
-ATVIIDDF-YGWLKYD--ELLRLCDRYP---HRVPVKGG-FVQFCSKRIILTSNIHVWMWYRFES-----YD--ASAL  
MRRINVYKLW-

>Circo\_ADD62477

RRFCWTLNNYTEEDVTT---LQKDLAE-LRETCPTGTKHLQGFCNLQRPKRFSS---IRKLFK-ER---AHIEKAKG  
-SDFD-----NKAYCSKSGS-----QGARNDLQEVVSVIEGGER-NIKAVALQFPPTYIKYFKGIE  
QYIRICHSSAERDFA-----TQVSFFWGPTGSGKSRRAYEEAK-----AIYYKPRGEWWDGYCGH--  
-ANVIIDDF-YGWLKYD--ELLKICDRYP---YRVPVKGG-YENFVTKRIWITSEKPLEQIYRFIG-----YD--CSSI  
RRRLNTELYI-

>Circo\_ADI48251

RRFIFTWNNYTDDDYDK---TCAFIKG-NKEHAPTTGVPHLQGFCNLSKPMRFS---IKKCLS-NS---IHIEKAIG  
-SDEQ-----NQKYCSKAGT-----QGKRTDLEAVVRDMEQGTVR-LEDIAAKHPCAFIKYHRGID  
QLLKLHPIKPRDFQ-----TYVYYYWGEPGTGKSRRAKSEAD-----AIYYKPRGLWWDGYRQQ--  
-ENVIIDDF-YGWIKYD--ELLKICDRYP---YKVQIKGG-FEFTSKRIWITSNVDIYSLYKFEG-----YN--AEAF  
KRRITCMVEM-

>Circo\_ADU76993

RRFCWTLNNYTEDDVDQ---LQKDLPE-LREVCPTGTKHLQGFCNLQRPKRFNN---IREIFK-GR---AHIEGAKG  
-SDQD-----NQRYSKSGN-----QGARSDEEVVSIKGGGER-DVKAVALQCPTAYIKYFKGIE  
NYIRIYHATPERDFK-----TEVYFFWGPTGAGKSRTAREQAL-----AVYYKPRGDWWDGYNGH--  
-ECVIFDDF-YGWIKYD--EVLKICDRYP---YRVPVKGG-YENFIAKKIWFTSNKPLEQIYKFID-----YE--PSAW  
RRRLTVEREF-

>Circo\_ADU77009

KRWCFTLNNPTDEDEIKS---LDSWL---LSKEVGEQGTGPHLQGFHLLKQKRLSQ---LKQLFN--R---AHWEKARG  
-SDED-----NEKYCSKEGR-----GNR-SDLSGAVAAVKAG-R-AMTEVAREFSEIYVKYGRGLR  
DLKLLIGQ-QPRDFK-----TEVIVITGPPGCGKSRAA-EYK-----FYKMKGEWWDGYDHQ--  
-DVVVIDDF-YGWLPFC--ELLRVTD RYP---HKVPVKGGA-FVEFTSRVIVTSNSPPDAWYSEEK-----CC--VQAL  
FRRINKWLW-

>Circo\_ADU77011

RRFVFTWNNYPIEAYDK---CEKYLTK-FEEIAPETGTPHLQGFCNLHKPTRFST---IKKHLD-NS---IHIEKANG  
-SDID-----NQKYCSKSGK-----QGQRSDLAVVSNKILEGST-TIRDIATQHPETYIRYFRGIR  
ELQRLVNPISPRDFP-----TQVYYYYGPPGTGKSRTALEEAK-----KIYYKPRGLWWDGYTNQ--  
-KCVIIDDF-YGWIKYD--ELLKICDRYP---YKVQIKGG-FEEFNSTHIWITSNVDTDLLYKFTG-----YC--NAAF  
ERRITIKKYF-

>Circo\_ADY17982

RRFVFTWNNYTPSDFET---CITFLDN-FKEKCPTTQTPHIQGFNLSKPMRFNN----IKKHLH-NS----IHIEKANG  
-SDEQ-----NKIYCSKSGK-----QGKRNDLDAVVTIQNGTN-TISNVAKLHPISFIKYHKGIK  
EYINHVNPIRPRHYK-----SEVYYYWGPPGTGKSRTALEKAT----AIYYKPRGLWWDGYQQQ--  
-TSVIIDDF-YGWIKYD--ELLKICDRYP---YKVQIKGG-FEEFTSKYIFITSNVDTCDLKYFRN-----YN--TDAI  
ERRITEKIHF-

>Circo\_AEL28794

KRWCFTLNNPTEQEVQT---CSRFBV---EAREVGEQGTPLHQLGFLHFRAKKRLSA----LKKLLQ--R----AHWEKARG  
-SDAE-----NKEYCSKEGG-----ANTTSDLAEAVA AVHAG-R-RMIEIARDFSEAYVKYGAGLH  
RLHLMIGS-RPRDFK-----TEVTVLWGPPGKGSRWAA-DLK-----YKMKGDWWDGYTGE--  
-EVVVIDDF-YGWLPYC--ELLRLMDRYP---HKVPFKGG-YMEFTSKHIVITSNSPPNEWYKS-I-----EN--KAAM  
YRRFTRVLTW-

>Circo\_AEL87786

RRFVFTLNNYTDEHYTK---CCAFITD-HKEVG-EKGTPLHQLGFCNLTKPMRFNA----IKQHLH-NT----IHLEKANG  
-SDED-----NQRYSKAGV-----QGQRSDLSCVVDRI RDGKT--ITDIATEFPTQFIRYHRGIR  
ELLQVIKPIPRDFK-----TYVYYYWGPPGSGKSRRALEEAR----AIYYKPRGLWWDGYKQQ--  
-KNVIIDDF-YGWIKYD--EMLKICDRYP---YKVQVKGKGG-FEEFTSTRIWITSNVDIYSLYHFAG-----YN--AEAI  
KRRCTSIIEI-

>Circo\_AEL87790

RRFVFTWNNYCDDEFVK---SCNYIKE-FKELCPTTGTRHLQGFNLIKPTRFST----IKQRLH-NT----IHIEKANG  
-SDEQ-----NQNYCKKSGT-----QGQRTDLKLLVADIEQGIT-NIKDIASRHPTAFIKYHRGID  
TYLKLTHPIQPRNYK-----TWVYYYWGPPGSGKSKRALEEAQ----SIYYKPRGLWWDGYKQQ--  
-ENVIVDDF-YGWIKYD--ELLKICDRYP---YKVQIKGG-FEEFTSTRIWFITSNVDTDLLYKFDN-----YN--VAAF  
ERRITCKINI-

>Circo\_AEL87792

RRFCFTWNNPTELDLDFAL---CSEFIKK-YKEIAPTTGTLHLQGFNQLKPMRFST----IKQRLD-NR----IHLEKANG  
-SDEE-----NQKYCSKSGF-----PGRRTDLESLVSSIKNREVTTLKGV AEMHGACFIKYHRGIQ  
AYMQQMVPPIQPRDFK-----TEVYFYWGPPGTGKSRRAAEEAR----TVYYKPRGLWWDGYEQQ--  
-KAVVIDDF-YGWIKYD--EMLKICDRYP---YKVQIKGG-FQEFKAEAIWITSNVSIDLLYRFTG-----YD--PAAL  
QRRMTCIDYM-

>Circo\_AFL02442

RRWCFTLNNPTDGEIEF---VRTLG---PDREKGEQGTPLHQLGYFHFKNKKRLSA----LKKMLP--R----AHFERAKG  
-SDAD-----NEKYCSKEGR-----DGH-RAFDGAVA AVMTG-C-KMKEVAREFPHIYVRHGRGLH  
NLSLLVGS-RPRDFK-----TEVDVIYGPPGCGKSRWAN-EQK-----YKMRGEWWDGYDGE--  
-DVVVLDLDF-YGWLPYC--EMLRLCDRYP---HKVPVKGGA-FVEFTSKRIITSNKPETWYKE-D-----CD--PKPL  
FRFTRVWWY-

>Circo\_AFS65290

RRFCFTVNNYDAETELK---VKNFLTN-NRELCPTTKTPHLQGFANLSKPMRFRK----IKESLC-DT----AHIEKANG  
-SDED-----NKTYCSKSGQ-----QGRSDLD AVVATISTGER-DIRRIA EKHPNCYIRYGRGIR  
SYLELVNPIPPRYFK-----TRVVFYWGPPGSGKSRRALAEAQ----AIYYKPRGEWWDGYHQQ--  
-TSVIIDDF-YGWIKYD--DLLKICDRYP---YKVIKGG-FQEFTSKHIWITSNVDTPLLYKFEN-----YN--VAAL  
ERRLEIKELI-

>Circo\_AGJ74756

RRFVFTLNNYSERELNQ---ALFFINN-YEEIAPTTETPHLQGFNLTCPMRFST----IKKHLS-DR----IHIEKAAG  
-SDKD-----NQKYCSKAGS-----QGERNDLAAVVDTIQSG-A-NIKSVAEHHPAAFIKYHRGIK  
EYIRTIRPVPVRDFK-----TEVYFYWGEPGTGKSRTALAEAK----GIYYKPRGLWWDGYEQQ--  
-ECVIIDDF-YGWIKYD--EMLKIMDRYP---YKVQIKGG-FEEFTSKYIWITSNINTDDLYKFEG-----YV--NTAF  
DRRLSIKKHF-

>Circo\_AGJ74758

RRFCFTWNNYPLEAYTK---CEEFIKN-KEEICPNTGTLHLQGFNLTCPMRFST----IKRDLN-NS----IHIEKANG

-SDID-----NQTYCSKSGK-----QGKRSDLMQVVETITKSEVPTLEDIATKHPVEYIRYFRGIE  
KLQSILRPVCARRFK-----TDVYYYWGAPGTGKSRTALEEAE----KIYYKPRGLWWDGYRQQ--  
-TCVIIDDF-YGWIKYD--EMLKIMDRYP---YKVQVKGG-FEEFTSKHIWITSNIDTDLLYKFSN-----YS--NVAF  
ERRTIKKHF-

>Circo\_AGJ74760

RKFCFTWNNYTEHDENK---CKDFIAQ-YKELAPTTNTPHLQGYCNLSKPMRFST---IKKHLH-NS---IHIEKANG  
-SDEQ-----NKEYCSKSGK-----RGQRTDLQSLADIQDGNR-NIQTLAQSHPTTYIRYFRGIH  
TYLNLVHPIAPRNFK-----TDTYYYWGPPGSGKSRRALEEAT----AIYYKPRGQWWDGYHQQ--  
-EGVIIDDF-YGWIKYD--ELLKVTDRYP---YKVQVKGS-FEEFTSKHIWITSNVDTCDLYKFIG-----YC--TDAI  
ERRITLKSVM-

>Circo\_AGL09969

ERYCFTINNYSEEDIEA--VKAFLVP-DKEKGEN-GTPHLQGFVNLLKKKMRFPN---FKAALG-GR---AHIEQARG  
-TDLD-----NKRYCSKGGK-----QGKRSDLKEAVTLLNSG-A-NMTAVARAYPEVFIRYGRGLR  
DYVITAGLSQQRAWK-----TEVHVIVGVPVGVGKSRHVSEQHI-----YWKPRGKWWWDGYCNQ--  
-EVVCLDDY-YGWIPYD--DLLRLCDRYP---LRVETKGG-TVSFVAKKIYITSNKQIKDWYNFEE-----LKVDPRAL  
YRRVTSYKVM-

>Circo\_AHK80894

KRWVFTINNPTFDDYVH---VLEFCTL-DEEKGAN-GTPHLQGFNLRSNARAAA---LEESLG-GR---AWLSRARG  
-SDED-----NEEYCSKESG-----KGRSSQLADATSAVLAG-L-PLTDVARKYPTTYVIFGRGLE  
RLRHVIVETQ-RDWK-----TEVIVLIGPPGTGKSRYAFEFK-----YKPRGKWWWDGYSGN--  
-DVVVMDDF-YGWVPYD--DLLRITDRYP---LRVEFKGG-MTQFAAKTLIITSNKEPRDWYRSEF-----DL---SAL  
YRRINKYLVY-

>Circo\_AIF76248

YRWCFTLNNWTEEEYGL---IESTC---RSKEVGESGTPHLQGFVNFKKKLRLSA---LKSPLGFTR---AHVESARG  
-TDVE-----NQKYCRKQGS-----RGKSSTLTEAVATLQNN-G-DLRAVAQMYPEVYIRHGRGLK  
DYVMTAGLVGQRSWK-----THVTVLIGRPGVGVKTRYVNREV---YWKPRGPWWWDGYIQQ--  
-EVVVFDFF-YGWVTFD--ELLRVCDRYP---LKVVPVKA-FVEFVARAIYFTSNKPPEEWYDKEN-----IKGSIEAF  
FRRVNEYLVV-

>Circo\_AIF76249

RRFCFTWNDYTLDCAT---VEKFITE-YEEFAPTTNQPFIQGFCSLHKPMRFST---IKKRLH-NT---IHIEKANG  
-SDEQ-----NQTYCRKSGF-----QGQRSDLRVVSAIQSGKN--AAQVAKEYPLEYIRYFRGIQ  
ELDLITNAKPPRFYK-----TWVYYYWGPPGSGKSKRALQEAQ----SIYYKPRGKWWWDGYNGQ--  
-DCVIIDDF-YGWIKYD--ELLKITDRYP---YKVQVKGG-FREFTSRRIWFTSNVDTHELYKFIG-----YN--NTAF  
ERRITCKINI-

>Circo\_AIF76251

SRWCFTVNNYTTEHIEQ---LRKLGSTLLYENAPTTNPKHLQGYIRLNPKLFRQ---LQLLLP-PA---THIEATKG  
-TERQ-----NFRYCTKSGT-----QGQRTDLEQAVHELHENG--ILQVATNNTVYVRNWRGLH  
ELRNLLIPVKPRDFR-----SNIYILYGPTRTGKSRAAQKIAG-----DYYKNRSNWWHGYHQE--  
-ETVIIDDF-YGWIKWD--ELLKLCDRYP---YKVETKGG-YEEFTSKTIITSNLPPEKWKYKFEN-----FD--PTPL  
SDRINAIVET-

>Circo\_AIF76252

RRFCFTLNNYTEAEYQH---IVEFINA-KKEVADTTGTLHLQGFVNLSKPMRFSA---IKKSLN-NR---IHIEKANG  
-SDEQ-----NQKYCSKAGR-----QGQRTDLKLVRAIQNGCN-TTQMVAKEFPTAYIRYHRGIS  
EYLKLSHPKPRDEK-----TWVYYYWGPTGSGKSRRALEEAR----AIYYKPRGLWWDGYHQQ--  
-DCVIIDDF-YGWIKYD--ELLKICDRYP---YKVQVKGG-FEEFTSKRIWITSEKDTDRLYKFED-----YN--PASF  
ERRITCKIFI-

>Circo\_AIF76253

YRWCFTLNNWTEEEYGL---IESTL---RSKEVGESGTPHLQGFANFKKKLRLST---LKKLPGFTR---AHVQPANG  
-TDLQ-----NQKYCQKEKR-----RGRSGELSKAVDLLKNG-G-NLSEVADVPEVYIRHGRGLR

DYVTAACLSGQRDWK-----TRVIVIIGQPGVGKTRYVNSQCV-----YWKPRGPWWDGYTNQ--  
-ECVVFDFF-YGWVTFD--ELLRVCDRYP---LKVVPKGS-FVEFVAKFIYITSNEPPENWYDKEN-----IRGKIEAF  
FRRIDEYLVI-

>Circo\_AIF76254

RRFCFTWNNYTEDDIWT--VQTFITT-QKELAPDTNTPHLQGFVNLVKPMRFS----IKELLS-HR----IHIEKANG  
-SDIQ-----NQAYCSKAGS-----RGQRTDLNAVLDLDIRGETS-LARLATAHPCTYIRYFRGIE  
NYLKLVPILPRDFP-----TVVNYFYGPPGSGKSKRALEEAQ-----EIYYKPRGLWWDGYRQQ--  
-DCVIIDDF-YGWIKYD--EMLKIMDRYP---YKVQIKGG-FEEFTTKFIWITSNVDTDKLYKFEG-----YN--PEAF  
NRRLTTHVRF-

>Circo\_AIF76261

CRWCFTINNWTSEEYQG---ICSFT--EDKEVGREGTPHLQGFVNFKKLRRDT----LKKLPGFTR----AHVEPAKG  
-SDME-----NQRYCRKQGL-----QGKSSALQEALKTLENR-G-DLAAVATAYPEVYVRHGRGLR  
DYVNTSGLVPRRQSK-----TVVTVVIGPPGSGKTKYVNDNIS-----YWKPRGPWWDGYQQQ--  
-ECVVLDFF-YGWVDFD--ELLRVMDRYP---LKVVPKGA-YCEFNSKKLFITSNKPPEEWYNEEN-----ICGTLQAM  
FRRFNEVFRM-

>Circo\_AIF76265

YRWCFTINNWTSEEYGL---IESTL---RSKEVGEKGTPLHLQGFANFKKKLRLST----LKKLPGFTR----AHVERAKG  
-TDLQ-----NQKYCRKAGNS-----QGKPELTVAVRKLESN-G-DLVKIAKEHPEVYIRHGRGLR  
DYVNTAGLVGQRAWK-----TYVVVIVGEPGSGKTRYVNSECV-----YWKPRGPWWDGYAGQ--  
-EAVIFDDF-YGWIMFD--ELLRVCDRYP---LKVVPKGA-FVEFVAKKVYFTSNKPPEEWYDKEN-----IRGNIEAF  
FRRINEYLVI-

>Circo\_AIF76266

RRFCFTWNNYTEPDYK---CKTFIVE-LKEVAPNTGTNHLQGFCSLKKPMRFST----IKKRLD-NR----IHIEKANG  
-SDDD-----NEKYCSKAGK-----QGARNDIQAVISAIQNGEVTTPKMVAAVYGSVYIKYHRGIE  
KYLSSLRVPVERNFK-----TELRIYWGPPGSGKSRRALEEA-----SVYYKPRGLWWDGYEQQ--  
-DSVIIDDF-YGWIKYD--ELLKICDRYP---YKVQVKGGS-FQEFTSKYIFITSNTDIYSWYKFPG-----YE--TAAI  
ERRAEIHEYI-

>Circo\_AIF76280

KRWCFTINNPTPAEERH--LREIPVN--REVGAQ-GTPHIQGFVNFVKKKTLNQ---VKLFVG-PR----AHVEKARG  
-SDEQ-----NRDYCSKDGR-----PGARHDLASAVSTALST-G-DLGQVAQSHPETVYVKYHRGLA  
ELIKASNKLPRAWK-----TEVHVHVGPPEGCGKSKWASEFAT-----YWKPRNKWWDGYASH--  
-EVVILDDF-YGWLPFD--ELLRICDRYP---LEVEVKGG-LVPFLARTVIITSNKMPQEWYSSDA-----VP-HAEAL  
YRRITTLISW-

>Circo\_AKE49355

RRFCFTWNNYTEEAYK---CEDFINT-YEEIAPNTGTIHLQGFVNLHKPIRFNK----IKKHLN-NS----IHLEKANG  
-SDED-----NQKYCSKSGS-----QGHRSDLQAVVETIAQSNS-TLQDIATKHPTAYIRYHKGIR  
EYLRMVKPIQERQHK-----TLVYYFWGPPGSGKSRRALEEA-----KIYYKPRGLWWDGYNQQ--  
-PNVIIDDF-YGWIKYD--EMLKIMDRYP---YKVQVKGGS-FEEFTSERIWITSNIDTDTLYKFIN-----YT--NTAF  
DRRITLKCHM-

>Circo\_AKO84203

RRWCFTINNPTPEEEDA--VKNLAP---REVGEN-GTPHLQGFVNLKKTTRMGA---LKSRLG-GR----GHFEPARG  
-DDCS-----NQDYCSKGGK-----QGKRNDLHDAVSTLKET-K-SLAAVAAHPETYVKFSRGLR  
ELLISEMATPRKWK-----TEVNVLVGPPGCGKSRYCLETAA-----YWKPRGKWWWDGYDGH--  
-SDVILDDF-YGWLPFD--DMLRLCDRYP---LRVETKGG-TMNFGRIRIFITSNKLPHWYN-DE-----IG-NKAAL  
YRRLTSVTVW-

>Circo\_AMH87650

RRYVFTLNNYSDDDVAR---LQQLEA---KEVAPTSGTKHLQGFINGRAVRFNS----ARKLVG-GD----GVTEASGG  
-PNGD-----CFDYLPHGNS-----QGRRTDLQRVADLAQSGTT--AHTIAREFPVEFIKYGRGIT  
NLLRTINPIPSRSKP-----TIVVVLVGPVGVGKSRFANEVGS----GTYYKPRGEWWDGYCQQ--

-RSVIIDDF-YGWIKYD--ELLKICDRYP---HKVPVKGG-YEEFTSEYVFITSNSNVDQWYKFDN-----YS--PAAI  
HRRLSVYVGL-

>Circo\_AMH87652

RRYVFTLNNYGPEDSR---LANLDG---REVAPTTGTKHLQGYINFGRAIRFNT----AREMVG-GS----GVTEAFGP  
-PNGV-----CFDYLPHGNS-----QGRRTDLQRVADLAQAGTT--AHTIAEQFPVEFIKYGRGIT  
NLLRVINPVKSRTKP-----TNVIVLVGTPGVGKSRFANEVGS-----ATYYKPRGEWWDGYQQ--  
-RSVIIDDY-YGWLKYD--ELLKICDRYP---HKVPVKGG-YEEFTSEYIFITNSLIDLWYKFDK-----YT--PKAI  
LRLAVYVTL-

>Circo\_KJ641742

KRWCFTINNPSPAERH---LREIPVN--RERGAQ-GTPHIQGFVNFVKKKTLNQ----VKLFVG-PR----AHVEKARG  
-SDEQ-----NRDYCSKEGR-----PGARHDLASAVSTALST-G-DLGQVAQSHPETYVKYHRGLA  
ELIKASNKLPRAWK-----TEVHVHVGPPEGKSKWASEFAT-----YWKPRNKWWDGYASH--  
-EVVILDDF-YGWLPFD--ELLRICDRYP---LEVEVKGG-LVPFLARTVIITSNKMPQEWYSSDA-----VP-HAEAL  
YRRITTLISW-

>Circo\_KT732825

KDYCFTVNNYDDDGVRL---LSGLVQGGIYECG-ESGTKHLQGFIFTRKVRFSST----VQASLP-KG----THIEKRRG  
-TPEE-----ASEYCKKEGK-----SGNRSDLEAVAKEVARGAS--DFQIAETFPVAVFVRYRGLR  
ELRCVLNNGNVQRSWK-----TRCHVYYGYPGSGKSLQAEPG-----  
-----YGWIVFD--ELLKICDRYP---YRVPIKGG-YRNFVARDIFITSNSGPDSWYEREP-----IK--REAM  
SRRFEYVIEF-

>Circo\_KU230452

KRWCFTLNNPTDEEVQK---IKDMN---PSKERGEQGTPLHQLGFLHLKCKKRLNQ----LKEFLA--R----AHWEKARG  
-SDED-----NEAYCSKEGK-----GNR-SDLSGAVAAVKAG-R-AMSEIAREFSEVYVKYGRGLR  
DLALLIGQ-KPRDFK-----TDVILITGPGSVGKSRWAF-EYK-----FYKMKGEWWDGYANE--  
-DVVVIDDF-YGWLPFC--ELLRLTDRYP---HKVPVKGS-YVEFNSKTIITSNTHPETWYNEEK-----CY--LQAL  
FRRINKWMFW-

>Circo\_NP\_573442

KRWCFTLNNYTAEEEEAK---VRALL---PGKERGEQGTPLHQLGFLHFKKKQRLSA----LKKLLA--R----AHWEKARG  
-SDHD-----NEEYCSKENQ-----GNR-SDLAGAVAAVKAG-R-RMVDIAREFSEIYVKYGRGLR  
DLALMIGQ-KPRDFK-----TEVVVITGPGSVGKSRLAS-EMK-----FYKMKGDWWDGYSNE--  
-DIVIMDDF-YGWLPFC--EMLRLMDRYP---HKVPVKGS-YVEFTSKKIVITSNTHPESWYCPDK-----CY--LPAL  
FRRINKWMYW-

>Circo\_YP\_764455

KRWCFTLNNYTDEEVSA---VKAWN---ASREKGENGTPHLQGYIHLKKKARLST----LKKLLS--R----AHWEKARG  
-SDSD-----NEAYCTKDGE-----GNR-SDLSGAVAAVKAG-S-RMVDIAREFSEVYVKYGRGLR  
ELALLIGQ-KPRDFK-----TEFIVVTGPGSVGKSRYAN-EYK-----FYKMKGDWWDGYSNE--  
-DVVVIDDF-YGWIPFC--ELLRLTDRYP---HKVPVKGS-YVEFTSKVIIVTSNTHPDSWYNEEK-----CY--LPAL  
FRRINKWLTW-

>Circo\_YP\_803546

RRWCFTLNNYTPEEEET---ARNLIHD-ADKEVGESGTPHLQGFMHFKQKQRLTA----LKKLFP--R----AHFEKARG  
-SDQQ-----NADYCGKGD-----NNP-SDLAGAVAAVKRG-S-QMSEIAREFSEVYVKYGRGLR  
DLRLLIGC-PPRDFK-----TEVIVLIGPPGCGKSKLAN-EMK-----FYKMKGDWWDGYDNQ--  
-DIVIIDDF-YGWLPYC--ECLRLCDRYP---HRVPVKGA-YVEFTSKKIVFTSNRHVDGWVKG-E-----IE--KSAF  
YRRINVYKIFY-

>Circo\_YP\_004152331

RRFVFTWNNYNADDIEK---VVKFIKE-KEEIAPTTNTPHLQGFCLKTPMRFKS----IKTHLH-TN----IHIEKAKG  
-TDLQ-----NQEYCKKGNT-----QGKRTDLETLSAINGTN-TQQKIAKEFPICYIKYHRGIN  
EYLKLIHPIEPRKEK-----TWVYYYWGPPGTGKSRRALEEAS-----QIYYKPRGLWWDGYHQQ--  
-ENVIIDDF-YGWIKYD--ELLKITDRYP---YKVQIKGG-FEEFTSKRIWFTSNVDTDKLYHFID-----YN--NAAF

ERRITCKIHI-

>Circo\_YP\_004376332

KRWCFTLNNPTAEERRH---IQEIITA-DNEVG-DSGTPHLQGFNLMKTKRRLGT---MKKWFN-AR---AHYEAACKG  
-TDLQ-----NDEYCTKGGK-----ERCRNDLQKAIDVVRSS-G-SMRAVAEACPATFIRYGRGLR  
DYANVMQYRKPRDFK-----TEVNVYVGDGPGCGKSRKASEL-----CVYYKPRGMWWDGYDQG--  
-ENVIVDDF-YGWMPCD--ELLRVFDRYP---CKVPVKGGA-YVEFVSTNIYVTSNKHVWQWYKFEG-----FD--PAAV  
MRRVNVYLVY-

>Circo\_YP\_007974237

KRWVFTLNNPSPKEIDH---ILGQDMN--KEMGEG-KTPHLQGFANFSKKKTFNQ---VKKIFG-SR---CHIEKAKG  
-TDKD-----NQYCTKEGS-----GGQRDLASAVSTVLES-G-SLRAVAESHPVQFVRYHRGLS  
ELLKVAGKAKARDWK-----TSVHVIIIGPPGCGKSKWACNFAT-----FWKPRNKWWDGYCGQ--  
-EVLVDDF-YGWLPHYD--EMLRLCDRYP---LTVETKGG-TVPFLARTILITSNKVPQEWYSSES-----VP-TAEAL  
FRRITTLQLW-

>Circo\_YP\_008130363

RRFCWTLNNYEDELAS---LQKDLAE-LREVCPTTGKHLQGFNLRPKRFNS---VRRIFG-GR---AHIEKAKG  
-TDLD-----NKTYCSKSGT-----QGARTDLQEVVSCIEGGEK-NLKRLAIQFPVAYIKYFKGIE  
QYIRIAHGSGERDFK-----TECFYWGATGLGKSRAAREESK-----ATYYKPRGEWWDGYCGQ--  
-PNVVIDDF-YGWIKYD--ELLKICDRYP---YRVPVKGGA-YENFCSKRIWITSNYPLDTIYRFLN-----YD--KGPL  
ERRIDVIKHF-

>Circo\_YP\_009000900

RRVCFTLNNYTEEDLKF---IEEHFKS-VKKVG-ENGTPHSQGFNLKKTTHFNS---VKKLL--PR---AHIEKAKG  
-NDQH-----NKDYCSKQEG-----QGKRNDLADALATVANG-G-DIKALEDShSLVYAKYKRGIL  
ACIDDFGWKKPRDWK-----TEVHVLWGIPGCGKSRYAREQA-----PYYKPRGEWWDGYTGQ--  
-EDVILDDF-YGWLKFD--ELLKICDRYP---YRVPVKGGS-FVQFTAKRIYITSNVAASEWYHFQG-----YD--PTAL  
YRRMTSYLTW-

>Circo\_YP\_009021843

RRFCFTLNNFTEEEYEK---VTRFIQD-YNETAPTTGTIHLPGFCNLTKGMRFN---IKSKLA-TR---IHLEKANG  
-TDEQ-----NQIYCRKSGG-----QGKRDLVSLVEGIQNGQI-RLSDIAKDHPAIFIKYHRGIR  
EYLQLTKPVQPRMFK-----TWVYYYWGPTGSGKSSRALKEAM-----EIYYKPRGLWWDGYHQQ--  
-DNVIIDDF-YGWIKYD--EMLKIMDRYP---YKQVKGGA-FEEFTSRRIWITSNVDTDQLYKFIG-----YV--SDAF  
DRRITNKVYI-

>Circo\_YP\_009021870

RRFCFTWHDYDCEDVAK---TESFINT-HKEVCPDTRRIHLQGFCSLAKPKRFKW---IKEQLS-NR---IHIEKAMG  
-SDKE-----NQYCSKSGEG-----SGQRDIQSLETIQGGEGH-DIRRIAIEKHPACYIRYRGIR  
SYLNLVAPVSPRNFK-----TEVRYWGWPPGSGKSRRSLEESS-----GVYYKPRGEWWDGYMQQ--  
-TSVIIDDF-YGWIKYD--ELLKICDRYP---HKVPIKGG-FEEFTSKYIFITSNVVCDLYKFNG-----YT--TAAI  
DRRITIKENI-

>Circo\_YP\_009021891

KRYCFTINNYLPEDEAA---VKEFLTE-AKEVGES-GTPHLQGFNLMKTKRRLGT---FKRAIG-GR---AHIEQSRG  
-TDVD-----NKRYCSKGGGA-----QGKRSDLKEAVTLLNNG-G-TMTDVARAHPETFIRYGRGLR  
DYVIQAGLTKPRAWK-----TEVHVIVGPPGVGKSRHVQETAL-----YWKPRGKWWDGYTGQ--  
-SHVVLLDF-YGWLPHYD--DLLRLCDRYP---LRVETKGG-TVEFVAKVIWITSNKQVKDWYDYEE-----LKV DARAL  
YRRLTTYQVM-

>Circo\_YP\_009047065

RRFCWTLNNYTEEDVDV---LQKDLTE-LRETCPTTGKHLQGFNLRPKRFNS---IRQIFG-GR---AHIERAKG  
-TDLE-----NKEYCSKGGGA-----QGTRTDLEKVVSVIEGGER-SLKNLAIQFPPIAYIKYKYGIE  
QYIRIAHGNSERDFK-----TEVFYFWGPTGTGKSRKAREESL-----ATYYKPRGEWWDGYTGQ--  
-PCVVIDDF-YGWIKYD--ELLKICDRYP---YRVPVKGGA-YENFVSKYIWITSERCLEEVYRFIG-----YD--CSSL  
RRRLNKEIFF-

>Circo\_YP\_009091696

KRYVFTLNNYTTEEYAR---IDNVGAD-GKEVG-ENGTPHLQGFINLKVKKRFSQ----IKEMLG-SR----CHIEKARG  
-TDLE-----NRVYCSKEGG-----QGKRSDLDAAAETLRTSLG-DLRSVAELYPQFIRYGRGLR  
DYASVLGLVKPRDFK-----ANVTVITGPPGCGKSRYAADH-----APYYKPRGDWWDGYHTN--  
-ATVILDDF-YGWIKLD--EMLRICDRYP---HQVPVKGK-YVQFLARDIFITSNKPVEEW--FPN-----CD--CSAL  
FRRINVYLTW-

>Circo\_YP\_009110680

RRFVFTWNNYTSEDYDK---CCEFIKS-NKEIAPTTGCPHLQGFCNLHKPMRFGA----IKKHLH-NS----IHIEKANG  
-SDED-----NKKYCSKSGK-----QGERTDLQSCISDIQSG-A-TIKKIAEDHPAVFIRYHRGIR  
EYIRTVMPIKERDFK-----TEVYYYYWGPPGSGKSKRALEEAK-----QIYYKPRGLWWDGYQQH--  
-DCVIIDDF-YGWIKYD--EMLKIMDRYP---YKVQIKGG-FEEFTSKYIWITSNVDTTDDLYKFIG-----YK--TDAL  
ERRITNKEYM-

>Circo\_YP\_009116910

RKWWFTVNNYTDDEWNE---LKRWCMV-NKEVGPQCGTPHIQGYLSANKPHRRSG----MVEVCR--R----  
ARWEAAKG  
-NDTQ-----NDDYCRKAATG-----AGQRTDLLRVA AAVDSGVS--LREIASENPSEFIKFHRGIL  
AYRNLVRPAVPRDFK-----TELHVFGPPGSGKSRRAQELAS-----SVYRKVRGPWWNGYEQQ--  
-QSVIDDF-YGWVPFD--ELLRVADRYQ---HQVEIKGG-FEEFNKIIITSNRPIKDWYKFDS-----YD--PEAL  
YRRCVYQHI-

>Circo\_YP\_009126896

RSYSFTLNNYTDDEVFA---LTMCEPINKEIAPTTGTPHLQGCIFTSPRSFKA----LKKVVPFNR----ANYKPTIS  
-EPG-----SARYCKKDG--K-----QGKRSDIENVRDILTSGGN-----IRDVVSTATSIQSVRM  
AEIHLKYFEKKRNWK-----PTVRWYYGATGTGKSKTAYEECD-----EYVAMSTGKWFEGYDAH--  
-THVIIDDMRKDFMKFH--ELLRMLDRYA---FMVECKGG-SRQFLATDIYITSCYAPDEMFESESR-----EDVNQL  
IRRLDEIRKF-

>Circo\_YP\_009134739

KRWVFTLNNPTEQEVES---VKSLP---PSKEKGEQGTGPHLQGFHLKLVRLNQ----MKQLIP--R----AHFEIARG  
-SDED-----NEQYCSKEGK-----GNR-SDLAGAVAAVKAG-R-PMTEVAREFSEAYVKWGRGLK  
DLALMIGQ-KPRDFK-----TEVIVLTGPSGVGKSRWAN-EQK-----YYKMKGDWWDGYSNE--  
-DIVVIDDF-YGWIPFC--ELLRLCDRYP---HKVPVKGS-YVEFTSKKIIITSNTHPNHWYNEEK-----CY--MQAL  
FRRINKWLFW-

>Circo\_YP\_009170674

RRWCFTINNYGAPDLEC---VNEFR---CEKEKGAKGTPHLQGFHFTGNWRFNR----VRNLLG-GR----AHIEKARG  
-NDDQ-----NKAYCSKEEF-----QGKRNDLGRVASALESG-A-TLSEVARASPEVFIRYGRGLR  
DYMNVRLVGLVKPRDFK-----TEVIVLVGEPGSGKSKYANELPK-----YWKPRGQWWDGYNGE--  
-DIVVLDDF-YGWVPYD--ELLRIGDRYP---LKVQVKGA-FVEFTSKMLVITSNKRPEEWYDKEK-----IA-DQSAM  
WRRFDKMYYC-

>Circo\_YP\_009237526

RRVFTLNNYTNEILTS---ICNYAES-NKEVAPTTGTPHLQGFHLFKNPKTHKT---LGKVL--PG----GHFLHAKG  
-SDED-----SQVYCSKEDH-----QGKRSDLD DAILTLESG-G-DLKR VAMEHAGAYVRYHRGFA  
AYKSLVCATAPRDFK-----TKLVVLFPGGTGKTRAAAYELAG-----PYPKPRGEWWDGYCGN--  
-NGVIIDDF-YGWLKFD--ELLKISDRYP---YRVPIKGG-YENFCSKIIITSNIDISKWYKFDG-----YD--PAAL  
YRRCTKYLR-

>CRESS\_AXH77830

KSWCFTINNPTGNDWE---LEALKT----ETGEQGT RHYQGYVVMNGQRTL RV----MKTLL---TR---AHLEARRG  
-THQQ-----AADYCKKDGQMSAA-----DKNKCMWRNMIEWAKEGEL---DKIKEEYPSFYLR Y---LE  
KFRSLSRPTLSILPE-----LENEWWWGATGTGKSRKLWA-----HYAKQLNKWWDGYDGE--  
-DVVAIEEWAP-KNECTASLLKIWADRYP---FPAEVKGGKLN RIRPRKLIVLSNYSPEQCFG-----QEEDLGPI  
RRRFRVIHFE-



>CRESSV1\_FJ959078

ERFTARTFCVTVNNR----DEVEQVQESRELAPETGRVHIQAYVELYMAAGIVM---LKRLFNCP-T---MHVEKRRG  
-TQDQ-----ARNYCMKETRDGKT--P---GNGQGKRNDLTDAVEALEAGGV---EAVVSKHPNTYVRYHRGIH  
ALYQAKL-EAIASRQQ--R-----NVKTAVFYGEPGTGKT-HCAFELA-----RNAGRNQSVWFNGYQNNQ--  
-KILVVDEMNGDWIGWQ--LLLRLMTDKYP---LQCQTKGG-MVWAMWEIVIFTSNAHWEDWYPYAG-----G-  
MDKAAL

KRRIHKVVVF-

>CRESSV1\_KF133822

---LRNVCFTLYNADP--EDVASKLSELEEKCPESDRLHLQGYLECTKPVRFGT---LKDFLGS--T---VHLERRRG  
-NRQQ-----ARDYCRKEET-K-----QGQRTDLDAIREMVVAGAT--EESIADEYFGTWARHRAIA  
RYKFLKSKPRD-----F-----KPRVIIRWGVAGSGKTRGVYDTHE-----PR-PNGGTVWFDGYDPH--  
-EVVLLDDFYG-WLPWS--MLLQMLDRYP---MSVPPKKGSTCNFR-AKFIYITSNADPETWYD-YSK-----PGIEFEAL  
KRRVDETHHF-

>CRESSV1\_KF246569

---MWALTVKNWDLFD-LEEIGNYQDGQKHTGEKTYQHCHLNLELEKRQYMTW---IKRVLFNIPD---  
MHCEKRQG  
-TREQ-----CDTYLAKDGEFE-----RGHRSDLDEIHDMIKEGKD--LFDVYESHFASTVRYSSGLE  
KYIVLHDSKRARNSET--T-----APQVIVYVGPAGSGKSWHCFNDED-----YPIQMYEKVYFDGYNRE--  
-KTIWFDEFNGRSMFPG--KFCQLADRF--GIYETKGGSVLISGLKKILISTISYPATWWG-SNR-----FNLDPDQL  
YRRLTKCYL-

>CRESSV1\_KJ206566

---YRKVVFVTSFN---TSAMEQDLVDCMEHAPTTGRIHYHLYIEFYEQKTMNT---IKKILKD-AT---ANIQPARG  
-TPQE-----AVDYIKKDGTN-----QGHRSDLDDVFQRLQVGDN--ILDIIHGHPGTCIRYIKGIL  
AVKGLVDQRRQRQEAR--Q-----MPTVLVYIGKSGAGKSHACSDPD-----YPVQGPSKVYFDGYTGE--  
-STIWFDEFGGSVLPFH--VFLRLADKYE---TRVETKGGSVCTGLQKILISTTTPPKLWWE-SRK-----FNEDPYQL  
WRRLTRVYYI-

>CRESSV1\_KM573766

---YSNWILTTWDPYL-KENWWEMDNHEHCHEEQ--EHWHIYFELNHRKNMAS---IK-EWLNDLT---VHCEVRRG  
-TGQQ-----AIKYCQKGFDFQ-----GSRSDLVNCKQLLEEGVS--MIELAQAHFGDFVRYRGLY  
QYADLLSREKQRTAGL--S-----EVEVTVFIGPAGSGKTYNCSKKAEE-----YMQQQNGKCYFDGYEKQ--  
-KCIWFDEFSTMQFN--HWCRLADKYG---VRVETKGGSVQISGLKRIIISTIPPGEWWN-SQS-----FRDDPEQL  
WRRITEIYYC-

>CRESSV1\_KM874309

KLLMRRNVVGTLTNERP--HEITS---YEICPSSKRRHLQFYCEVVGQQLGA---VRQLFGP--T---VHVEPRRG  
-TVDE-----ARTYCSKEDTPK-----SGKRSDLADIKEELDAGSS--LKSISQQHFGQFLRYRKSFE  
AYIVLNQDPRT-----W-----EMENSILWGEPTGKTCLAYDLKE-----MR-NQNGNVWFDGYHGGQ--  
-EILLIDDYYG-WIPLA--FLLQLLDRYP---MNVQTKGGVPPFT-SKKIITSNKSPECWYN-WSK-----FGKNFGAF  
ERRINQVFHY-

>CRESSV1\_KM874347

RNWCFTLDG-YTDNI----ADMVSD-EEEEICPESSRRHLQGYVEYTVSRRLAA---VKLSLGSE-S---VHLEGRRG  
-TASE-----AAEYCEKEDGE-----QGARSDLATVASAVISGKR--VEEVALEFPTTFIRYNRGIE  
KLTNVVR-RKEQMRNL--R-----MLKVVVLWGDAGTGKT-RTAFELS-----QDG---QLWWDGYEGQ--  
-KHLIIDDFYG-WIKWG--LFLRILDIYP---LQLPVKGG-FTIASWDVVFITSNCMPRNWYERG-----MPAEL  
ARRLTHIVEF-

>CRESSV1\_KP153497

KSWCFTIHSRGEEDC----DWLHPI--GMERCPETGKLHLQALQLDKQQLSF---MKKLHKT-----AHWEVMKG  
-NWTQ-----SIEYCSKSEKM-----GQRTDLETIGKMKVENKT--NLELVDTLGAGVSKFQKHIS  
FTYSEK---DSDRQA--T-----GKVIVLYGPTGTGKT-YAAVNSN-----SQK--ATKLWFDGYENQ--  
-KVLVIDDFDG-SVEFR--YLLRMIDVYK---FPAEVKGG-MVWGVWDTVIITSNVHPASWYTD-----SPL

KRRIAEIRLC-

>CRESSV1\_KT149404

R-WVYTLFAAAEDDY----SNLDDF-ERLECCPTTSKVHLQGYVEFEKPQRMAA----LKK-LNS--T---VHLETAKG  
-TREH-----CVRYCTKDETT-----QGRNDLLETTLAIVNGELS-RDDVFDTRPDLICKYARGIN  
ELLYRA-KKERQGDE-----LHTEVLWGDAGVGKT-RYAYGRC----KGG---ALWWDGYDGQ--  
-SILVIDDFYG-WVEHS--VLLRILDYRYP---FKIDIKGS-STYANWKEVYITSNRHPSTWYTRAPW-----TEDKAL  
QRRLGAIYEC-

>CRESSV1\_KT862256

---VWTMTVKNWDLFD-EERIQNQTEGSKHTGQQTGYQHCHFNLELEKKTMAW---IKRELFNRED---IHCEPRRG  
-SREQ-----CDSYLNKDGFEK-----PGRRTDLDDIHDMIKEGAS--LYDCYEEHFGTVVRCERGLR  
DYIALRDTILATKKKY--P-----APEVIVYVGPSSGSGKSWHCSEDPD-----YSIQMDSKIYFDGYNNQ--  
-KTLWFDEFSGKTMPFT--KFCQIADRYP---GRYETKGGSVLIYGLKKILISTVEYPALWWG-SDR-----YNKDPEQL  
FRRITKCYL-

>CRESSV1\_KU043411

---MRCATVTSFN---IDYIKRDVINNLEVCPETGKLHYQMYMEFEKVTVKQ---IKRLLRD-NG---AHVEPRYG  
-TAKE-----AIEYCKKDGNQ-----QGERTDLADVYESLKVGRS--LLDIIIEHPGTIYIRYFRGIE  
RVQDLFRRKQKLEER--V-----QPTVLVYIGKSGTGKSHHCYHDPD-----YPVQQAGKVYFDGYDGE--  
-STIWFDEFSGSVLPFG--VFLRLCDKWE---TRVETKGASVCITNLRKILISTTTPKNWWD-SRK-----YQEDPKQL  
WRRLTHVYI-

>CRESSV1\_KU043424

---FRACITAWN---MDAFDPQRMHDRETCPTGRHHLQCYFEAPNPKTVEQ---WQDVVCDKPR---AHVECRHN  
-EGDR-----AADYCKKDGDG-----QGARMDLADCKTMIDEGKQ--MIDLYEKHFGTVCVRCHRGLM  
LYKDLVDRKRRKEAEP--E-----PKEVVVYVGASGSGKSHHCWHDPD-----YPLLAENKVWFDGYEGE--  
-EVLWIDEFRGSVFPFG--LFLQVTDKWG---ARVEVKGGSVETF-FKKILISTTVPPGEWYK-CPN-----FLSNPQQL  
WRRLTKVYWL-

>CRESSV1\_KX388513

AEWT-TYG-----DPTTMNLEYTQNQDNFHWQGYVQFHKSLRFTQ---VKKYLKSY-T---AHVEQANG  
-TLEE-----NIQYCSKSASE-----SGERTDIERLYVDVKS GKS--MACIIDHHTNTWFKYHGAVD  
KYLEQK----VACQK--R-----TCTVTWVDQGGQTGKTTRALYDIN----ERTHEEGRLWWDGYDGQ--  
-PTLVIDDCVH-LIKFD--YWKSLVDGHP---MRIQIKNG-WKNALWNRVIINSNRHPNNWWPDNSE-----ANLSMPYF  
KGRIALINHV-

>CRESSV1\_KX388515

RHWTFTIGGEEAQTITG--IEDWDATTMNLEYTQNEDNFHWQGYVQFHKSLRFTQ---VKKYLKS--T---  
AHVEQAKG  
-TLEE-----NIQYCSKSASE-----SGERTDIERLYVDVKS GKP--MASIIDHHTNTWFKYHGAVD  
KYLEQK----TACQK--R-----NCKVTWVDQGGQTGKTTRALYDID----ERTHEEGRLWWDGYDGQ--  
-PTLVIDDCVH-LIKFD--YWKSLVDGHP---MRIQIKNG-WKNALWNRVIINSNRHPNNWWPDNTE-----ANLNMPYF  
KGRIALINHV-

>CRESSV2\_FJ959082

RNWCFTYNNYDSSPQK-----CMK--YEVG-ESGTPHLQGFVIFKN-AVAKP---SQYFKPAYH-----FEKARG  
-TPQQ-----ALEYCQKDGNTV---A---DGGEANKRRYEEAFSAAKEGR-----MDDIPADIYIRHYSTLK  
KIRFDHAPPAQNNDVL-----NNY--WVYGPSGTGKSKSVREF-----LYVKNQNKWFDGYEGE--  
-DFVLIDDVHP-NWSGK--TLKIWSHDYHYP---FSPETKGGHIKMIRPEGIIVTSNYTIEEMYAE-----EDRQPI  
RRRFKVIKEY-

>CRESSV2\_JF755415

RGWCFTINNPTTE-DDSL---VA---LE--KEVGE-EGTPHLQGYCYFKNPKSLAQ---LKVLLPRAH-----LEAQKG  
-SHEQ-----AIEYCKKEGDMTQ---K---RKGEIGKEFWDEQLSLAKKGR-----LEEIDSK-----  
-----GHWYYGSTGTGKSRKARE-----FYLKGCNKWWDNYQGG--  
-EVAIIEDFDKVHVSVLG--HLKIWADRYH---FPAEVKGS-QINIRPKKIIVTSNYHPNEIWT-----DLATLDPI

LRRFNIIKFS-

>CRESSV2\_JX185415

KNWCFTSFNVDPPK-----FDPIT---RETCPTTKKSHLQGFICKERKRLAG---VKKLLGSVH-----LEASRG  
-TVDQ-----NIQYCSKDGESSG---P---AT---SPFALAAATDGRL---DDVKSTHPGIYLRKKTLE  
SLQKFRSDDLGDGSC-----GVWICGPPRIGKDYAVRV-----YCKALNKWWDGYLGE--  
-PNVLISDVEPDHFKIG--YLKIWSDRYP---FIAEIKGS-SMKIRPEKIFVTSNFRLSGCCNG-----EILGAL  
QSRFTIYDMF-

>CRESSV2\_JX904107

RHFAWTMNNPGP--DTE---AAV--IA--REVGE-SGTPHLQGMTSFEHARSLA---IIKLLQKAHP---GTHVEICR  
-DAYK-----SMVYCQKDGDKKP---A---DGGGEMERDRWKRAYEMAAEGN-----LEDIDADIKLRFYGT  
KIKEDHQVTPTSLPT-----L-DFHWYQGSSGSGKSKFAHD-----YULKSPNKWWDQYEPG--  
-QTVIIDEWDPNHKVL--SLKKWADHHP---FAAEIKGG-TRMLRPPKLIITSNYTIKECFP-----QENDHPL  
LRRFTVKQFG-

>CRESSV2\_JX904185

RNYVFTRNNYED---TT---FDT--LE--KEIAPTTGTPHLQGTVCFASPRSFEA---VR-KLMGCH-----IEVCA-  
-DLQK-----SITYCKEDGDMTQ---K---EKGESNAQRWRDIRLAAEEGR-----MDDIPDDVRFHHR-TI  
EHHRDLASKKRKIAT-----EEQHLWYYGASGTGKSRKARE-----AYLKMCKNKWWDGYDDE--  
-DVVIIEFDKXHDVLA--HMKIWADRYP---FLSEYKGG-ARKIRPQKIIVTSNYHPPEIWS-----EESDLGPI  
LRRFKLHKFS-

>CRESSV2\_JX904344

RNWVGTLLNNWTV--DEY---VQL--HS--KEVAPGTGTPHLQMCFFFKNKSLRA---LQKINGRAY-----WEHMRG  
-TQEQ-----AADYCKKDGDTQ---K---QKGETQKIRFERAWELAKEGN-----LDDIDSDIKLRFYGT  
RIKHDHMLQEILDT-----ESQMEWYCGPSGTGKSRKARE-----AYLKMCKNKWWDGYEGE--  
-DIVLIEDFDKXHDVLA--HLKIWADRYP---FLAECKGS-SMKIRPAKIIVTSNYHPTEIWS-----DVSDIEPI  
LRRFHVTKFG-

>CRESSV2\_JX904420

RNFTFTLNNYTPVHEIT--LNS-----REVAPTTNTPHLQGYICFPNAKTISA---VRRILAGCH-----VEVARG  
-SHAQ-----CRTYCIKDGADP---R---EIGNAEADRWEDAWEKAKAGA-----IEEIPADIRIRSYSVLR  
RIGRDYQPNLALLP-----ATCGYWIKGESGAGKSHSCFT-----LYPKGPSKWWDGYQNE--  
-EVVLLDDVDPSHGLIG--GLKRWADKYP---FIGESKGG-SFKIRPKKIFVTSQYSIEDCFQ-----DVETRAL  
NRRFRVINKL-

>CRESSV2\_JX904562

RSFSFTWNNYTE--ADI---ARL--KG--KEVGE-SGTPHLQGMINFKSPRSFAS---VMKELEGAH-----VEKTI  
-SSYD-----SMVYCCKDGDVDSQ---K---AKGDMEKARWKRTRELAAAGK-----IEEVDDDIYVRFYGT  
RIKEDHQVPPAQAE-----L-NFHWFYYGASGTGKSRAAYA-----LYIKNSNKWWDGYVDQ--  
-PCVLIEEWDPNLAMMA--SMKKWADHHP---FSGEIKGG-TKMLRPPKIIVCSNYTIQECFP-----NEQDWKPL  
ERRFKVRKFG-

>CRESSV2\_KC248416

RNYVFTLNNYTPVHEIT--LNS-----REVAPTTNTPHLQGYICFPNAKTISA---VRRILAGCH-----VEVARG  
-SHAQ-----CRTYCIKDGADP---R---EIGNAEADRWEDAWEKAKAGA-----IEEIPADIRIRSYSVLR  
RIGRDYQPNLALLP-----ATCGYWIKGESGAGKSHSCFT-----LYPKGPSKWWDGYQNE--  
-EVVLLDDVDPSHGLIG--GLKRWADKYP---FIGESKGG-SFKIRPKKIFVTSQYSIEDCFQ-----DVETRAL  
NRRFRVINKL-

>CRESSV2\_KF738877

RGWVFTINNYNEWDFVN---ISKLEK-----ERGEETPHLQGFAYFKQRISFNG---IRDIL---TR---AHVEIQRG  
-FNAQ-----AIDYCKKEGERGAG-----QKDK--WKDVLQLARQGV---QEIEERYPAIFLRY--FQ  
KLCGFYRPEHSILEN-----FTNEWWWGPTGTGKFKKLN-----PYEKSLDPWWDNYQRE--  
-EIVAIEEFEP-RCKIN-SFLKRWADRYP---FRCEVKGAFSLKLRPLKIIVISNYQLDECFP-----NSKDLPL  
KRRFKEIHFP-

>CRESSV2\_KJ547648

RNFVFTWNNYS DASKTY---LST-----EEVAPTTGTRHLQGFIAFTNAKTIQQ---ARSKLPGCH-----VETMNG  
-SIAQ-----SEDYCSKAGTISN---D---NNGRAEKLWQRARDFAKEGK-----LDEIDADIFIRCYSTLK  
RIKSDYATKQPID-----PVC-IWIYGPTGTGKSHAVET-----CYKKCMDKWF DGYAHE--  
-DAIYLEDIDKYQVKWG--GLKRLADRWP---MQASIKGA-MAYIRPKFVLVTSNYRIDEIWT-----DPQTTLEPL  
QRRFTEIEKL-

>CRESSV2\_KM573767

KRWCYTLNNYTP EEEQN---IQN--IE--KEVGEN-GTPHLQGFICFVNRKVFNA----VKKLFKTER----IHLEVSRG  
-TIEE-----ASEYCKKDGNEE---SH---RKGEATKRKWE EARENAKQGK-----FEDIPADMWIKYRRSWI  
AEYTDNLN-KDITEIKDID-----KDFYWIYGPTGTGKSHLARQLAQ----APYLKGLNKWWSGYENQ--  
-KVVIIEEWNPEASKLG--SLKQWCDKWP---FTAETKGGHFV GIRPERIIITSNWNIDECFN-----DSHESEPL  
HRRIREIYKK-

>CRESSV2\_KM573776

KRWCFTINNYTEEDTSR---CER--ID--KEIGEEHPTPHLQGFIVFKNRKT FNV---VKRIIG-EN---AHIEIARG  
-TVKE-----ASEYCKKEGQPE---QN---ERGQATKRKWEETLKA AKEGR-----FDDIAPDLYIRYRSSLK  
AIYQEEVN-KNTKEITDFD-----KGFYWIYGPTGTGKSHLARTMAA----SPYLKGLNKWWSGYKMQ--  
-KAVIIIEANPETCKLA--PFKQWCDKWP---FTAETKGGSFEGIRPQYIFITSNYSINECFP-----DPNDSEPM  
KRRCHEFFKE-

>CRESSV2\_KM598396

KLYCFTSFAVDEPS-----YDPTA---RETCPDSGRTHLQGFVAFK NRQYFTA----CKKYFGTAH-----VEACKG  
-TFAE-----NQEYCKKDGDEIK---S---GG-----DVFNDVLRKAEAGSI---QEIKDLYPGLYIRYKKTLE  
SIKRFNAEQLEESC-----GIWLTGPPRSGKDYAVSI-----YSKMLNKWFDGYEGE--  
-ECVHLSMDMDKNHV-MG--SLKIWCDRYP---FRAEIKGG-TMVIRPKYIVVTSNYKLEDIFDG-----SMLSAL  
QARFMVMCY--

>CRESSV2\_KM821755

RNYVFTVNNYDDEDEHQ---WMEV----KEIGE-SGTPHLQGYICFTQLKSLN Q---LKGFFPSAH-----FETKRG  
-THQQ-----AADYCKKDGVDVDDC--G---SAGAAMDELMGHTIECIRNGDY---KGIPNATHFI--KAYRVLK  
EQQQD-----RTL-----D-----TLTHQWRWGKAGCGKSKPARD-----AYLKMCNKWWDGYTGQ--  
-EVVIIEFDPDHKCLV--HLKIWADRYA---FPAEVKGG-KIDIRPKTIITSNYHPRDIFD-----REPDLEAI  
MRRFNVTHFM-

>CRESSV2\_KM821764

NRWCYTLNNPEPIPWNE---TTQ-----KEIAPGTGTPHHQGFICFKNQ KYLTQ---VKELNDKAH-----WEIAKG  
-TNQQ-----ASDYCKKEGDEDP---Q---RLGKANEVKWRLINDLAKAGNL---AEIDIKYPKVWNTSYRNLK  
SIKVDHMKPLADLD-----EPCGVWLYGASGAGKTMKART-----AYLKLPNKWWDGYQGE--  
-ANVIIDDVDPNHAYMG--YLKIWADRYA---HLAEVKGS-TIVVRPKLVITSQYRIKDIWAS-----EPATMSAL  
LRRFKEVYAF-

>CRESSV2\_KP153360

RRIVFTKNNWTEEDYRA---LMEEP-F--KEIGE-KGTPHLQGYAEFTKKAKYGA---LAKKY-KMH-----CEVSRG  
-TQDE-----AIKYCMKDGD-TKK--L---DG-SAEKNRWEQARVSAKEGRL---DDVP-ADIYI--RCYRTLK  
EIAKDNMPKPESL-----T-----ELKNLWIYG PAGSGKTRLADA-----SYSKNCNKWWDGYQNE--  
-PGVIINDVGKEHSVLG--HFKLWGEHRP---FIAETKGG-AHIRPQRVIITSQYSLTQIWE-----DEETRDAL  
ARRYKVLHDI-

>CRESSV2\_KP153364

RNFTFTQNNYGD---TE---LDG--VQ--KEVGESD-LLQLQGVICFNEKIRESA---VRKKLPGCH-----IEIAK-  
-VLPA-----AIEYCKKDGD MTP---K---EKGALEKRKWDEIRVACEEGR-----FEDLPDDIRYKNLR-LN  
KMHRCEALRSRELES-----EAQHLWYWGEAGTGKSRKARE-----AYLKMCNKWWDGYTEE--  
-ETVLIEDFDKXHDV LG--HLKIWGD RYP---FLAELKGD-TMKIRPKQIIVTSNYHPSAIWF-----DEETLLPI  
LRRFKCVEFK-

>CRESSV2\_KP153369

RGWCFTCNNYSESDYNG---FLAAE-S--KEISS-TGTPHLQGYIYFRTEKSLRT----LRKLSDRSH-----WEPAKG  
-DSDS-----NFCYCSKGENATGK--R---KA-ANGKENYAETVELAKKGKL---DEID-PGHLL--RFYGSIK  
SLQKDNLVRPSDS----E-----ELTGLWIYGPSGCGKSKYVR-----DYYKLANKWWDGYRQE--  
-ETVLIEDLGTEHDKLG--HLKLWSDRYA---FSGETKGG-MLSCRPKRIVVTSQYSIEEIFL-----DEKTQEAL  
NRRFTKLRLF-

>CRESSV2\_KP153377

RAWCYTLNNYTE--EER---DSL--RS--YERGA-ADTPHLQGYVQFAHQKTLA----VKKLLPRAH-----LEERRG  
-TIDQ-----AVEYCKKDGDMSQ---K---EKGKEENRWKRILEKADEGDE---EWLRENEPNVAFKHMATFR  
SHKK-PRVGTLOQYEE-----T-PHEWWVGPTGTGKSRKAHE-----HYAKEKNKWWCGYTGQ--  
-ETVIIIEADPKTMELA--ALKVWADRYP---FPGEIKGGRIEGIRPLRVIVISNYTIEECFA-----NQNDVEPL  
RRRFKEVKFG-

>CRESSV2\_KP153404

RAFIFTWNNPTADTEAA---LES-----RETAPTTGTRHLQGYIRFTDGKSLRS----ARRLLNGAH-----VEVAR-  
-TIRQ-----AIEYCHKEGDVDD---A---ARGDMEKARWEIAWTKAKTAD-----LEEIDADIRVRCYSALT  
RIQKDYMPPLPLP-----APCGLWIHGLSGVGKTFVYQ-----LYSKNASKWWDGYQONQ--  
-DHILFDDMDPDVGKAG--RFKIWADERP---FIADIKGG-SISIRPKIFIVTSQYTIDECFG-----EIQTRMAL  
SRRFRIIEKL-

>CRESSV2\_KP153447

RGWCFTLNNYTPEHEAL---LAA-----REVG-ANGTPHLQGFVYFPNAKTFNG----AKAVLPGCH-----LEAAMG  
-SVAQ-----NVEYCKKDGLSA---A---EKGASEAQRWKDARLAAVSGD-----IADVPDDIYIRYRTLK  
EISKDHMARPDGLD-----GVCGLWLWYGAAGTGKSRYAQE-----HYMKMTNKWWDGYQGG--  
-DVVVMDDMDPDHACL--HLKRWADRYP---FIGETKGG-AISIRPKKFVVTSSQYSIEDMFKNRDGT---DVETVAAI  
RRRFEVKRFG-

>CRESSV2\_KP153468

KRWCFTLNNYSAEEQLA---FKAST-V--IEKGE-SGTPHLQGFVFMATAKRLA----LKKINPRAH-----YEQAKG  
-TSLQ-----ASTYCQKEGVLEPT--A---VG-NASNESYRKAMD LAKLGD---SAIEQEWPLWLRHRNAFL  
SAPRDFGIRPKDL----D-----YLPGIWIWGPAGVGKSRLARE-----EKRLNKWFDGYSQAQ--  
-KAVLIEDIDQSHRYIS--HLKIWTDYRYS---FPAEIKGG-AIQCRPEHVLITSQYHIHDIWD-----DVQTREAI  
NRRCFVIYID-

>CRESSV2\_KP153483

KNWCMTLNNYDDSEVAR---FESHMRP--FERGE-NDTPHLQCFFSLKAKKRMSC----LKKIFPRAH-----FEVKS  
STMEQ-----ASDYCKKEENDNST--A---RG-KAISDNYEETVELAKKGDI---EAINPEHV--LKYYPYTIK  
RIAHDNKKMPSDLLWE--E-----HPPNIWIYGPTGTGKSYRARA-----FYSKMAQKWWDKYDGE--  
-EGVLIEDMDILHNYMG--PMKIWADKYA---FPVEVKTS-GDRIRPKVIVVTSNYTIEQIWP-----DRSTHGPI  
SRRFKVIHVL-

>CRESSV2\_KP153485

RNFVFTWNNYTEDSEQF---LRSRVDE--KEIAPSTGTPHLQGFCSFENKKSQVQ---VRVILVGCH-----VETMLG  
-SISQ-----NEDYCSKAGEVTN---D---NKGRAEQLRWQRARESAKLGQ-----FDDIDADIFIRCYSTLK  
RIRTDYTAKPPED-----VTC-YWIYGPTGTGKSHSVET-----CYKKNMDKWFDGYQGE--  
-ETVYLEDIDKYQVKWG--GLKRLADRWP---LLVNTKGS-MQYIRPKRIIVTSNYNLDEIWS-----DSGTLDPL  
LRRFTVILKE-

>CRESSV2\_KT149394

RHVVFNTINNWTEIWL---VTQFD-L--KEIGE-SGTPHLQGYGCFHKKQRYAT---LARKW-KGH-----FEVSRG  
-TPQQ-----ASDYCKKGGDESQS--A---KG-EATKPLYEDAFSLAQKGEI---LSIP-EPLRT--RFYATYK  
KVAKDYMPPKESL----S-----ELKNLWICGEAGVGKTVLADL-----AYSKNCNKWWDGYQNE--  
-PGVIINDLGIEHKVLG--HLKLWGEHRG---FIAETKGG-ALHIRPERIIITSQYEIGQVFE-----DWETRDAI  
RRRYKQHKAL-

>CRESSV2\_KT149398

RRIVFTYNNYPPEYNAW---LDS-----REVAPGTGTPHLQGYAQYVNPKSITA---FRRLFMGCH-----VEPARG

-TGSQ-----SRTYCSKDGSTDE-----NPGNREKQRWEDARSLAKEGK-----FDQIPADIYIRYIGNLH  
RIYREILPPLEPLP-----ATCGRWLLGRTGSGKSKGVRS-----VYPKPLNKWWDGYDDH--  
-THVLLDDVDHNDQSSIG--NLKIWDHYP---FIAEKKGG-SRLIRPELIIVTSQYSIRELFN-----DNELVLAL  
ERRFQVINVN-  
>CRESSV2\_KT149412  
RNYCFTYNNYPN--TEL---VDN-----HEVAPTTGTRHLQGYIAFHSTKTLAA---ARRLLPGCH-----LSAMAG  
-SISQ-----NDAYCSKSGTASN---D---DKGRAEKLWRQARDLAKAGN-----LDEIDADIYIRCYSTLK  
SISKDHMIKPEPVD-----VKC-FWIHGATGTGKSYCVET-----CYKKSMDKWFDGYDNQ--  
-DVVYLEDFDVYQIKWG--GMKRLADRW---MQASIKGS-MKYIRPKIVIVTSNYTPNEIWM-----DPQTVEPL  
LRRFKVIEKV-  
>CRESSV2\_KT732816  
RGWCYTVNNWTENDEEL---VAK--LS--REIGE-EGTIHLQGYCYFKNFKSLAQ---FKALLPRAH-----LETQKG  
-TPQE-----ASDYCKKDGMSQ---K---RKGDGREGYWEQLSLAKKGG-----VEECDPKLQITHFNALN  
AISARYAPMPDNED-----I-DNQWYFGPTGTGKSRKARG-----CYLKMCNKWWDGYLGE--  
-ETVLIEDFDKHEVLG--HLKIWADRYA---FPAEVKGS-KVNLRPKKIIVTSNHPNEIWS-----DLSTLDPI  
LRRFNVIKFS-  
>CRESSV2\_KT732819  
RNFCFTLNNYTESDTEA---VK--AID--FEVG-EKGTPHHQGYIRFENARSLGA---TIKQLPKPH-----VEVAKG  
-NASQ-----NIAYCTKSGVIDS---E---TCGRNEKRRWTDARAAAKEGR-----FDDIPDDIYMRHVHAIK  
RIRMEDGPKPTDLEPR-----DTYGLWIYGGPTGTGKSHFVRTN-----HYIKGANKWWTGYCGQ--  
-KYVVIDELSPASGLS--QMKKWADRWS---FEAETKGG-NSIIRPYMIIVTSNYSIEEVFSR-----VDAQAI  
KRRFTEIKFQ-  
>CRESSV2\_KT732823  
KYWCFTAFASDFEKERV--FSNSD---EELCPLSGRKHQGFASFASRKRLTA---CKKLFPSAH-----FERMRG  
-SARE-----AIEYCKKDGKCVR---S---STGSAKVDRIKDFIELARAGNV---DLCEQRHPNQFLRYFSQLK  
NLRKFDIERLSE-----ALWLRGSPGIGK DASRSF-----FKKSQLKWWDGYNNE--  
-NILISDFDESCK-MV--HLKIWADVYP---FNAEVKGS-TIKIRPKYIIVTSNFRMDMLFLG-----TALDAL  
KRRFMTFEF--  
>CRESSV2\_KU043397  
KRFCFTFNNTYEEEEK---LKE--LE--KHEEGEETKHLQGFVWKTARRPGG---LKKINA--K---IHWENTHG  
-TSKQ-----ASDYCKKDGKDKDFEHR---KKAANKVLWDNIYKLAKEGK-----FDEIPRNIYIRHMNNLH  
KIHDMTMKDRSMDEFTNKD-----KDHFLWLWGGTGTGKSTNARRIAK---KPYLKGLNKWWNGYKQ--  
-RVTHIEEANPKACELA--HFQWADKWS---FPAEIKCSSFDSIRPEYIIVTSNYSIRECFP-----AEQDYEPL  
ERRFTEIELV-  
>CRESSV2\_KU043406  
RRYCFTLNNYTRDEEEA---IKQ--IN--HEHSSGQGTPLHQGAI FNKRTYLAT---LKKLIP--R---AHFEIMQG  
-NPQQ-----SKDYCTKETSSK--PQH---QAGEANEAKWESAYQAAKEGR-----FDDIPRSLWIKHMRSFK  
QIFEDAKQDMDTEYTDQD-----KHHFLWIWGGTGTGKSHTAHRIAK---EPYIKDLNKWWNGFTKQ--  
-RVVHIEEADPKRCELA--SFKKWADKWA---FTA EAKGTVFPSCRPEYIIVTSNYSIAECFP-----EDADRLPL  
ERRFTEQYLP-  
>CRESSV3\_HM228875  
VNWCFTLNNYTNEDVNK---LKQVK---FEVGDKKQTPHIQGFQFEKKVRLSV---WKKINK--K---IHAEIMKG  
-TIEQ-----AINYCKKSGKM-----GERRDLKEAKKCC-AEVG-----LRAITDCTYNLQVIRN  
CQIMLEYHEKERDFK-----PEVIWIYGESGAGKTKYISEKCA---EYWKDAT-KWWNGYDRH--  
-EITVMDDFRASNMKMN--ELLKLIDRYP---HRVEIKGG-FRQMLSKKIYISSIMHPKDVYNLP-----EEPVKQL  
LRRIDTIKI-  
>CRESSV3\_JN857329  
RCCVFTLNNYTEDDMIQ---LNEWD---KEIGKTNKTPHLQGYIEFNRRKYFST---LKAFNP--N---IHWEKRLG  
-SQLQ-----AINYCKKEGVQ-----GKRNDISYYKELA-LKEG-----MKKVVEE-GNFQEIRT

CELYLKYKEEERNFK-----PEVIWIHGESGSGKS---LKASE----EYWKDKS-QWWDGYDKH--  
-NTIIMDDFRSSDMKFD--YLLRLLDRYP---MRVQVKGS-SRQMLSCKIIITSIYSPEEISYNN-----NREPINQL  
LRRIDKTMKL-

>CRESSV3\_JX185418

IGWCFTLNNYTEIDEQV---LQALD---HEVG-EGGTPHLQGYLELHKKRFRKQ---VKEMLG-ER---YHIEMRRG  
-TAAE-----VDAYCRKQNGQ-----GLRSDLDRVLLA-AESG-----MRAVAAT-ANYQQIKT  
AEIYLTYNEEPSWK-----PTVYWIYGASGTGKTRKAYEICG----TYVKVGTHKWWWDGYDGH--  
-ENVIIDDFRPMGIPFV--DLLGILDREY---FRVEVKGG-MRQMLAKTIVITTIYPPVLY-VNL-----KDEPLQQL  
LRRIDHFINF-

>CRESSV3\_JX904075

RSWCMTINNPTNADKAS---LCGLEV--REFNDPDK-TPHFQCYIRWKNKTFSTR---MKKLP--R---AHLKVARG  
-TDKD-----NKKYCSKEEE-----QGSRNDLKGIDMVQNPNS-----MDYIID-VSSLQAIPT  
AEKLLVYREPRRSWK-----TEIYWFHGSTGTGKSRRAYELFP-----YTAMDTGQWWEYDGD--  
-EVVIIDDMRRDFLKFH--QLLKLFDREY---YRVEVKGG-SRQFLAKTIVTSCYSPEDMFDTRD-----QEDIQQL  
LRRITEIKSF-

>CRESSV3\_JX904076

RGWFLTINNPTEDKLS--LRYVHK--SEETCPTTGTPHYHVYFRLKDAVTFK---IKKDIP--R---ANIEPAKG  
-NDQQ-----CKDYCSKQNGA-----QGKRTDMSKVLDLISEDPR-----MSSIIIE-VGSLQSIRT  
AEKLLIYKEPKRNWK-----TEVYWFHGSTGTGKSKLAFELHP-----YVAMDTGEWWEYDAH--  
-EEVIIDDMRRDFLKFH--QLLKLFDREY---YRVQFKGG-SRQFLAKTIVTSCYSPEDMFDTRD-----EDIQQL  
LRRITKIKYF-

>CRESSV3\_JX904139

RAWCLTINNYTEEELEC---IVSYSS--NE-TCPTSGTKHLQCYIRMTNTKTFK---MKKDFP--R---AHIEMAGG  
-NDLQ-----NKAYCSKESK-----QGKRSDELKISNILESPP-----MNDMID-LSNLQAIPT  
AEKLLMYKEPQRNWK-----PTVMWFHGSTGTGKSKMAAELLP-----YVAMDTGKWWWEYDGH--  
-EHVIIDDMRADFLPYN--HLLKLLDRYP---YRLEVKGG-SRQFLAKTIVTSCYSPEDMFDTRD-----EDNKQL  
LRRIDKIKYF-

>CRESSV3\_JX904407

RSWCFTYYPTEEDLLW---FKNLTT--TRELCPTTGKLFHQGYISYNNKTFQ---TKKWFQLDK---IHIAPAKG  
-NDFQ-----NQVYCSKEHK-----QGKRSDELKISNILESPP-----VSAVLE-VNNYQAVRH  
CELWLKYKEPCRPVQS-----INVIWIHGSSGSGKTRKVDYDNS-----GFTPTSHKWWWEYDGH--  
-QVVLIDDIRDFCKFH--ELLKLLDIYP---FRVETKGG-SRQVQFKTIYITAPYSPIEMWEGRC-----DEDLLQL  
TRRITQIDI-

>CRESSV3\_JX904581

-DYCFTDFVLDDET---F---LQGLP---YRETCPTTGKHLQGYIYFKNKTFSA---VRKLLQPR-----SVRACKG  
-SAEQ-----NATYCSKENK-----QGERNDIHDIMENIQTGNT-----MRDIVS-ATSFQSIRI  
AEIQMKYFEPQWQW---THVSWFYGKSGTGKSKLAYEMCE-----YMCMETNKWWWEYDAH--  
-EDVIIDYRRDFCKFK--VLLHLLDQYP---MRVEAKGG-SRQFRAKRIITTPKSPQETWEGRT-----DEDLYQL  
TRRIDIIKEF-

>CRESSV3\_KF738883

KRWCFTLNNYTEEEYKE---IEKIEW---REVGEEG-TPHLQGYIELKKKSSLNQ---IKKVNQ--K---IHWEQLRG  
-KPFQ-----AADYCKKENMSGG-----GTTEKIGAIIEKA-KSGG-----MREVLKP-PKLATVRL  
IEKYLSCYCEEERKEK-----PYVHWNLG---NITTYTGRMTP-----N-----DGYDKN--  
-ETIVIDDFRASIMRFT--YLLRILDRYP---MRVEVKGG-YRQLNSKNIVITSIHPESCYPHME-----NEPIRQL  
MRRIDKITET-

>CRESSV3\_KJ641718

RCICFTLNNTWDEEYQQ---LVNWDQ---KEIGKTNNTPHLQGYIEFKKRISLSK---LKKFNP--K---IHWEPRKG  
-TQSQ-----AITYCKKENKQ-----GERTDLVKARTIV-QEHN-----MRTLLQLPVNIQQIRM  
CEKYLTYCEEQRSWK-----PKVIWIWGSPSGSGKSRLAHAMTE-----NYLKDES-QWWDGYDKH--

-ETIIIDDFRGKQMNFT--YLLKLLDRYA---MKLQVKGG-YRECLAKKIIITSIFSPDRSYAFLN-----EEEPMKQL  
YRRIDTFINM-  
>CRESSV3\_KJ641722  
VNWCFTLNNTDDEVDKA---LKLVK----FEIGEEKKTPHIQGFQFEKKVRLTA----WKKINK--K----IHAEIMKG  
-NVDQ-----AIAYCKKGGKE-----RQRTDLREAKKCC-AAEG-----MRAITGEEYNNQVIRS  
CEIMLYHEKVRDFK-----PEVVWVYGNSSGSGKTKYVKEKCA----AYWKDST-KWWDGYDRH--  
-ETVVMDDFRASNMMKN--ELLKLD RYP---HRVECKGS-FRQMLSKKMYITSIMHPKEVYNLP-----EEPVQQL  
LRRIDKIVKV-  
>CRESSV3\_KJ641729  
RNFVFTLNNTYDEEYNF---IKNFEQ---KETGAQG-TPHLQGYMELKKQVRFNT---VKSVP--R----MHIEPRRG  
-TQKQ-----AVDYCKKEKM--G-----GIRNDVASVIEFK-NSS-----FKSFFESGADIQAFNL  
LGKIKTYMEEKRDYK-----TFVIWCYGPSGSGKSRWAYEISR----KYFKDDT-KWWDGYDNN--  
-SVTILDDFRASNMFN--TLLKLLDRYP---YLIEIKGG-YRQFVSSIIITCIQKHEDTYKILE-----NDEPLNQL  
TRRINKIMSF-  
>CRESSV3\_KM598404  
--HNFVFTSFKTEDFER---VLGLD---KETCPETKREHLQGYCELDKKTMMAG----IKKLFSDDS----LHIEARKG  
-TQKE-----AIIYCQKEGKQ-----GSRGDLGDGARVMA-VESG-----MRAVSS--MNMQQIRV  
AEKFLSYNEEVRDWK-----PEVLWFWGDSGSGKSREARFISH----GYVKNTGGKWWWDGYDGH--  
-EVVIIDDFRDSWWALT--YFLACTDRYE---FQVEVKGG-FRQLRAKMIITSLFHPKMYRAQA-----KGDTAYQI  
LRRIDSVVHF-  
>CRESSV3\_KM598406  
RAWCFTLNNTPEEL-----AEIEN---KDEIGEKGTRHLQGYLYWKNPRKFTF---IKKIIP--R----AHIEPAKG  
-NPQQ-----NITYCSK--DPKQ-----GKRTDLETMREILKEPEP-----MRKITE-SLNYQATRS  
AEKWLCYNERKRDWK-----PEVTWYTGPSGTGKTRAAKEELP-----WKSG-TNKWWWDGYDGH--  
-KEVIIDDFRGSIAFT--DLLRLLDRYP---MQVECKGG-SRQFLAEKISITSYHPEKVYKNLE-----EEPIEQL  
LRRIDKIVNL-  
>CRESSV3\_KM874300  
RAYCMTIHNWSEETVNVQ---LKNLK---YNETCPTTDRKHLQVYAYFKNALSFKS----IKKQFPTA-----HIEASKG  
-TPNH-----NKTYCSKEDE-----QGKRSDIEVCREIVQSGAG-----MREVVN-CQSVQGMRI  
AESYLKYHEKPRKWK-----PTVQWFYGESRSGKTREAYEILG-----YTCLNTGKWFEGYDAH--  
-ENVLIDDIRKSFMPYD--EFIKLIDRYA---FRRRMLRK-FPPVFSKKNYHLLSPRRCLEGRY-----  
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>CRESSV3\_KM874304  
-NWCFTLHNYTDDDIEI---FKNIKC---KEICPTTKRQHLQGYIQFDNQRITATA---VKKFLGLPK----IHLEIANG  
-SSDD-----NKAYCSKDG---Q-----QGRRTDITDIKDMISNGAT-----MRDIIP-ATSVQSVRM  
AEIHLKYSEQKRTWK-----PKVQWFYGPTGTGKTRTAYEIL-----EYTTLDTGQWWEQYDAH--  
-ENVTIDDMRGDFMKYH--VLLKLLDRYA---YIVECKGG-SRQFLARHIIITSAFHPKDVFHTR-----EDIAQL  
MRRIDCVKEF-  
>CRESSV3\_KM874317  
RSYSFTLNNTYDDEVFVA---LTSMCE-INKEIAPTTGTPHLQGCIIFTSPRSFKA---LKKVVPFNR----ANYKPTIS  
-EPG-----SARYCKKDG---K-----QGKRSDIENVRDILTSGGN-----IRDVVS-ATSIQSVRM  
AEIHLKYFEKKRNWK-----PTVRWYYGATGTGKSKTAYEEDCD-----EYVAMSTGKWFEGYDAH--  
-THVIIDDMRKDFMKFH--ELLRMLDRYA---FMVECKGG-SRQFLATDIYITSCYAPDEMFESE-----EDVNQL  
IRRLDEIRKF-  
>CRESSV3\_KM972726  
QFVCWTLNNTYSEDEYQS---LIEFSE---REVGETG-TPHLQGYGELKKRKKFAA---LKNLFP--R----VHWEQRRA  
-SRDA-----AANYCKKEGKN-A-----SEKSSKEAITRVK-SGQT-----MRAILD P-PNL SGIRM  
CQIWLSYNEPKRNFK-----SEVFWYYGASGTGKTKLASEQAG-----YWHDG-T-KWFDGYDAH--  
-EHVLLDDYRGGNMKFN--FLLKFLDRYP---LRLEVKGG-YRQLLAKKIWVTSIKHPKEIYSFSE-----MDEPTEQL



LRRITTIKKM-

>CRESSV3\_KP153408

RDWCFTLNNYTEEEYDV---IHSLSL----KEVGESGTNHLQGYIYFVNAKSMSA----VKKMIS-KR---CHLESAKG  
-SPLQ-----AATYCKKDNN-VI-----QGKRTDLDEIRDILKQTNK-----MSDVVM-AKSYQSVKM  
AEQILKYHEKPRMEK-----PYVEWYYGPTGTGKSKKAYEVLS-----YTCLSTGKWFDGYDAH--  
-KNVLIDDMRKDFMKFH--ELLRLLDRYA---MRVECKGG-TRQFVASHIITSCYHPKDMFETR-----EDIQQL  
LRRIDKIENF-

>CRESSV3\_KP153422

RTKAVHFVFSFETSNETV---ERLASD---EHCPTTGRHHLQCYLYTKNKITLST---IHKAL--KK---CKLFIANG  
-TAEQ-----NQTYCSKEK--SG-----QGKRTDLDTTRANLLAGGT-----LRDVVL-ATSYQSVKM  
AEQILKYHEKRDWK-----PIVKWFWGATGTGKSLTAYDELD-----KYTAMSTGKWWDGYDAH--  
-SCVIIDDMRRDFCKFH--ELRLYLDRYP---TIVETKGG-TRQFLAKQIITSCYAPEDMYETR-----EDIQQL  
LRRIDEVREF-

>CRESSV3\_KT149403

RAWCFTLNNPTDRDKRA---LIALAN--TLEHAPTTGTPHYQGYMVFDHGKSFSFA----LHKAMP--R----AHFEPARG  
-TAQQ-----NYDYCTKAPQ-----QGERVDISQVRELLRSGVT-----YRELVD-DVNYQVLRI  
AQEWLRVHEPARDFK-----PEVRWFYGEPEGAGKTRAALWLE-----SFTVETPAKYWDGYDGH--  
-NCVLFDDLADQCGFV--RMLRLLDRYA---MRVEVKGG-SKQLRARIYAITAPHRPEEIYRTSS-----ENIVQL  
TRRISSVTHV-

>CRESSV3\_KT149409

RDWCFTVNNYTYDDYKV---CQELSV---MKEVAETGKHLQCYVYFENAKSFSK----MKKLLP--Q---AHIEKAGG  
-TPQD-----ASNYCKKGEQPKNE-----QPSGTRNDLKEIREMLAQGKG-----MRDVIE-ATSYQSMKS  
AELILKYKERKRNWK-----PKVIWLWGRSGIGKTRAVYEECP-----RKSNSGKWWDGYDAH--  
-ENVLIDDVKDTSEEYS--MLLEILDYD---VRVQTKGA-TREFLAKTIYLTSLDPRIMYRRFP-----EE-GYEL  
YRRIDEIRHV-

>CRESSV4\_AHH31482

NNYTEKDVT---SITKLTFSNCV-FAKVGKEVGD-SGTPHLQGFHILRKRLRLAC----VKKLVGDR-A----HCEVARG  
TDKDNE-----SYCGKDA--DITELQ---E--WKAYCRHSKVIQELSAAFVKNKNIADQAAQMSGKPLRQWQK  
ELKDAPNDRE-----IMWYCD-SVNTGKTWFSKYLVALSA-----D-----KYAYN-  
GERVVVFDLSRS----DHFNYEVIESIK-NGLMFSPKYTSCTKMPI--PHVIVFANW---MPDE-----SKL  
ADRWNISQ---

>CRESSV4\_KX388505

HNYTDENVE---YLK--PADKAD-FIIFGFELTK-EGIPHLQGYVEFGTALVRNT---VKARLDPS-S----NVSNAQK  
TREANI-----NYCSKIESKQDISEI---EAFPEYAIKYRFAIKDMIETAKAKQVRADFEEQYESAELRPWQS  
KLVDEPNDRK-----IWIWE-NQNIGKSWLSCYLVAKTK-----D-----AHAYN-  
GEGIVVDFDSRT----ERLNYQILESIK-NKVLFSPKYNSCSKYKS--PHVICLANW---PPNR-----ATM  
QDRWDVRH---

>CRESSV4\_YP\_009021888

NNYTEDEFN---SIKNFCERVAK-FAVMGREIGS-GGVPHLQGFISLQNKVRLTG---IKAIVGQR-A---HVEPAKG  
TDQKNL-----EYCTKSCGVSISELL---DTLAPAYIVHKRAIEECASDIAGAQQFQAERARYATTRWKPFQF  
NILKIPHPRA-----VHWFWD-AENTGKTFIAKYLVLLSA-----D-----KYAYK-  
GQRIVVDFDSRS----DHINYEVMESVK-NGIVFSPKYESGMKVRT--PHMICFANE---RPDT-----SNM  
MDRWEIHE---

>CRESSV4\_YP\_009163936

NNYTDADCE---ALKKLTDTCS-RAIVGKEKGE-NGTPHLQGFVSLKTRKRLSA----MKTFLSPR-Y---HFEQAKG  
TDEQNT-----EYCSKEG--DKEALL---EKMLGAYMKYKRSITEMVSEVKSEQETKRLKQDLNATLRPWQR  
ELKEYPHDRH-----IIWYID-GQNNGKSWFAKYCVAETA-----D-----THAYN-  
GERVVIFDLSRT----GHFNYGALESIK-NGCVFSSKYDSRQKMPI--PHVIVFANW---GPDR-----SKL  
EDRWVTKT---

>CRESSV4\_YP\_009237559

NNWTLADYD---KVLFTTKFEPV-FLICGKERGE-LLTDHLQGFVHLKSKQRLTF----LKANLSER-A---HFECAKG  
SDEDNR-----DYCSKED--EREPLF---EEFAVPVLRHYASFEKLAASVRLNALEQLQSEYKEVRLKVVWQQ  
AIINTPHPRT-----IHWYWE-ATGTGKTWMSKYL VACSN-----D-----KYAYA-  
GEKVVFDFTRS----EHINYEIIESIK-NGCYFNCKYESGMRIPT--PHVFCFSNS---PPDL-----SKM  
ADRWHISQ---

>CRESSV5\_JX904231

NNYTDDDEEQ---CIGFSENDH-LLYMIVGREKGD-SGTPHLQGYLSLNRRTLSQ---IKGWLG-SRV---HLEVARG  
SPQQR-----DYCT--KEGTMHEIA---REWPLGFARYSDRLRTIAEASLPPIDLLGDSYELR-----PWQA  
ELASSDPRE-----VMFFVD-SDGK GKSYFCQWLLSKRD-----D-----AYAIDE  
TKKIFVFDIPRT----EYLQYSVLEMLK-DRMVFS AKYQSATKIQS--PHVIVFSNE---YPDM-----SKM  
DDRYNIKE---

>CRESSV5\_KJ547646

NNPTQDERN---VLALGD-QPTTQYLIYD-EVGA-SGTPHLQGHVSFVQRYRFNQ---VKNWVSPR-A---HLELVR-  
LLRRHI-----EYCK--KDGHSPELR----EKHPNVMARYPHFANSIIRDLPQSAPPDLPLRA-----WQQ  
RVVELPDPRK-----VYFIVD-RQNAGKTS LAKLLHRTVA-----D-----AYLYKI  
TTKILILDVPRS----ELLQYSFIEMVK-DGLLMSTKYESVMKTP---PHILVMMNA---DPDH-----TAL  
TDRYHYII---

>CRESSV5\_KJ547650

NNYTDEDIH---KLKALLQPLVSSCIYQESAT-PGTPHLQGFISFKTKQSFKF---TKNLVSDR-A---HVEVAKG  
TPQQR-----IYCSKAKDRKINDIL----ENHASVAARYPRYVREYIDLYVNPPEVPDHPLYL-----WQE  
TLTKISDDRQ-----IIFVVD-EVNQGKTWFAKKY CRAKA-----D-----AYALNT  
DLRVLFLNVTRQ----EHLQYSFLEAVK-DGSVWSPKYESRTKHQI--PHIVMMNQ---DPDF-----QLL  
KDRYHTIY---

>CRESSV5\_KJ641738

NNYSDDDIIE---KLSLVPTVCS--YLIYGKETCP-TTTPHLQGYLHFVKRQTL SG---AKALLGNQSY---HLEASKG  
TPEQAA-----AYCK--KEGSDRDLL----DKAPHLWARNRPALLKMAQLLCPHRLVEGDPRE-----WQE  
RLSSLPNDRT-----IYFVVD-PPNNGKTWFQKWYLSKRD-----D-----AYSVD  
TKSVFMINVPRG----EFLQYSILEMIK-DRVVHSPKYESTTKFKK--THVIVFSNE---YPLL-----SKM  
QDRPVFIN---

>CRESSV5\_KM874354

NNYVQADID---RLAFGETDDCT-YLVFGKEVGE-SGTPHLQGF AIFPRKRLRA---VKSHIGNG-A---HLECARG  
SPLQAS-----DYCK--KDGSRALIA---ATWPDLYVRYHTKLFELVGV LAPKPILQEG--DPN----AWQT  
TLIEAPDDRK-----IYFYVD-ETGSGKSWLTRYLM T SRD-----D-----AHAIDV  
TKKVFLFNVPR T----EFLQYSILESLK-DRVMSPKYNSMMKVSV--PHVVVFSNE---EPDR-----TKL  
ADRFVTH---

>CRESSV5\_KP153451

NNYS DADVE---RLKC--KDGIEVHVFK-EVGD-SGTPHLQGF IKFQSRKRAMF---VKQLIGNG-A---HVEYAK-  
FPDAAI-----EYCK--KDQYDSELR---EEFPKLYCRAARFMKEYRDR CIEPRL--HPLYE-----WQS  
KLNSEPDDRS-----ITFIID-ELNSGKSWYATYYKWNVA-----D-----AYELNE  
RVRVFMDCARAG----EYLQYDFLEEI K-DGMVFS PKYESRTKYSN--CHVVVLMNE---QPDM-----TKL  
QDRYVIVR---

>CRESSV5\_KR528545

NNPTDADAS---AIALGDGPLTR-YLVVGREIGE-SGTRHLQGFVIFHQVQSRAA---VSGYIAR--A---HLEPARA  
SSVQAS-----DYCK--KDGT AHECA---VEQPAAYLKYP-RLISLFQARAPPD GREG--ERR----PWQH  
ELEDEENDRR-----VTFIVD-QVGAGKTWFQQWFLSKRD-----D-----AHTIDE  
TKEVFFFAVPRG----EFLRYEILEMLK-DRMVFS PKYASRMKFVV--PHVIVFSNE---LPDM-----NKM  
LDRYYIKE---

>CRESSV5\_KR528547

NNPTGDEIS---KELFLSTPG-VIYHVFVKETGD-SGTFHLQGYVIFSQRKRLGQ----LREIFP--RG----HFEVSRG  
SPHQAS-----DYCK--KEGLERDLI---LEFPNLVG----ASYNISHDLHPQKRVANGSGKP-----  
---TPPRQPA-----IEFIVD-PENSGKTWFCQYMITQRD-----D-----TFAIDE  
TRTIFLFDVPRG----EFLQYNVLEQIK-DRLIFSPKYSSTLKISN--VHCVVFSNE---EPDV-----SQL  
SDRLRVVR---  
>CRESSV5\_KR528551  
NNPTQQESQ---TLRAIEQTS---YAVIGREVGE-SGTPHLQCFFIFNNRLRLRQ---VKAVPGLQRA---HLEPARG  
TSAQAA-----NYCK--KDGTERDIL----DHHPILR-YPHFIEVCHRQYGRRPTLVEGQLRN-----WQL  
ELSNMPDDRK-----ICFVVD-EENKGKSWLTAYWYSNRD-----D-----TYAIDV  
SKRVFVFDINRG----EYFQYSVVESLK-NRMIMSNNKYKSVTKIHK--VHVIVFCNE---EPDR-----TAM  
RDRYQMKR---  
>CRESSV5\_KR528553  
NNYSGADEQ---LLELSRSTDVV-TLIYGREVAPGTGTNHLQGMIFATRKRLRQ---IRNYPPFQRA---HLEVMRS  
TPARAR-----EYCI--KDGTEEEVA---QLQPIAMLYR-NFMDLARLRAPQPQLIRNGVARE----GWQM  
DLEHAAPDRH-----ILFYVD-PAGNGKTWFQYLLTKFA-----D-----AYAVDE  
SKDIFFFNVPRG----EFFQYRLAESLK-DRLFVSTKYASGMKIKV--PHVVVFCNE---APDM-----TKL  
ADRIIHD---  
>CRESSV5\_KR528554  
NNWTAAEQQ---ALISSDNFD---YLCFGRERGD-NNTPHLQGYVILKTKLRLNN---VKALPGFRRC---HLEVSRG  
TPQQAA-----DYCK--KDGDDHEIA----EEYPSLWGRYRSACESFRQLFGKPIEVVDPTFEPR-----VWQQ  
RIIDIPDRK-----VYFVVD-ENNTGKSYLSAYLISKRD-----D-----AHAINP  
RRSIFLFDVPRG----EYLQYTFEQLK-NRTVFSKYSITKIKL--PHVIIFSNE---SPDR-----NKM  
HDRVHVT---  
>CRESSV5\_KR528556  
NNYTPAELT---AIVSAGNFD---YLCFGRERGN-NNTPHLQGYLILKEKKRFSY---VRQLAGLERA---HWESPRS  
TPKQAS-----DYCK--KDGTDREVA----EEFPSLWGRYRSACISFLDLFSPHPTLVQGTLP-----WQE  
DLNTRPNDRD-----VMFVVD-ENNSGKSWFIRYLMTERD-----D-----AHAIDP  
AKKIFFFDVPRG----EFMQYAVLEQLK-NRLVFSKYESRMKVHI--PHVVVFCNE---EPDR-----TKL  
RDRFRVTH---  
>CRESSV5\_KR528561  
NNPTVQDRE---RLDL--ADSCN-YLVYGNEIGS-SGTPHLQGFVIFPKTKRFNA----AKIAIGNT-A---HVECARG  
SSVQAA-----TYCK--KDGSKKELV---LAFPGFYARYRKACFEYAEALTPPPILTQS--EPR-----GWQT  
RVDGIANDRT-----IHFVVD-PENAGKTWFCSYALTKRD-----D-----AYAIST  
EKSIFLMDVPRN----TFLQYSVLEMLK-DRMIFSPKYESSFKIYV--PHVIVFSNE---QPDT-----SAL  
ADRINIIN---  
>CRESSV5\_KR528562  
NNPTPAEEE---SLFHGTPPCDFKYLTVFGRETGE-SGTPHLQGYFELVKKLRIHQ---IKGTLGFERS---HLEVARG  
TSLQAS-----DYCK--KENTIKDVW---DVFPTLAARYNRAVMCIDLFGKPKVLEGLDLRL-----WQL  
RLDGIADDR-----VIFVID-PENKGKSWLVSYWLSTRD-----D-----AYAVDI  
STCLFVFDIPRG----QYIQYGIFEQLK-NRVVFSNNKYSSQTKINT--PHVVFVANE---LPDM-----NAL  
ADRYKVIN---  
>CRESSV5\_KT945163  
NNWTEPVFQ---QSLLGDEANVK-FGIIGKEVGE-QGTPHLQGFLLHRQQRLSW---VRRHFPDG-C---HWSIARS  
DSETNR-----TYCK--KDGSSPEIA---KTHPKMYLRYP-RSVRLAKRRCALFPVQEG--DLN----DWQR  
ELEEKPPDR-----VLFYVD-PDGKGTWVFRRYLTLIK-----D-----AYAVDT  
NARVFFVNVAR-----EFLPYRFLEMLK-DRMVGSSKYESEMKIHN--VHVVFSNE---YPDE-----TKM  
ADRYDINT---  
>CRESSV6\_AJD07486  
QAKSFFLTYQCSA-SKQDLKNFLDTKGRERHED--GNFHLHALVTYEKKINVKR----TTFFDLNG--FHPNIQAANK

LPALK-----NYISK---EDIEEE-----NYFEICRKRKVSII SRVPMYANQAFLKIL-KDASIG  
EY-----VIGTITSTVLQNL-----QLPTDMTSLWVKGPSGIGKTTWALT-VSNAL-----FVRHLDLTLREFRNG-Y  
HKTIIFDDMSFQHLPR--AQIELVD RYH--PQQIHIRYAVVNIPPNIKIFL-SNDSIFY-----DEAIFRRLTLVN  
LETDQ-----  
>CRESSV6\_KM510189  
SAKRYLLTYAQCP--DPDDIFRQLDRKRAELHAD--GNPHIHIAVEFAKKNLSVD-----TKYFDYES--YHPNISPAQS  
WPKCI-----NYCRGKNKTLTDKE-----LWLQWLFE-----HNVQPTLGLVWVRS LHAPPAFET  
RE-----IAATFDQRLLYLQ-----LPDDFTKSVVIIGPSGSGKTVWAFNRMFEG L-----SVGDIDDLK LFRPE-Q  
HSCIVFDEVRFGFRKLE--TQIALCDTAR--SRTIRCRHGNGFIAANTPRVFTCTGTLPFQ-----DYQIERRIHIIN  
LYDLWPPTF--  
>CRESSV6\_KM598390  
AARNVFLTYSHQEG-NMQELFQRLQEIKPEQHGD--GTDHFHAVL CFKRKLDTVN-----PRLDFDNG--WHPKIESPRS  
VAASI-----TYVKK---DGDRA-----EWEEYCIG-----EHISFAYCESIYNRTHPRQRIYE  
GE-----NDGELSLALERFS-----WGFPEQSLILVGPSGCGKTLWAKR-NAPCL-----FISHIDRLTEFDER-V  
HKSIIFFDDMTFNHYPLQ--AQIHIVDQYD--DRDIHVRYKTAFIPKKT PKVFT-CNEEPFR-----HETIKRRSKTYN  
II-----  
>CRESSV6\_KM874358  
QCRRLFLTYPHCTA-SIQEVYDLIHSKKEEPHSD--GTPHIIHA AVMFAKKVNICN-----ARLFDIND--HHCNMESIKN  
WPATL-----NYCKKG--DNWESN-----DFWEYCR-----LKKVPFAYASNAMRK--KKSITD  
PY-----IREDLGAYTITE-----DSPATLASTVLVGPSGIGKTSWAIR-EESL-----LVTHMDALRKL-NG-S  
HKSIIFFDDMSFTHIPRE--AQIHLVDRFQ--PRQVHVRYGTADIPAGIQKIFT-ANQYPFA-----DPAIDRRVHNKN  
LY-----  
>CRESSV6\_KP005454  
SAKKFLLYTYSQCCE-DPEDIFSRIDALRKELHQD--GNPHIHIALEFETKLNTTN-----CRYFDYKN--FHPNVTVADS  
WPKCI-----NYCRGKNKTLIEQR-----AWTQWCYE-----HDISPLWKSDVWRQLRTPVGRDE  
DA-----RPTTIDTRFAFMV-----LPEHFKQSVVLLGPSNCGKTTWAVNHMVEIL-----IVNEIDDLRRLDAT--  
HKGIVFDEIRFTKWPLH--SQIALVDNAL--GRSIIHCRNINAWIPKGT PKLFTCTEKFPPY-----NYQVYRRLNIIN  
LYELWVREL--  
>CRESSV6\_KP153501  
NGKQFFLTYPQCQH-SAAELAAFLTSVATEKHED--GTPHLHACIQYVETLRG-G-----VRLDFDNG--HHPNKQDPRK  
FEACK-----QYCRK---DGNKA-----LWFDWCIS-----KRITHGYAEWYWNSTR--EHDIN  
ET-----VAGQMCESLAGYA-----FNRDQHRVIVLKGESGCGKTTWAKT-HAPAL-----FVSHIDSLKRFQPG-F  
HKTIIFDDVDFNHYPR--GQIHIVDWEN--PRAIHVRYGTVEIPAGTFKIFT-CNFDPLT-----DDAIRRRVKVVN  
VN-----  
>CRESSV6\_KT149395  
NAKNFSLTYSNVEQWDKESLLRHLES LGDEQHGD--GSTHFHAWVQFPRKDIRA-----SNFFDWQG--  
CHPNVQATNN  
LRAWK-----TYICK---DGDKH-----EWNVNYCIG-----KKIGFYMEYIWKDCH-MDRDIE  
DP-----PEAVMCAALEQFI-----YPSLDRSPLVLVGD TGCGKTTWAIK-NAPIC-----FVSHMDQLKHFD PQ-Y  
HKSIVFDDMDFKHLPRE--SQIHILDMTT--PRAIHRRYGVTVIPAGTKKIFT-ANSNPF-----DPAIIRR-RTL R  
IVGL-----  
>CRESSV6\_KT732829  
NATRFLLYTYPQSTFDVQLVWDFFN SLAIKEHHQD--GSEHVHVAIEFERAVNTTR-----VSIFDFGG--RHPNIQSARN  
WAACV-----NYCRKEGCTAEDIR-----EWFYECIA-----EGIGYAYANAIWNQIHSVRPYFE  
N-----FSGIVSGPTLSHL-----RWDPEWHTIFLCGPSGLGKSSWALA-NAPFL-----FVTDIDDLGFFDPE-V  
HKALVFDEIRCTKWPLT--SQIKLATWDT--PVSIRIRYKIAHLPAHV PKIFTSCDWFP MG-----DEQIRRIKAFN  
LYDGRSTES--  
>CRESSV6Wastewater\_AUM61624  
NSQQLFLTYQCPI-NLELILNHLKSLVEEKHQD--GNLHIHCYLL LKSKLNLKN-----PRKFDYQE--YHPKVEGCRS

YKNVI-----KYVTKDGN YIVE-----EGMKILA-----KTARDLCIHGNTIRRNL ESLVPKR  
R-----KIVFALSDFRIDF-----EWDRTK-TLILWGP TNTGKSSLAKALLPDSL-----FVSHIDRLRDYNSK-S  
YTGIIFFDDMSFKHIPRD--GQLHLVDNYD--DRDIHCRYAPAFIPAGTPKIITSNNPPSE-IL---LLDPAIARRVQIVN  
I-----EQVW

>CRESSV6Wastewater\_AUM61713

NSQQFFLTYPCPL-DPKVVL DHIIEPEQHKD--GNMHIHAYLLFAKKNLVRN-----EKKFDIVT--YHPNMQGVRS  
WKNVV-----KYVTKDGN YLVS-----EALSVLS-----KTVRDLVIHGNAIQNLRSLAVKR  
K-----APEYSIEDFRVDF-----VWDRRR-TLVMWGP TDTGKTS LAKALLPTSL-----FIRHIDRLKEYDEE-E  
FEG LILDDMSFKHWPRE--AQIHLVDIEN--DSHINVKHGM AVIPAGTPRIIT TNNMPAE-IL---LDDGAIARRIQIVH  
I-----ESVK

>CRESSV6Wastewater\_AUM61719

NTQTLFLTYPKCKM-TPEQALEQLQ LIVKEQHMD--GTMHLHAYLR LDHKMNIKD-----ERKFDLEL--  
YHPNMQGARS  
PKAVI-----KYVCKDGKYVFE-----EGMKVLS-----KTFRDLAIHG EAIERNMRARKKQK  
T-----EPKFSLDL FKV SF-----EWDKTK-TLV LWGP TNTGKTS LAKALLPNAL-----FIRHIDALKEYKTG-Q  
YTGLIFDDMSFKHWPRE--AQIHL DTDN--VSQINVKHSIAI IPEGTPRIIT TNNMPAE-ILALNIEECALSRRVQLEW  
I-----ERVY

>CRESSV6Wastewater\_AUM61738

NRTLFLTYPKCNL-TVELLEKLEAP-TEEHQD--GTPHLHCYLKLSRKVNIKD-----PSKLDLKE--YHGNYQGCRS  
PKCVL-----KYVTKGGKYIGA-----EAVNLLAP-----KGARDLLYGD LIQKSMAKLKKAK  
SP-----QINFKLEDFSLDW-----TWDVTK-TLVLTGKTNLGKTTLSHCLIQEAL-----LIRHMDRVKEYDSN-L  
WGGIIFDDMSFKHLHRE--AQIALTD TAF--DTDIHVRYSVATLPRETPRIIT TNDPYL-ILD---YDEAIRRRCQLVE  
V-----SN--

>CRESSV6Wastewater\_AUM62043

NSQQFLTY SQCP I-DLELILNHLKSLVEEKHQD--GNLHIHCYLLKSKLNLKN-----PRKFDYQE--YHPKIEGCRS  
YKNVI-----KYVTKDGN YIVE-----EGMKILA-----KTARDLCIHGNTIRRNL ESLVPKR  
R-----KIVFPLSDFRIDF-----EWDRTK-TLILWGP TNTGKSSLAKALLPDSL-----FVSHIDRLRDYNSK-N  
YTGIIFFDDMSFKHIPRD--GQLHLVDNYD--DRDIHCRYAPAFIPAGTPKIITSNNPPSE-IL---LLDPAIARRVQIVN  
I-----EQVW

>GasCSVlike\_YP\_007517186

LTLN---NPTPEECHLLREVF KR GSE---VG-KKGT PHLQGFVHLKNAKTLTG----LKKFLGS-----RYHV KQAN  
GTDYE-----NWQYIGL---ETPTE-----EGDPDAWDSILEMIEGG--FNNRDIRK WPSIAIRCQSAID  
R YRVEYEWGECRAWRD-----VEVEYIGGPTGTGKTRGVLYHAD-----GNGK---PFDKYDGE--  
-G-TIVFEEFRSQ--YTCRDMLNWDGHP---LLL PARYA-DRMAKFTKVIILSNWRFAEQYRTVAED----SPETYKAW  
LRRVGTI----

>GasCSVlike\_YP\_009126903

LTLN---NPTDAEIASLLQETLKRGL E---VG-AEGTPHLQGFVHLKNAKTGTA----LKKMLGS-----RWHWGKAN  
GTD FE-----NWAYIME---DKPAE-----EGEPDAWDSILMMIEAG--EDDRAIVRK WPSIAIRCQSAIA  
KYRASFEWAECRAWRE-----VEVEYISGPTGCGKTREALYLPD-----GNGK---PFDMYDGE--  
-G-TIVFEEFRSQ--YTCRDMLNWDGHP---LMLPARYA-DRMAKFTKVIILSNWRFE EQYRTVQAD----SPETYKAW  
LRRVSTI----

>Gemini\_AAB87607

NAKNIFATYPRCSLPKEEAL ELLRQIPTAELHEDGE--PHLHVLLQFEGKLQITN-----PRLFDLVSGNFHPNIQGAKS  
SSDVK-----SYIEKD---GDTI-----PTKALNIVKELAPKDFVLHYHNIKSNLDRIFSKPLEPYS  
CPFR LNSFNVPQIMKD WASIN-VVDAAARPD RPISIVIEGESRTGKTMWARSLGAHNY-----LCGHLDLSPKVYSN-N  
AWYNVIDD VDPHYL--K--HFKEFMGAQH--  
DWQSN TKYGKPIQIKGGIPTIFLCNPGPNSSYK SFLDEDKNKDLKQWAL  
KNAIF-----

>Gemini\_AAF75542

NAKNYFLTYPQCSLTKEEALSQISALSTPELHEDGS--PHLHVLIQFEGKFKCQN-----NRFFDLTSPSFHPNIQGAKS  
STDVK-----AYMEKD---GDVL-----KAAALNILKEKAPKDFVLQFHNLNSNLDRIFTPPIEKT  
LLFYLLSTKFQKNLKNGLLAN-VVSAVGGPLRPMISIVIEGDSRTGKTMWARSLGPHNY-----LCGHLDLSPKVYNN-  
D

AWYNVIDDVDPHYL--K--HFKEFMGAQR--  
DWQSNTKYGKPVQIKGGIPTIFLCNPGPNSSYKEFLDEEKNKALKNWSL  
KNAIF-----

>Gemini\_AAK73446

RNANTFLTYPKCPENPEIACQMIWELVVREAHKDGS--LHLHALLQTEKPVRISD-----SRFFDING--FHPNIQSAKS  
VNRVR-----DYILKEP---LAMF-----KEEYLSMIQKELPYDWSTKLQYFEYSANKLFPEIQEFT  
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>Gemini\_AAL96826

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PPFPLSSFTNVPDEMQUEWADGY-FGGPAARVPRVSLIVEGDSRTGKTMWARALGPHNY-----LSGHLDNFHRVYSN-  
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VAYNVIDDVSPHYLKLK--HWKELLGAQK--  
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>Gemini\_AAN76737

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>Gemini\_AAP73446

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D

AWYNVIDDVDPHYL--K--HFKEFMGAQM--  
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KNAVF-----

>Gemini\_AAX39336

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SPFLCSSFDQVPVEIEEWVADN-VIDSAARPWPNISIVIEGDSRTGKTIWARSLGPHNY-----LCGHLDLSPKVYNN-A  
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>Gemini\_ABD35287

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SPFNCSSFDQVPVEIEEWAADN-VMSAAARPWPNISIVIEGDSRTGKTMWARSLGPHNY-----LCGHIDLSPRVYSN-E  
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KNATF-----

>Gemini\_ABD67440

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CSDVK-----TYMEKD---GDIL-----KLEALLILKEKAPKDFILQFHNLCNLSRIFTEPTQAYE

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RNSRIKYY---

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ANAIF-----

>Gemini\_ACB44970

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>Gemini\_ACI06063

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VSKSL-----KYIQKEA---GSFY-----IEEALQLVKDNEPRTFWLQHHNLVTNARRIWSEVRADFV

PKYSESSFS-VPRVLSDWVANN--LRADPLPDRPLSLIEGDSRTGKTAWARSLGSHNY-----LSGHLDLNGAVFDN-E

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>Gemini\_ACV60535

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SPFSSSFDRVPEELEEWAAEN-VVSAVAGPLRPIIVIEGDSRTGKTMWARSLGPHNY-----LGGHLDLEPKVYNN-D

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>Gemini\_ACY79450

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>Gemini\_ADN84041

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PPFQLSTFNNVPAIMSEWVNVN-ISDAAARPLRPISIVIEGPSRTGKTIWARSMGPHNY-----LCGHIDLNPKIYSN-D  
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>Gemini\_ADW24243

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>Gemini\_AEE99005

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SPFLLLLLIKS-RELKKGSPK-PVSSAARPWPRPISIVIEGDMQGTGKTMWARSLGPHNY-----LCGHLDLSPKVYSN-E  
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>Gemini\_AER09339

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HNARF-----

>Gemini\_AEY63664

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>Gemini\_AF003952

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>Gemini\_AFA26437

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>Gemini\_AFF58888

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>Gemini\_AFH68197

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>Gemini\_AFM38721

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>Gemini\_AFN80601

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NAVV-----

>Gemini\_AFN80669

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PASTL-----KYCMKHP---ESSW-----RDEYLSMVRKSFPFEWAVRLQQFQYSANALFPDPPQTYS

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NAVV-----

>Gemini\_AFV91331

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PKSVR-----DYILKNP---ITQF-----KESYLSMVRKSFPFEWATKLSQFEYSASKLFEVTPPEYK

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>Gemini\_AGF41094

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YNAKF-----

>Gemini\_AGJ03640

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>Gemini\_AGK24653

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LCGHLDLSPKVYSN-N

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>Gemini\_AGV02071

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>Gemini\_AGV02076

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SDAVK-----NYITKG---GDFC-----ATEALDIKGDGPKTFIVQYHNIRSNLDRIFKKAPEPWI

PPYQLSSFVNVPDDMQEWADSF-FGDHAARPERPISIIIIEGDSRTGKTMWARALGPHNY-----LSGHLDLDFNSRVYSN-N  
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HNAKF-----

>Gemini\_AHA82274

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>Gemini\_AHL29198

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>Gemini\_AHM88370

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NCVV-----

>Gemini\_AHM88378

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ANKVR-----EYILKNP---VCQW-----REEYLSMLQKALPYEWATKLQYLEYSASKLFPDPTVEEYT  
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NCVV-----

>Gemini\_AHM88382

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HHPQTEELHCKETIDDWLKPN-IFQ-QLPSDRKQSLYIVGPTRTGKSTWARSLGRHNY-----WQNNVDWTS--YDE-E  
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NCVI-----

>Gemini\_AHX57826

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PPFPLSSFNNVPEVLQEWADNY-FGDPAARPLRSKSIIEGDSRCGKTMWARALGKHNY-----LAGHLDFNAKCYSD-  
D  
VDYNVIDDVSPSYLKLK--HWKDLIGAQT--  
QWQTNCKYGKPIKGGVPSIVLCNPGEGSSYKDFLEKEENASLKRWTL  
YNAEF-----

>Gemini\_AIT39773

DASEIFLTYPRCPVDPMDVGNLWTMLLTERHADGS--FHLHAFVQLGYNLITAN-----PHHFDYKQ--  
YHPNVQPVRS  
SKSVR-----DYCLKNP---ISQY-----RASYLGMIKTTFFFEWATKLQAFEYSASKLFPEVEPEYE  
TPNWAV-SLRCPEAIADWANHN-VFQ-PNDGTRRKSLEYICGPTRTGKTTWARSLGTHNY-----YNNNIDFTN--YRD-R  
AFYNVIDDIPFKFC--P--CWKSLVGCQK--DYIVNPKYGKKKKIAGGIPSIIIVNED-----DDWLPKMTAAQRSYFEA  
NCEV-----

>Gemini\_AIY31184

YAKNYFLTYPNCSLQEEALSQKLNLETPELHENG--RHLHVLIQFEGKFQCKN-----QRFFDLVSPNFHPNIQAGKS  
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SPFLSSSFNQVPVELDEWVAEN-VVSTAARPWTPISIVIEGDSRTAKTMWARSLGPLNY-----LCGHLDLSPKVYRN-D  
VWYNVIEDVDPHYL--K--HFVMFMGAQR--  
DWQSNRKYGKPIQIKGGIPSIFLCNPRPTSTYREYLDEEKNISLKNWAL  
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>Gemini\_AJM13604

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SPYTPASFTNVPEELKLWVAEN-VMGPAARPQRPKSIVIEGSSRTGKTMWARQLGPHNY-----LCGHLDLSNKVYSN-  
N  
AWYNVIDDVDPHYL--K--HFKEFMGAQH--  
NWQSNIKYGKPVQIKGGIPTIFLCNPGPQSSYKEFLDEPKNAGLKQWAL  
KNATF-----

>Gemini\_AKS48121

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SIYSIASFNNVPEGLRAWAATN-VKDTAARPDRPISVIEGDSRTGKTMWARALGRHNY-----LCGHLDLSAKVYSN-  
D  
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KNAEF-----

>Gemini\_ALF37659

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PPFPLSSFTRVPEIIQEWADSY-FGDPAARPYRYNSIIIIEGDSRTGKTMWARCLGPHNY-----ITGHLDLFLSKTYS-D-N  
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>Gemini\_ALR86823

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VEYNVIDDVDPHYLKMK--HWKHLIGAQR--  
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>Gemini\_ALV85583

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>Gemini\_AMK07575

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KNATF-----

>Gemini\_AMP46444

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KNATF-----

>Gemini\_AMW86999

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>Gemini\_APP87725

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KNAIF-----

>Gemini\_BAF02752

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D

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KNATF-----

>Gemini\_CAJ85998

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SPFSSSFDQVPKELEEWTAEN-VVSAAARPWRPKSIVIEGESRTGKTMWARCLGPHNY-----LCGHLDLSPKVYSN-  
D

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>Gemini\_CAM91896

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SNFLTSSFDQVPEELEIWSSEN-VMDAAARPWRPMSIVLEGDSRTGKTMWARSLGPHNY-----LCGHLDLSPKVYSN-  
D

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KNATF-----

>Gemini\_CBA18089

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PPFQLSTFTNVPHEMQEWADDY-FGVVAARPD RPISLIVEGDSRTGKTMWARALGPHNY-----LSGHLDNFNSRVFSN-E  
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>Gemini\_CBH28932

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HNAKF-----

>Gemini\_CBJ17676

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SPFSSSFDQVPQEELEEWAAEN-VVSAAARPLRPISIVIEGDSRTGKTMWARSLGPHNY-----LCGHLDLSPKVYNN-D  
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KNATF-----

>Gemini\_CDW92215

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AWYNVIDDVPDHYL--K--HFKELMGAQR--  
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KNATF-----

>Gemini\_CRI68211

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D

VEYNVIDDLTPQYLKLLK--HWKELIGAQR--  
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>Gemini\_DQ458791

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SPFTES-DLRCHEDLHSWRETH-LYHDNRNGIRHPSLYICGPTRTGKTTWARSLGRHNY-----WNGTIDFTN--YDE-H  
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NCVT-----

>Gemini\_FJ665283

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PPFHLSSFTNVPREMQUEWADDY-FGGAAARPERPISIIIEGDSRTGKTMWARALGTHNY-----LSGHLDLFNSKVFSN-H  
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HNAKF-----

>Gemini\_FJ665634

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VSKSL-----KYIQKEA---GSFY-----IEEALQLVKDNEPRTFWLQHHLNLTNARRIWSEVRAEFV  
PKYSENSFS-VPRVLSDWVTNN--LRADPLPDRPLSLIEGDSRTGKTAWARSLGRHNY-----LSGHLDLNGAVFDN-E  
ASYNVIDDVNPKYL--K--HWKEFLGAQK--DWQSNLKYGKPVLVKGGKPAIVLCNS--  
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KNALF-----

>Gemini\_FM877473

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SPFPCSSFDQVPDEIEEWDVN-VRDSAARPWRPNSIVIEGDSRTGKTIWARSLGPHNY-----LCGHLDLSPKVFNN-D  
AWYNVIDDVPDHYL--K--HFKEFMGSQR--  
DWQSNKYGKPVQIKGGIPTIFLCNPGPTSSYKEFLDEEKQAALKTWAL  
KNAIF-----

>Gemini\_JX094280

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PKWTVF--NNVPEPIREWADTN-LFT-----VSPTKTGKTAWARSMGLHNY-----FCGGVDFSV--WNN-F  
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SNVI-----

>Gemini\_KC108902

HAKNIFLTYPHCHLSKEDALLQLQTIECPHELHENG--PHLHVLIQFEGKIQLYN-----PRHFDLDRGCHPNIQGAKS  
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PKYNHTQFV-LTDDILDWLESN-FFEESISPDPRKSIIEGPSRTGKTLWARSLGSHNY-----ITGHLDLFSTRIYND-D  
VTYNVIDDVDPQYLKMK--HWKHLIGAQK--  
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QNSIF-----

>Gemini\_KT214373

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PRWTHF--PSVPESIKQWADEN-IFTDQKP-DRPLTLIEGPSKTGKTAWARSLGRHNY-----FCGGVDFSF--WDN-H  
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>Gemini\_NP\_040557

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>Gemini\_NP\_050017

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ISPFLVSFDQVQRNLNEWVAAN-VVKPAR-PLRPISIVVEGDSRTGKTMWARSLGPHNY-----LCGHLDLSPKVYNN-D  
PWYNVIDDVDPHYL--K--HFKEFMGAQR--  
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KNAIF-----

>Gemini\_NP\_066185

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PPYPLSSFTNVPEEMQEWADDY-FGRPVAADSHKAKSIIIEGNSRTGKTCWARALGTHNY-----LCGHLDLDFNMRVYSN-  
E  
VEYNVIDDVAPTYLKMK--HWKELIGAQR--  
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>Gemini\_NP\_620741

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SPFLSSFDQVPDELEHWVSEN-VMDAAARPWRPVSIVIEGDSRTGKTTWARSLGPHNY-----LCGHLDLDSQKVYSN-  
N  
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KNAIF-----

>Gemini\_NP\_671468

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E  
VEYNVIDDINPNYLKMK--HWKELIGAQK--  
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KNALF-----

>Gemini\_P0C647

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NPHPTTEDLHCNETIEDWLKPN-IYQQNAPGERKRSLYICGPTRTGKTSWARSLGRHNY-----WQNNIDWSS--YDE-E  
AQYNVDDIPFKFC--P--CRKRLVGCQK--DYIVNPKYGKRRKVSKSIPTIILANED-----EDWLKDMTPAHVEYFEA  
NCDQ-----

>Gemini\_Q80GM6

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SPFPQSTALLDPTAINTWLENN-LYQQNSNSNRKLSLYILGPTRTGKSSWARSLGRHNY-----WQNNVDWSS--YDE-D  
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NCET-----

>Gemini\_YP\_115511

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PPFQTTTFNNVPEALTDWVTTN-VADSAARPFPIIIIEGPSRTGKTLWARSLGPHNY-----LCGHLDLSPKVYSN-N  
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KNSIY-----

>Gemini\_YP\_619883

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VMYNVIDDVPDHPHYL--K--HWKELIGAQT--  
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>Gemini\_YP\_764516

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E  
AWYNVIDDVPDHPHYL--K--HFKEFMGAQR--  
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KNATF-----

>Gemini\_YP\_001040016

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SPFLCSSFNQVPEELEEWAAEN-VMGAAARPWRPISIVIEGDSRTGKTMWARSLGPHNY-----LCGHLDLSPKVYSN-  
D  
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KNATF-----

>Gemini\_YP\_001285764

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CPFPTTAFDNPVTMMKVWAQEF-VTNSAARPLRPKGVIEGESRTGKTLWARSLGPHNY-----LCGHLDLNPVFSN-  
D  
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>Gemini\_YP\_001333687

QGVSFLLTWPVKCPTKESALDQIQALTLPEKHQDGS--PHLHALVQFQKKFICTN-----CRLFDLSHPQFHCHIETARS  
SSDAK-----SYIEKD---GVFC-----KDEALNIIKELVPKDYVLQFHNLNQNLERIFAPPVNVFE  
PPFPLSSFNNVPAVINQWVNDN-IMDAAARPFRPISIIIEGSPRTGKTLWARSLGRHNY-----LCGHLDLSPKVYSN-E  
AWYNVIDDVPDHYL--K--HMKEFMGAQR--  
DWQSNCKYGKPIQINGGIPTIFLCNPGPTSSYKEFFEEKNKAINDWAK  
KNVIY-----

>Gemini\_YP\_002224032

SAKNIFLTYPKCPLSKETVLDLLRNISCPEKHEDGS--LHIHALIQFQKARFRN-----ARHFDLIHPHFHPNIQGAKS  
SSDVK-----SYIEKD---GDFI-----AEAALAIS-VKMPRDYIFQYHNLKSNLERIFTPLRVDYV  
SPYPLCSFDRVPEELEIWASEN-IVSPAARPFRPISIVLEGDSRIGKTMWARSLGPHNY-----LCGHLDLSPRVYSN-D  
VWYNVIDDVPDHYL--K--HFKEFMGAQR--  
DWQSNCKYGKPVQVKGGIPTIFLCNPGPHSSYKEYLDEDRNAALKNWAV  
KNVVF-----

>Gemini\_YP\_002941855

NCRNFFLTYPKCSLSKEEALSQLLALETPELHEDGQ--PHLHVLIQFEGKYNCQN-----NRFFDLVSTTFHPNIQGAKS  
SSDVK-----TYVEKD---GDFI-----VMEALNILREEQPKDFVLQHHNIRSNLERIFQKAPEPFV  
PPFPLSSFTLVPEEMQEWADSY-FGDAAARPERAISIIIEGDSRTGKTMWARSLGVHNY-----LSGHLDNFNSRVYSN-D  
VEYNVIDDISPHYLKMK--HWKELIGAQR--  
DWQSNCKYGKPVQIKGGVPSIVLCNPGEGSSYKDFLDKEENASLRNWTL  
RNAQF-----

>Gemini\_YP\_003288768

RNANTFLTYSKCSLDPEILGLSLWSKLAPEAHQDGT--WHCHALAQSVRPVTTSD-----PRFFDVNE--YHPNIQSAKS  
VDRVR-----EYILKDP---LCQW-----KHEYL SMLQKELPYEWATKLQYFEYSANKLFP EIAEPYT  
NPHPPTQDLHCYERIEEWLNFN-VYQVQQEAGRARSIVGPTRTGKSTWARSLGRHNY-----WQNNVDWSS--YDE-  
E  
AVLNVIDDIPFKYC--P--CWKQLVGCQK--NYVVNPKYGGKKKVKRSIPAVILANED-----EDWLRDMTPAQRDYMEA  
NCEV-----

>Gemini\_YP\_003622552

KAKNIFLTYPRCSLTKEEALSQSQIQPELHENG--PHLHVLIQFEGKCQITN-----ERHFDLTSRPFHPNIQGAKS  
SSDVK-----TYIDKD---GDTI-----AEAALQIIKEQLPRDYVFQYHNVISNLNKIFTPPTTIYK  
SPFKVEQFNNVPEVLSQWASDN-VKASAARPMRPISIVLEGESRTGKTMWARSLGRHNY-----LCGHLDLSAKVYSN-  
D  
AWYNVIDDVPDHYL--K--HMKEFMGSQR--  
DWQSNVQYKPTQIKGGIPTIFLCNPGPRSSYKEYMDEESNAALKEWAL  
KNAIF-----

>Gemini\_YP\_003778178

HAKNIFLTYPHCHLTKEDALLQLQTIQC PERHDNGE--PHLHVLIQFEGKIQLYN-----PRHFDLRDGGCHPNIQGAKS  
SSDVK-----SYIEKD---GDYI-----AEAALAVIREKLPKDYIFQFHNLKPNLAAIFNPPVGYV  
PKYNHTQFV-LTDDILDWLESN-FFEESNSPDRPKSIIIEGSPRTGKTLWARSLGSHNY-----ITGHLD FSTKVYND-D  
VSYNVIDDVPDHYLKMK--HWKHLIGAQK--  
EWQTNLKYGKPRIIKGGIPSIIILCNPGDGASYQNFLDKPENEALKSWSL  
QNSVF-----

>Gemini\_YP\_003828907

AAKNIFLTYPCDIPKDEALKMLQELAWTEEHS DGS--PHLHCLIQLSGKSNKN-----ARFFDLTHPRFHPNIQA AKD  
SNAVK-----NYITKE---GDYC-----AEEALAIKAGDPKTFVVNYHNVKANIERLFQKDEDPWV  
PPFQLSSFNNVPEMKDWVDEN-VTARAAGPVRPRSIIIEGDSRTGKTMWARAIGPHNY-----LSGHLDNFNARVYSN-

N

VMYNVIDDVGPQYLKLK--HWKELIGAQR--  
DWQSNCKYGKPKVQIKGGIPSIVLCNPGDGASYKAFLDKENASLRAWTL  
KNANF-----

>Gemini\_YP\_003915159

RSQHVFLTYPRCPIPPKDAGSFLKKLCKRELHQDGE--PHLHAFLLQFDKVFRTTS-----AKYFDFFE--FHPNIQAARN  
PEKTL-----EYCQKNP---ADFY-----RDEYLMSMIRKAFPFDWAIRLQQFEYSAKALFPEAPIQYQ  
PQFVSN-DMSDHPVIGEWLDTE-FFTQEGPHHRRRSLYICGPTRTGKTSWARSLGTHHY-----WQHSVDFLT--EWNKN  
AIYNVIDDIPFKFV--P--CWKGLVGSQF--DITVNPKYGKKKTIPNGIPSILANED-----EDWLQTMSPQQADWFHG  
NCVV-----

>Gemini\_YP\_003966137

SSKNIFLTYPQCDIPKDEVLQLLQNLPWSEHADGT--PHLHCLIQLSGKSNIKD----CRFFDITHPRYHPNVQAAKD  
ANAVH-----NYITKE---GDYC-----VKEALEIIKAGDPKTFVIQHNNVLANLERIFKPKQETWT  
PPFPLSSFNNVPDEMGEWADNY-FGPIESRPIRPKSLIEGDSRTGKTCWARSLGKHNY-----LSGHLDNFNPRVYSN-E  
VEYNVIDDIAPSYLKLK--HWKELIGAQH--  
DWQSNCKYGKPVQIKGGIPSILCNPGEGSSFKDFLDKDNESLKRWTL  
YNAVF-----

>Gemini\_YP\_004089627

RSRNIFLTYSKCHLDPVFMQEHLSSLLRREEHQDGS--YHLHCLVQCKKYVRTKS-----AKFFDVEE--FHPNVQNARM  
PHKVL-----AYIKKNP---LCFV-----KEDYLSMVRNTPFPDWATRLQQFQYSAESLFPVPTPYM  
DPFGMP-AQDEHPVIGAWLQAE-LFSR-RPDERRRSLYICGPTRTGKTSWARSLGAHNY-----WQHSVDFLN--LVA-N  
ATYNVIDDIPFKFV--P--CWKGLVGCQF--DITVNPKYGKRRMLKNGVPSIILVNE-----EDWLKMQMPSQVGVWFET  
NCII-----

>Gemini\_YP\_004958233

NAKNYFLTYPQCSISKEEALQKLISLRTPELHQDGE--PHLHVLIQFEGKYQCTN-----QRFFDLESPTYHPNIQGAKS  
SSDVK-----SYIEKG---GDFI-----KDSALQVIKEKDPKNFFLQYHNISANANHIFAPKITPYV  
SPYDPNSFDNVPEAMKEWASKN-VMGPAARPDRPLSIVIEGSPSRGKTKWARALGPHNY-----  
MCGHIDLSLKVYNN-N  
AWYNVIDDVDPHYL--K--HFKEFMGAQH--  
NWQSNVKYSKPVQIKGGIPTIFLCNPGPQSSYKEYLEPKNAQLKIWAE  
QNASF-----

>Gemini\_YP\_006273070

RSNNCFLTFPHCNPCPYGMVQHFWDLISTELHQDGT--PHLHALLQTRKQISTND-----PHFFDFDG--HHPHIQAAKN  
PTLCR-----DYILKGP---ITFS-----KSDYLSKVRNFPYDWATKLYNFEYSASKLFPQQPEYS  
NPHGQSVLDLYCYETIQDWIDSN-LFQVHYCYMLNTPYIVGPTRTGKSTWARSLGRHNY-----WQNNVDFTV--YDP-  
E  
AAYNIIDDIPFKFC--P--CWKQLVAAQR--DFTVNPKYGKKKLIKGGIPSILVNSD-----EDWLKTMTPQQEYFEA  
NSII-----

>Gemini\_YP\_006590064

NAKNYFLTYPQCSLSKEAALEQIISLQTPELHDDGQ--PHLHVLLQFEGKFCCTN-----NRLFDLVSPTFHPNIQGAKS  
SSDVK-----SYVDKD---GDTI-----LERALQILKEEQPKDFVLHHHNIRSNLERIFAKAPEPWA  
PPFHLSSFTLVPQEMQDWVNDY-FGGAAARPERPISIIIIEGDSRTGKTMWARALGSHNY-----LSGHLDNFNSRVYSN-D  
VQYNVIDDIAPQYLKLK--HWKELIGAQK--  
DWQSNCKYGKPVQIKGGVPCILCNPGEGSSYKSFLDKENAGLKGWTL  
HNAKF-----

>Gemini\_YP\_006666523

RSRNVFLTYSKCHLEPAYMLERLSRLLKKEEHKDGGS--YHLHCLVQCRKYIRTKS-----AKFFDVEE--FHPNVQNARV  
PHKVL-----AYIKKGP---VCFV-----REDYLGVMVKEFPFDWATRLQQFEYSAQALFPCLPPPYV  
DPFGMP-SQAEHQVLGAWLREE-LYSQDSPAERRRSLYICGPTRTGKTSWARSLGCHNY-----WQHSVDFLH--VIP-T

ARYNVIDDIPFKFV--P--CWKGLVGAQR--DITVNPKYGKKRLLPNGIPSILVNED-----EDWPQYMQPSQAAWFED  
NCVV-----

>Gemini\_YP\_006666527

RGKNIFLTYSRCEIDPALITDALWDKFSSELHQDSG--FHVHCLVQLTDQYRSRD-----SSFADLGG--NHPNIQTVRS  
ATKVK-----EYILKEP---VSQS-----RDDYLGMVRKSFPEWATRLAQFEYSASKLFPDITPQYQ  
SQYQTT-DLTCHENLLDWYQEN-LQCYIDGAGRRKSLYICGPTRTGKKSARVLRHNY-----YNMQVDWAT--YDQ-  
E

AQYNVIDDIPFKFC--P--HWKALIGCQK--DFTVNPKYGKKKLIKGGIPTIILVNED-----EDWLADMTPGQVSYFEA  
NVQI-----

>Gemini\_YP\_006666531

RARSAFLTPKCTLEPRDVVEHLYSKFRKEHHSDDG--YHLHCLFQLDKAFSTND-----SSTFNILD--YHPNIQTAKS  
PTNVR-----DYCLKNP---VSKA-----RASYSMVRKAFPFDWATKLLQFEYSASKLFPDVIPEYT  
SPFPTE-NLMCNERITDWLNT-LYQSAHPRTRKSGLYICGNRTGKTSWARSLGKHNY-----WQMNLDNFAN--YNN-E  
AQYNVIDDIPFKFC--P--YWKALVGSQH--EYTVNPKYGKKKLIKGGIPSILVNED-----DDWMRAMNDGQRSYFEG  
NMSI-----

>Gemini\_YP\_006666535

RAKNIFLTYSKCLLDPQEALRDITHKLRKELHQDGT--FHLHCFVQCKKHVRTR-----ARFFDLEE--YHPNVQNARM  
PHKVL-----AYCKKSP---VSYA-----KEEYLSMVRKTFPFDWATRLQNFESAEERLFPSTPPPYV  
SPFNMP-SQEEHPVLGAWLRAE-LYTQGNPAERRKSLYICGPTRTGKTSWARSLGKHNY-----WQHSVDFLN--IIP-D  
AEYNVIDDIPFKFV--P--CWKGLVGAQR--DITVNPKYGKKRLLSNGVPCILANED-----EDWLQMQMPGQADWFNA  
NCEV-----

>Gemini\_YP\_006905839

NCKNLFLTPQCSSLKEETLSQLTNLSLPELHQNGE--PHLHVLVQFEGKVRLTN-----CRLFDLVSPTFHPNIQGAKS  
SSDVK-----AYLEKD---GDVL-----KSEALRLIKELAPKDYVLQFHNLNSNLERIFTPVEIYR  
SPFMSSFDQVPDELEQWVADN-VKAAAARPWRPKSIVIEGDSRTGKTMWARSLGPHNY-----LCGHLDISPKVYSN-  
D

AWYNIIDDVDPHYL--K--HFKEFMGAQR--

DWQSNKYGKPIQIKGGIPTIFLCNPGPTSSYKEFLEEEKNSALKRWTL

QNATF-----

>Gemini\_YP\_007250561

SAKNIFLTYPRCSLTKEEALFQLQNISLPELHEDGE--PHLHVLIQLEGKVQIYN-----QKLFDLSSSTFHPNIQGAKS  
SSDVK-----SYMEKD---GEFL-----AESALQILKEEQPAHYFLHYHNLVNNANRIFQKAPEPWV  
PPFQLSSFNVPDEMWEWADDY-FGGAAARPERPISIVIEGDSRTGKTMWARSLGPHNY-----LSGHLDNFNSRVYSN-E  
VEYNVIDDVAPHYLK--HWKELIGAQK--

DWQSNCKYGKPVQIKGGIPSIVLCNPGDGGSYKDFLDKEENASLKQWTL

KNAKF-----

>Gemini\_YP\_008411025

NAKNYFLTYPRCSLTKEETIEQLRNLQYPELHEDGE--PHLHVLLQFEGKYNCTS-----DRFFDLSHPSFHPNIQRAKS  
SSDVK-----AYIGKD---GDTL-----KQEALNIIKELMPKDYVLQYHNLHSNFDRIFTSAIPPYK  
SPFLSSFDQVPDELEEWVSEN-VLPATARPERPISIVIEGDSRTGKTLWARSLGPHNY-----LCGHLDLSPRVFSN-D  
AWYNVIDDVDPHYL--K--HFKEFMGAQR--

DWQSNKYGKPIQVRGGIPTIFLCNPGPTSSYTEFLDEEKNKSLKAWAI

KNARF-----

>Gemini\_YP\_009021763

QSRNIFLTYPRCNLAPELIGSFLLSLSPELHKDGT--PHIHALAQTDKRVHTYS-----PGFFDVQG--FHPNIQSARS  
PQTVL-----SYILKSP---TGTF-----KQEFLNGVKKAFPYDFCARLQNWWEYAANKLFDTPAVYQ  
PPFPDS-YFHCHENIHDWVRDN-IYEITP-EARPLSLYICGPTRTGKSTWARSLGRHNY-----WQNNVDFTS--YDV-E  
AKYNVIDDIPFKYC--P--CWKALIGGQK--DFTVNPKYGKKKLIKGGIPSIVIVNDD-----EDWMRAMTASQRSYFER  
NCVV-----

>Gemini\_YP\_009026388

KAQNIFLTYPKDISVDVAARTLLTCHREHHADGS--NHLHILLQTDKTMYTRN-----PHYFDICG--HHPNIQPAKS  
PDNVR-----AYILKDP---ITSF-----KDDYLTRVRNTFPFDWATRLQQFEYSASKLFFPEPVREYV  
NPFPPSEDLFCREIIDRWVDM--ITDAFDAAQRRRSYIVGPTRTGKSTWARSLGRHNY-----WQHMVDFTA--YDT-L  
AKYNILDDVPFKFC--P--NWKQLVGCQR--DFIVNPKYAKRKEIPGGIPCILQNP-----DDWLPVLSQMDYFVN  
NCDV-----

>Gemini\_YP\_009129272

QAKNYFLTYPRCSLSKEEAEQILGLNTPELHEDGE--PHLHVLIQFEGKYTCTN-----QRFFDLVSPTFHPNVQGAKS  
ASDVK-----TYIEKG---GEFL-----ASASLQIIEKDPKTFYTYHNSANAAKIFMAPPEPFR  
CIYLSSSFNNVPEELDDWVSVN-IVDPAARPRRPKSIFIEGETRTGKTEWARSLGPHNY-----LCGHLDLSPKVFSN-D  
ALYNVIDDVPDHYL--K--HFKEFCGSQR--  
DWQSNTKYGKPLLKGGIPTIFLCNPGPTSSYKEWLDEEKNSNLKNWAL  
GNAVF-----

>Gemini\_YP\_009226627

QAKNIFLTYPHCTLSKDEALEQLQNLACPELHEDGE--PHLHVLIQFEGKVQICN-----PRHFDLRHPSFHPNIQGAKS  
SSDVK-----SYIEKD---GDYL-----AEAALAIIEKLPDFLFKYHNLKPNLAAIFAPPPAVYT  
PPFTHTQFN-IPPEIRQVWVNNN-FIEEASSPERPQSIIEGPSRTGKTLWARSLGTHNY-----ITGHLDLSARVYHD-D  
VEYNVIDDVPDHYLKM--HWKHLIGAQK--  
EWQTNLKYGKPRIKGGVPSIILCNPGDGASYKDFLDKSENEALKSWTI  
QNSAF-----

>Genomo\_AGS12486

NFRYVLVTYAQCDL-DPWRVVERFS---SEHHEDGG--LHLHVFAFDFGRKFRSRK-----ADILDVDG--RHPNLAPIRT  
PAKAY-----DYAIKDG---DVV-----RDEFWALVHELDPKAAACSFNALSADWRFAEKPPVYE  
HDGRI-EFVPGDADGRDDWVSQSGIGL--DPGRVKSLLVFGGTRTGKTTWARSLGKHLIY-----  
CIGLVSGAECCKGADA  
EYAVFDDIRGFGFFH---GYKEWLGAQP--HVSILQLYREPYMKWGWKPSIWICNTDPRLDAYGP-----ATPDWEWME  
GNCHF-----

>Genomo\_AIF34843

HSRYALLTYSQCDL-SPATVGEFFT--NENHANGG--IHLHCFVDFIRKRRFRA-----PRCFDIEG--RHPNVEPSGT  
PERGW-----DYVIKDG---DVV-----RESFWDLVHELDPKSAACSFTQLQKYCDWKFAPSPPVYG  
SPDGI-TFVGGEDGRDDWLLQSGIG--NRPRCMSICVYGESRTGKTLWARSLGSHIY-----CVGLVSGDECMKAETV  
DYAVFDDVIRGKFFP---SFKEWLGCA--WVTVKCLYREPPLVKGWGWKPSIWLSDPRDHME-----NSDIDWMN  
KNCIF-----

>Genomo\_AJD07464

NRRYVLLTYSQAEF-NYWAIVDMLS---SELDADGG--THFHVFVDFGRLFSTRK-----TNVFDVDG--HHPNILPVKT  
PGEAF-----DYAAKDG---DIV-----GEEFLHFLDQLAPRDLMRGFIQFRSYADWKWAVAPERYV  
NPPGV-MFDTGHAEQLSEWLSQANLGSV--VAHSRKSLLMWGPTQYGGKTTWARSLGNHIF-----  
FGSQFSGKLALDGQDA  
EYAVFDDWKGMKALP---GYKDWFGCQW--QISVRKLHHDACLITWGRPIIWLCKNDPRLMHVAT-----  
DDVDWEWMD  
DNVIF-----

>Genomo\_AMH87666

CARYGLFTYSQCDL-NHWAVLDLFS---GELHEDGG--THLHVFAFDFGRFRSRS-----SKIFDCEG--RHPNVSASGK  
PDEGW-----DYAIKDG---DVV-----RDEFWRLVHELDPKSLVIHFPAISKYCDWKFSRQVEYV  
HPINI-DFVGGEDGRDHWLAQAGIGL--GTRGMKSLCVYGGKSRGKTLWARSLGRHIY-----  
CIGLVSGAECARAEV  
DYAVFDDIRGKFFH---AYKEWMGAQA--VVSVKLLYRDPKLVWRWGWKPSIWLSDPRCDMS-----QEDVEWLE  
DNCIF-----

>Genomo\_AMH87678

SARYVLLTYPQCTL-DGWAVSDHLS---AENHSDGG--THLHAFVDFGRKKQSRR-----SDFFDVGG--HHPNIAPSGR  
PERGY-----DYAIKDG---DVV-----REQFFDLLRQLDPKTLVTRWTELNKYADAAAYAPTPEPYV  
GSDGK-QFELGMVPELARWGEQL-VA---NDPN-LVL--YGPSRLGKTVWARSLGPHVY----SMGIVSGKLLLRDPEA  
KYAVFDDMRGIGYFH----SWKEWLGAQS--VVTVKELYRDPVQLVWGRPCIWLANRDPRELELGAYFTA-  
RFQSDWAWLE  
TNCYF-----

>Genomo\_AMH87693

NRRYVLFQTSQADF-DYWAVVDLLG---DEVHADGG--IHFHVFTDFGRRLFSTRK-----VRVFDVGG--KHPNIKPIRT  
PAQAY-----DYAIKDG---DVV-----SEEFLLHFCQDLAPRDFIRGFTNFRAYSNWKFNPPIPEYD  
QPDGA-TYDTSAAPGIDEWLSQ-----RKSLLVLFPGYCGKTLWARSLARHIY----FGSSWSGELAFAGDTA  
EYAIFFDDWAGLKCLP----KYKDWFGAQW--HISVRLHHDACLVEWGRPIIWL CNRDPRILSHER-----DDIDWEWME  
TACHF-----

>Genomo\_AMH87702

NAQHFLTYAHVEELDPFRIVDVLG---AEFYNTGG--FHFHVFCFSERNFRSRK-----ADVFDVDG--YHPNIEPSKN  
AAGGF-----DYATKDG---DIV-----AEEFWRLCEELDPKSMVCNFPALSKFAEWRFRPIPVYA  
SPDGV--FDTSGYPIIEEWR--SSVFDE--YSTYLTSVLVFGPTLGLKTTWARSLGSHIY----FGGLFSAGEAMRCPEA  
EYAIMDDIAGIKFFP----RFKDWLGCQA--QFQLKVLYKEPALYDWGKPCIWCYNVDPRAGMS-----VEDIEWLE  
GNCVF-----

>Genomo\_AMH87708

NVRRALLTYSQCTL-DPFAVSDHFS---NERHADGG--LHLHVFDVDFGRQFSSRK-----TDVFDVGG--HHPNIAKCRT  
PWKAY-----DYAIKDG---DVV-----PEEFWALCHDLAPRDLARSFPSLQKYCDWRYRPVTRPYC  
TPDGY-EFDTSRAPELNEWLLQANLG---LGWRPKSLVLYGDTRLGKTVWARSHGPHIY-----  
FCGLYSGAEAMKHDGA  
DYAVFDDIQGKFFH---GFKNWLGQA--EFQVKILYKDPVVIQWKGKPSIWLNSNDPRLDLS-----PSDATWLE  
GNCIF-----

>Genomo\_AMH87733

NSRYKLLTYAQCDL-DPFDIVDLLS---GELHSDGG--IHLHVFDVDFGRKFRSRS-----VGIFDVGG--RHPNVVASGT  
PEEGY-----DYAIKDG---DVV-----REQFFELVKS LDPKTFVTRLQDLQRFADWKFRSDPEPYI  
TPNNI-HFPDDGTDGRAEWHSS-----LCLYGESRLGKTLWARSLGHHVY----FCGLFSGKELLNNLDA  
DYAVFDDMQGISFFH---GWKNWFGCQL--NFQVKQMYRDPVNVVTWGWKSCIWGSNDDPRDSMKQ-----  
VDVDWIN  
KNCIF-----

>Genomo\_AUM61807

YSKTFLTYAQCDLDPKDAVKEYLNSISELGQEHHDGNLHHAWIKFKTKYQSRN-----PRCFDING--FHPNIMTARS  
KKGSI-----AYVSKEDTDPLQ-----SKEFMSLVLQNHARDYANNYDRLISMKNHYKPEPVQYT  
PKYKEFRNLPMDMLTINXNDTD-----RPRTLIIHGESRLGKTQWARSLGKHIY-----SRGCIYDDFIRSPT  
AEYAVFDDLWDWNY----FLKDFIGAQQ--TVTITGKYRKPVQLNWSRRSIFLTNEFEQWSQEQQ-----YLQA  
NSTIITL----

>Genomo\_KJ547626

AAKQFFLTYPKCDLQLLDGLTT---AERHGDEG--LHVHAIIVCAERIDTSN-----PRFFDVAG--FHPNIQTVRN  
LRQAY-----TYLDKE----PVQ-----AVEFMNLMKKYHPRDYILSFTRLLDFAEVHFTEPPPLYE  
TP-----EGY-----SFYRPKSLVLIGPSRTGKTTWARSLGRHVY----WNSLVNLDVWS--PLA  
DYIIFDDVD-IDFLP----GYKCWLGAQK--EFTVTDKYKKRKRIMWGWKPCIWLCIKDP--LLSS-----KVYRWIS  
MNCVF-----

>Genomo\_KJ547627

-----TYPQCSLERTELRDSLQ---REQHSDGG--LHLHAYLHFGRRRRFTS-----ADAFDVDG--FHPNIQKPRS  
ARNVI-----AYCSKE----DKD-----E--FLEEVRTHFPRDYVLSLERLLFFCEWRFGRDETEYT  
GRSRT--EFREPDTLTNWNVTNL-----LQVCIWTYGPSSLIWTQWARSLGSHIY----CQGMFNLDEWN--DKA  
KYVIFDDID-IKYFP---HWKSILGCQR--DIQLTDKYRKKRRLRNLPCVWLCNMDPRGALS-----RTQCWIE

SNCDV-----

>Genomo\_KJ547634

RAKAFIVTFPQVSEDVQQRFDHEGASLLDERHQDGG--VHYHMYIGFDEVVHINR-----ANLFDYFG--  
AHGNIKSVRT  
PRTVY-----DYCGKD----GDV-----KDTFLSLCRQLAPKDWLLSNSRILEYANTYYPEIPSPYE  
GPPIA---EM-----ERYPELERWLE--QAERVKSLILYGPSRTGKTLFARSLGEHAY-----FNLQFNMDGFS--DGV  
KYAVFDDIQGFEFWH---SYKGWLGAK--EFVITDKYRKKRTIKWGKPTI-MCLNPN--FLKG-----VDYEWLQ  
LNCVI-----

>Genomo\_KJ547638

HCRYALITYAQCDL-AGPTVGEFFE---SENHADGG--VHLHCFVDFGRKRRFR-----PRVFDIEG--RHPNIEPSGT  
PEKGW-----DYAVKDD---DIV-----RESFWDLVHELDPKSAACSFTQLQKYCDWKFAPIPPVYE  
SPGGI-SFTGGDVGDRDDWLSQSGIG--SGPRCMSICVYGESRTGKTLWARSLGPHIY-----CVGLVSGDECMKANDA  
EYAVFDDIRGIKFFP---SFKEWLGCA--WVSVKCLYREPPLVKGWGPSIWLNSNTDPRDYME-----NSDIDWMN  
KNCIF-----

>Genomo\_KJ938716

NGIRFFLTYPARAASIDDVADHLH---QEDHPDGG--IHYHVVLCFATRYQG-A-----LDSFDVLG--HHPNWTPIRN  
ATNRR-----HYIRKGI----RA-----GEEFLALCRLHQPKDWILRNEALTKYAASYYQEAREKKS  
LPPG-----TLSSFLPRWMRYVYSGSTPKPDRPKTLVGPTRLGKTHWAESLGRHSY-----MCGMWRSDSFN--DRD  
DYLILDDFDFFHGHG---MRKAIWGAQP--EFTTVDKWRKG-VAKWGKPLIWLWCQKNPFVALKNG-  
RPVMAEEERAWYR  
ANCVE-----

>Genomo\_KM598389

DGSHVFLTYPQCSLSKERVDFLLV---EELHGDGQ--PHIHAYAAWDSRRRLVG-----AGCFDVDG--HHPNIQKPRS  
AKAVA-----EYCGKH----DTE-----AKTFLARVEEHYPRDLCLSLDRLLQFCEWRWGTERIGYS  
GRTRE---LFLEPDQLREWVRLSLEVL--MPERPISLLVVGASKLGKTEWARSLGPHMY-----FCGQFNLDDWN--DEA  
KYIVLDDFN-IKFFP---QWKSFFGAQK--QFVLTDKYRKKRTVKWGRPLIWLWCNADPRGALS-----AELEWLQ  
INAMM-----

>Genomo\_KM821748

NAQRYFLTYQAAL-DIDDLANFLH---AENHQDDG--IHYHVVLCFDERFQR-A-----LDVFDLDN--HHPNIAIKN  
ASNRR-----HYIRKGA---DRP-----EEFLILVRVNQPTWVLRNDSIVKYAKTHYKAAREEKV  
YPPES---WVPPALDDWVAEVSVDVTPRPDRPKTLVGPTRLGKSVWAKSLGRYSY-----MCGMWHSDDEFD--ESA  
QYLILDDFEFDFHGHG---MRKAIWGAQE--VFTTTDKWRKG-VARWGKPTIWICQHNPFVAVKTG-  
LAVMDETERDWK  
QNCVE-----

>Genomo\_KP153522

DARHLELTYSRCNATVEDITEFLETTVSSAREYHQDGVPHYHILVKFNKRRTFRN-----SREYDFNG--HHPRIKPVN  
VHDYF-----RYISDPSKPSRDTT-----KDEYFTLLKLHKPRDYCLNLQRLEYTASRLFTAIT-PYV  
PEYEYDTFN-VPEELHEWATVG-----LQPRPKSLIICGPSRIGKTEWARSLGHTY-----WYGQCNIDS--WND-K  
MEYLIMDDFSPTKY-LP--LWKGYFGAQK--ELNVTQKYRGIYTKLFRVPVLWLCNQPDKDWEQEWLNMNAD-----  
-----

>Genomo\_KT253577

SARYVLLTYAQSDL-SEWDILDHIS---SEDHADGG--THLHVFDVDFGRKKQSRR-----SDFFDVGG--HHPNITPSGR  
PECGY-----DYAIKDG---DVV-----REEFFDLLRELDPKTLVTRWSELCRYADHAYESKPEPYV  
GPSGV-EFELGMVPELVRWRGDT-LA---DDSE-LVLCYFGASRLGKTLWARSLGPHVY-----TMGILSGHVLLRDPEV  
NYAVFDDMRGIGMFP---SFKEWLGQA--VVSVKLYRDPVQVPWGRPCIWLSNADPRDQIKSGLSD-  
RVENDIAWLE  
DNCIF-----

>Genomo\_KT598248

NAKYFLITYSQSGL-DEWAVNDHFS---SEDHADRG--THLHAFVAFERKFRSRR-----PDIFDVGG--FHPNIAPSGN

PAGGY-----DYATKHG---DVV-----GGELRDLVRELAPKEAILRWREIEGYIGNEFAEERPAYV  
HPIGF-EFELGMVPELVEWRRNT---LD-ADVRYKSLVIFGPSQTGKSTWARSLGNHFF-----ARGKFNGREFVKVQSV  
DYVVLDDMEGLRFFP---GWKHFLGMQT--  
WFNVRQFHRDPPMVKGGKPCIWLCNLDPRDEMYANLRHNQVDNDVAWLE  
ANCIF-----

>Genomo\_KT862241

QARYVLLTYAQCDL-DAWAVNDHLA---FEHHADGG--THLHAFCDFSRKFRSRR-----PDVFDVGG--FHPNIEASGR  
PEGGY-----DYAIKDG---DVV-----EGDFWECVARLDPRSLCTNYNSLRAYANWKYRPTPVQYV  
HPAGV-EFELGMVPELAVWREIA-LG---ANRRAKSLVIYGDTRLGKTLWARSLGPHIY-----TIGQMSGEVILRDPDA  
DYVVFDDMRGLDFFH---GWKEWFGCQT--VVTVKKLYKDPMQMPWGKPVWLANRDPREELRDSITC-  
HIEGDIKWLD  
GNCIF-----

>Genomo\_QCH00638

PRDGIKESQ---LVRLQLTDLHEAYLGREIG-DGGYRHYQCAIDCAGDLRAFV---DNNQLGWHV-----EDCVS  
WNDAI-----NYSRKTDNYRYV-----GDSIEEREYQRIAGRPNIVGT-----RID  
KHIREQNDRQ-----ISVCVDTVGGTGKTTGHYLNVRTA-----ETPVRIMDYIAIHYK  
NENVIWIDLPRSRKVDI--NLAECLEDIK-DGLIASAKYQGTIRLIR-GVKVLVTTNHWIDKTAYK-----MLS  
TDRWDVFT--

>Genomo\_YP\_003104796

HAKYVLLTYAQCEL-DAFRVMDKLS---LEHHEDGG--THLHCFAEFGRKFRSRK-----ADVFDVDG--HHPNITKSGT  
PEKGY-----DYAIKDG---DVI-----RDEFWELVHELDPKAAATSFSQLQRYCDWKYQYHAPEYE  
SPAGA-HFIGAELDGRNRWLEQSGIG---SSERVKSLVLYGPSQTGKTSWARSLGKHIY-----CVGLVSGTECLKAPDV  
EYAVFDDIRGIKFFH---SFKEWLGCQP--HLSVKELYREPKVIEWWGKPSIWCSNADPRNELL-----QVDIDWME  
MNCTF-----

>Genomo\_YP\_009021043

NARYALITYAQCAL-DGFRVMDHFS---GEIHQDGG--VHLHCFIDFGRKFRSRR-----TDIFDVDG--RHPNIEPSGT  
PWRGY-----DYAIKDG---DVI-----RDHFVWELVHHLDPKAAACNYGQLAKYADWRFASVPPVYE  
SPGGI-SFIGGDVDGRDAWCEQSHIR---SGPRCMSLVLYGDSRTGKTLWARSLGTHLY-----TVGMVSGEELKKADDV  
KYAIFDDIRGIKFFP---AFKEWLGAQA--YVTVKELYREPKLKVGKPSIWISNDDPRLGMD-----ASDVSWE  
HNCYF-----

>Genomo\_YP\_009109725

DAKYCLLTYPQIET-EAYEFPELAS---EELHADGG--YTSHCFLDFGRKFSSRD-----TRIFDIQG--HHPNIERVRT  
PRTAY-----NYTIKDN---DVV-----RDEFDLCKSLQPRSLACSFLSLTRYADWRYRPVPTPYQ  
HPDDW-SFNLESHSVLLDWVDESLR-----GGQDRSLVMYGETRLGKTVWARSLGPHLY-----FCGLYSYKEASRAHEA  
EYAIFFDLQGIKFFH---GFKNWLGAQQ--EFQIKGLYRPELLKVGKPSIWCSNTDPRQDLN-----YSDRCWLE  
GNCVF-----

>Genomo\_YP\_009109727

NSRYVLLTYAQCDL-DPWSVSNHLS---AEIHTTGG--IHLHCFADFNRKFRSRS-----ARIFDVDG--RHPNVVPSGT  
PEKGY-----DYAIKDG---DVR-----TTEFLELHDEMRSGLIARFNNVAYADWRFREPEVVYA  
SPDGV-DFRSGSTDGRDDWLVSQRIG---DEPIFCLLILYGPSLTGKTTWARSLGDHIF-----IQGVLSGKEVLNSES  
RYAVLDDIRGLKFFP---AWKDWLGGQR--WISVKQMYRDPILLKWRPCIWANRDPADIRRSIDK-  
DMEDDMDWIN  
ANCIF-----

>Genomo\_YP\_009109729

NARYFLVTPYQSG-DEWAVNDHFG---SENHAVRG--THLHVFCDFGRKFRSRR-----ADIFDVG-HPNIEERSN  
PRKGA-----LYACKDG---DIV-----QREFFELAEDICPWLITKFGSMHAYAKWKFPPELAEPYE  
NPAGF-TLADGAFPDLSWRGTG---AL-EHSRIKSLVLIGDALTGKTTWARMLGNHLY-----MKERYNAKQASLADGV  
DYGVIDDISGIKYFP---HWKSWFGGQP--HIQVKILYKDERLVKVGKPLIWIANRDPDQLRDMVSR-  
DCNNDVYWME



GNAIF-----

>Genomo\_YP\_009109733

DGRYFLLTYAQCTL-DAWTVNDHLA---FELHADGG--THLHAFCDFSRRFRSRR-----SDVFDVGG--RHPNLVPSGK  
PEGGY-----DYAIKDG----DVV-----EGEFWKCVARLDPRALCTNYNSL RAYANWRYPAPVPYE  
HPAGI-EFELGMVPELAVWREIA-LG---ADR---ILVIFGDTRLGKTLWARSIGPHIY----TIGQMSGEVILRDPDA  
DYAVFDDMRGLEFFH---GWKEWFGCQS--VVTVKKLYRDPVQMPWGWKPVWLSNRDPRDEL RDSITN-  
HIEGDIKWLD

GNCIF-----

>Genomo\_YP\_009115514

HARYALLTYAQCDL-CPFTIVDLLS---TEHHQDGG--IHLHVFVDFGRKYRSRR-----ADTFDVG--FHPNISQSGT  
PEKGY-----DYACKDG----DVV-----RESFWDLVHDLDPKSAVTCFTQLQKYCDWKYRYCPPAYE  
SPAGA-RFRNDTSDGRGDWLLQSGIG---G-ARVKSLVLYGPSQTGKTTWARSLGAHIY----QVGLLSGSECMKAPDV  
EYAVFDDIRGMKFFP----SFKEWLG CQP--HVCVKELYREPRVIEWGKPAIWCSNADPRDDMS-----YCDVQWME  
ANCTF-----

>Genomo\_YP\_009115515

HCRYVLLTYAQCDL-SADAVGERMA---SEDHADGG--VHLHVFVDFGIKRRFR-----ANIFDVG--CHPNISPSGT  
PEKGY-----DYAIKDG----DVV-----RESFWSLVHELDPKSAACNFTSLQKYVDWKFAAVPPVYE  
SPAGI-SFRGGDVGDRDQWLLQSGIG---LGPICMSICVYGESRTGKTLWARSLGPHIY----CVGLVSGDECMKAQDA  
EYAVFDDIRGIKFFP----SFKEWLG CQA--WVTVKCLYREP KLVKWKGPSIWLSNTDPRDHME-----NSDIDWMN  
KNCIF-----

>Genomo\_YP\_009115519

HCRYALLTYAQCDL-SPTAVGEFFD---NENHADGG--VHLHCFVDFGRKRRFR-----ARVFDIEN--RHPNVEPSGT  
PEKGW-----DYAVKDG----DIC-----REAFWDLVHELDPKSAACCF TQLQKYCDWKFAPRTPEYE  
SPGGL-EFIGGLDGRDDWLLQSGIGG--RARRCMSICVYGESRTGKTLWARSLGPHIY----CVGLVSGDECMKASTA  
DYAVFDDIRGIKFFP----SFKEWLG CQA--WVSVKCLYREP KLVKWKGPSIWLSNTDPRDYME-----NSDIDWMN  
KNCIF-----

>Genomo\_YP\_009164036

GCRYALITYAQRPRIPWAI VGLFS---TESHADGG--IHFHALVDFGRQFGSRK-----ADVFDVGG--RHPNIQKSGT  
PEKGY-----DYGIKDG----DVV-----AGEFWRLCHELAP-EHVCRFPSYARATSCADRSLARSLA  
ARHGV-TRNVCNADKC-----RRKSLVVVGESELDKTVWARSLGNHLF----FSGLYSGAEAMRYADA  
EYAVFDGMQGIGSFH---GYKNWLGAQM--NFQVKVLYPDPKMITWGKPCIWLSNEEPRN--E-----SVDQDWLK  
ENCIF-----

>Genomo\_YP\_009181999

NAKYFLITYSQSGL-DEWAVNDHFS---SEDHADRG--THLHAFVAFERKFRSRR-----PDIFDVG--FHPNIAPSGN  
PAGGY-----DYATKHG----DVV-----GGELRDLVRELAPKEAILRWREIEGYIGNEFAERPAYV  
HPIGF-EFELGMVPELNLG-----L-ADVRYKSLVIFGPSQTGKSTWARSLGNHFF-----ARGKFNGREFVKVQSV  
DYVVLDDMEGLRFFP---GWKHFLGMQT--  
WFNVRQFHRDPPMVKGKPCIWLCNLDPRDEMYANLRHNQVDNDVAWLE  
ANCIF-----

>Genomo\_YP\_009252353

NSRYVLLTYAQCDL-DPWAVNDLLS---TERHEDGG--IHLHAFVDFNRKFRTRR-----SDIFDVG--HHPNISQSGT  
PEKGY-----DYAIKDG----DVV-----REQFWELCHELDPKAAATSFTQLSKYADWRFAPDPPVYE  
HPIGI-SFTDGDLDGRREWLDQAGIG---GGRCKSLCLFGRSRTGKTLWARSLGQHIY----CVGLVSGDECMKAPDV  
DYAIFDDIRGMKFFP----SFKEWLG AQA--WVTVKRLYREP ALVQWGKPSIWLANSDPRNDMS-----QDDVQWME  
DNCIF-----

>Genomo\_YP\_009252356

NAKYVLLTYAQCDL-DGFAVMDRIS---EETHADGG--THLHVFCD FGRKFRSRR-----TDVFDVLG--YHPNIEPSGT  
PEKGY-----DYAIKDG----DVI-----RDEFWELVHLLDPKSAACSFGLQKYCDWKFAVAPPTYT  
SPTGV-EFDDGSIDGRDLWLQQSGVG---SGPRCMSLCLYGESRTGKTLWARSLGAHIY-----

CVGLVSGDECMKADDA

DYAIFFDIRGIKFFP----SFKEWLGCA--WVTVKCLYREPCLIWGWKPSIWISNTDPRDNME-----TSDVHWMN  
KNCIF-----

>Genomo\_YP\_009252359

SARYVLLTYSQCTL-DEWDVLDHIS---SEDHADGG--THLHVFDVDFGHKKQSRR-----SGFFDVGG--KHPNVVPSGR  
AGEGW-----DYAVKDG---NVV-----REEFLELVRALAPKEFILRHKELLEYADRYAERIEPYV  
GPDGI-EFELGMVPELAGWGREL-VE---ADSEAKSLVLYGPSRLGKTLWSRSLGSHVY----IMGMLSGAVLLRDPDA  
QYAVFDDLRGIAMFP----SFKEWLGAQA--VVTVKKLYRDPVQVSWGKPCIWLANS DPRDQLKADITE-  
RIYEDIAWLE  
DNCVF-----

>Genomo\_YP\_009252362

NSKYVLLTYAQCDL-DEWAVSDHLS---SELHTTGG--VHLHVFDVDFGRKFRSRR-----VDIFDVEG--RHPNVVPSGT  
PEKGY-----DYAIKDG---EVV-----QDEFLLDIYGEVDTRGLIKNFANVRSYAKWRYAGTLPKYE  
SPYSIGEFRRGS-DGRDQWLAQSGIR---SGRPKS-LVLYGPSRTGKTSWARSLGTHVY----FGGAFSGGDALACDDV  
KYAVFDDMRGIPFFH----GWKDWLGAQQ--EFMVKALYHDPKLFKWGRPSIWCANRDPREEMEN--HM-  
FCRGDIDWLN  
ANCIF-----

>Genomo\_YP\_009252365

SARYVLLTYPQSEL-SEWAVLDHIS---GEDHADGG--THLHVFAFDFGRKKQSRR-----GDYFDVGG--KHPNVVPSGR  
PEGGW-----DYATKDG---NVV-----REEFLDLVRQLDPKSFVLKHQEIIVRYADIFFAEDREPYV  
GPDGI-RFELGMVPLQDEWRRES-LG---DNPKSRLVLYGPSRLGKTIWARSLGPHVY----IMGLLSGAVLLRDPGA  
SYAVFDDMRGLPMFP----SFKEWFGSQS--LVTVKKMYRDPVQMRWGWKPCIWLANS DPRDQLKADITD-  
RIYEDIAWLE  
ANCVF-----

>Genomo\_YP\_009252368

GARYALITYAQCAL-DGFRVMDHFS---GEVHADGG--IHLHCFIDFGRKFRSRR-----TDIFDVDG--RHPNIAPSGT  
PWRGY-----DYAIKDG---DVI-----REHFVWELVHHLDPKAAACNYGQLAKYADWRFAAKPPVYE  
SPGGI-EFVGGDVDGRDAWCDQSGIR---SGPRCMLVLYGDSRVGKTLWARSLGAHVY----  
TVGMVSGGELKKVDTV  
KYAVFDDIRGIKFFP----AFKEWLGAQA--YVTIKELYREPALVRWGRPSVWISNDDPRLVME-----ASDVSWLE  
ANCIF-----

>Genomo\_YP\_009351871

AAKSVFLTPKCHLDKEVFVKAIED-----HKDGT--PHYHVIGEWVKKNIKN-----PRHFDIQK--YHPNIGRTRN  
RLAAW-----RYVHKT---GRS-----RNTFISFRQEAPRDLIVHYSNVKAYADDEFKVEAPEYC  
TPEMS---GYWDLPEELKEWVEENLTH--KSARPKSLCLYGETRKYTIWARSLGPHSY----MSGCWNARLLD--DDK  
QYVVIDDVPLKDMFK----HFKQMLGCQN--NFSVTDKYVKKLHFKWGLPCIYLANQDPREYSDG-----THRRWLN  
GNCVF-----

>NanoAlpha\_AAA51422

NYSSAAERE---N-FLLLKEEDVHYAVVGDEVAPATGQKHLQGYLSLKKRIRLGG---LKKKYGSR-A---HWEIARG  
TDEENS-----KYCSK-ETLILP-DR---MKIEQPEIFHRYQSVNKLKFKKEEFVHPCLD-----RPWQI  
QLTEAPDDRS-----IIWVYG-PYNEGKSTYAKSLIKKKE-----NL-----FSYVDEG  
SDKHIVFDIPRC-----DYLNYDVIEALK-DRVIESTKYKPIKIVG--KIHVIVMANF---MPDF-----CKI  
EDRIKIIY---

>NanoAlpha\_AAA51426

NYSSAAERE---D-FLLLKEEDVHYSVVGDEVAPATGQKHLQGYLSLKKRIRLGG---LKKKYGSR-A---HWEIAKG  
SDEQNR-----RYCSK-ETLVLP-EE---LKMDDPSKYRRLAVESIKDARINSEWVHEL-----KEWQN  
KLIQHPDDRS-----IIWVYG-PNGEGKSTFARYLLKPTS-----DM-----HIITMD-  
PDNHVIIDIPRS-----DYLNYGVIEQIK-NRVLINTKYEPCVIRGQ--NVHVIVMANV---LPDY-----CKI  
EDRIKIIN---

>NanoAlpha\_ACB86656

HYSDATERG---K-FLTLKEEDVHYAVVGDDETAPNTGRKHLQGYLSLKKRFRISG----IKKKYSSR-A----HWEKARG  
SDYDNK-----AYCSK-EALILP-ER---MKIEQPEIFHRYASVKKMKEFKERYVYPILD-----RPWQV  
QLTELPDDRT-----IIWVFG-PKNEGKSTYAKSLIQKKE-----NL-----FAYVDEG  
STKNVFDLPRT----EFINYDVIEALK-DRVIESTKYKPKVLYLN--TVHVLVMANF---LPDM-----CKI  
EDRIKIVA---

>NanoAlpha\_AIF34798

NNYAAADL-----PLCKDRYVWVQHEKV-DTD--HIQGYIELSKPQRISA---MIKWLPG--A----HFEERRG  
TPDQAR-----KYCMEEDTRVEADDR---EVYNAHSDIAAKYPRYVETMLRFAKEDAILVFEPR----QGFQT  
DLLDMADSRS-----IHWVYD-RVNNGKTYFAKYLVDKSV-----DA-----YAYGGE-  
--SIVIFDYVRD----EYVGYGVIEQLK-NGIAMSTKYESITKRNI--HVIVLANF---KPQE-----GKF  
SDRIKMIN---

>NanoAlpha\_AKO71308

NN-PTLPV-----MRDEIKYMVYQVERG-QEGTRHVQGYVEMKRRSSLKQ---MRSFFPG--A----HLEKRKG  
SQEER-----SYCMKEDTRIEP-LE---YLYDCPNTFDRSKDTLYRVQSEMKNKTKAMNSWRTS----FSAWT  
SEVENPCHRR-----IIWVYG-PNGEGKTTYAKHLMKTSL-----DC-----RLYNYE-  
--DIVIFDIPRC----DYLNYGLLEEFK-NGIIQSGKYEPVLKIYV--EVIVMANF---LPKE-----GIF  
EDRIKLVS---

>NanoAlpha\_ALK03646

FNYV-----LLFSLPPWANYIVYQEEICPDTSRKHIQGFINLKRPFQFSF---LKKNLDPG-A----HIESCKG  
SASSNR-----DYCTKDASRFAP-EE---LRLADPKLYRRCLATKVNFEFSSVLPVDFR-----PWQL  
LVEKIIDDRT-----IIWVYG-SQNEGKTTWAKKKVQDGE-----NK-----YQYVEH-  
-LGNCIFDIPRQ----DNLQYTVLEEIK-DRLIRSSKYEPIDVND--NVHVVLVLSNF---LPQLDVYDSRGNVVKRQLL  
RDRLCIVN---

>NanoAlpha\_HE654123

NN-PLPLS-----LHESMKYLVYQTEQG-DSGNIHFQGYIEMKKRTSLAG---MKKLIPG--A----HFEKKG  
TQGQAR-----AYAMKEDTRVEP-IE---YIECCDITYDKSASTLREYRGELKKKQAIASWELQ---RKPWM  
DEVDARDGRR-----IIWVYG-PLGEGKTSYAKHLVKTTA-----DA-----FAWDHQ-  
--ELVLFDFPRS----EYVNYGAIEQLK-NGIIQSGKYQSVIKIYV--EVIVFANF---TPRS-----GMF  
DDRIVFVY---

>NanoAlpha\_HM163578

FSYV-----LLFSLPEWAEYLVFQEEQCSSTGRKHIQGFVTLKRSQRLSF---LKNKLGDG-V----HLEIAKG  
SASSNR-----DYCTKDDTRSSP-EE---MRLSDPKLYRRCLATRVNKEFSGLVLPVLDL-----PWQL  
LAEKVPDDRT-----IIWVYG-SQNEGKTTWAKSKIAGE-----NK-----YSYADH-  
-LGHAVFDLPRQ----DVLQYTVLEEIK-DRLIRSSKYEPIDFND--RVHVVLVLSNF---LPQLDLYDSRGNLVKKQML  
RDRVVIIN---

>NanoAlpha\_JF957636

NN-PTLPV-----MRDEIKYMVYQVERG-QEGTRHVQGYVEMKRRSSLKQ---MRVFFPG--A----HLEKRKG  
SQEER-----SYCMKEDTRIEP-LE---YLYDCPNTFDRSKDTLYRVQAEMNKTRAMNSWRTS----FSAWT  
SEVENPCHRR-----IIWVYG-PNGEGKTTYAKHLMKTSL-----DC-----RLYNYE-  
--DIVIFDIPRC----DYLNYGLLEEFK-NGIIQSGKYEPVLKIYV--EVIVMANF---LPKE-----GIF  
EDRIKLVS---

>NanoAlpha\_JX458742

NFSGDPP-----ELAWLARDEIKYACWQHEKG---THDHMQGYLQKPKPSRLTA---VRKLFGNR-P----HLEVQKA  
RAEDAR-----DYCMKDESRAVAP-ER---MAEENPSVYRRVLAAQSVERFRSDPSLLPDP---L----RDWQI  
CLLELPDNRS-----IIWIYG-PAAEGKTMMAKELFRAD-----NK-----YQYAVE-  
VESHVFDIPRD----DYIQYSLIEELK-NGMIVSNKYEPYRVVSGREHVVMCNF---MPDY-----SKI  
PDRIVIVY---

>NanoAlpha\_KC978991

NFQGALS-----LSFDERVQYAVWQHERG---THDHIQGVQLKKKARFST---VKEIIGGN-P---HVEKMKG  
TIEEAS-----AYVQKEETRVAP-EE---MKLKDPDVALRCN-AKRLKEDYCSCFSSFKL-----RPWQI  
ELHRVPDDRS-----IIWVYG-PDGEGKSTFAKELIKYTQ-----DL-----YMYAQD-  
PERNIAFDVPRC-----EMMNYQAMEMMK-NRCFASTKYRSIDLCK--NVFLVVFANV---EPDP-----TKI  
GDRIVIIN---

>NanoAlpha\_KC979052

NFKG-----EILSLDTRVQYALWQHEYVS---HHHLQGFQMKQAQSTLGQ---MKALIPG--A---HFEVMKA  
DSDQAR-----SYAMKEDSRLEP-EE---MKVEDPSLYRRCLSRKMTEEQRSSSTWDYDL-----RPWQD  
SILEAPNYRD-----VLWVYG-PNGEGKSTFARHLLKDTQ-----DM-----HLITAE-  
PKNNWVFDIPRV-----DYINYGVIEQVK-NRVMVNTKYEPVIMRN-NPVHVIVFANC---LPDV-----TKL  
EDRIKMIY---

>NanoAlpha\_KF471057

FFSATAP-----DLVLFENTHVSYACWQEEESPTTRRRHLQGYLQLKGKRSLAQ---VKALFGDN-P---HLEKQRA  
KTDEAC-----DYCMKEETRVSP-VR---MAEENPSLFRRVKAKIAEEEFQKTAREIQILN--L---KSWQS  
RLQTLPPDRT-----IFWVYG-PTGEGKSTFARDLYRSAD-----NS-----YQYIGQ-  
LGNNIVFDIPRD-----DYLQYSLIEMFK-DRLIVSNKYEPLMAPN--CIHVVMMSNF---MPDF-----EKI  
QDRVHVIP---

>NanoAlpha\_NP\_619759

NFSG-----DASLSFNERVQYACWQHERVS---HDHLQGYIQMKKRSTLKM---MKELLPG--A---HLEVSKG  
TPEEAS-----DYAMKEETRVAP-ED---MELEDPKARRCRAKIDKEKFAEFKVEDDE-----QEWKK  
ILEKEASPRS-----ILWVYG-PQGEGKTSKAKELITRKD-----DA-----YSYVED-  
PTRHVVFDPDRD-----EYCNYSLEMLK-DRIISNKYEPITNCY-N-IHVIVMANF---LPDV-----TKI  
EDRIKIIY---

>NanoAlpha\_NP\_619760

NYKTALERE---TFILFSRDE-LNYFVCGDEIAPTTGQKHLQGYVSMKKLIRLGG---LKKKFGSI-A---HWEIAKG  
DDFQNR-----DYCTK-ETLIAP-EE---MKLRDPDTALRCK-AKKLREEYCSEVSVFSL-----RPWQI  
ELHRAPDDRT-----IIWAYG-PDGEGKSTFAKELIKYTQ-----DL-----YMYAQD-  
PERNIAFDVPRC-----EMMNYQAMEMMK-NRVFASTKYRPVDLCK--KVHLIVFANV---APDP-----TKL  
EDRIVIIN---

>NanoAlpha\_U16735

NFEG-----EILPFPNESVQYACWQHERVG---HDHLQGFQFKSRNTRLRQ---AKYIFNGN-P---HLEIAR-  
DVEKAQ-----LYAMKEDSRVAG-EE---MKIADPSLYRRCLSRKMAEEQRCSSSEWNYDL-----RPWQE  
EVMHLPDYRT-----IIWVYG-PANEGKSTFARHLLKDTQ-----DM-----HLVTAE-  
PKNNWVFDIPRV-----EYVNYGVIEQVK-NRVMVNTKYEPCVMRN-HPVHVIVFANV---LPDL-----GKL  
EDRIKLIR---

>NanoAlpha\_YP\_003104737

NN-PLPIF-----LHESMKYLVYQTEQG-ESGNIHFQGYIEMKKRTSLAG---MKRLIPG--A---HFEKRRG  
TQGEAR-----AYAMKEESRIEP-IE---YIECCNTYDKSASTLREFRGELKKKKAIAIATWELQ---RKPWM  
DEV DARDGRR-----IIWVYG-PQGEGKTSYAKHLVKT TA-----DA-----FAWDHQ-  
--ELVLFDFPRS-----EYVNYGVIEQLK-NGIIQSGKYQSVIKYYV--EVIVFANF---TPRS-----GMF  
DDRIVFVY---

>NanoAlpha\_YP\_008169853

FSYV-----LLFNLPDWANYLVFQEEESPSTGRRHIQGYVNLKSPQSFSF---LKKKLG DG-V---HLEQARG  
SASCNR-----DYCRKTDSRVSP-EE---LRLSDPKLYRRCLATRVNTEFAGLVLPVLD R-----PWQL  
LVEKVPPDRT-----IIWVYG-SQNEGKTTWAKSKVQAGE-----NK-----YSYAEH-  
-LGHAVFDIPRQ-----DVLQYTVLEEIK-DRLIRSSKYEPIDFND--QVHVVLVLSNF---LPQLDSHDSRGNLIKKQML  
RDRVIVN---

>NanoAlpha\_YP\_009058890

NFQGALL-----LSFDERVQYAVWQHERG---THDHIQGVQLKKKARFST---VKEIIGGN-P---HVEKMKG

TIEEAS-----AYVQKEETRVAP-EE----MQLKDPDTALRCN-AKRLKEDFMKEKTKLQL-----RPWQK  
ELHDLPPDDRT-----IIWVYG-PDGEGKSMFAKELIKYTQ-----DL-----YMYAQD-  
PERNIAFDVPRC-----EMMNYQAMEMMK-NRCFASTKYRSVDLCK--NVHLLVVFANV---AYDP-----TKI  
EDRIVIIN---

>NanoAlpha\_YP\_009246456

FNYV-----LLFTLPEWANYLIYQEEECPTTKKRHIQGYVNLKRNQRFAF----LKKKLPDG-T----HIEACKG  
SSSSNR-----DYCRKDDTRTDP-EE----LRLADPKLYRRLATKVNTEFGGLVLPVPDR-----PWQL  
VAQKVPDDRT-----IIWVYG-SENEGKTTWAKTKIQDGE-----NK-----YQYAEH-  
-LGHCIFDIPRQ----DNLQYTVLEEIK-DRLIRSSKYEPIDFND--KVHVVVLSNF---LPCLDSYNNRGELVKKPLL  
RDRVFLIN---

>pCRESS1\_CDF01935

CVFNNPAEHT--GEPQEV CERLKEWVN-FCKS-KSGLLHVHVMVLEDTKSMRFTA---IKSSYCQG----MHFEPTKG  
NKK-Q-----ADDYINKEIKGKQ-----GKRTDLDCISDLITDG-LKPSEILEENPRYYTKEN---II  
KKMYFRKRYAETEFTRD-----VKVFWHYGSSGSGKSYSRKQVVE-----KTFG--GAFDNYEGQ--  
-K-VLWIDDYRG--EFRFQELLRYLDVYK---AELPARYN-NVKALWNEVHITSVLTPQLCYSEACN-----LDRIEQL  
LRRITCL----

>pCRESS1\_CUO23215

AVFPNPEQHE--GSPEDIIEKQWIG-YCIS-EKGLPHVHVMVLEDTGSCRFTK---VKKAYPT-----AHLEPTKG  
NKK-Q-----VLAYIKKNIENK-----NTNDTLATIEMLIEEG-MTPNQIMAEDIRLRREEN---LI  
RKCYFAKRYKETPPIRT-----VKVWVHCGDSGCGKSYSYIDLCE-----KDY---AGFDGYCGE--  
-P-YLFMDELKQD-SLPFELLTITQGYR---SQIHCRYN-NCITLWNEVHITSIFSPEDIYAGVVS---EGKDTIKQL  
LRRITKY---

>pCRESS1\_CUO57637

AVLPYPEKK---GSPEEILEQMKQWIG-YCIS-KEGMPHVHVMVLEGSVSMRFS---VRKCYGK-----AHLEPTRG  
SRK-M-----VLQYIHKNIENK-----NQNAILDRIEELIEDG-KTPNEIMGEDIRLRKEET---LV  
RKAFKRYRETPPYRK-----VTVWVHLCGDSGSGKTFSTYTKLCE-----SEY---AAFDLYSGE--  
-K-ILFLDEIRST-SLPYETLLTLIGPYR---TQIHCRYA-NAFALWEEVHICSILAPEDLYKGMVKS---EERDCIQQL  
LRRINKY---

>pCRESS1\_CVH76026

TSNNPHIHYRGDDDYRTACEAFVMWRRGRAFERGEQGTLLHLHGLLCSKSDMGKST---LIEKFPQTD-----FRETRG  
SVDDC-----LDYLHKGWGDYLCGG-----VGGGGKTFERIDAMLQGMTPNDIFALGTKYAYYGQEIQRRY  
NALMADKARSRD-----ALRCVYHTGDSGSGKSKLLEQQGRSVY-----YTADYDPFDSYNGE--  
-DVLFLDELRSYSFETP--QLLSIMESYR---HEVPARYSNRLAVYSEVHLSSIFPPEKIVPPNEPLKQLRRIDEVYH  
ATAGRYVT--

>pCRESS1\_WP\_000032131

CTLNNIDKLFTFNYSPEEMVEHLIYWVDGYEIG-DNGNHSHLILEAKNQTRFSA---IKKLYPT-----IHVELTRG  
TRE-Q-----VIAYLNK--ANQQ-----GKRKDLDIQELLEEG-LSPEEIMRQNLSYRKFSK---MI  
KEHFYQLQVANAPLVKK-----MKVYVHLCGSGTGKSVRLKEIFG-----IDYGG---LDNYMGE--  
-S-ILFMDEFKQ--DIDYQAFKILDVYP---NQVHARYS-NVYALWVKVHSSIFSPYQIYKMLVSP---DKNDPITQL  
YRRIHFI---

>pCRESS1\_WP\_003030931

CVLNNVDKLFPPSPEEIVDFLMEWIARYEIG-DNGVHHCHMVLEDKKAFRFSA---LQKLYPT-----IHAEITRG  
TKE-Q-----IIAYLEK--ARNQ-----GHRSDFDYIQKQIENG-ATPEEIMMGNLEYRKYSK---MI  
REHFFQHRLAQTDPIDK-----MKVYVHLCGSGSGKSVNLKKEFG-----RDFDG---LDLYCAE--  
-P-ILFMDEFKQ--MSYKEFLKVTDVYP---VQLHARYT-NTIALWNEIHITSIFTPKEAYGLMVPE---SEIDSYKQL  
QRRLTNV---

>pCRESS1\_WP\_003102166

CTLNNIDKLFSFTYSDEEMVEHLIYWVDGYEIG-DSGNHSHLILEAKNQARFSA---IKKLYPG-----IHVELTRG  
TRE-E-----VIAYLNK--ANQQ-----GKRSDLDTIQELLEAG-LTPESIMRQNLSYRKFSK---MI

KEHYQQMVENAPLVKD-----IKVYWHLGSSGTGKSILLKQDHG-----KDYGG---LDNYTGE--  
-P-ILFMDEFKQ--DIDYQAFLLKLLDVYP---NQVHARYS-NVYALWDAVHISSIFTPNQLYEMLVPE---EKNDPIKQL  
FRRIHFI----

>pCRESS1\_WP\_026524352

LTLNPNQKG-----YTHDFIIDTIHTFR-DEIG-ESGNYHTHIYILLGKKKRWSS----VQRAFLH-----SHIEKVMG  
SPQ-E-----CRAYIRKTIPTFK-----NDRE-MLQIEDMINQG-MRPEQIMQQSVVFRQFET---II  
RKSFFAKRLKETPPLRQ-----IKIVWHLGASGSGKSFSYQQLCE-----QDYSNCTALFDGYEAQ--  
-K-VVFLDEVKTD-SFKYGYLLQILQGYK---TQIHARYC-NIQLSWTEIHATSIYAPDEIYDEMVAV---PTIDSKTQL  
LRRITDY----

>pCRESS1\_WP\_026669310

LTLNPNQKG-----YTHEFIIDTIHKFK-DEIG-KSGNYHSHLYILLGKKKRWSS----VKRAFPH-----SYIVKVMG  
SPQ-E-----CRAYIRKTIPTFK-----NDRE-MLQIEDMINQG-MRPEQIMEQSVVFRQFET---II  
RKSFFAKRLKETPPLRQ-----IKIVWHLGASGSGKSFSYQQLCG-----QDYSNCTALFDGYEGQ--  
-R-VIFLDEVKTD-SFKYGLLLQIFQGYK---GQIHSRYN-NVYSLWTEIHATSIFCPDELYDEMVAV---SSVDSKTQL  
LRRITDY----

>pCRESS1\_WP\_029176105

CTLNHIDKLFSSYSSEEDMVNHLIYVWNTYEIG-DNGVHHSHLILEAKNQTRFSA---IKKLYPA-----IHVELTRG  
SRE-Q-----VIAYLNK--ANQQ-----GKRTDLETIQELLETTG-LSPEQIMRQNLQSYRKFQSK---MI  
KEHYQQMVENAPLTKD-----MKVYWHMGGPGSGKSVQLKKTG-----TDYGG---LDNYTGE--  
-P-ILFMDEFKQ--DIDYQTFLLKLLDVYP---NQVHARYS-NIYALWDTVHISSIFTPYQIYTMLVPL---EKYDPIQQL  
YRRIHYI----

>pCRESS1\_WP\_029690610

CVLNNVDKLFPPSHEEIVDFLMEWIARYEIG-DNGVHHCHMILEDKQAFRFS---LQKLYPT-----IHAEITRG  
SKE-Q-----VIAYLEK--SGNQ-----GFRSDLDYIQKQLDNG-ATPEEVMMQNLGFRKYSK---MI  
KEHFFQKKIKETPDVKD-----IKVVWHWGESGSGKSTTLKETCG-----RDHEG---LDFYNAE--  
-P-VLFMDEFKQ---MPYKDFLIVTDVYP---TQLHSRYT-NTFALWMEIHASITPKHAYNLMVPE---GEIDSYQQL  
KRRLSEI----

>pCRESS1\_WP\_029694263

CVLNNVDKLFPPFSPKRMIEILIDWMEDYEIG-EDGVHHCHMILEGKQAIRFSA---LQKLYPT-----IHAEITRG  
TKE-E-----VFAYLNK--ASKQ-----GKRTDLEIEQLLEEG-QSPEEIMCRNIGYRFRFSK---LI  
KEHYQQMRLRMSPRFKE-----NMDVIYHVGASRSGKSIRLMDKYG-----VDYQG---LDNYMGE--  
-K-ILFMEEFKQ--ELSYQEFLRVTDVYP---QQFHARFT-NIYALWEKVHISSIFPPKELYKLMVSN---SATDTMEQM  
MLRISKV----

>pCRESS1\_WP\_047207334

CVLNNVDKLFPPSPEEIVDFLMEWIARYEIG-ENGTHHCHMILEDKKAFRFS---LQKLYPT-----IHAEITRG  
SKE-E-----VIAYLEK--AGNQ-----GFRSDLHFIQHQIENG-ATPEEIMRGNLEFRKYSK---MI  
REHFFQHRLSQTPDTE-----LKVVWHVGDGSGKSVQLKQIYG-----RDHDG---LDLYCAE--  
-P-ILFLDEFKQ---MAYKEFLKVTDVYP---AQLHARYT-NLALWNEIHASIFTPKHAYNLMVPE---GEIDPYEQL  
QRRLTKV----

>pCRESS1\_WP\_053982727

GTIANMEKAG---ENPEQLAEFISEWSA-VCVS-AKGLYHAHVVLGNLTTLGNV---AKILFDS-----HIPEQLG  
GKK-E-----LKSYLELLKNIQDTK-----GKRSDLEDIEELLEQG-FTPREIM-ENFPYRKYEK---MI  
KSAFIDKRIQETPLLKE-----KKCIWIVGESGTGKSYYYQLCQ-----EDF-----EFYIEQGA--  
-PPILFMDEFKQ--DMRFAQLLVMLDKFR---AQVHCYRS-NCFCWSTVVITSVFPPEDEVYAGMVDD---ADRDKIDQL  
IRRLDVI----

>pCRESS1\_WP\_062004798

CVLNNVDKLFYFTYTPPEEIVDYLMEWIGRYEIG-DKGTHHCHMVLEDKQSFRRFST---LQTLFPT-----IHAEITRG  
TKE-E-----VLAYFEK--ANRQ-----GQRSDLDYIQQQLEEG-ATPEEIMLDHLEYRAYSK---MI  
REHYQQRLRDRTPDHKE-----LKVYWHTGDSGSGKSVRLKQEFQ-----RDYQG---LDGYQGE--

-G-ILFMEEYKG--EMNYAEFLKVTDRYP---HQM HARYS-NVFALWEEIHITSIFSPKQVYNIMVPE---ETADSV DQM  
MRRINKV----

>pCRESS2\_BAK32345

ITIN----NPHDSITHEAILDTIEEMNG-DEIG-ESGTYHTHIYLVSNNAIRFST----MKNKFPT-----AHFEIARG  
TST-D-----NRDYIFK---EIPLER-----QGARN DLADLYDMIKQG--MDNFDILEST-PENMMKLDKIE  
RTRQVIKESYRNTFR-----KLTVTYISGDTETGKTRYVMESNG-----DYK---PFDGYQGQ--  
-P-VICFEEFRSS--LPIASMLNYLDGYP---LELPCRY S-NKIACYTSVYIVSNISLEKQYEYEQEN---ETETWNAF  
LRRIHHE----

>pCRESS2\_CBL15233

LTIN----NPDDEL DHNSVKNTLHLFSP-DEI-ATTG TKMHIFIYSKSPIRFST----LKNRFPV-----AHIDKANG  
SVM-E-----NRDYL RK---NVPKPV-----DEN SPDM SALIEEIENG--LDTYEIIKLH-PKYAFRIKEID  
TLRQTVLSNM FREKKR-----QVTVYYIYGKSGTGKTRGIYQKHR-----AYRSTGINFDSYHGQ--  
-S-VLVFEEFVSQ--IPIEDMLNYLDIYP---LMLPARFN-DK VACYDTVYITSNISLGEQYSEVQHY---KPETWKAF  
LRRINFL----

>pCRESS2\_CCX75435

LTIN----APVEGYTHEKIVNIIRSFKT-DEQG-E--RYHTHIFIVFSSRVRFSM---VKRYFPE-----AHIEKCRG  
NVS-E-----NVSYIKK---IQPSDS-----K GKRS DLSELYRMIQDN--MTNAEILAVN-QDYIMQIDRLD  
KVRTTILMERFKETVRL-----DLEVIYIFGKTGTGKTRRVLEENG-----DYN---PFD SYTAQ--  
-Q-AICFDEF RSS--LKLKEMLLYCDIYP---IELPSRYS-NKFACYNKVYIVSNWELEKQYSELQRE---DKESWQAF  
LRRHKV----

>pCRESS2\_CCY69022

LTIN----NPVEGYTHEKIKETLIMFTT-DEIG-GQGTYHTHIYVVFSSRVRWSK---VKKNFDE-----AHIEIAGK  
SAQ-S-----NVEYIKK---EIQPSD-----RGKKADMEELYEMIKNG--YSNAEILAIN-NDYILNIDKLD  
KVRTMLL TEKYKNERRL-----DLKVIYIYGATGTGKTRGV LDEHG-----DYL---PFDGYGTQ--  
-E-VIAFDEF RSG--IKISDMLNYCDIYP---IELPARYS-NKFACYSRVYIISNWSLEMQYSEVQKN---SPESWQAF  
LRRIHV----

>pCRESS2\_CCZ45692

MVIN----NPAEGLGHAAITEIVLKFHP-DEI-ATTGTFHTHIFCTRSPVRFST---IKKRFPT-----AHIERAYG  
TPR-E-----NKEYISK---ELPADS-----EDKAPEMFQLMQELRSG--KSTMEVLEEHPNLAFRIRDIE  
LLRQTILA EKYS AENR-----KLEVTYLYGASGVGKTWGFIFEQHD-----NYRARGISFDGYNGQ--  
-D-VLVFEEFNSQ--VPIEDMLNYLDIYP---LHLPARYN-DRVACYTKVYLTSNLPLEKQYRAEQWD---RPETWRAF  
LRRHNV----

>pCRESS2\_CDB27189

LTFN----NPVQGFTHAVIKTTLASFPG-DEIG-EQGTPTHLYLYSPNAILFST---LQQRFMG-----AHMEAAKG  
SHR-E-----NRDYIRK---PLPAEQ-----NKRESISSEILELVQSG--ASNAEILLQY-PSAMNRLQHIE  
TARQTLLEERYRNQWR-----NLEVTYLVGPTGVGKTR SVMELYS-----NYD---PFD DYRGQ--  
-N-VILFDEF RSS--LPVADMLKYLDGYP---LMLPCRY S-NKVACYTKVFLISNIPLSAQYPNVQLS---EPETYRAF  
CRRINQG----

>pCRESS2\_CDC44519

LTIN----NPVEGFTHDKIKDLIYLMKP-DEIG-EEGTYHTHIFICGRSGIRFST---LKRAFES-----AHIEMAKG  
TSL-Q-----NKEYVSK---DMPIER-----QGKRNDLDDLYSMIKEG--MSDYDILEQG-SDYMLNLD MIS  
KTRQILVQEKFKNTRF-----KLDIVYIWGETGTGKTR SVMEGHG-----DYL---PFD NYAGQ--  
-D-VILFDEF RSS--LALTDMLKYLDGYP---LELPCRYA-NRYACYTKVYLISNIPLSEQYPNVKRD---EYGSWLAF  
LRRIQTV----

>pCRESS2\_CDE72464

LTIN----NPLEGCSHEEIKKAMESFST-DEIGLEEHTPHTHVFIYTTNGTMFNT---VKNIFPI-----AHIEHCKG  
TYA-Q-----NRDYIRK---TMP TER-----QGGRNDLADLLDMITAG--LDTSTILEQY-PNYMLQLDKIE  
RTRQIMLESKYKNVFR-----EMEVQYIFGAPGSGKTRGVMEKYG-----DYK---PFDGYHGQ--  
-D-VIIFEEFRSS--LKIGDMLNYLDGYP---LSLPCRFS-NKQACYTKVFIISNIPLTAQYNDLQSE---QTATWKAF

LRRLNGV----

>pCRESS2\_CUP05665

LTIN----NPVEGFTHKLNLSILASMAS-DEIG-ENQTYHTHVFLCGRSGIRFST----LKKQFEG-----AHFEMAKG  
TAE-Q-----NMQYVSK---EMPIER-----QGKRNDLDDLYGMIKDG--LTNYEIMEQM-PEALLNLDKIE  
MTRQTIQEKYKNQWR-----DVQVEYIYGDTGSGKTRSIMEQYG-----DYL----PFDGYKNQ--  
-D-VVIFEEFRSS--IRFTEMLTLIEGYP---VELPCRYA-NKYACYTKVYIITNVPLSKQYPAVQLD----ESVSWLAF  
LRRHKV----

>pCRESS2\_EES75484

LTIN----SPEKGYTHEVIYQVASNFKT-DEQG-SN--FHTHVLLVFKSRVRWST---VQDKFPH-----AHIEEGKG  
DIN-Q-----ILQYMRK---DRPVDT-----KEKVSEFSELYDLVYDE--VPTGEIIFKN-PKYIRYIDKIA  
PMRIEIMNEKYRGKRRL-----DLKVIYVFGLSGTGKTRMILDRHG-----DYF----PFDSYNMQ--  
-Q-VLCLEEFRDS--LTITQCLNLLDIYT--VELPARYA-NKLGiyKTVYmVSNWEIGKQFKSVQOE---HPETYHAF  
RRRFHYL----

>pCRESS2\_KJZ87129

ITIN----NPVDGYTHENLKNILNNFKN-DEIG-ENKTYHTHIFLACSGAVRFST---VKKRFEG-----AHFEMANG  
TSK-Q-----NREYVFK---DCPIER-----QGQRNDLIDLYDSIKAG--LSNYDIIEDN-PNFMFDVDRIE  
RARQMVRDEQYKNTFR-----ELEVTYIYGKGTGCGKTRGVMQYEG-----DYN----PFDSYKQG--  
-D-VIIFEEFRSS--LKIQDMLNYLDGYP---LELPCRYA-NKIACFTKVYIITNIALEHQYDSIQKE---FNETWNAF  
LRRHKI----

>pCRESS2\_SCH17786

ITIN----NPADGFTHERRIRQELESMSKS-DEVG-ENGTYHTHLYLQKGAVRFST---IKKHFEG-----AHFEMAKG  
TAM-Q-----NREYVSK---EMPIER-----QGARNDIADLHAMIKQG--LSNYDIMEQV-PEAMLMLDKIE  
QARQTIVQESYKTKWR-----NMSCYIYGDGTGKTRSIMEQYG-----DYS----PFDNYRQG--  
-D-VVIFEEFRSS--FRVSDMLNYLDGYP---LELPCRYA-NKYACYTKVYIISNIPLSEQY-RNQPP---E--TFEAF  
LRRLNGV----

>pCRESS2\_SCH60086

FTINNSPKKTDTFDTDEKVINFIMQYEE-RERGHNENTEHIQGFQFKNRKRGT---LQNMFP-----QHGEFANG  
TAQ-Q-----ASDYCKK---ELRVTK-----GGKQLTNEDILQRIKEG--ADDIRILEEFP-QLWNQIDRLQ  
KVRDLYVFDKWRNVFR-----DVQVTYICGQSGTGKTRSVMEQYG-----DYK----PFDSYHGQ--  
-D-VIVFEEFRNS--LPIDNMLNYLDGYP---LELPARYM-NRIACFTKVYIISNWNFEEQYTAIQHK---YYETWNAF  
VRRIDKI----

>pCRESS2\_WP\_007865724

CVFN----NTDKNCSHQAIKEKLSNWEN-DEIA-KT--PHTHLFVQFKNPVYFSS---IKKTFPS-----AHIEEAQG  
TAE-E-----NRAYIRK---TMPQTG-----QGRRSDLANLYQMIDG--YSNVEILEIN-PDNLLNLQHID  
KARLEILSSRYKAERRM-----NLLVTYVSGATGYGKSRYILDNHG-----DYK----PFDYSGE--  
-D-VIVFEEFRSD--LPIGNMLNYLDVYP---LQLPARYN-NRQACYNFVYIVSNWKLDDQYHNIRLE---QKETWNAF  
IRRIHKV----

>pCRESS2\_WP\_009246639

VTIN----NPLKGFNHLKIKKTLIEFAT-DEIG-KQGTPTHYVCFKSRVRFST---VQKYFPT-----AHIEKPHA  
SVQ-S-----NIDYICK---TVPLQ-----KGTRPDMEELYQMIDAG--YSNAEILAIN-NDYILDIDKLD  
KVRTMLLIEKYKGRRI-----NLKVIYISGATGTGKTRGVLEHG-----DYQ----PFDGYSCQ--  
-P-VLAFDEFRSS--LKLSDMLNYCDIYP---IDLARYA-NRFACYETVYIISNWELEQQYKEVQED---NPESWRAF  
LRRHEV----

>pCRESS2\_WP\_009301216

LTIN----NPKDGLTREIITDRMNSLFP-DEVS-QSGTPHTHIFIYRKSPIRFST---IRSKFPT-----CHCEKAHG  
SVL-E-----NKEYVSK---EIPNEK-----QEKPLNYEVIKDLEDG--KVIGEIVSDR-PELIFKVKQIE  
ALKEALLIKNANKFRS-----LSVIYCFGESGKTRMVYECH-----NYRHKEMSYDVYHGE--  
-K-VLLLDNFQNS--LCIDDLIALLDIFP---MYLPARYF-DRYSVYEFVYLLSVLPLENQYKDIQKH---YPLKWNAL  
INKISKI----



>pCRESS2\_WP\_013270924

LTFN---NPEKNC SHQAIKEQLLNWEN-DEIA-KS--AHTHLFIQFKNPVYFSS---VKKSFP T-----AHIEEAQG  
SAE-E-----NRAYLRK---TMPQTG-----QGRSDLANLYQMIKDG--YSNVEILEIN-PDNLNLQHID  
KARLEILSNRYKAERRT-----NLVVTVVSGATGYGKSRNILDNHG-----DYK---PFD TYSGE--  
-D-VLVFEEFRSD--LPIGNMLNYLDIYP---LQLPARYN-NRQACYNFVYIVSNWILEDQYHNIRLE----QPETYKAL  
MRRIHKV----

>pCRESS2\_WP\_013271491

ITCN---NPLDGFTSEKIKEIMQRKTY--ETG-ESGTHHFHLYTKFCHAQITDT---ISKTFGN-----AHIEVIRN  
SSSID-----NRDYIRKECPIDGKEN-----QGHRNDIDL MISLVQDG--ASNMEVVQAV-SSMALRIPAIE  
QYRQAYWEEKGR-GYR-----HMDIWIYIGKTRTGKTSYVYQSHH-----DYKNG--IWDKYDTT--  
-R-VLLLDEYRSA--LPFSLILALCDGQP---LTLNCRYA-NRVCLHETVYIVSNISLLEQYPNIQRE----EPESWNAF  
LARINHV----

>pCRESS2\_WP\_013978550

FTFN---NPAEGDTHESVAGRFSELSL-DEIGAETGTYHTHGFIYSPSPIRFTR---LKKLFPF-----AHIEKANG  
TCK-E-----NRDYVAK---ELPKER-----EPKEDRKERLYAMVEAG--LTTEEIIELD-KSFIFQANTID  
GLIQRRLASRHKG VNR-----SVAVIYIWGETGTGKTRSIQERHS-----SYRG-AVSFDAYKGE--  
-P-VLVFEEFNSQ--IAIEEMLNYLDVYP---LMLPARYS-DKVACFTQVYITSNIPLEKQYPEVQRT---R PATWRAF  
LRRIGKI----

>pCRESS2\_WP\_018597672

LTIN---NAVDFGTHEHIIELANTFKS-DEVG-ETQTHH THVYLAFRSAVRFTS---LQKKFMG-----AHFEVAKG  
TSQ-Q-----NRDYVFK---EMPVER-----QGKRNDLEDLYDMIKQG--MDNYQILEEC-PQYMLNVDKIE  
RCRQIVREEKYKNTWR-----DLHVTYIYGETGSGKTRTVMEKYG-----DYD---PFDSYKQG--  
-D-VIAFEEFRSS--LRVRDMLNYLDGYP---VELPCRYA-NKVACFTQIYIITNIPLNEQYTDLQRA----QMETWQAF  
LRRIHV----

>pCRESS2\_WP\_020072285

LTIN---NPGK-WSHEKICAVLGKMQ--DEQGLQEQTPTHVFLVANS AIRFST---VKG YFPT-----AHLDPACG  
TSE-E-----NRAYVQK---VLPTEN-----PGQRTDWDIALAMLEDG--HSAMDVIRVQ-THLMRYRSTLE  
QIRQELIAEQFRD TFR-----ILETTYIYGTTGLGKTRFVMERYG-----GYQG---CFDKYQSE--  
-D-VIVFDEFSS--LKIQDMN NFLDGYP---LMLPCRYA-NRVACYTRAYIISNIPLEYQYANVRLD----TPAVWNAF  
IRRIHKV----

>pCRESS2\_WP\_021629801

LVIN---NPSEGLDHS AIKEILQRFSP-DET-ASTGTYH THLFFYAPSPVRFAT---IKNRFPV-----AHIEKAYG  
TVQ-E-----NRAYIRK---EAPPER-----AEKHPEMFRLVQNI RDG--MTTTEIIDDN-PAMAFRVRDID  
LLRQTLTAEKYAVENR-----PLEVSYLYGASGAGKTRSIYEAHD-----NYRAKGISFDGYHGQ--  
-E-VLVFEEFSGQ--VPIEDMLNYLDIYP---LSLPARYN-DKTACYTTVYITSNLPLEKQYRGEQWD----RPETWRAF  
LRRIHNI----

>pCRESS2\_WP\_021882760

LTIN---NPDEKFSESEIENILNTFKF-REI-GENGTPHIHLFIYAKSRIRFST---IKKRFPT-----AHIDKAYG  
SVV-D-----NIAYITK---EAPSAL-----EEHSPELSQILDDIVSG--MSTSEIITEY-PQHIFRVNAID  
TVRQTFLADKYRERM R-----SVCVYIYGASG V GKTRGIYKHFP-----SY-SNGVKFDSYCGQ--  
-D-VLVFEEFASQ--IPIEEMLN NYLDVYP---LMLPARYT-DKVACYTKVIITSNLP LN KQYVNEQIE----KQKTYNAF  
LRRINYV----

>pCRESS2\_WP\_023977019

LTIN---NPVDGFTHEVLKEKLKEFKN-DEIG-ENKTYH THVFIACSGAVRFST---MQNRFKG-----AHFEMARG  
TCK-Q-----NREYVFK---DCPVER-----QGQRNDLIDLYDMIKGG--MTNFDIIEDN-PSYMLEIDRIE  
KVRQTVRDEQFKNTFR-----ELEVYIYFGSTGSGKTRGVMEYFG-----DYD---PFDSYKQG--  
-D-VVVFEEFRDS--LKISDMLNLLDGYP---LELPCRYA-NKIACYTKVYIITNLDLNDQFKGVQVK----HPETWKAF  
LRRIHKV----

>pCRESS2\_WP\_024346025

MTIN----NPADGYTHEYIQKTLSTFKS-DEVG-EQGTPHPTHVFCFSSAVRFSM----IKKHFPT-----AHIESAKG  
SIA-Q-----NLDYIKK---ERPPEN-----LGKDKDLETLYHMIDEG--LSNAEIIRIN-QDYIMQIDKLD  
KIRTTHLQDKFKGERRL-----DLEVTYMFGATGTGKSRGILDEYG-----DYD----PFDHYSCE--  
-P-VLVFEEFRSG--LPLSDMLNYLDIYP---ITLKARYS-NKFACYTKIFVVTNWELEKQYAERQIT---DRASWRAF  
LRRHKV----

>pCRESS2\_WP\_036328238

LTIN---YKEDPTNNDDE-LLDYIKDIKS-LEQGE-KGTKHHQIYISFEHAKSFET---IKKYFPK-----AHIEAMKG  
TPE-Q-----ASEYCTK---ELPIK-----GKRTDLEDIYKMIASG--FSDMQIRETYPSQYIRYNHKFK  
EIRQEILEEQFNTR-----KIDVVYLVLDLPGTGKTRYIMEKYG-----NYK----PFDYKGE--  
-D-VIVFEEFRSK--LPIENMLNYLDGYP---TRLPARYG-DKVACYTKVYIVSNWEYTEQYKNIREL----YPTTMQAL  
DRRINFV----

>pCRESS2\_WP\_037404274

LTIN---NPIENLKHNTIKEYLSNLDN-DEIG-QEKTYHTHVYIHLKNAIRFST---LKAMFTT-----AHIEKANG  
TAI-Q-----NKEYILK---IPEES-----QGKRTDLIEIFEMAKDG--IKTVDILSEY-PSALLYIDKIE  
KVRTEIQREKFKNTFR-----KLDVTYIYGKTGAGKTRYVMSDFG-----DYK----MFDSYSLQ--  
-D-VIIFEEFRSS--VHVKDMLS YLDGYP---IDLPCRYG-NKVACFTKVFIISNIDLLAQYTDIQRK----EVETYRAF  
LRRINKI----

>pCRESS2\_WP\_038278663

LTIN---NPTDCFSHDKIKEYLVTFKS-DEIG-EQGTPHTHIFICYRSPVRFSM----IKKHFPT-----AHIEAVAG  
SIE-Q-----NIDYLK---DRPPEN-----LGKDKDLEALYHMVDEG--LSNAEIIRLN-NDYIMQIDKLD  
KIRTTYLQDKFKGERRL-----DLSVEYTFGSTGAGKSRGILDEFG-----DYD----PFDHYSCE--  
-P-VLVFEEFRSS--LPLSDMLNYLDIYP---ITLKARYA-NKYACFSRIFIVTNWELEKQYAERQIT---DKESFQAL  
LRRHKV----

>pCRESS2\_WP\_038350939

ITIN---NPLEGFSDHYIKAQLEKFKS-DEVG-EQETFHTHIYMACSNAVRFST---VKNRFEG-----AHFEMAQG  
TSQ-Q-----NRDYVFK---ELPIER-----QGQRNDMADLYDMIKQG--YSDFEIMEES-PAFLMNIDKIE  
KARQITSEKYKNTFR-----ELEVTYIYGKTGSGKTRSVMEKYG-----DYQ----PFDNYHSQ--  
-D-VVIFEEFRSS--LKIQDMLNYLDGYP---LELPCRYA-NKYACYTKVYIITNIPFEEQYDNIQHV----SPETFNAF  
KRRIHKI----

>pCRESS2\_WP\_044928503

LTIN---NPLEGYTHDAIKKNVCTLKS-DEVG---KTHHHTHVYILFQSPVRFST---IKRLFPE-----AHIEKAYG  
SSI-Q-----NRDYIFK---EMPTER-----QGERNDLTALYELISEG--KSNDYILEEQ-PEFITQIERMD  
KVRQIIQEESYKDIFR-----NLEVDYLYGDTGSGKTRSIKMEKFG-----NYK----PFDQYKQG--  
-D-VIMFEEFQSS--IHINQMLIYLDGYP---VTLPCRYG-DKVACYTKAYILSNIDLKEQYPDIQTY----SPETWKAF  
LRRHKV----

>pCRESS2\_WP\_044942941

LVIN---NPLEGLDHSTIKEILQRFSP-DET-ASTGTYHTLFFYAPSPVRFST---IKNRFPT-----AHIEKAYG  
SVQ-D-----NRAYIRK---EIPPEQ-----AEKHPEMFRLVQNIRDG--MTTTEIIDDN-PAMAFRVRDID  
LLRQVLTAEKYAVENR-----PLEVSYLYGASGAGKTRSIYETHD-----NYRSKGISFEGYHGQ--  
-E-VLVFEEFSGQ--IPIEDMLNYLDIYP---LSLPARYN-DKTACYTKVYITNLPLEKQYRDEQWD----RPETWRAF  
LRRHTV----

>pCRESS2\_WP\_051546484

LTIE---NPKTGYPHKLKSMIKKMKs-YET-GECGTEHVHIYLSLKNsIRFST---IQNHFPS-----AHIEKSEG  
NHD-E-----CIAIYQK---KRPEVK-----RRRKKKMRsvLDLIRTG--KSNLEIVQIY-PSFISKMKALD  
EIRQEFLKEKYGHTNR-----HVECTYIYGDRTRGKTSDIKKYg-----SYAP----FDGYRGQ--  
-D-VLVFDEFRAENAMPFSNMLTYMEGYP---LELPARYG-NKVACYTKVIVISNDPLKNQYTSVDRS-----SQSWMAF  
LARFMSV----

>pCRESS2\_WP\_051600858

LTIN---FNGAPLTEDALIELIQMNTF-FEK-GEQGLHVHIYIHSNPRRFST---MKMTFPR-----AHIEKALG

SPA-E-----IRDYIKK---KIPTPG-----ASRSNNKNKLEEDITAG--KSTAEIHKDS-PDYIFKINCIN  
TAREELLNTDHOQNSFR-----DVTVYYYVYGATGTGKTYSIYQCYD-----DYPRNKVRFDAYMGQ--  
-K-VLVLEEFERSE--IPISSMLNYLDRYP---LKLPARYY-DRQACFTTVIITSNIPLEEQLAIQDV---QPETWRAL  
IRRINYV----

>pCRESS2\_WP\_051639324

LTIN---NPQDGITHDSIKQSLQPYTD--ETG-AHGTYHYHVYIYFKNAIHFSS----LKKLFPT-----ANIQQAMG  
NSL-Q-----NRSYLLKSAHECPTTEI-----RGKRNDLERMYELIKEG--YSNSEIIEACGKTAILHIEKLN  
KLRHSYLIDYYKGTTRRL-----NLKVHYISGKTGLGKSRDILDEYG-----DYQ---PFDSYQNE--  
-N-VLVFEEFRSL--IRLSMMLNYLDIYP---CVLPARYS-PKIACYDTVFIVSNWFEFESQYYELQQD---PQITTYEAF  
KRRINGY----

>pCRESS2\_WP\_052011064

MTIN---NPKEGFSHNEIHEILKNFKT-DECG-T--CYHTHLFLVFSSRVVST---IHRNFEG-----AHIEIARG  
SIS-D-----NINYLKK---TRPPDS-----QGKRTDMSELYQYINDG--LSNAEILALN-QDYILNVDKLD  
KVRNILLTNRKFKEEVR-----DLQVIYISGATGTGKTRGVFEKDG-----DYA---PFDAYCCQ--  
-E-TIVFDEFNRNS--LKLSEMLNYLDIYP---VDLPSRYN-NKVACYRKVYIISNWKLEQQYSYEQIN----DRESYLAF  
LRRHKV----

>pCRESS2\_WP\_053167095

LTIN---NPTKMITHESIQEILATFKS-DEVA-S--QHHKHVFLAFSSPVRFSQ----IKKYFPS-----AHIDKSRG  
TAE-N-----NRHYVFK---EIPNER-----SGNRDTLAELYELIQDG--FSNAEIEQN-PDNILFLQHD  
RTRKAILEEKFKSNWR-----NLDVITYIFGPTGTGKSRHVMKEYG-----DYL---PFDSYRQQ--  
-D-VIVFEEFTSS--LKIQDMLNYLDGYP---LELPSRYS-NKQATFTKVYILSNSPLRKQYETVQIE----KIEVWRAF  
LRRIKKV----

>pCRESS2\_WP\_066546553

ITCN---NPEEGLSSDRIKEIMQRKTF--ETG-EQGTDFHFLYVKFVNPQSTRV---LSKAFGN-----AHVEIIRS  
SSSSQ-----NRDYIRKECPDESEEI-----QGRRTDIERMISLVQDG--ASNVEIVQAV-PSMALKISALD  
QYRQAFYEEQGK-QYR-----DVTTIYIYGRTRTGKTSSVYANHD-----DYKTG--VWDQYDTT--  
-R-VLLLDEYRSS--LKISELLAICDGQP---HTLRCRYS-NRVCLHDTVYIISNISLLQQHKEIQRD----EPESWEAL  
LARIKIV----

>pCRESS2\_WP\_066550639

LTWN---NPQDGETHDKLKEILMKWGDSEIG-ETGTPHMHFVCYQNAVRFSS----IKDSYPS-----AHIEVAKG  
SPE-S-----NRAYIRK---FIPKEG-----QGRRNDLNQLYEIQKAG--YTNAELLEND-PDNMLRLSYID  
RTRNELLIEKYKGTRRL-----DLQCIYVFGETECGKTKTILDEHG-----DYK---PFDHYAME--  
-D-VLVFDEFERSD--LPIGAMLDYMDIYP---LQLPARYN-NKTACYHYVYLVSNWKLEDQYHDEQLE----HKSSWAAF  
LRRIKKV----

>pCRESS3\_AKO38848

FLTVPAEGEGVSRDE-----LEQALEPEQGKG-TNQYRHWQLLVHPEPVRVST---LRRKLPT-----AHLEPVR-  
DLR-A-----SLAYVQKGGP-----QGHRSDDLTLRSRILDGQETADELILSDTGA--WRHSRLVG  
DLVSARDRSRQEK--LR-----DVQVRVVFVGDGTGKTSAAALSGL-----QHWAT---FDGYDQG--  
-D-SLVLDEFAG--QPPLTELLTWLDVFP---VTLNARYR-ARQAAFVRVVLCSNAPPWTWYPWAPKA---Q---RAAL  
ARLHLV----

>pCRESS3\_KFI81686

MLTVPAEDHTQDEVRE----TLFERISTHETGA-TTGYEHFQCFLQMKSPMRFST---LKNHLTG-----AHIEPRHG  
SVE-D-----CVAYCTKKDR-----QGRRSDLIAFREQLDGLD-VPVQQVLLDDTEAKAAHCTKWLN  
AFSEACARQEYGN-KLR-----DVSVHYLYGAPGVGKTRYVYDR-----YDYAP---FDEYDRH--  
-R-VLVLDYDYS--QLPWEQLLSYLDIYP---VTLPARYH-NHQACFDTVWIIISNLPLTAQYDPDITGA---R---RLAL  
LRRITDC----

>pCRESS3\_KFI87454

MLTVSAE-QNEITEA-----DLVDAFEDREEGG-HTGYRHYQLFMQATSRIRLST---VRARLEK-----NYIEPRRY  
SVA-S-----CVAYVSKHED-----QGKRTDLEELRDAVVKG-ASVNEILN-DPSLKAARFMPWLE

KMVGARQAARFSQ-EDR-----EVTVHYLWGGKPLGKTRSVLDG-----NYEP---FDDYSGQ--  
-S-TLVLDEFAG--QLPFQLLNVLDRYP---CKLPCRFB-DTWAGWTTVWIISNKPLERQYQDVEPQ---V---RAAL  
DRRITTN----

>pCRESS3\_NP\_613078

LLTIRRELPDERTVDDVVN-ALQGIFDAEKGE---GYRHYQIFAQGK-RQRFST---LKKKLT-----AHVEPRKG  
SVS-E-----AVGYCSKHEKESH-----QGERSDLARL-KARAAG-ETVSQILLSGELAARYLGWLR  
ATCDAQAQAAKYRTKVRD-----DLEVNFLYGETGVGKTSHVYES-----EDYAA---FDKYEGE--  
-G-ILLLDEFTG--QFPMPLMLKLLDKWP---MQLPARYS-NRWAAFSRIWVVSNLPPNNLYSYAPES---Q---RRAF  
FRRFA-----

>pCRESS3\_WP\_002529618

MLTLPEEYYSRDIVE-----DKLRSESGK--ESGYRHFQIYVENKNAIKFET---LRSKFPR-----GHYEPRRE  
SKS-Q-----CLKYCTKDRL-PR-----TKRDIS-AEISEKMKEN-VPASTLIQDPRY-AQFLKYIEAL  
ETIR---LKNLGLDRD-----ALEVHYLYGSPRVGKTYKILHGLN-----YNFKP---WDNYEGQ--  
-S-VLLLDEFAG--QISFEFLQVLDKYQ---LELNARYR-NKWACWTQVWVSNLPMESLYRRVSPE---Q---WRAL  
CMRFTSY----

>pCRESS3\_WP\_016667133

MLTIKAD-FTREEVE-----EKLKKECGE--ESGYLHWQVLIENKTAIKFET---LKNKFRT-----AHCEVAKN  
-LF-A-----CRKYVSK---PE-----TKEGDAVSDLRHAIFED-KSADELILSDGRYRPYVAYAKEL  
ERIR--DASKFGSP-RT-----SVNVRYLYGAPGVGKTWGVYDEFG-----YTYIP---WDEYQSQ--  
-R-VLLLDEFDG--QIEFELLKVLDIYP---LTLPCRYQ-NKYAAWDTVIMVSNPLESLYRRVSAS---K---WAAL  
LRRINVY----

>pCRESS3\_WP\_021975256

MLTISAEKHTRQDVE----ELLDILG-QEEGG-KSDYPHFQAFLQLQTPVHMGT---LKNKFCK-----AHIEMRKG  
TVQ-D-----CVDYCSKKDQ-----QGSRSDLAELRRQIMDG-ASVSEVLLNDDACQAARYTRYLS  
ELATARDRVKYGR-QLR-----DITVHYLWGDGPGVGTGYIDN-----NDYRP---WDEYEGQ--  
-S-ILVLDEFDS--QFSWDQLLVFLDRYP---VMLPARYN-NHVACFTTVWIISNEPLSKQYPERTGE---K---RNAL  
LRRISTN----

>pCRESS3\_WP\_022856850

MFTLKIENDSTLTLLG---MLGSWOTHERGSKS-GYDHFQG--FLRCKSSNRFST---VKNHFIK-----VHIEARKG  
SPR-Q-----AYDYCTKLDLAT-----GKRNDIEDAR-ELISG-LTPRKIMLADSEGRFAHLTTYIE  
TYYQARLSNEYATK-ER-----DVLPIYLYGETGSGKSRWVADN-----LDYTP---YDGYTDQ--  
-K-ILVFDEFHS--QRPIEMLRLLDPYP---VELPARYH-NKQACYRLVIVISNFPLATQYET--AE---Y-PQ-RAAF  
QRRFSNS----

>pCRESS3\_WP\_023022037

MATISAEKH---REE-----IEEALEE---KG-EEGYRHWQLLDGNSPIRFST---LKNKLPT-----AHLEPRRG  
PIQ-Q-----AIEYATKGE-----RGRKDVIVREAVEKG-LSVDEIFLQVPEA--ARMTSFVE  
RLVAARERAQNSA--PR-----EVEVMWLYGPPGTGKTSLAVD-----IDYSP---FDSYAGE--  
-K-TLILDEFDG--SMPLSLVLNILDVWP---MSLPARYA-NKAAAYTQAVMVSNEPWSYGLWEPAS---R---RQGL  
ARRIDTI----

>pCRESS3\_WP\_025221073

CVTLEASS---ITLEDYVD-HVREFFDAELGEH-TTGIPHIQAFFQGK-PKRFST---VVRFLES-----PYVDKRRG  
TVK-Q-----AVSYAQKRES-----QGKREDLLDLRKMVDAG-LTVDEILLEDVEGKAARYVGWLD  
R-LVAARDAKKMSELQR-----DLHCTFIWGTGVTGKTRYALEQG-----RDYRP---WDMVDDT--  
-D-VIVCDEYNG--QLDLTEFLTILEGYG---ASMRARYR-NRWPNYVYVLSNTALNEMYSYEPSE---R---RRAL  
FRRFDRI----

>pCRESS3\_WP\_033495900

MVTIASKYVCDWSVILD---ELNDMTAYAEEGT-GKRGMRHGHFIVYTPRMRMGT---FADHFPT-----AHIDPVER  
TPK-V-----VERYVTKYDVTDESEGF---PAGQGKRTDLKDAVKKVLAG-AIPDMLMRDDP--KLIAYDRYLD  
RAYEIAMK-EKGRK-MR-----DVHTLYVYGETGVGKSAWLYGKRHNRYR-LTDYAP---WDNYRGE--

-S-VVIVEDFDG--RMRLDDVLRWTD RYP---VELTARYA-NKHALYTTVIFTSNRPMMSGWYGY--DE---FEPK-QGPI  
NRRVSTVCASL

>pCRESS3\_WP\_036342632

MLTIPASKFDKKEVE-----NRLKKEKGKT-DTEYLHWQVFVHGTAIRFDT---LRNKFDQ-----VHLEPRCG  
TIL-D-----CINYVTKDGN-AR-----TKSRISNEEIYQEISGK-TAGQIINDHPELGMQFLK-IKAL  
ENIKEEQFRGLQTEDRE-----NIEVNYLWGPPGAGKSWHVLNEAG-----YGYQV---WDNYQGG--  
-R-VLILEDFTG--QIGIEELLQVTDIYA---TELDARYS-NHYAGWEVWVWISNLRLLD DLLKKYPKE---L---RPAL  
VSRITNV----

>pCRESS3\_WP\_043170238

MLTIRAEGHTEDDVK-----ALFEKIGVREIGG-KTEYEHFQCFLQVKTPMRFST---LKNHLTD-----AHIEPRRK  
TVE-D-----CVNYCTKKDK-----QGQRSDLIGFREQLGG-MSVQEVLLGDTEAKAAHCTRWL  
ELEAAYVRKEHGG-KLR-----DLDVHYLYGAPGVGKTRYVYDK-----YNYKP---FDEYNRH--  
-K-VLVLDEYDS--QLPWEQLLCYLD RYP---VTL PARYH-NHQACFTTVWISNLP LSAQYPDIVGE---R---RFAL  
IRRLTDC----

>pCRESS3\_WP\_052119337

MLRISKIEDYEDIEWSDICSAFH DAYGSLEKGT-KTG YLHFQVLLITKYEKKGQA---IIDAIK-----GGTEKLRK  
NIY-A-----GVRYTSKGEQT-----QGARN DLNELRRAIDDH-MTVDDILRDPDSIKSARYVSWLD  
RLQRANSVTPHEATEQR-----DVKAHYLYGSPRIGKTRLIYDN-----IDYQP---FDSYVGQ--  
-K-VLVLDEYDS--QFPITSINFLDRY G---CELPARYH-NSWANWDEVWVISNLPINSQYSDDNTD---K---KNAF  
IARFTDI----

>pCRESS3\_WP\_052825216

MLTIPAGRHTEDDVA-----ELLERICSREKGE-ETDYEHFQCFLQIPSPMRWST---LKNHLAQ-----VHIEVREH  
SVE-S-----CVNYCSKQDQ-----QGKRTDLSDLREKILNG-ASVEDVLEDTESKSARYVKWLS  
ELAAARDK KKYGR-QMR-----NVEVHYLWGAPGVGKTSYVYER-----YDYQP---FDEYDRQ--  
-P-VLVLDEYDS--QFDWEKLLCYLD RYP---LMLPARYH-NRQACYTTVWISNLSLDEQYPLVQGE---R---RLAL  
TRRLSDV----

>pCRESS3\_WP\_055838650

MLTLPES-EDQAEIE-----KRLGKEAAP--TTGYLHWQLYLETKSALRFST---LRKLFK-----GHYKPAR  
D TRI-Q-----CVRYCTR--T-LK-----QGKRTDLDSYSEQILEG-KSADEVIHDDPRAVIYASHLWQL  
ELIR---DRETWGKKFR-----ELEVHYIHGGTRTGKTSALFETYG-----YNWKP---FDGYRGQ--  
-D-ILLLDEYNT--SVP MVDLLK LLEGYP---LEVSARYS-DKIAKFTTVFIVSNLELSEQHQTIQHE---HPKQ-WAAL  
GARLTSV----

>pCRESS4\_CBL40434

MQYEYNPTEDLHF-NRVIMKALAHK-----TDGTPKAPHWHVYIYCNP AKSLDD---ISKWFGVPT---NMIE-LKV  
GSFLDC-----AEYF THEK--QPRDEKR---AKYDIQFRDLQR--VDVLNFGKTLKQCKIDDP-VLYVKEMQILK  
KCRLEY-----LYTQP-VP-----KSRMNIYVTGQGGVKGHTCKALARAFT---IGAKNATFEGYDGG--  
-PVIIWDDRRDYELGRE--NVFNVD TTP--QNL RQNIKYGSVKLLNAINIVNSVQPYTEFLDGL EYKA-  
KDKSEDKQQS  
YRRFPFC----

>pCRESS4\_CDA18875

VTDVKHPTEELIN-KKIDTVLKSHASTY---TDGDIKPAHFHVVMRFARAQELDS---LSEWFGIDK---NFFE-KKK  
GSFFDS-----VLYLTHQSD-KECEINK---EKYNICIKDKLR--LDVLYNGMSIRQVKKNY P-MEYND DMEGLQ  
KRRGDY-----LKDAP-LP-----PYRISFYISGSGGAGKGLFSEALARACY---VGS DSVCFENYDGG--  
-PVLIWDDCRHNKLD RG--TIFNVFDTKP--KRISQKKKYSQTNL INPINIVNSV EPINGFLDGLQYYD-KSEAENKAQS  
YRRFPIC----

>pCRESS4\_CEI31812

TQNERYLTRV LMS-ERIGKAVGKKGMQY---TVGHRKADHFHIAVRRKSFSTLGQ---IARAFGVPP---NAVEI-KP  
-AFMDL-----IEYLTHEHP-NQHKLAR---AAKAGSLKKRDAVREAVMLGEMTLKQVREDER-AIYIQDL DKLQ  
KLRQDF-----MLHQP-AP-----RHRTNYYIGSPAGTGKTQLAKLFARMHV---ATDARVPLQNYKGG--

-PVIIWDDYSVPALSRE--GVWQVFDDHP--SASDVNIKYGSVRLVHAVNIIAKTTPYAEYLDGLEYTD-  
ASEAEDRNQS

WGRFPVV----

>pCRESS4\_CRY93789

MQYEKHPTEKLID-EVIK-VALAHKSVY---SLGETKPKHWHIVCRCQAAVEVST----IARWFKIPE----NFVD-VPK  
GAFDLC-----VEYLTHERE-EQRAEKR---LKYDTPKTAMW--YDVMFNGLTLKQALERDR-WAYMEMLEKLK

KARLDY-----ISRMN-PP-----DTRINYYVEGKGGVVKGLISRARSFE-----VGAKGAPFEGYDQG--

-PVIIWNDRRAYELGRG--NVFNVDSDHP--TKQRQNIKYGSINLCNEVNIVNSVQPYAEFLDGLYED-

KNGVEDKQGS

YRRFPFM----

>pCRESS4\_CRY97508

LQYEKNPTADLHF-TENILKCVAHKSVV---TEGQPKGVHWHIVLETAGLMPVST----IARWLGPIE----SMVE-IPK  
GAFIDC-----VEYLRHSDI-RQMVLK---TKYPLSQADFLK--NEVLYNGMRLAEVQERYP-SIYMKEQTVFD

RLRMKY-----LVERAPLP-----ASRINFYIEGLTGYGKDTMARSARGFE-----IGGKVTTFDSYDQG--

-PVIIWSEFRAEALGYE--EVLGAIDIIP--KNNRHKKFGAVKLINSVNIVTSTEPYAEFLKGLE-----SDPDPSQA

NRRFPLI----

>pCRESS4\_GAC78794

MQYRKNPSVVMLT-QQIDQGIKTLGGRR---LVEGVKGLHAHMVLWVAPRPSIRT---ISDAFAIPS----AVVRTPKK  
GAFYDL-----CEYLPHEsr-GSHMATR---HNAATDGAKLSKLYQAVGSGSLTLRQVREREP-AIYFAKIAHLQ

KCRDDY-----LLRAP-LP-----PFRNTYYIGGPARTGKSLYAETLARQYM-----VGRPGVAFQSYDQG--

-PILIWDDYRPLAIQRD--SIWPVLDIDP--KRVQVNKKFGAVSLLNSVNIITGIQSYVEFLDGLYTD-KKEVEDKDQA

YGRVPLV----

>pCRESS4\_WP\_000186194

IQYENNPTESLNFDENILNALAYFISHVI---TEGKPKGTHYHVVMELTNPASISA----IAKRFGVPA----QYVE-VIE  
GAVLDC-----IAYLTHEDA-KQVDNQK---AREALTKRADARVIEKISQGMTLSQVYEFDN-VMAVENKNLKF

TARQEY-----LKNAP-VP-----PVRTNYVYVYGGGTGKSLSAKVLARSFV-----VGDGAVPFDGYDQG--

-PIIIWDDWRALHFDRS--LVWKLFAINP--ERISVNVKYGSTSLINAVNIVTCVDPYLFMEELEYTD-KRKKEDSRQA

FRRFPFF----

>pCRESS4\_WP\_000818357

VQYEFNPTEDLHFNEVIKNAILNKETKY---VEGDVRPPHWHVLLKFKNQIEFST----IAKLFNVPE----NLVE-KKT  
GAFFDY-----LYYMTHEDD-KQVDIRE---DRRAK-KLSKVEVFLDKLTSGMTMKQVFERDS-VVFAENATLFR

RARRSY-----LKYAP-TP-----LVRTNYHISGAGGTGKTLIAKSMARAFV-----VGDGRVAFDEYDQG--

-PIIIWDDFRAKAFERG--TMWKIFAIHP--DKVSVHVKNGETTLINTVNIITSVEPFTEFVNGLAFKD-N-KSEVDVGOA

YRRFPIF----

>pCRESS4\_WP\_005464724

MQYREHPTEVMLT-QQIDEGLAALGDRR---LVEGIKGLHAHMVLWVAPRPTIRT---VSDAFSIPS----ARVKPPKK  
GAFFDL-----AEYLPHEsr-GKHMAMR---RNAAER-AKLSKLFQAVGKGSLLTKQVRDQEP-AIYFAKLAHFQ

KLRGDF-----LAYQD-AP-----ESVMNFYVFGGGTGDLLAKALARAFK-----VGGENVSWEGYDGE--

-PVVIWEDTRVGTASRG--MLFRILEPDE--K-PIVNIKGSKTQLLNRVNIVTGPEGYEEFLRGLEYES-MQQAENLGQG

FRRFPVI----

>pCRESS4\_WP\_006681830

TQNLSHPTQLIT-TQVGKALAKKGVVY---TSGSPKAPHVHVVIQRSSFASIAQ----VARAFGVPP----QCV---EP

-AFLDL-----VEYLTHENP-KQHKIAR---QEKGLLQRRRKEAALKVAGGEWSLDHVRKHDL-ELWSAPMSHLK

GLRADY-----LASLA-PP-----LEVNFYVFGPGVVKDLLAHALARSFT-----VGGSNVSFEDYDGE--

-EVIIWSDFRASACDRG--LLFRVLDAS---EKVIVNVKGSHTQLVNRVNIVTGPDYKTFNLNGLEYAT-NRTSENKDQA

YRRFPLI----

>pCRESS4\_WP\_007889993

MQYCKHPTEVLIT-EQIK-SLFDRTDF---DEGDKKPPHFHVFRTRDNTDLET---VADWLGIPV----QYVDGARD

GTFVDL-----LRYLTHESE-KEADIRE---ARYSP--KDYR--HKVAYEGMSISEVIAENE-DAYLKDMTFLD

KCRSKY-----LAAFAKMP-----DLRINIYLDGAGGIGKNTASKAIAHVFE-----AGGANTSFEGYDGE--  
-PVIIWDCRSTRFERN--ELFDILDPHP--TDARHNIKFGSVRLTNPINIINGIEPYNKFLDGLAYVD-KRSGEDSSQA  
YRRFPPII----

>pCRESS4\_WP\_017824301

TTDCVHPTEVLLT-VTIEKRLSKSSVCF---TEGEHKPDHFHVVMQLKNQASVGQ----VARGYKLHP----GCVRK-KE  
GTFLDC-----IEYLTHEHE-KQRVAAR---KQGFHAAKK-MKIRLAVMNGQMTLKQVREDEP-GVYVQDLEKLQ  
KLQQDF-----RLHQP-AP-----RHRTNYFIGGMAGTGKTQLAKLFARTYV-----ATDPRVPLQNYKQG--  
-PVIIWDDYNALALGRS--GVWQVFDDHP--SATDVNIKYGATRLVHTVNIITKTPYAEFLDGLLEYTD-  
KSKAEDRNQS  
WGRFPVV----

>pCRESS4\_WP\_021639163

MQYEHPTDELLT-EKIKSVVAKYKSVY---T-GTKKPKHFHIALKMKNCIELDT---VAKWFGILP----NYVE-IPK  
GAFLDC-----VQYMTHERT-EQRDEMCK---AKWELSDRQVMG--QRIMLEGLTLRQVKAEDP-LLYADNLEFFR  
KMRGVY-----LSDLE-PP-----KTRINYLYCGDAGAGKGVMSKAVARAFE-----VGADNALFEGYDQG--  
-PVLIIWHDRRAGELGRS--NVYVNFVDFTHP--SKQRQNIKFSSVGLINRVNIVNSVQPYVEFLETAKDD-NDGAE-  
KSQA  
YRRFPPII----

>pCRESS4\_WP\_043534193

MQYHQHPTEVIFT-QQLDEGLAALADDR---LVEGLKGLHVHIVLWFKPRPTVRT---VSDALTVPS----PRVRVPNA  
GAFYDL-----CEYLCHETR-GAHMATR---HDAEAG-AKLSKLFQAVGQGTTLTKQVRDQEP-AIYFAKLAHFQ  
KLRGDY-----LAYQD-AP-----ESVMNFYVFGEGGTGKDLLAKALARAFK-----VGGDNVSWEGYDAE--  
-PVVIWEDMRVGTASRG--MLFRILEADE--K-PIVNIKNSKTQLLNRVNIVTGPDYEEFLRGLEYES-  
MQEAENLGQG  
FRRFPVI----

>pCRESS4\_WP\_044572803

VQDEKHPTAILLT-RRIEKVLAKRPNQY---TDGEYKVPFHIAEKRKNEASVGQ----VARAYDVAP----QYVRV-KP  
-AFLDL-----VDYQTHGLE-RQRVAKR---INSRQKTPIDKLAMRIQEDGLTLRLAKEEDP-LSFNRAPGRME  
KSRATY-----LRHLP-PP-----SSRINFYFEGEGGVGKDLLAKALARTFS-----VGGENVGLDGYDQG--  
-PVIIIFEEARAGSMGRK--ELFAFMNPF--EKQSLNVKYGATQPVNTITIFTGPDDYDTFLDGLFID-KSKAENKPQA  
RRRIPII----

>pCRESS4\_WP\_052038917

TQNLSHPTQLIT-TQVGKALAKKGVVY---TSGAPKAPHVHVVIQRSSFASIAQ----VARAFGVPP----QCV---EP  
-AFLDL-----VEYLTHENP-KQHKIAR---QEKGLLQRRRKEAALKVAGGEWSLDHVRKHDL-ELWSAPMSHLK  
GLRADY-----LASLA-PP-----LEVNFYVFGPGGVGKDLLAHALARSFT-----VGGSNVSWFEDYDGE--  
-EVIIWSDFRASACDRG--LLFRVLDAS---EKVIVNVKGSHTQLVNRVNIVTGPDYKTFNLNGLEYAT-NRTSENKDQA  
YRRFPPII----

>pCRESS4\_WP\_067940518

MQYREHPTEVMLT-QQIDEGLAALGDRR---LVEGIKGLHAHMVLWVAPRPTIRT---VSDAFSIPS----ARVKPPKK  
GAFFDL-----AEYLPHEsr-GRHMAMR---RTAAES-AKLSKLFQAVDKGSLTLKQVRDQEP-AIYFAKLAHFQ  
KLRGDF-----LSHQD-AP-----ESVMNFYVFGEGGTDKDLLAKALARAFK-----VGGENVSWEGYDGE--  
-PVVIWEDMRVGTASRG--MLFRILEPDE--K-PVUNIKGSKTQLLNRVNIVTGPEGYEEFLRGLEYES-  
MQHPENLGQG  
FRRFPVI----

>pCRESS5\_WP\_014735272

SYTYQNNNT-EDAFREKIIRLVKALCTH--IDQNGELKSLHAHIYFEFKNSRFYSS---LFKTLEISRD----KNLQVVKD  
K-----AKVCRYLTHRNEKDSKRADK---KKSEEEIDCYLEISYQICEQGLLLNQAFEEFDQQLWNRNKKQFE  
INRQEY---IDKEFVRMSKGN-----RNHIGLYIQSGGTGKTTLARFLAEEQ-----HAP-STDFGSGYDQG--  
-RTIVINEFDASGISFR--ELFQILEPDA--VTQLSSRFKDAHI-INDLTIMTNSDDFIEWADAWKKKE-YHQLMRRIPF  
FVKLNG-----

>pCRESS5\_WP\_017368666

NYDYEHD--TKEQWKEKITQLIASNVS--LLTDGLPKPLHVHILVGFENGKTQTA---VMKIFNVS RP----KNCQHTNT  
I-----AGSARYLTHRTEQA-----EKVNNIDEFVAELSEKIYLGKLYPTNIFKEFDDRLYKKYRKEFE  
KDFQEY---LQHKGEEYKIKG-----RDLATIYWGVSEGGKSHIAKRMGLLH----LIPASGDPSGLYQGE--  
-EVSIFNEISGKEFNK--EFLGLADPRN--YSPINSRGKDKHW-LASYLFLTSTDSRETFIKNLSFEQ-RQRHEIARRV  
PYEIRCV----

>pCRESS5\_WP\_018166163

SYTYQNDT-EEAFREKIIRLVKTLCTH--LDENGELKSLHAHIYFEFKNSRFYSS---LFKTLEISRE----KNLQVVKD  
K-----AKVCRYLTHRNEKDSKADN---RKSEEETDFCLEISYQISECGLLLKQAFEEFDQQLWNRYKKQFE  
INRQEY---IDKEFIRMSKGS-----RNHIGLYIEGSGGTGKTTLARFLAEEQ-----HAP-STDGSGYDQG--  
-RTIVINEFDASGISFR--ELFQFLEPDA--VTQLSSRFKDAHI-INDLTIMTNSDDFIEWADAWKKKE-YHQLMRRIPF  
FVKLNG-----

>pCRESS5\_WP\_024382134

SYAYQNDT-EEAFREKIIRLVKALCTH--IDQNGELKSLHAHIYFEFKNSRFYSS---LFKTLEISRD----KNLQVVKD  
K-----AKVCRYLTHRNEKDSKRADK---RKSEEEIDFCLEISYQISECGLLNPAFEEFDQQLWNRYKKQFE  
INRQEY---IDKEFIRMSKGN-----RNHIGLYLEGSGGTGKTTLARFLAEEQ-----HAP-STDGSGYDQG--  
-RTIVINEFDASGISYR--ELFQILEPDA--VTQLSSRFKDAHI-INDLTIMTNSDDFIEWADAWKKKE-YHQLMRRIPF  
FVKLNG-----

>pCRESS5\_WP\_024389873

SYAYQNDT-EEAFREKIIRLVKALCTH--IDQNGELKSLHAHIYFEFKNSRFYSS---LFKTLEISRD----KNLQVVKD  
K-----AKVCRYLTHRNEKDSKRADK---RKSEEEIDFCLEISYQISECGLLNPAFEEFDQQLWNRYKKQFE  
INRQEY---IDKEFIRMSKGN-----RNHIGLYLEGSGGTGKTTLARFLAEEQ-----HAP-STDGSGYDQG--  
-RTIVINEFDASGISYR--ELFQILEPDA--VTQLSSRFKDAHI-INDLTIMTNSDDFIEWADAWKKKE-YHQLMRRIPF  
FVKLNG-----

>pCRESS5\_WP\_024390948

NYKFEHDDTEDDWKNEIKKQFEAVSDP--IDTDGEKKALHVHFVARFENAIYYDT---TIEKFKCEP----RNFEKGRS  
E-----TSALLYLTHTTSEAE-----GSNK--DEDVARIIDELSEGLMTIDDVKQAFD TMTWMKNKRYFK  
EAVA EY---YQNKYYDWLEKG-----RTFQLVYIQGSSGIGKTSFAREIGKEH-----NAPNDTDFLSGYENE--  
-AVTVFDDL RPNTFGYT--EFLNLFEKER--VSKYSSRFNDKAW-FAEVAVITKSTSINDWTSKLELKS-ASKPNVLYQP  
RRRFSLI----

>pCRESS5\_WP\_024393234

NYDFEHSDSKDDWKEKIKKELFEID---IKESNELKALHCHFVIRFNNPRSYSN---ILELTKCEE---RNFERSTN  
E-----GAILRYLTHTTPEAI-----GKKEKVVDFVNDLAYRLSVGEFKPINAI AEFQSIYRKEKKKFKFQ  
EDYADF---LETKKKDLLLNG-----KELSTIYIDGFSEVGKSTFAQDLANAY----LA AKKKDWISKYKDE--  
-YITIFNDVDPYDFNFT--YFLGTFETKI--LVDVGSRYKDKTW-FSEYAIITKSTDIHEFVNKIELRE-DNHFNIRYQV  
QRRFSLI----

>pCRESS5\_WP\_024399566

SYAYQNDT-EEAFREKIIRLVKMLCTH--LDENGELKSLHAHIYFEFKNSRFYSS---LFKTLEISRE----KNLQIVKD  
K-----ARVCRYLTHRNEKDSKRADK---RKSEEEIDFCLEISYQISECGLLNPAFEEFDQQLWNRYKKQFE  
INRQEY---IDKEFIRMSKGN-----RNHIGLYIEGSGGTGKTTLARFLAEEQ-----HAP-STDGSGYDQG--  
-RTIVINEFDASGISFR--ELFQILEPDA--VTQLSSRFKDAHI-INDLTIMTNSDDFINWTDSWKKKE-YHQLMRRIPF  
FIKLNS-----

>pCRESS5\_WP\_024408358

SYEYENNT-EDDFKQSVEKRIKELCQN--INEDGTPKYLHVHFVIIFKNAHSYQS---VYNALKISRQ----ENLEVVR  
S-----IKACRYLTHRNERNIKNHST---EKSEEVD EYCIELSYLISSDGLLPQEA FEQFTQKAWNTNKRTE  
ENRLEY---IQQEFEHMSRGE-----RNHNGIYIQGDGNSGKSFLARLIAEQ----HVP-SIDLGSGYKQG--  
-KTMINEFDASGMAYR--ELFQILEPDS--ANQLSSRFKDAYI-INDMTIITNSESYWDWVDDWKKKE-  
WHQLMRRIRY  
VIKMDQN----



>pCRESS5\_WP\_029171254

SYEYENKT-EDDFKKSVEKRIKEYCQH--INDEGTLKPLHAHFYIEFKNARPFSP---VYKALKISRE----ENLEFVRS  
S-----IKACRYLTHRNERNIKNHNSK----EKSDEVDYCLELCYQISSEGLLPPEAFEQFTQKAWNTNKRQFE  
ENRQEY---IQKEFERMSRGE-----RNHNGIYIHGLGNSGKSFLARLIAEQA-----HTP-SIDLGSGYKGGQ--  
-KTIINEFDGSGMAYR--ELFQILEPNS--ANQLSSRFKDAYI-INDLTIMTNSETYWDWVDGWKKRE-YHQLMRRIRY  
VVKMDQN----

>pCRESS5\_WP\_029176301

NYKFEHDDTEKDWREKVSQELENV-----IDTDGEKKALHVFHVARFANPMDYEP----TREKFGCEP----RNFEKGRS  
E-----SSALLYLTHHTPESA-----GSLK--DDDVASIIDELAEGTMLLTDVKQRFDTMTWMKNKRYFK  
EAVA EY---YQDKYLEWLEKG-----RTFSLIYLEGPSAIGKTKFANKIARRH-----NAPNDTDFLNGYEQE--  
-VVTVFDDLNPKTFGYT--EFLNLFEKER--VAKYSSRFNDKAW-FAEVAITKSTSIDSWTTSLELKT-DKTANILYQP  
RRRFSLI----

>pCRESS5\_WP\_033583888

SYEYENKK-ECDFKKSIDKRIKALCKH--KKEDGTPKCLHVHFVIFKHAHSYQS---VYKSLQISRE----ENLEFVRS  
V-----IKACRYLTHRNERNIKNHNSK----EQSDEVDEYCLDLSYQISSDGLLPLEAFEQFTQKAWNQNKRQFE  
ENRLEY---IQKEFERMSRGE-----RNHNGIYIQGSGNSGKSFLARLIAEQA-----HIP-SIDLGSGYKGGQ--  
-KTMINEFDASGMSYR--ELFQILEPNS--ANQLSSRFKDAYI-INDLTIMTNSESYFDWVDAWKKRE-YHQLMRRIRY  
ILKMDYN----

>pCRESS5\_WP\_038978316

NYEYDHEA-TEHEWRKQMVDMFTAIQD--VLPNGDKKGLHVHFVIKFNPRVIRS---IMKTFGISRT----ENISKVKS  
V-----KGSLSYLLHITKQAK-----DDKDIIVEEVLVSVTSLREKGEMAD--YKKFPSDIYNYTTKRE  
YAEREY---FADKLRYNKHHG-----RWLRNLYITGKGGTGKTTLANGLGYAH-----VGAAKSDPMGTYKNQ--  
-KVTILNEMQGSFLDYR--EIMNVFDDHQ--QAPVSSRTKDINW-TADYLIMTSSKSFERFRNETELPT-GQYKDVAFQF  
TRRFSNY----

>pCRESS5\_WP\_039694423

SYEYENNT-EDDFKKSVEKRIKEYCQN--TNNDGTLKTLHAHFYIDFKNARPFST---VFNALKISRQ----ENLEFVRS  
S-----IKACRYLTHRNERNIKNHNSK----EQSEEVDYCLELSYQISSEGLLPLEAFEQFTQKAWNQNKRQFE  
ENRQEY---IQKEFERMSRGE-----RNHNSIYIQGDGNSGKSFLARLIAEQA-----HTP-SIDLGSGYKGGQ--  
-KTMINEFDASGMSYR--ELFQILEPNS--ANQLSSRFKDAYI-INDLTIMTNSEKYWDWVDDWTKKE-  
YHQLMRRIRY  
IHKMNHN----

>pCRESS5\_WP\_044771983

SYDYENST-EVDFKQSVEKRIKALCSN--QKDDGTPKPLHAHFYIDFKNPRAYSA---VFKALSISRQ----ENLEAVRS  
S-----IKACRYLTHRNERNIKHNSK----EKSDEVDYCLELSFQISSEGLLPLEAFEQFTQKAWNQNKRQFE  
ENRQEY---IQKEFERMSRGE-----RNHNSIYIQGDGNSGKSFLARLIAEQA-----HTP-SIDLGSGYKGGQ--  
-KTMINEFDASGMVYR--ELFQILEPNS--ANQLSSRFKDAYI-INDLTITNSENYWDWVDDWKKKE-YHQLMRRIRY  
VIKMHQN----

>pCRESS5\_WP\_046467524

SYDYDTVA-TPDEWMDKIIAQFKKEGA--YLPDGTLSLHVHIVHFKNPRTVGA---VYKAFGVSRF----ENISKAKS  
I-----KGALKYLLHITPQAKNQEEA---EERKRVVIARCKSLTLDIATKGTAPGEWWEDFESDVYVNYKKKFQ  
EMEKEY---FYRLTQKKKREG-----RDLRNIFVSGEGNSLKSSVAKEIALRH-----IASPPSDFVSLYKNE--  
-KVSILNEMVSDAFNPR--EFMNVFDDFQ--IGSVSSRFKDAYI-LADKTVMTTSDTFSEFRSNT-----KDVFYQF  
SRRVEHY----

>pCRESS5\_WP\_049478725

SYEYENKT-EKDFRESVIQRIHDYCKN--LKDDGSSKPLHAHFYIDFKHAHTYSS---VLKALSISRK----QNLEFVRS  
S-----IKACRYLTHRNERNIKNHNSK----EKADEIDDYCLELSYLISEEGLLTTEAFEQFTQKAWNSNKRQFE  
ENRQEF---IQKEFIRMSKGE-----RNHTGIYIQAEGGTGKSYLARLLAEEA-----HTP-SIDLGSGYKGE--  
-KTIVINELDASGMTFR--ELFQILEPNS--ATQLSSRFKDAYI-INDLTITNSDYWDWCDSWKNKE-YHQLMRRIRY  
VIKMDKN----

>pCRESS5\_WP\_049481849

SYEYENKK-ECDFKKSIDKRIKALCKH--KKEDGTPKCLHVHFVHFKHAHSYQS---VYKSLQISRE----ENLEFVRS  
V-----IKACRYLTHRNERNIKNHNSK---EQSDEVDEYCLDLSYQISSDGLLPLEAFEQFTQKAWNQNKRQFE  
ENRLEY---IQKEFERMSRGE-----RNHNGIYIQGSGNSGKSFLARLIAEQA-----HVP-SIDLGSGYKQG--  
-KTMIINEFDASGMSYR--ELFQILEPNS--ANQLSSRFKDAYI-INDLTIMTNSSESYFDWVEAWKKRE-YHQLMRRIRY  
ILKMDYN----

>pCRESS5\_WP\_049535277

SFEYENET-EEDFRESVIQRIKDYCKN--LKDDGSSKPLHAHFYIDFKHAHTYSS---VYKALSISRE----QNLEFVRS  
S-----IKACRYLTHRNERNIKNHNSK---EKADEIDEYCLELSYQISEEGLLVMEAFEQFSQKAWNSNKRQFE  
ENRQEF---IHKEFIRMSKGE-----RNHKGIIYQAEGGTGKSYLARLLSEEA-----HTP-SIDLGSGYKGE--  
-KTIVINELDASGMTFR--ELFQVLEPDS--ATQLSSRFKDAYI-INDLTIITNSDSYWDWCDSWKNKE-YHQLMRRIRF  
VIKMEKN----

>pCRESS5\_WP\_050238550

NYEYEHTESEWKQRILEELFSIS---IKEHNEKGLHCHFVIRFDNPRSYS---ILELTSCQE----RNFQRSTN  
Q-----GAILRYLTHHTPEAL-----GRKEKVTDFVADLAYRLSIGEFKPHTAIAEFQGSIFRKEKKKFKQ  
EDYNDF---LDSKKRDMLLNG-----KELSTIYIEGPSEVGKSVFAQDLANSY-----LASKHNDWISKYKDE--  
-FVTIFNDLDANLFSFT--DFLGTFEQKI--LVDVSSRYKDKTW-FSEYAIITKSSDIDEFVNKLEIRE-DNHQNIRYQV  
QRRINLI----

>pCRESS5\_WP\_053863690

SYTYQNK-EDAFREKIIKLVKALCTH--IDQNGELKSLHAHFYEFKNSRFYSS---LFKTLEISRD----KNLQVVKD  
K-----AKVCRYLTHRNEKDSKRAK---KKSEEEVDCCLEISYQICDQGLLLNQAFEEFDQQLWNRNKKQFE  
INRQEY---IDKEFAHMSKGN-----RNHIGLYIQGSGGTGKTTLARFLAEEQ-----HAP-STDLGSGYDQG--  
-RTIVINEFDASGISFR--ELFQILEPDA--VTQLSSRFKDAHI-INDLTIMTNSDDFIEWADAWKKKE-YHQLMRRIRF  
FVKLNG----

>pCRESS5\_WP\_058211405

NYDYEHS--TAEWKNKIRQLIAFNT---ILEDGLPKSLHVHILKNFKEAKTQTA---VMKMFNVSRE----ANCTNARS  
I-----TSSARYLTHRTSQAS-----DRTIEVDEIVMGLSINIGNGKLYWLKAIDKFDIKLWNKYSRIFE  
KNFKEY---IQHKAEDYKLLG-----RNLTTFFIWGDSEVGKTWLAKCMCLLH-----MVPASGDIAGLYDGE--  
-KASLWNEVSGLELSNK--EFLDRFDPKT--YSPNSRGKDKHC-LSDYFFLTSTDDLETVVNNLEFEI-KRRHEINRRL  
PIEKCI----

>pCRESS5\_WP\_061417941

SYEYENET-EEDFRDSVIQRIKDYCKN--LKDDGSSKPLHAHFYIDFKHAHTYSS---VYKALSISRE----QNLEFVRS  
S-----IKTCRYLTHRNERNIKNHNSK---EKADEIDEYCLELSYQISEEGLLIMEAFEQFTQKAWNSNKRQFE  
ENRQEF---IQKEFIRMSKGE-----RNHTGIYQAEGGTGKSYLARLLAEEA-----HTP-SIDLGSGYKGE--  
-KTIVINELDASGMTFR--ELFQVLEPDS--ATQLSSRFKDAYI-INDLTIITNSDTYWDWCDSWKNIE-YHQLMRRIRF  
VIKMEKN----

>pCRESS5\_WP\_061863770

SFEYENET-EKDFRESVIQRIKDYCKN--LKDDGSSKPLHAHFYIDFKHAHTYSS---VFKALSISRE----QNLEFVRS  
S-----IKTCRYLTHRNERNIKNHNSK---EKSDEIDEYCLELSYQISEEGLLITEVFEQFTQKAWNSNKRQFE  
ENRQEY---IQKEFIRMSKGE-----RNHSGIYQAEGGTGKSYLARLLAEEA-----HTP-SIDLGSGYKGE--  
-KTIINELDASGMTFR--ELFQVLEPDS--ATQLSSRFKDAYI-INDLTIITNSDTYWDWCDSWKNKE-YHQLMRRIRF  
VIKMEKN----

>pCRESS5\_WP\_061866456

NKQYEHQESD TDWKEKVKSETFY LATE--LTS DGERKGLHCHMILEFRNPVTITSLEKFKFEAGKFQS----  
RNVEASKS  
S-----SGSYRYLTHTTDKAI-----RPEK--DEALQEAFKVRTGEIFDEEVRERFTTELVIKNKKFID  
NSRQMY---QKEVFEDMQNNG-----RNLKTFIFISGSSGLGKSRFAKDLARRY-----TAPTAKDFISEYKAQ--  
-DVTIFDDVDAKSFQGFQ--EFLNIFDKDN--ITKISSRYTNKAW-VSHYAIITKASKIRNWIERVEYEK-DKE----VQV  
SRRFDLW----

>pCRESS5\_WP\_067193806

SYDYENST-EDDFRKSVEQRIKELCQH--LKDDGTPKPLHAHFYIEFKNPRVYST---VYKALQISRQ----ENLEFVRS  
T-----IKACRYLTHRNERNVKNHSV---EKSDEVSDYCLELSYKISEDGLLPSEAFEQFTQKAWNSNKRQFE  
DNRQEY---IQKEFIRMSKGE-----RHHNGIFIFAEGGTGKSFLSRLLAEEA----HTP-SIDLGSGYQGQ--  
-KTIINELDATGMAYR--ELFQILEPDS--ANQLSSRFKDAYI-INDLTIMTNSSESYWSWCNSWNKKE-YHQLMRRIRF  
VIKMDTN----

>pCRESS6\_ABJ73998

VQQLEDKHWAENCRPLLEEVVTRLSST--ISVDEPKANHVHFLFKFDKGASLQK----LALAMGIES----QYLEKLKS  
GGYDN-----CQAYLVHAKD--MKSWIR---GRAKQENLSVDWIIAEVLAGQLTKNQILLTDEYKVYQGQHKRKN  
EALDTAGERKSYKTVAELEAGK-----FKKTIVIFVKADSGIGKTALSCKLIGLC-----VTASTNAFDEYNGQ--  
-DILFLDDIRGDSLTVS--DWLKLDPYM--ISPISARYHNKLG-SAKVIIIITSTKHPFKFFENAK----GIVGEDLGQF  
IRRIDYL----

>pCRESS6\_ADX23728

VQQLEKDFWFFEDLIPLLEEIEKRLVSK--LVIEELKASHVHILIKFEKGTTLTSQ----LAYILGIEA---QYIEKAKS  
GGYDN-----LLAYLVHAKD--KQIWFK---GRATKENLSLDYVISEILEGHITKSQVLLTNDYKVYALNQRKIE  
DAFAAYQEKKGFVTIQSLENRE-----FRKTIIFITGKTASGKTSLAKEIISKSC-----ITASTNSFDNYNGQ--  
-EILFMDDVRGYGLTAT--DWLKLDPYN--ISPISARYKNKLG-YAKVIIIASSVEPSLFFHSAK----NYHYEDPSQF  
IRRLDAL----

>pCRESS6\_AEU41945

TQQFKADMWAVVDTARIMKRVAERLYKS--FAIVP-KELHMHAVIELPSKRDLFSF----ISTAIGIRP----EQIEVPR-  
GGREN-----MLAYLVHAKD--VDTWNY---RKATKASVKADWLVEVQAGRVSKETIMLTDDAEVYADNMRAIN  
DAFQYYAERQGFKTLEALRNNE-----FEMSVYYIQGAPRMGKTFFAKKFVNDY-----ETADTQPMDDYAGE--  
-EIVFMDDLRSAMTAS--GWLKLLDPLT--TAPMSARYKNKQK-ATRIVIVITSYLDPFTFFSYVKG-V-GGSNEALEQF  
IGRLSLI----

>pCRESS6\_BAM66968

EQYFDSEFWKSENKDKIFQEIYDRLKF---RKNQQLIDPHVHVYVELPTKRSLEL----VADRIGISQ----HFIDANGR  
NFSFN-----QKAYLIHAQQ--KDDFLK---RSATKENESLDLIFDKVLFQITYDEIMEDDSYRLYANNEQRFI  
SAFNSFSQYKARKTLKALRNCE-----FKLSVVIYIQGNSGIGKSHLAQEIVEKY-----SASSSNPFDEYKGE--  
-EIIILLDDLRPESMERA--DWLKVLDPMN--RSRISARYRNKVI-AARVIVLTNTETAESFFKNIKN-----EDLDQY  
VRRINLN----

>pCRESS6\_CGE81062

VQQLKKDYWFPKNCLPPEKIVEKLEQE--TSVLEKKEEHVHVLLKFENGASLNK----IALATKVKS---QYFEKLKS  
GGYDN-----CLAYLVHAKD--METWIR---GRATRDKLSVDWLVIEQILTQKINKRTIMLSNEYTIYQGQHKRKN  
EALDTAGEHKSRYRTVAELEAGK-----FKKTILYITAESGAGKTQFAKRLIKLC-----VTASTNAFDEYNGQ--  
-EILFLDDIKGDSLSTAS--DWLKLDPYM--ISPISARYHNKMG-SAKIIITNTKEPISFFEHSK----GSVGEDLGQF  
VRRIDYL----

>pCRESS6\_CMU27730

TQQFSNGFWELD-IEKILEEIVRRVSTS--I-VTKPAKSHIHALLKFDKGATLST---LSKKIGLAE----QHLEKAKS  
GGYDN-----LLAYLIHAKD--KLSWLK---GKAKRQYEDIDLLIDNILNESITKNEILLEQKRTLYAVHKARIN  
DTFRTVGEIKGTRTKYELDNEE-----FKKTILFIHGSTGLGKSKFAKELTKDV-----VTAATNIFDEVNGE--  
-EILFLDDVRGDSLSTAS--DWLKLDPFN--ISPISARYQNKMG-AAKVIIIITSSKYPLDFFYDTK----GNDREDLSQY  
VRRIECL----

>pCRESS6\_EOB33201

EQQLKPDFWKKENKIEIFKEIYERVR---ISYTKLVEPHIHGYIEFSNKKDLNV---LALSLGILP----QYIESSGR  
GGKIN-----SKAYLIHAKD--REDFEK---YAATEKDESLDLTLSKIQLGELTYNDVMEDDSAFLFGNNQKQFR  
EGFNFYGERQTFRLKSLERKE-----YQMTVIYIQGSDIGKSELAKNIALQY-----SASSSNPFDNYLGE--  
-DILLDDLRDTRMAS--DWLKLDPFN--SARMSARYQNKLV-VPRLIIMPVYMSPKLFFGRIKA-----EDLNQF  
LRRINFL----

>pCRESS6\_KEQ49321

VQQLENEHWTAENIRPPLLETVTDKLNKE--INVIEKKAHEIHFLFKFEKGASLNR----IALAVGVEP----QYLEKLKS  
GGYDN-----CLAYLVHAKD--MATWVK---GRATKESLSVDWLIKILVGEVTKRNIMLTNEYAIYGQHKRKN  
EALDTAGERKSYQTIDDLESEGE-----FKKTILFIKAESGVGKTLYSKLLITLC-----ITASTNAFDEYNGQ--  
-EILFLDDIRGDSLNV--DWLKLDPYT--ISPVARSARYHNKMG-AAKLIITSTKEPLSLFKQSK----GNTGEDLGQF  
VRRIDYL----

>pCRESS6\_KST89836

TQYQQADFWKIRNQAIFNEIYNRLKL--KNAGELKHPHGHYIEFEKLTIAS---VSACLGIEP----QYVEVPRK  
GGRLN-----CLAYLVHAKN--LEDFFK---YNATKKEIGLDLALQEVQQGKLLREIMRDENALLYANHMNQFN  
DSFNFYGLRNAMLRLDELEQK-----YNLTVLYIQGAPGIGKSFVAREVAKKF-----SASSSNPFDDYYGE--  
-DILILDDLRLQESLQVS--DWLKLDFPLN--TARMSARYRNKMI-VPRLVIVANYQSVEQFFGFSFNKN-----EDINQF  
KRRINFT----

>pCRESS6\_KXT86702

VQQLNEEHWTPENCRLPLEMIIEKLEEK--VSTIETKVEHVHVLLKFEKGASLNR----LALAIQVEP----QYLEKLKS  
GGYDN-----CLAYLCHCKD--METWTK---GRATKEALSVDWLIKILSGEVTKSNILLTNEYAIYGQHKRKN  
EALDTAGERKSYQTIADLEAGN-----FKKTILFITAESGVGKTRYSKLLITLC-----VTASTNAFDEYNGQ--  
-EILFLDDIKGDSLTVS--DWLKLDPHM--ISPISARYHNKMG-SAKIIITNTKEPISFFEQAK----GNMGEDLGQF  
VRRIDYL----

>pCRESS6\_WP\_000044268

TQQFDIDYWETD-IKKILAEIIEIRVNFT--E-LTKPVEPHIHALLKFSKGATLPE---LAAHIGIEP----QYLEKAKS  
GGYDN-----LLAYIIHAKD--QKSWLQ---GRAKQKQEDIDLLDDILNERITKQELLNPSHLLYVVKTRIN  
EAFRAIGEIKGTRTKQDLENGL-----FKKTILFIYGKSGLGKTRLAKELVSLV-----LTAGTNIFDEVNGE--  
-EILLDDVVRGDSLTVS--DWLKLDPYS--ISPISARYQNRIG-SAKVIIIITSTKHPLFFFYHTK----GNDREDSQY  
IRRFDFL----

>pCRESS6\_WP\_000201649

TQYFDPKYWELN-VEKILEEIVRRVGT--I-GTKLKKPHIHALLKFEKGATLTD---FAVQIGLKP----EYLEKAKS  
GGYDN-----LLAYLIHAKD--HLSWLK---GKAKKQYKIDILLIDNINGNITKEMLLNKDHMLYAVHKSQVN  
EVFRTIGEIKGTMTQHELENK-----FKKTIFIFGLSGLGKTKFARTLTKSV-----LTAGTNMFDEVNGE--  
-EILLDDVVRGDSLTVS--DWLKLDPYN--ISPISARYQNRIG-ASKVIIIITSSKHPLTFFFYHAK----GNTNEDLSQY  
IRRIHL----

>pCRESS6\_WP\_000746010

EQQLKPKFWKQENKDKIFRLIFDRVRT---ISYAKLVEPHVHGYIDFPKFDLSK---VASVLGVER----ERIEPKSK  
GTRIN-----ALAYLIHAKD--KEDLEK---YAAKEKDESLLDLVLSKVYKGYELTYFDIMKDNNYLMANNRQKFL  
EGFDIFGERESVLRLEALQNGE-----YDLTVLYIQGKPGIGKSTLARDIALEY-----SASSKNPFDNYSGE--  
-EILILDDLREDSLAPA--DWLKLDPIN--SARMSARYRNKLV-VPRLVIMSAYMSPKQFFGQIQE-----EDINQY  
LRRVNYS----

>pCRESS6\_WP\_000791389

AQQFDSQFWDLS-IKDILTEMVNRANTL--E-LQELKSEHGHFLLKFSEGATLID---LALAIQVEP----QYIEKAKS  
GGYDN-----LLAYLIHAKD--FSSWSK---GRTRKRNSEQIDSLIANILNGKITKSEILLSSNLQYALYKTKIN  
EAFMTLGEVKATRTRKALENGD-----FKKSIFFITGKSGLGKSVLSRELVDV-----ATAGTNIFDEVNGE--  
-EILLDDVVRGDSLTVS--DWLKLDPYN--ISPISARYHNKMG-ATRIVITSTKHPLFFFFKTK----GNEIEDLSQF  
IRRFDSL----

>pCRESS6\_WP\_001034312

VQRLEPEYWHNLPLLEEVVNRVSIN--E-VTKPEKPHAHILLKFSKGETLIN---LSLQLGIEP----QYIEKAKA  
GAFDN-----FLAYLIHAKD--YKSWKK---GRAKSKNTSLDEIYLQILNQQISKQEILSDPEQILYALNKTKIN  
EAFMTLGEIKSNATKQALENGE-----FKKTIFITGKSGLGKSRFAKTFVKEV-----VTAGTNIFDEVNGE--  
-EILLDDVVRGDSFTAS--DWLKLDPYN--ISPISARYHNRMG-SARVIIIITSTKHPLFFFIHTK----GNEKEDLSQF  
IRRTTSL----

>pCRESS6\_WP\_003024533

VQQLNEEYWTSGNSLPLLEEVVNRVNQT--ISITELKKKHVHLLKFEKGASLQK---IALSIGVEP----QYLEKLKS

GGFEN-----CLAYLVHAKD--MQVWLK---GRATRENLSVDYLISEILKGNITKNNILLTNEYKVYSLHKRKFLEAFETFGERKGYQAIADLEAGK-----FKKSVFFIHAESGKGKTRLAKHLIQLC-----LTASTNAFDEYNGQ--DILFLDDIRGDSLTL--DWLKLDPYT--ISPISARYHNKMG-SAKVIIIITSTRTPIEFFQLTK----GSINEDSGQFIRRIDYL----

>pCRESS6\_WP\_003032217

VQYFSEKYWSFEDIAPLLNEMVKRISEE--E-LTKPIDSHGHLLFKLSEGMPIIK----LSDIIGIEP----QYIEKAKRGGYDN-----LLSYLIHSKE--FSSWKK---GRVKKLEDEIDNLILDIIQEKIGKSEILLDEKHMIIYTTFKTRINEAFAVLGEIKGNRTKKAIENGE-----FKKTVLFIHGRSGLGKTRFAKELASKA-----TTAGTNIMDDLNGE--EILLDDVVRGESLTAS--DWLKLDPY--ISFSSARYKNILP-SARIIIIVTSTKHPLIEFFYKCK----DNEREDLSQFIRRFDSL----

>pCRESS6\_WP\_003035134

VQQLLEDYWTDPNCKPLLQVVVDKLNNE--ITVTEKKAHEIHFLFKFEKGASLSK----IALAIGIEP----QYLEKLKSGGYDN-----CLAYLVHAKD--METWMK---GRATKEALSVDWLIEKILSGEITKSNIMLTDEYAIYGQHKRKINEALDTSSERKSYKTISELENGE-----FKKTVIFITADSGIGKTTISKQLIRIC-----VFASTNAFDEYNGQ--DILFLDDIRGDSLTVS--DWLKLDPYM--ISPISARYHNKMG-SAKVIIIITSTKPVSFPEASK----GNIGEDLGQFIRRIDYL----

>pCRESS6\_WP\_003048523

EQQLKTSFWKQENKDKIFRLIFDRVRT---VSYTKLVEPHVHGYIDFPKQIDLSK----VASALGLER----ERIEPKSKGTRIN-----ALAYLIHAKD--IEDFEK---YAATEKDESLDLVLKQVQKSELNYLEVMEDEAFLFANNQKQFRSFNFFGERETVLRKLDLKKGN-----YQLTVLYIQGEPGIGKTHLANELILEY-----PASSKNPFDNYIGE--EILFLDDLREDSLSAS--DWLKLDPN--SARMSARYQNKLV-VPRLIVMTAYMSPKQFFGNIKT-----EDLNQYLRRVNFS----

>pCRESS6\_WP\_003104234

EQQLHAEYWKAENKTKIFQEIHRRIK---IKYIKPVEPHIHAYIEFASRRDLSV---LASTLGLLP----QYIEPSGGKVN-----SKAYLIHAKS--RADFSK---RYAVEKDES�DKVFQEIINGNLTEDDIFADEETFLWSYNQTRLEDAFRAYGKIASKRTLRELENGE-----FKPTIIVHVGSSGIGKTTLALEVIEEY-----SAGAKNIFDEYFGE--EVILLDDPRSDSLLPA--DWLKLDPN--KSYLSARYKNKLV-IGRLIVITNYQSLKSFSGKIQN-----EDLNQYLIRRFNNV----

>pCRESS6\_WP\_004183001

AQQLPKYWNLNELTPLLEEVNRSVSVN--E-ITEPENVHVHILLKFSKGATLIS----LALQLGIES----QYIEKAKSGAFDN-----FLAYLIHAKD--YKSWKK---GRAKSKNTSLDDIYLQILNQQISKQEILSDPKQIYALNKTKINEAFMTLGEIKSNATKLALLENGE-----FKKSIIFITGKSGLGKSRFAKTFVKEV-----VTAGTNIFDEINGE--EILLDDVVRGDSLTVS--DWLKLDPY--ISPISARYHNRMG-SARVIIIITSTKHPLIEFFHTK----GNEKEDLSQYIRRIDSL----

>pCRESS6\_WP\_014571792

TQFLKKEYWAVIFQKQIFMALIPQL-----VTPKPPHIAIVEFEKDKDINV---VALALGLEP----QYLDTAKRGAEN-----LLAYLIHAKD--RKRWKN---QAIKVKDEQLPILLEAIREGALNREQVLENPDFLYQRHIMEFQAFAFEGYLLKAEAETKKAISGE-----LKLTTLYIYGLSNAGKSRFAETLGETY-----TTASTNPFDEYTG--QIVILLDLRAKSMTAE--NWLKILDPER--ISKSAARYHNKII-SSHLIIITAPISPQSFFHQIS-----ESEELNQFMRRLSLT----

>pCRESS6\_WP\_014623544

VQQLLEDEFWEPDDCRPLLELIHKNLESK--VSVIENKTEHIIHALLKFEKGASLTK----IALAIGVEP----QFLEKLKSGGYDN-----CLAYLVHAKD--METWVK---GRATKENLSVDWLIEKILSGEITKSNIMLTDDYAIYGQHKRKINEALDTAGERKSYRTVAELESK-----FKKTVLFIHGRSGLGKTRFAKELASKA-----TTAGTNIMDDLNGE--EILLDDVVRGDSLTVS--DWLKLDPY--ISPISARYHNKMG-SAKVIIIITNTKEPIRFFEQAK----GNIEEDLGQFIRRTDYL----

>pCRESS6\_WP\_015647385

VQQLENEYWKPSNCRPLLEMIVEKLEKK--VSIFENKEDHVHALFKFEKGASLNK----LALAIQVEP----QYLEKLKSGGYDN-----CLAYLCHSKQ--IETWIK---GRATKENLSVDWLIEKILAGDLTKSNIMLTDEYSIYGQHKRKINEALDTSSERKSYKTISELENGE-----FKKTVIFITADSGIGKTTISKQLIRIC-----VFASTNAFDEYNGQ--DILFLDDIRGDSLTVS--DWLKLDPYM--ISPISARYHNKMG-SAKVIIIITSTKPVSFPEASK----GNIGEDLGQFIRRIDYL----

EALETAGERRSYRAIAELEAGK-----FKKTVLFINAESGVGKTQFSKNFIRLC-----VTASTNPFDEYNGQ--  
-EILFLDDIKGDSLTVS--DWLKLDPYM--ISPISARYHNKMG-SAKLIITNTKEPLSFFEQAK----GNIGEDLGQF  
VRRIDCL----

>pCRESS6\_WP\_017371219

MQYLEKEYWETRNQKEIFALVCEKFRQI--NENGLKLEAPHLHWAIHLKERTTLNK----IAKAFQVEP----QYIETGNQ  
GAMIG-----RLAYLTHQTE--KMKFKK----LLATRAKYELNHLQVQVQVVKLFIEDILSDEKYFVYANNLAKFK  
EAFEAYAQRNSLLTIQDRVAQK-----FEFTSIYIYGKSGSGKSEIAYDILKQY-----FGGSKNAVDDYKGE--  
-ELLLFDDVRPETFSPA--DWTKILDYKN--KSALSGRFHNRPL-SNRLVLMNTQSPFEFFK--EN-----EPIEQY  
LRRITYV----

>pCRESS6\_WP\_017649267

VQLEEKYWTADNCQSLLEAVVKHLEVT--VTVDETKEDHIHFLFKFAKGASLEK----LALSIGVEP----QYLEKLKS  
GGYDN-----CQAYLVHAKD--MESWIR----GRAKQDNLSIDWIIEILAGKLSKNQILLTDDYKVYQGHKRKIN  
EAIDTAGERKSYKTISELEAGQ-----FKKTIIFINAESGVGKTAISKKLIGIC-----VTASTNAFDEYNGQ--  
-DILFLDDIKGDSLTVS--DWLKLDPYM--ISPISARYHNKMG-SAKVIIIITNTKEPMHFFEQAK----GNIGEDLGQF  
VRRIDYL----

>pCRESS6\_WP\_018030886

EQQLKSDYWKKNRVAIFKEIHRRIQ----KKYLTLVEPHIHGYIEFASRRDLNH----LASVLGLLP----QYIEPSGR  
GGKVN-----SKAYLIHAKN--QLDFIK----RSATEKDEELDSVFQAIVNGTLTEDDIFANEETFLWSYNQTKLD  
EAFRAYGKIASKRTLRLQLESGE-----FQPAVIYIHGSSGIGKTSALALELIEQY-----SAGTKNIFDEYFGE--  
-EILLDDPRYDSSLPA--DWLKLDPN--KSHLSARYKNKLV-IGRIIITNYKSLKSFFGKIQH-----EDLNQY  
IRRFNNV----

>pCRESS6\_WP\_018376545

SQQLRTELWKAEPDELLKEMIEHLSTK--Y-VQVLKSFHVHFLFKFSEGATLTE----IANALNLEI----QYLEKPKS  
GAYDN-----LLSYLVHAKD--IHVWEK----GRAKQKFDVEALIMDIIVGKIKKTEVLSSPDYPIYAFNKSKLN  
EAFETYAERKSLKTLKDLELGL-----FQKTIIFQASGLGKTTLAKELTHEI-----ITAATNPFDDVKGE--  
-EILLDDVRGQALSAS--DWLKLDPFT--ASPISSRFKNRSG-AVKTIITSRKPPEFFFKTK----DSGYEDLSQF  
IRRIHF----

>pCRESS6\_WP\_018380019

EQQLQSDYWKDENKRAIFQEIYDRVK---VSFSRLVKPHVHGYIEFKTKRDLNI----LALSGLLP----QYIEPSGK  
GGKIN-----SKAYLIHAKS--KEDFAK----QSATEKDESLELDLISKVQKGEVMEDEAFLEFANNQKQKFR  
ESFNFFGEREAFLRLKSLERGD-----YQLTVLYIQGEPDVGKSTLAKEIALKY-----SASSNPFDDNYGGE--  
-EILFLDDLREYNLSAS--DWLKLDPN--SARMSARYQNKLV-IPRLVIMPVYKTPKTFGEVQA-----EDLNQF  
LRRINFL----

>pCRESS6\_WP\_019299400

EQYFDQEFWKEKFKENIFQEIYDRLKF---KKWDKLIEPHIVYVELPTKRSIER----IADRIGISQ----HFIEPKGK  
NPFN-----EKAYLIHAQQ--EKEFLK----RSATKTDESLELDLIFDKVLFVKITYDEIMEDETYRLYANNEQKFI  
SAFNFAQYKARKTLKALKNKE-----FKMSVIYIQGKSGIGKSHLAGEIVEKY-----SASASNPFDEYKGE--  
-EILLDDLRPDSLERA--DWLKLDPN--KSARMSARYRNKAI-ASRVIVLTNTTETAEQFFKNIKN-----EDLDQY  
IRRINLT----

>pCRESS6\_WP\_020997784

VQLEEEYWSVDCRPLLEIIIQKLEEK--VTIINDKEEHVHALLKFEKGASLKK----IALAIGVEP----QYLERLKS  
GGYDN-----CLAYMVHAKDF-IETWVR----GRATKEDLSVDWLIEKILAGEISKNILLTDEYAIYGQHKRRIN  
EALDTVGERKSYQAIIDLETGN-----YKKSALFIMADSGVGKTKFSMELIHHC-----LTASRNPFDEYQGGQ--  
-DILFLDDIRGDSLVS--DWLKLDPN--ISPISARYHNKMG-SAKLIITSTLLPSVFFSQAV----GNKNEDNGQF  
IRRFDYQ----

>pCRESS6\_WP\_020999261

AQQLRTELWEIDTPEELLREVMKHLKSK--E-VQVLKASHVHFLFKFSEGGTSLD----IANALGLET----QYLEKPKS  
GAYDN-----LLAYLVHAKD--IRAWEK----GRAKKLKFDVEALIEIEGKIKKERILSSPDYPIYAFNKTKLN  
EAFETYAEQKSMKTLKNLELGL-----FQKTIIFIQGSAGLGKTTLAKKLAREI-----ITAATNPFDDVKGE--

-EIILLDDIRGQALSSS--DWLKLDSFT--ASPISSRFRNRSG-AVKTIITSSKHLEFFFKTK----DSGYEDLSQF  
VRRINYL----

>pCRESS6\_WP\_022765681

AQELNPELWFD--LQRVTAIIAKRLEDT--QKQVTLKHLHAHWVIEFKKGAKLTD----IALAIGLAS----QYVEKPKK  
GAVDN-----MLAYLIHIKY--ESVWKK----GIATLAAEDIDWLEEQILEGKIKKTQIFLTDSEFKTYSHYRQRCE  
DAFACYTDKKIYTAIEAMKNKE-----FLLTTYFITGASRKGKSRFAEDLAQRC-----RTPTSNPLDDYAGE--  
-EIIIMDDSRGCTLTAE--AWLTFDPNF--CNPAGARYHNKPG-IPKVLITSTKSMLEFFFYTG----GSRSEAMDQF  
FARVFSR----

>pCRESS6\_WP\_024385235

TQQLESEYWDIDDLSSLLEEVNRSVSN--G-ITVPERNHAHILLKFSKGATLIS----LALQLGIEP----RYIEKAKS  
GAFDN-----FLAYLIHAKD--YKSWKE----GRAKSKYTSLEIYLQILNQQITKQEILSDPKQILYALNKTKIN  
EAFMTLGEIKSNATKLALENGE-----FQKTIIFITGKSGLGKSRFAKTFVKEV-----VTAGTNIFDEVNGE--  
-EILLDDVVRGDSLTA--DWLKLDPYN--ISPISARYHNRMG-SARVIILTSTKHLEFFFDTK----GNEKEDLSQF  
IRRTTSL----

>pCRESS6\_WP\_024400359

VQQLEPEYWDIEELTLLLEEVNRSVSN--E-ITELASPHVHILLKFTKGSTLTN----FALQLGIEP----QYIEKAKV  
GGYDN-----LLAYITHQKD--YKVVWQ--GRVKSKNASLDEIYLQILNQQISKQEILSDPKQILYALNKTKIN  
EAFMTLGEIKSNATKQALENGE-----FKKTIIFITGKSGLGKSRFAKTFIKEV-----VTAGTNIFDEVNGE--  
-EILLDDVVRGDSLTA--DWLKLDPYN--ISPISARYHNRMG-SARVIITSTKHLEFFFHFK----GNEKEDLSQF  
IRRTDTL----

>pCRESS6\_WP\_025016923

TQYLNPKYW--INKQAIFEEIFARANL--ENKG-LKDAHIHGYLEFSKQKTIAS----ISSVLAIEP----QYVEAPKK  
GGRLN-----CLAYLIHAKN--LEDFFK----YNATKKEIGLDLALQEVQQGKLLREIMRDENALLYANHMNQFN  
DSFNFYGLRNAMLRLDELEQK-----YDLTVLYIQGAPGIGKSFLAREVAQKF-----SASSSNPFDDYYGE--  
-DILILDDLRRQESLKVS--DWLKLFDPLN--TARMSARYRNKMI-VPRLVILANYQSIEQFFGSFNKN-----EDINQF  
IRRISFS----

>pCRESS6\_WP\_027972054

VQQLEEEYWEPENCRPLLELIKKLRET--VTIVKNKEEHVHALLKFEKGASLNK----IAFAVGIEP----QYLERLKS  
GGYPN-----CLAYLVHAKD--METWIK----GRATKEDLSIDWLIDKILAGEVTKSNIMLTDSYAIYGQHKRKN  
EALDTAGERRSYQTIAEMEAGK-----FKKTIIFIQAESGAGKTRLSKKFIALC-----VTASTNALDEVNGQ--  
-EILLDDDLRGSSTVS--DWLKLDPYM--ISPISARYHNKIG-SSKVIIITSTKKPIDFFEVAK----DNVGEDLGQF  
IRRIDYL----

>pCRESS6\_WP\_032497992

VQQLEKEYWHSSNCRPLLDLIEKLEKK--IVTSTNKAHEVHALLKFEKGASLNK----LALAIQVEP----QYLEKLKS  
GGYDN-----CLAYLCHIKS--MEIWVR----GRATKELLSVDWLVEKILSGKLTKNNILLTDEFSIYGQHKRRIN  
EALETIGERKSIQTIAELEAGK-----FKKTIIFITADSGMGKTQYSKKLITIC-----VTASTNAFDEYNGQ--  
-EILFLDDIRGESLTVS--DWLKLDPYM--VSPISARYHNKMG-AAKVIIITTTNDPLSFRKAK----GSFGEDLGQF  
VRRIDYL----

>pCRESS6\_WP\_032941943

EQQLKAEYWLKENKLLIFEEIYRRLKT---KNDNEFIFPHVHLYGKYTDKRTLAR----IAKVLGIKE----QYIEPKNG  
NFEEN-----QLAYLTHAQQ--TKKFEK----QSATKRDESLDLINQQILKGEFLLEDILADDDFLLYSNHKLQFK  
QAFDSYAERLAFKNLKDLTGK-----YKLTVMYFQGKSSLGKSYLARTIAQKY-----SASSSNPFDDYYGE--  
-DIILLDDIRPDSLKA--GWLKLDPIN--TSRMSARFTNKQV-VPRLILITNTQLPEQFFNIFKD-----EALDQY  
IRRINFC----

>pCRESS6\_WP\_034704841

VQQLKEEFWTINNIQPLMEELNKRHFNE--RLVIEPKKHAHILVKFAKGDTLNN----LSVTAGVDP----QYIEKAKS  
GGYDN-----LLSYLVHAKD--METWVR----GRATKADLSVDYLVEILDGKLTKSQVLLTNEYKVYALHKRKN  
DAFDTAGENKSYQTIAADLDAGN-----FKKTILFIMAESGAGKTVLSKKIISIC-----LTASNNAFDEYNGQ--  
-DVLFLDDIRGDSLVS--DWLKLDPYT--ISPISARYHNKMG-SAKVIIIITSTKTPSEFFSIAK----SNFHEDLGQF

FRRIDL----

>pCRESS6\_WP\_036321578

VQQIKPECWGLRAAASFSQYLVVLEST--QLGEVLKYLHLHLLKFKTSAAVEK----LAAILGVEV----QYVEDKSR  
GQHDN-----GLAYLTHVKY--YPAWRK----GRAHKKLEFEPFREMVLQGELTRDQIMLTDEFDIYSRHRQREID  
DALSAYGQRRAYRAAAKLRAGA-----FSTQVVFHGEAGVGKTRFANAFIQEY-----RAATTNPLDDWRGE--  
-EIMLLDDLRAAMDAN--DWLLLDPLN--ASPARARYKNKGE-VARLIVITATIEPVEFFFFAK----GNVDEALDQF  
IRRLQSV----

>pCRESS6\_WP\_039670385

EQQLKGEYWKAKNKQEIFQEIYNRVK----KTFNNLVFPHLHGIEFSNKRDLVS----LALNLGLYP----QYIEPSGR  
GGKIN-----SKAYLIHAKS--LDSFTK----QSAKEQDESMDIFQEIIGKGLTEDDIFADEKTFLWAYNQKQFD  
EAFKAYGKISAKTTLRQLENGE-----FKPTILYIHGQSGIGKTSLAYDLVAEY-----NAGSKNIFDEYFGE--  
-EIIVLDDPRYDSSLPS--DWLKLDPN--KSYLSARYRNKLV-IGRVIVITNYMSLSEFFRQIPK-----EDINQY  
LRRFNNV----

>pCRESS6\_WP\_039677656

VQQLNKYWTADNCRPLLEIIKKLEDE--ISIIKNKAHVHILLKFEKGASLNK----IALAIEVEP----QYLEKLKS  
GGYDN-----CLAYLVHAKD--MKTWVK----GRATKENLSIDWLIKILAGEVTKSNIMLTDDYTIYGQHKRKIN  
EALDTAGERKSFQAIEDIDSGK-----FKKTIIFLQGESGQKTKLSKSIINIC-----STASTNAFDEYNGQ--  
-DVLFLDDMRGDSLTVS--DWLKLDPYT--ISPISARYHNKMR-AAKLIITSTKAPLEFFSLAK----GNFGEDLGQF  
VRRIDL----

>pCRESS6\_WP\_039694464

EQQLKSEFWKQENKNEIFRTIFDRVRS---ISYTKLVEPHVHAYIDFPKQMDLSK----VASALGVER----ERIEPKSR  
GTRIN-----ALAYLIHAKD--REDFEK----YSATEKDESDDLILSKVQTGELNYIDVMENDNAFLFANNQQRFR  
ESFNFFGERETVLRKLDLQGN-----YQLTVLYIQGKPGIGKTHLANEILSY-----SASAKNSFDNYYGE--  
-EILLDDLRSDLSPS--DWLKLDPN--SARMSARYQNKLVPRLIVMTAYMSPKQFFGQIET-----EDLNQY  
LRRVHFS----

>pCRESS6\_WP\_041290927

TQYLDPSYW--QGAGPILAYVVRLEAE--REVVEPKPDHLHAVIKFAKSAPLDR----LAFGIGVEP----QYVEKPGR  
GAFDN-----MLSYLTHVKY--RETWLK----GRAHKVAENFEDMRERVVLQGEITRDQIMLTDEFDIYSRHRQREID  
DALSAYGQRRAYRAAAKLRAGA-----FSTHVVFVHGDAGIGKTRFATDFITSY-----RAATGNPLDDWRGE--  
-EVLLDDDLRASAMDAN--DWLLLDPYN--ASPAKARYKNKGE-VARLIVITATIEPVEFFFFYAK----GNVDEALDQF  
IRRLASV----

>pCRESS6\_WP\_044671103

EQQLKSKFWKQENKKGIFRLIFDRVRT---ISYTKLVEPHIHGYIDYPKRIDLSK----VASALGVER----ERIEPKSK  
GTRIN-----ALAYLIHAKD--KEDFEN----FSATEKEERLDLVLKQSGELTYLDVMKDDKAFLFANNQKQFR  
ESFNFYGEREAFLRLQALQRGD-----YQLTVLYIQGKPGIGKSTLARDLALEY-----SAGSKNPFDNYYGE--  
-EILLDDLRKDSISGT--DWLKLDPIN--SARMSARYQNKLVPRLVILSAYMSPKTFFGQIET-----EDLNQY  
LRRINFS----

>pCRESS6\_WP\_044762265

TQQLFEFEWELDNAKELLHKMVEYLSWS--E-VKVLKTIHVHFLFKLAEGATLPE----IANALGLET----QYLEKPKS  
GAYDN-----LLSYLIHAKD--IRTWEK----GRAKKQKNDVEVLIMDIKKGKIKKDEILNNPEYAIYAFNKSKLN  
EAFETYAERKSLKTYKDLELGL-----FQKTIIFLQASGLGKTTLAKELAHKV-----ITAATNPFDDVRGE--  
-EILLDDVRGQALSAS--DWLKLDPFT--ASPISRFRKNRSG-AVKTIITSSKSALEFFFKTK----DSGYEDLSQF  
VRRINHF----

>pCRESS6\_WP\_044774450

VQQLLEEYWEPCNCRPLLELIKKLRET--VTIKNKEEHVHALLKFEKGASLKK----IALAISVEP----QYLEKLKS  
GGYDN-----CLAYLVHAKD--METWTK----GRAIKEDLSVDWLIKILAGEISKSNILLTDEYAIYGQHKRRIN  
EALDTAGERKSYEAIADLEAGK-----YKKSAYVVLADSGVGKTKFCMELIHR-----LTASRNAFDAYQGE--  
-EILFLDDIRGDALSVS--DWLKLNDPFM--ISPISARYHNKMG-SAKLIITSTLLPSVFFSQAE----GNKNEDNGQF  
IRRFDYQ----



>pCRESS6\_WP\_045759092

VQQLEEKYWGPNDCRPLLEMIKKLKS--ISTVEDKAVHVHALLKFEKGASLNK----IALAVEVEP----QYLEKLKS  
GGYDN-----CLAYLVHAKD--IETWLK---GRATKENLSVDWLVERILDGEVTKRNIMLTDEYAIYGQHKRQVN  
EALETAGERRSYRTIAELEAGK-----FKKTVIFIQASSGVGKTKLSKDLIELC-----MTASTNAFDEYSQG--  
-EILFLDDIKGNSFTVS--DWLKLDPYT--ISPISARYHNKMG-SARVIITSTKLPVELFYFAN----GNHNEDLGQF  
VRRIDL----

>pCRESS6\_WP\_047206721

TQYFETKYWELN-IEKILEEIVRRVSTS--I-GTNLKKPHIHALLKFEKGATLTE----LAVKIGLEP----QYLEKAKS  
GGYDN-----LLAYLIHAKD--HLSWLK---GKAKKQYKDIDLLIDNLTNGTITKEMLLNKDHMLYAVHKSQVN  
EAFRTIGEIKGTMTQNELENK-----FKKTILFIHGVSQTGKTTLANQIVQNV-----LTAGTNMFDEVNGE--  
-EILLDDVVRGDSLTA--DWLKLDPYN--ISPISARYQNKIG-AAKVIITSSKHPLTFFYHTK----GNNREDLSQY  
IRRIHL----

>pCRESS6\_WP\_049476139

VQQLEDTYWTFDDCKPLLQAVVDKLNDE--ITITEKKAHVHFLFKFDKGASISK----IALAVGVEP----QYLEKLKS  
GGYDN-----CLAYLVHAKD--METWMK---GRATRESLSLDWLEKILSGEITKSNIMLTDEYAIYGQHKRQVN  
EAIETSGERKSYKTISELENSE-----FKKTVIFITAESGIGKTALSKQLIRIC-----VTASTNAFDEYNAQ--  
-DILFLDDIRGDSLTVS--DWLKLDPYM--ISPISARYHNKMG-AAKVIITSTKPPISFFESAK----GNIGEDLGQF  
IRRIDYL----

>pCRESS6\_WP\_049499636

VQQLEEKYWMPNDCLPLLKMIVNNLESK--ISTVQDKAVHIHALLKFERGASLSK----IALAIRVEP----QYLEKMKS  
GGYDN-----CLAYLVHAKD--IEMWVK---GRATKENFSIDWLEQVLDGKLTKSNIMLTDEYEIYGQHKRQVN  
EALDTAGERRSYRTIAELEAAL-----FKKTVIFIQANSVGKTKFSKELISAC-----VTASTNAFDEYNGQ--  
-EILFLDDIKGDSFTVS--DWLKLDPYT--ISPISARYHNKMG-SARVIITNTKLPVELFYFAK----NNYNEDLGQF  
IRRIDLL----

>pCRESS6\_WP\_051176704

TQQLRPELWELRRANRLSLLVLLLEQE--QNTMEPKFPHLHATVKFP-TFKIAR----IAKILGVET----QFVEKPN-  
GSHDA-----QLAYLIHAKD--EAEWFL---GRGKKLALSVDALLEQVLSGNITKENVLLSDEFVYSELSDFKN  
RAFVVAGERKAYRAAEAMKNGD-----FHTAIFFLYGAAGSGKTRLANLLVDQY-----RAASRHSRDDWQGG--  
-EILMDDVVRASAMSAS--DWLTLDPYN--PNPASARYQNKLA-VARLVIITASIDPVTFFYYAK----GDVDEALDQF  
IRRLMAS----

>pCRESS6\_WP\_052506726

TQAWLSNHWDDNNLSLVTQKFVEYLSET--REVLEPKHLHGHVVKFAKGLTSLD----IAVAVGLAP----QFIEKAKP  
GGYDN-----MLSYLIHAKD--KSAWEK---GRAKKRDELVEELYEKVINGEVTHDQILLTDEYAVYSRNIDRFE  
KGFKAYTDRKILQAVRDLEAGK-----FNLSVLYFQAGHGKTATAVQLAQSC-----QAAATNPVDDYNGE--  
-EILIMDDLGRNAMRAT--DWLKLDPYN--SSPNSARYKNKRV-VSRYIFITSIQDVYEFFYYTG----ADRSEPLDQF  
MRRILAL----

>pCRESS6\_WP\_053092713

VQQLEDEHWTAKNIRPLLETVTDKLNRE--VNVIEKKAEHIFLKFKEKGASLNR----IALAIGVEP----QYLEKLKS  
GGYDN-----CLAYLVHAKD--MATWVK---GRATKENLSVDWLVEKILAGDITKENIMLTNEYAVYGRHKQKVN  
EAIETAGEQKSYQTIAELKEGK-----FKKTILFISAPSSAGKTRFAKELIDIS-----LTAATNAFDDYNGQ--  
-EILFLDDMRGSSMTAS--DWLKLDPYM--ISPISARYHNKIG-SAKVIITSTKPIPFFEIAK----ENDNEDSGQF  
VRRIDYL----

>pCRESS6\_WP\_054952722

TQYLDPSYW--QGAEAILAYVQRLEAE--REVVEPKPEHLHAVIKFAKSAPLDR----LAFGIGVEP----QYVEKPGR  
GAFDN-----MLSYLTHVKY--RETWQK---GRAHKIAENFEDMRERVLOQEITRDQIMLTDEFDIYSRHRQREID  
DALSAYGQRRAYRAAAKLAGE-----FSTHVVFVHGDAGIGKTRFATDFITEY-----RAATGNPLDDWRGE--  
-EVLLDDDLRASAMDAN--DWLKLDPYN--ASPAKARYKNKGE-VARLIVITATIEPVEFFYYAM----GNVDEALDQF  
IRRLASV----

>pCRESS6\_WP\_056938517

AQQLQPEFWQPNDARDLLDNVVQRDLKT--ETIIRQKEDHVHFLKFDKGNNTINN----LAMTIGVEP----QYLEKAKS  
GGYDN-----LLAYLVHAKD--RETWLR---GRATQNMQSVDYLIAQVLQGGKLTQSKIMSDEDYMVYGLNSSKIN  
GAFTVIGERKSITAQRDIEASK-----FKKKIIFISGTAGVGGTKFGKLLVRQC-----VTASTNPFDEYSGQ--  
-EILFLDNVRGETLGFL--DWLKLDPHN--ISPISARYHNKFG-VAKVIIIITSPVPPYQFFNHPK----FNSMEDLGQF  
YRRIDFW----

>pCRESS6\_WP\_058223604

EQQLKAEYWLEQNKALIFEEIYRRLKT--KNDYELVFPVHLYGKYSDKRTITR----IAKVLGIKV----QYIEPKDK  
NFEEN-----QLAYLTHAQQ--AKKFEK---QSATKRDESLDLINQQILKGFLENILADDDFLLYSNHKLQFK  
QAFDSYAERLAFKNLKDLTGK-----YKLTVMYFQGGKSSLGKSYLARTIAQKY-----SASSSNPFDDYYGE--  
-DIILLDDIRPDSLRLKA--DWLKLDPIN--TSRMSARFTNKQV-VPRLILITNTQLPEQFFNIFKD-----EALDQY  
IRRINFC----

>pCRESS6\_WP\_061343647

TQQLEQEFWDNRNRQRRIEIIATRFLRK--DDTGNFIKPHVHWLLELKNKRDLDE----IAYKFFVHP----QQIEKGSK  
GCFLG-----RIGYLTHQAE--SAYFKK---RLAFQQKMDVDYLLQVQVQGGILFLDDIFLDLNYNVYANNKQKFR  
EAFDAYSELNSFRTRNDKRLGI-----FDFTTIFIYGRSGLGKTTIAMAILDRY-----SGSAKNAVDDYKAE--  
-ELILFDDLKQDSFLIA--DWLKILDSRN--ESTISGRFHNKPL-SARLILTTIESPFKYDFGKD-----EPKEQF  
IRRLSYI----

>pCRESS6\_WP\_067483596

VQQLEPEFWVINNIRPLIEELVKRFEKL--ISVEELKAKHVHILIKFGKGDTLNS----LAVKAGVAP----QYLEKAKS  
GGYDN-----LLSYLVHAKD--METWVR---GRATKADLSVDYLVSEILAGKLTQSKVLLTNEYRVYALHKRKN  
DAFDTAGESKSYQTIADLDAGN-----FKKTTLFIMAESGAGKTVLSKKIISIC-----LTASNAFDEYNGQ--  
-DIIFLDDIRGDSLVS--DWLKLDPYT--ISPISARYHNKMG-SAKAIIITSTKTPSEFFSIAK----GNFHEDLGQF  
FRRIDL----

>pCRESS7\_ABC65794

VINAN--KITKSKIENILELKK--K----TYQNGDLKSPHYHIYLRFNAYYDTKH----IAQWFNTQD----NFVSKIKG  
R-----FSDALMYMTHAN--SNLNKQF---KMNYARLKEINSQIISGEIKEYNIDERINVDEYYVYSAIEKAF  
KYRVIT---LKR-----IK-----RQMECVFITQSGSGKSTLAKKIAYIS-----SGSNDILDDYRGE--  
-ECIILDDLRNCLGLS--DLLKMLDNNT--ASSVKSRYKNKVL-ECKLIITTVKSIDDFEFIDFR----KDETIQL  
KRRCTYY----

>pCRESS7\_ABC65805

VINSD--KINKTKIENILELKK--K----IYQNGDLKPHWHIYLRFNAYAHDTKH----ISQWFNTQD----NFVSKIKG  
R-----FSDALMYMIHAN--RIFLREY---KID-SRLEEILSKIQSGEIKECNSTNHISIIENNIYSSAIEEAV  
KYRNT---LKG-----MD-----RQMECVFITGLSGCGKTTLAKKIAYIS-----SGSNDVLLDDYRGE--  
-ECIILDDLRNCLGLS--DLLKMLDNNT--SSSVKSRYKNKVL-ECKLIITTVKSIDDFEFIDFK----KDESIIQL  
KRRCKLH----

>pCRESS7\_CCY61699

VQQLE--YMSQEDVEAGLD--H--N---VHEDGTPVAPHWHIMIRFKRPVQTES----LCKWFGIKS----NMIGYILG  
T-----FGDAVAYLTHRN--KLSKKKA---SQR---KEEIIELIRSGIVREYNYTEYITALEYDKFKRAIDNAF  
TYRRDT---LKS-----LD-----RHMNVIIYGGSGTGKTTYAKQLAYIS-----SGSNDPLDGYKGGQ--  
-DCLILDDIRPGDFLLS--DFLKILDNNT--QSTVKSRYKNKLL-ECQYLIVTTSFDIPVFFDLLLLDS----EGESVKQM  
ERRCTLK----

>pCRESS7\_CCZ68460

VSNLESELDIERMKQVLEEKSK-T---VYTEGELKPKHIHLLLRFNQPQKLN----IAGWFQIPP----NFVSKIHN  
R-----WDSAVLYQIHAN--CMKRN-----SIDSILMDILNGEIPYQR-SVIPPLFRVHYAREINEAF  
RCRVQN---LQE-----TS-----RKMECIYITGSSQAGKTTLAKKIAYIS-----SSGTDLGEYALE--  
-PCVILDDIRPSSINLS--ELLKLLDNNT--VSAVKSRYKNKCLANCKLLIITTVLDIETFYHNVFSE----EDEPMIQF  
KRRCGTH----

>pCRESS7\_CCZ93342

IQQLE--YMSAEDVGSGLD--H--N---VNDDGSPKAAHWHIYIRFKDSTPTDS----ICKWFGITS----NYIGRIQG

R-----FADALAYATHRN--VRSKEAD---KQR---KAEISDLIISGVIREYNYTDYITIQEYDRFRKSIDNAF  
KYRLDK---IKG-----EN-----RDMEVIYIFGDSSCGKTTYAKELAYVS-----SGGEDMLDDYKGGQ--  
-DCVILDDLRLANDINFS--SLLKLLDNHT--QSMVRARYHNKFL-ECKLMIITTSKSMEELFRELPGS---DNEDITQL  
RRRCKLY----

>pCRESS7\_CDE19587

VTQPEYLKSPQLDILRKYRTIKQWAYILHDKDKDAS--SHYHIYINFQQTVDSDK---VAGWFGIPEQ---FVNKVEG  
RKTDM-----MYLTHSN-----DSYDFSEVVANFDFKSEIEQAKIIGDFEKYSYIHS LAVSE  
QPKCFDRQLKWLKLCQWLSLN-----SDRNLKVFVTGKSGTGKTYFARKYMRAYVS-----SSNDPLDMYMGQ--  
-KGIIFDDLRLDEAFEF--DILKLLDNNT--STAMKSRFTNKVLNCKVMIITSFIPIKYWYKSVRYS----CDGIEQL  
YRRINMY----

>pCRESS7\_CUN62864

QTQIP--FLPKMKLSIIAEHTTAG---IKEDGTPKEPHWHELRLTRGRRLTD---IASWFGGLPT---SCIQTSKS  
G-----RYEPMQLYLIHEN-----SKI---DGDK-RISEIVELIANGTIREFNIDEFVTVREYDKYRSHIKNAL  
EYRSII---LEKQ-----NT-----RNMEVIYIYGKGGTGKSSFAEAIKR-----SASERDPLATYKGGQ--  
-DSFALDDVRGNTFEFQ--DWQGVLDNFQ--DRPGSSRFHDKHFTECKLLFITTTDSAEDFWKEMSAKR-P--  
NEDSHQF  
FRRIKTV----

>pCRESS7\_KXT29039

VIKED--LIKKDFIDKVLK-KK--K---VLEDGSLKNPHYHIVLVLKTPYDVEY---IASWFKTSS---NFVEKIKG  
N-----MSDILNYLTHKN--DGSIKY---RLD-KRLKDLLTKIMNGEIKEYNISKKITVYENNIYATALERAF  
KFRTNF---LKG-----VK-----RNMDCIFITGKSGSGKTTYAKYLAYVS-----SGSNDILDDYQSQ--  
-ECIILDDLRLPECLGLS--DLLKMLDNNT--ASTVKSRYKNKVL-ECNLMIIITTIPIKFFDLVIFYKK--EKKETIVQL  
QRCKVH----

>pCRESS7\_ODR34583

VSDDT--HLSLETIQA VTDGKA--K---N-KDGTDPHYHVFLRFEDTQDTKY---VAKWFGIAE---NFVKGKING  
K-----WTDALLYLTHEN--ALTSQSL---KAR---EAEIVSLIANGTIKKYNYNEYITPVEYVRLNASIKAAM  
NYRADM---LSHN-----HN-----RQLEVVYIVGGSGCGKSTYAKRLAYVS-----SGSNDVLDYGGQ--  
-DCLILDDLRLPDSIGIS--DLLKLLDNNT--STSVKSRYKNKIL-ECSLIIITTVKEIDEFFSKVFEH---EDEPLKQL  
KRRCRTM----

>pCRESS7\_SCG87263

VSRLTDDLFDINTIPDIKKHS-----VYTEGTLKPPHIHLYLHFNSPQHQP---IAKWFNIGK---QFLEVCHG  
R-----EIDVLAYLVHLTPSSSARRNN---TLHQADIDLICQKIMSGEICEYNKVQMIGPQILFDSGYKIERAF  
KIQQET---FEE-----NN-----RDTLAIYIEGPAQVGKTTFAKTIAYIS-----SSNDLLGDYKQE--  
-PVVILDDLRLPDSIGIS--DLLKLLDNHT--ASTFKSRYKNKYLN-CRIIITSTLEISRFEEVAAG---KAEPIEQL  
KRRCRIH----

>pCRESS7\_WP\_002578150

QNQIE--YTSESSFKNIVNLYKRG---TYTEGNLKKTHIHGMLRLNNSYKFST---IANWFDVTA---QRIRKIET  
S-----YAAACAYLIHRN--NQLTNEN---HMK-KLKKRILEEVEAGTLRGYNFHENYAFSDRVALRSYLNNAI  
EIIKTK---LNSN-----KE-----RDLEVIYIHGSSGAGKTTYAKMTAATS-----GEDRDPVETYDSH--  
-PCMILDELRLPSSMKLT--SFLKLVLDNNT--ESMAGARYHGKAFIECKLIITTSILPIEFFKNLQAN---DNETAIQI  
KRRCKTM----

>pCRESS7\_WP\_011161011

VINSN--LINQSKIENILEAKK--N---IYQNGDLKTPHWHIYLRFNNAVDVKH---IAQWFNTEE---NFVSKIKG  
R-----FSDALMYMIHAN--RIFLRKY---KID-TRLKDILTKIHSGEIKEYNITNYISIIHNIYSAAIEKAF  
KYRTNT---LKG-----IE-----RNMECVFITGMSGSGKTTLAKKIAYIS-----SGSNDVLDYQGGQ--  
-ECIILDDLRLSNCLGLT--DLLKMLDNNT--SYSVKSRYKNKVL-ECKLIITTVKSIDDFEFDFK---KDESIIQL  
KRRCKLH----

>pCRESS7\_WP\_019282500

VSNI--HLDLEYIKEKLESATNGK---TYEKGDLKAPHVHLMKFKSPQKVHC---IAKWFVKVD---NNINKIKS

K-----WVSALRYLIHAN--HNTHNNK----KKQ--RKEEIVNNISKGEWKALDLTDNITELEFVEFSADINKAL  
NYRQTF----LQLNN----KG-----RDMNVIYISGGSGSGKTTLAREYAYVS-----DGGKNPMDNYMGQ--  
-DCIILDDFRPDVMDGFS--DLLKLLDNHT--SSMVNARYYNKFMGECKLLIITTIDDLPDFFKKMQDT---KGEPIKQF  
ERRCKTK----

>pCRESS7\_WP\_028509833

TQDCC--GWTPENVHKFIDGWSSVKDYAYKKDDTTPREPHIHLMLRFSCAVHTSN----ILARAKITE---NRIQKMKS  
WSAALNYLTHRDEHKWKHVYHQA-----KQL---RADKGREKEIVEAIASGEIRLFLNLEHITSYEENLYSKAIKTAF  
NRRTRD---LKLK-----NE-----RNMEVIFISGESGVGKDTFAREWCKDSYF---TTGNNDSPFDDYMGQ--  
-DVIIWSDARDDVYKPA--QIHTMLDNHW--SSTQKARFVDQVLN-CQYFIITSVKPLNEWYKNFYSKE---GEDIKQL  
YRIKTWYDM-

>pCRESS7\_YP\_001966814

VIKAD--LIKQTEIEKVLESKK--K---KYLNGDYKIPHWHIMLRFHQSQEFKY---IAKWFNTTE---NFVSKIKG  
R-----FTDALLYLTHAN--RTFMRKY---KLD-TRLVDILNKINSGEIKEYNITNHIENNIYSAAIEKAF  
KYRNSK---LRE-----MD-----KKMECVFITGQSGSGKTTLAKQISFIS-----SGSNDVLDGYKKGQ--  
-ECVILDDLADCFGVS--DLLKMLDNNT--ASSVKSRYRNKYL-ECNLIITTTKTLNAFFDFTVFNKS---DDEDVKQL  
KRRCRIH----

>pCRESS7\_YP\_003617079

VINQK--LITKTKIETILETKK--K---IYQNGDIKAPHWHIYLRFNQAQDTKH---ISQWFNTQE---NFVSKIKG  
R-----FSDALMYMIHSN--RIFNRKY---KMD-ARLKEIIDKIESGEWKRYDLITKINGYENNIYSAIKKAF  
ERRIDF---LEE-----ME-----RKMECVFITGMSSSGKTTLAKKIAYVS-----SGSNDILDNYKKGQ--  
-ECIILDDLRSYCLGLS--DLIKMLDNNT--ASSVKSRYKNKVL-ECKLIITTVKSIDDFDDIFKD---KDESIIQL  
KRRCTYH----

>pCRESS7\_YP\_006961027

VINKT--LITKTKIETILEAKT--K---TYQNGDIKAPHWHIYLRFNAYDTKH---ISQWFNTQE---NFVSKIKG  
R-----FSDALMYMIHAN--RIFNRKY---KMD-ARLKEIIDKIESGEWKRYDLINKINGYENNIYSAIKKAF  
ERRIDF---LEE-----MK-----REMECVFITGMSGSGKTTLAKKIAYVS-----SASNDVLDNYKKGQ--  
-ECIILDDLRSYCLVLS--DLLKMLDNNT--ASSVKSRYKNKVL-ECKLIITTVKSIDDFDDIFN----KDESITQL  
KRRCKFH----

>pCRESS8\_ABP89830

AYMFCSTVESVSKNLQEIIKLFQEIDT-----EPHYHIIVRFKNAVWLNS----IINKLSQNQS---NFFEAWKG  
KVNNA-----YSYLIHRTEAESKIQS---NSRKETINVVRNLINKIIAGDISFDEAIKEVDGYTLVKYDREFS  
RAKKRRTEIDFENWKENALKNG-----FKREIHWLYGPSGTGKSRLCKHFAKSYT----TGSSRDPFQNVASQ--  
-ETIIIEIRPGNFNYA--DFLLIIDPFN-ADATASSRFFDKPI-IATIIINTPFSPFQFYESISKQ--VGKIDTVIQL  
IRRITLL----

>pCRESS8\_AKG47101

VIMFTQQLKHLN--SQDELIKVNNT-----NSPITSHIHLVLCFKQVRITS----IARNLDQK---EQYFEDIET  
SRNNA-----FAYLIHNTTQAKQIIFY---SP-----KQVLADFNNGNINKLEALKRIKSPRIQYVASIN  
KIEEINIQLKQKNWIAEHEKSQ-----KPIAVVWVYGFSGTGKTEFAKHIAKKDF-----TGSTRDLFQNIQT--  
ASSLIIDEIRPKDIKFN--DLLKITDPFN-YRKFAPARYKDRAI-IADTIIFTSPYSPVRFFSKYKLD--NN--DTFRQL  
QRRITLT----

>pCRESS8\_CDA26462

QFMYTQDLEHLPKQEQLKEILEKSVNE----KGEPIRPHFHVILKFKDAKTISR---IAKLFN-DQQ---QYIEVWHN  
TINNG-----YSYLIHETTAREKVNK---PS-KH---DIENFIDDYSNEQLTKEGLQEIGVLEMAKHKTTLLD  
HIEDILAYKKHQFLKDFK--G-----QKCTTYWIWGSSGIGKTKLVREVLEEII----LGSQRDHFQEYAGQ--  
-EFIVINDLRPNYDYG--QLLTLDPWE-IDKMAPARYHRYL-NARSIYITPYDPLSFYFECNIS--NQVVDSFEQL  
KRRIVS----

>pCRESS8\_CDI42894

NFMYTQDQVDHLPKKNLASILEKSVDE-----SKKKIRPHYHVMIRFKDAKTITK---ISKIFG-DKA---QYIEAWHN  
TINNG-----YSYLLHETNGSRRKVKK---PS-RQ---AIEDYIEDYSNGILTREALQAQIGVLEMAKHKTTLLD

HIDQILDQKKHNEFLEEFK--G-----QKCVTYWLWGESGVGKTRLVREALEKCI----LGSQRDHFQVYEGQ--  
-NHIVINDLRPNDSYSG--QLLMLLDPWE-NDKMAPARYRDKYL-NAKSIFITTPYDPFSFYNGCYIE--  
NMVVDSFEQL  
KRRILP-----  
>pCRESS8\_CDI43023  
NFMYTQDLHLPKDELKDRLEKSIDK-----NGKKVRPHFHVMIHFRDAKTISR----VSKIFN-DHQ---QYIEAWHS  
IINNG-----FSYLIHETTARQKVKK---PS-RQ---AIDNFIDDYSNEEITKEELQDKIGVLEMAKHKTLDD  
HIEDILAYKNHQQFLKDFK--G-----QKCKVYWIYGVSGIGKTKLVREILEKCI----LGSQRDHFQYKGGQ--  
-GFVVINDLRPNDDYDG--QLLTLDPWE-IDKMAPARYHRYL-NARAIYITTPYDPLSFYFECNIA--NQLVDSFEQL  
KRRIP-----  
>pCRESS8\_CUR41281  
IVMYVQQLSYLP-NSLDALERRLKER-----KNGKAIEKHIHLDRFKTRMSVKS----IAKMLDDE----TERIESLEQ  
SWINA-----LSYLIHRTAKSEKSIVG---A-----NKIVDQFLKEEIDYDTAEMLLSAKVLKSKNKKILD  
DAQNFLNRKHKEWVKDKKKTN-----QSIIVVWIWGEAGTGKTSFCKDFMNEYE----ASGHNDPFQNYAG---  
EKGLILDELPRNITYS--DLLKILDPYD-YDKTAVARYHNKYL-MCDYIFVTSPFSPYSFYKNAQVK--DT-NDSLQDL  
HRRISIL-----  
>pCRESS8\_CYW87437  
NVMFTQQVSYLTSG--NLTDIIEKELDE-----NGQLVKPHIHLVLFQDSARSLNN----IAKLLNQP----VQCLEAWRG  
SVNNA-----YSYLVHHTQSARQNVTK---QS-KINSVIINNLLDLYEGAIKKEIEQKLSGSQYAKAKAKIE  
AVYLKQLENRASEWQKEMREKN-----EKSIVIWLFGKAGTGKTRLARHYAKQFI----TGSIRDPFQNYQL---  
EPVILDELPRHQFDYT--DLLKLFDPYN-EQVMASRYFDKPI-MANIFVITSPYSPYDFFLERKS--RHQVDSYQQL  
MRRLTLV-----  
>pCRESS8\_CYX46115  
NVMFTQQVSYLTSG--NLTDIIEELDE-----NSQLVKPHVHIVLQFDSARSLNN----IAKLFNQP----VQCLEAWRG  
SVNNA-----YSYLVHHTKSARQNVTK---QS-KINSVIINNLLDLYEGAIKQEIERSLQSGSQLAKAQSKIE  
TIHLKRLEQNAREWQKEMRERN-----EKSTVIWLFGKAGTGKTRLAKHYARQFI----TGSTRDPFHQYQM---  
EPVVILDELPRHQFDYS--DFLKLDPYN-EQVMASRYFDKPL-MANTYIVTTPYSPYDFFLERKS--  
RHQVDSYQQL  
MRRLTLV-----  
>pCRESS8\_EEJ43069  
TFMYTQQLQHLQVAAVQSRLEN-TV-----DGHPVTSHIHAVLRYQNARSVDS----VAKQVSDK----AQYIEIWNQ  
NYANA-----YAYLVHKTGASS--TG---NR-NQ--LAIKYILDEIVSGKITKEEAYQLLPGSLLSKSVNNIN  
SAFQIRQVLEAERWRKDKKASG-----ERIHVIWIFGVAGTGKTRFAIDFFKFK----SGSSKDPFQGYSG---  
QHGILDDLPRNGLSYA--DLLRFLDPWN-LEAMAASRYFDKGL-QADYVIITSPVLPVEFYDSLFTD--EMDA--FDQL  
TRRLETV-----  
>pCRESS8\_EFO53527  
NIMFVQQIEYFQSS--NLQDIIEYIGQ-----DGNLVTPIHLVLFQFESARSLNN----LAKLTKQP----IQCFEQWRG  
SVNNA-----YSYLVHHTESNEKNVTK---RY-EINTMIIDNLLDLYIGDITKSEIEQRLTGSQYAKARQKIE  
TVYLKRLTQAEWRQEMIDKN-----EIVTIIWLFGKAGTGKTRLARQYAEQFI----TGSIRDPFQYQNL---  
EHVILDELPRHQFDYS--DLLKMFDPYN-VKAMASRYFDKPL-LANIYIITSPYSPYDFLELTKK--RKHIDSWGQL  
MRRLSLV-----  
>pCRESS8\_KRK41125  
SFMYTQDLHLPKPEELKDRLEKSTDK-----DDKEVRPHFHVMLHFKDAKTISR----VAKVFA-DQE---QYIEAWHS  
TINNG-----YSYLIHETTNNARKNVKK---PS-RK---EINFDIDYSNEKLTKEELQEKIGVLEMAKHKILLD  
HIDDILAYKHKHQQFLKDFK--G-----QRCRTYWLYGVSGIGKTKLIREILEEFI----SGSSKDHQFQYKGGQ--  
-HFIVINDLRPRDYEYG--QLLTLDPWE-IDKTAKRRYKDVFI-NVCAYFISTPYSPLNFYNECRID--NRLVDTFSQL  
ERRVIA-----  
>pCRESS8\_KRN00682  
QFMYTQDLNHLPKKEDLKTILEKSIDK-----DGKTIRPHFHVVLKFKDAKTISR----IAKLFN-DKQ---EYIEVWRN

TIGNA-----YSYLHETRNARKKVAK---PS-KK---DIDDLIDDYSNEILTKTELQEKIGVLEMAKHKTLLD  
HIEDILAYKKHQFLQDFK--G-----QKCTTYWIYGESGIGKTKMVREILEQVI----LGSQRDHFQEYRGE--  
-EFIVINDLRPRDYEYG--QLLTLDPWE-IDKMAPARYHDKYL-NARAVYITTPYSPIAFYQGANIV--NGLIDSFEQL  
NRRIT----

>pCRESS8\_KRN07545

VWMYEQQLEHLP-FNIDALKRRVDSVN----AEGKRVKSHIHLVMTFKERVAANS----LGKVFGDQ----PQQFESAKK  
GADNA-----FMYLIHQTDNSKRAQID---P-----RDIIELGAGEIQEEQARAMMMANTYFKYSRRIS  
EVALGANKLKFEKWLKNKIETK-----ESIKVIWIYGGAGTGKTRYAVEFADKFK-----TVTTNDPFEQYNG---  
QKILIIDELRPETLKYD--DVLHLLDPMS-YEKKTVARYHNSNI-MADFIFVTPYDPLTFYEKITKL--DRSVDSFEQL  
RRRIGLL----

>pCRESS8\_KXA58447

AIMYTQQMRLAILS--DWKKEIDRVNE----DGETVEPHIHLMMYFKHARSPHS----IAWEINERNGKQIERLEFFK-  
HLNNG-----FSYLVHQTKDARKQVER---NQ-SKKGELIREYLDMLYDGLLTLEEIESELTGSQYAKASTRLK  
AVAEKRQERLGREFLNRMKYEQ-----KTKQVVIYGESGLGKTRLAKTYAENFV----TGSSRDPFQSYQN---  
QETIIDELRPDSFRYD--DLLKILDPYN-FDVFLPSRYIDKAL-TAELIFITSPYSPKELY-DNFQT--SKRIDRFDQL  
ERRIQT----

>pCRESS8\_SCH55298

AMMYEQQLCHLP-SVDEMYRRIE-ITD-----AGRPAADHLHVMMEFANPRSVRS----VAKSLGDK----AERLEAWKA  
GTENG-----FSYLCHRTDGAESRVSK---A---RSHSILLDDLLEGRIDREGLISQLSGSEYARAKRQIE  
DVYARRLQVSAAEWRAKMRDEG-----RRVQTIWIFGPAGTGKSSLAKQYAQSFV----SGSTRDVFQGYAG---  
QHTIILDELRPSSIPYA--DLLRVTPYAIHEVMAPARYADKAI-AADLIIVTTPYNPMEFYCEQVRG--ATDIDGFGQL  
ERRLSLV----

>pCRESS8\_WP\_000093566

AIMYTQQMRLAILS--DWKKEIDRVNE----DGETVEPHIHLMMYFKHARSPHS----IAWEINERNGKQIERLEFFK-  
HPNNG-----FSYLVHQTKDARKQVER---NQ-SKKGELIREYLDMLYDGLLTLEEIESELTGSQYAKASTRLK  
AVAEKRQERLGREFLNRMKYEQ-----KTKQVVIYGESGLGKTRLAKTYAENFV----TGSSRDPFQSYQN---  
QETIIDELRPDSFRYD--DLLKILDPYN-FDVFLPSRYIDKAL-TAELIFITSPYSPKELY-DNFQT--SKRIDRFDQL  
ERRIQT----

>pCRESS8\_WP\_002821392

GWMFVEQLKSLNRT----SQIQNVNA-----QGEPIPAHIHLMMSFKSAVTAIT---LAKHFSTT---PERFERNKF  
GIING-----FNVLVHRTQNSEQAIKR---SKKSKSRESVNFILDQFGDGLINKATARIRLEGHILAQNSTKLQ  
NLDKERAIDYMNWRKMMIGNH-----FVKTTIFIFGETGCGKSLAKKIASQYF-----SGGSNDPFQDYEG---  
ERAVILDELRPGEIYEP--DLLRILDPYS-WDTATHSRYHNSKL-QAQLFIITPYDPYFFYRFTKDL--VRFMDPFQEL  
NRRISMT----

>pCRESS8\_WP\_003549058

QFMYTQDLHLPKEDLKTLLKESIGK----NGKTIRPHFHVVMKFKDAKTISR----VAKLFN-DKQ---EYIEVWRN  
TIGNA-----YSYLHETSNAARKKVAK---LS-KK---DIDDLIDDYSNEILTKTDLQEKIGVLEMAKHKTLLD  
HIDDILAYKKHQFLKDFQ--G-----QKCTTYWIYGESGIGKTKMVREILEQVV----LGSQRDHFQEYRGE--  
-EFIVINDLRPRDYEYG--QLLTLDPWE-IDKMAPARYHDKYL-NARAIYITTPYSPMAFYNESGIV--NSLIDSFEQL  
NRRILS----

>pCRESS8\_WP\_003665528

VWMYTQQVEDLPFDSIDALIRRINKK----GKK--VTPHVHVGFTLKRTTISR----MSKILNDR----TQQITSVAN  
STKNL-----MGYLIHHTREAE-EITS---T-----RDILDEYANENISRDQAESLLKGSDLAHLNLRNLD  
ALDSYILEEKRRRWVQKMKKAK-----KPIYVWVLSGAAGTGKTTYAKRYAEKVFV----TTSQNDPFQGYRG---  
QQVLIIDEIRPETLSYA--DLLQICDPYL-YEKNLTARYRNPSF-QSSIVFLTSVYTPLEMYNAMRVK--RK-IDTFNQL  
KRRIGMN----

>pCRESS8\_WP\_004900270

QFMFVQQLRYLGYDLTALNERIDILTE----DGELIEPHLHLALRFENPVSLKR----LAESLETE----PQYIAQWKG  
AANNL-----YSYLHRTETAEQAIQG---RK-GKRGTLNETLDALLEGNITLFDFAFEILPGRIAGKHRKKLE

SAYQTRMELNAKVWLENKKALG-----KPIQVFWFYGPAGVGKTRYAKQYLSRFI-----SGSNRDPFQNYSKS--  
AHKVILDDIRPNTFSYE--ELLRIFDPWN-MEVSVGSRYSDKNL-QVDIFIITSPLAPDVFVDTLQVF--ELDDN-FDQL  
LRRLLTV----

>pCRESS8\_WP\_006499656

VLMLVQQVQLPNNPKHFLKSKCEKS-----KNNDLVVPHYHLMQFDHRVDVAA----VAKIFEQG----IEHFESTKT  
AAKNS-----FAYLVHATDNSE-SELS----T-----ADILDGVAEGNITKDQAFDMLRARIHVHNKKSVE  
TMAEEYQRKHHLEWLKKNRNEEG-----KGIPAVWCFGQGGTGKTSYAKHFAEEFV----TSGSNDPFQGYQG---  
EEVLIIDELRPDVL PYS--DLLQLLDPFN-FEKRLKARYFNPF--SSNFIVCTVMGPIEFYNSMAIA--HKNIDTFEQL  
RRRLAMV----

>pCRESS8\_WP\_007125042

QFMYVQDLNHLKESDFKQILNQSKDQ-----EGKIIRPHIHAVLKYENPQKLST----IANLNFN-DQA---QYVDVWKG  
RIANA-----YSYLLHETEEARTKISK----S--PK---YISSLINQYAEGKIYQEQLEDQIGISQLARRKKLID  
QIDELKADKEHKEWLKKEFE--G-----KPMHTLWLYGEAGVGKTRYAEYLLRKYVI----LGSSRDYFQTYNGE--  
-HFIIINDLRPNDFNYS--DLLRILDYQ-HDKAAPSRYRDKKL-SVEEIIITPYSKDFYRTTKID--DRQVDTVDQL  
LRRIQP-----

>pCRESS8\_WP\_008469878

QFMYTQDLHLPNIKSLQSLIKTEKNE-----DNTPIRKHLHLVLKYKNPQTLHH----ISNLLT-DKD---QYFEIWN  
GINNA-----YSYLIHATNEAKDSISN----S--NN---KVQTYIQRYAEEEEISYKQLIDQIGLINAKNKRLID  
TIQNLLISKHHQEHLNFE--G-----KKMICLWLWGDAGVGKTTYAKKLLSQIV----LGSSNDYFQNYTDE--  
-SFAIINDLRPEDWKYA--DLLRLLDPYE-HNKMAPSRYHDKEL-NLEMIITTPYSPQSFYHNSRIF--NPKIDSFEQL  
KRRIFP-----

>pCRESS8\_WP\_008472153

NFMYVQQTKYLKKEEFSEVLNGIEG-----VEEHYHVILHYEHSSRIST----VANIFD-DDP---ERVQIWDN  
RWNNNA-----CGYLIHATKNSQSRVSG----A---K---QIENVIKEYGNGDIDRDELELKLGDALAKNHIWIS  
RIDDIRAQRKHEEFLKDFE--G-----HAQETIWLWGAAGVGKSRADFLTQGAK----LGSSRDYFQDYHGE--  
-SFVILNDRPNDFSYA--DLLRITDPYQ-HDKSAPRRYHDLKL-NLKMIIITPYSPPDFYCYCKVN--NYQIDTFDQL  
KRIHA-----

>pCRESS8\_WP\_010817837

NVMYEQQLHHLPTKRRTLNSIHKQVND-----EGVPVEKHVHVVLQFQHARSLEN----LARLIKEPQ---VSAFQKWHG  
NINNA-----YSYLVHRTTDASKKINK----SN-KQRNEIHKQLLDRLGAGELTREEVISNLTGSQFAKAKKHIQ  
DVHEQVQADKAKIWLEKRKEG-----EPITVIWIYGQSETGKSLLAKKYAAKFI----TGSSKDSFQYYQG---  
EHIVILDELRPKTFPYD--DLLKMLDPFG-ENPKAPSRFFDKSL-MVDVFIITSPYSPKQFYDEIFKR--KKTIDSFQQL  
QRRISYV----

>pCRESS8\_WP\_011254167

QFTYVQDTHLKEPKQFQDFLSKSADQ-----NNK-IRDHYHVVLKYANPQTISK----IANIFK-DKE---QYVQIWN  
RIDNA-----YSYLIHETS DARTSIKR---KSSKN---DIEEKLKDYAENIISLYELRKSIGAF TTPSIQRHIK  
EIKKLHDEDNHQKWLRSFD--G-----KKMKVIWLYGEGGTGKTRCARAMTKDVV----LGSSNDYFQAYDQG--  
-RVIIINDLRPSDFKFG--DLLKLLDPYE-HSKEAPRRYRNKVL-NLEKIIITPYSPIFYNHCIYIE--DKKIDKIEQL  
TRRITQT---

>pCRESS8\_WP\_012845653

NFMYTQDLHLPNKD TLKTRLEKSVDE-----NNKKIRPHFHVMLRFKDAKTISR----ISKIFN-DKQ---QYIEVWKN  
SINNG-----YSYLIHETSKARRKINK----PS-KQ---AVDNYIEDYANEIISKEDLQNNIGVLEMAKHKNLLD  
HIEDILAFKKHQKFLKEFK--G-----KQCKVIWLYGKAGVGKTRLIRNFLEHII----LGSQRDHFQYKGGQ--  
-NYIVINDLRPNDEYEG--QLLTLDPWE-NDKMAPARYHDKYL-NAKAIFITPYSKDFYNTCNIE--NIFIDSFQQL  
KRIIS-----

>pCRESS8\_WP\_013641468

NFMYVQQTKYLKPKDPQFIELLNGRDG-----VEEHYHVILHYKYAARLST----VSHLFD-DDP---ERIQIWDD  
RWNNNA-----CGYLVHATSNSQSRVSG----S---K---NIEKVITQYGNYEISREELELKLGDALAKNHVWIS  
RIDDLHAEREHENFLKEFK--G-----RAQETLWLWGEAGVGKSRADFLTKGAK----LGSSRDYFQDYKGE--

-NYVILNDRPNEFSYA--DLLRLTDPYQ-HDKAAPRRYHDLKL-NLKTLIITSPYSPEDFYEYCKVD--NYQIDTFEQL  
KRRLHV-----

>pCRESS8\_WP\_013641481

QFMFVQDVEHMKFEELPNILKSENDK-----EDTKVRDHIHVVLKYRNPQTVAH----VAKLFK-DKS---NNVQIWIG  
RINNA-----YSYLVHNTDNAEENVSL----AK-QR--NIKEAINGFAEGDIDYKELIETLGIVNVAKNRNLID  
SIQKIREQVIQHEWVNQFN--G-----KQMASLWLWGEAGVGKTTYAERILSNIV----LGNSNDYFQYYNGE--  
-HYIILNDRPGDLKYA--DLLRILDPYA-IKYTFG-RYHNHPL-LAEMIITTPYSPREFYKNTRIA--NRKIDSLTQL  
QRRIFE-----

>pCRESS8\_WP\_014567781

QFMYMQDVDHLKKEKSLKSILNKSIDE-----NGKLIRPHYHVILKYEYPRISLS----VAQIFK-DQT---QYVEIWSG  
RIANA-----YSYLHETEEARKKIKK---S--SK---YVMEMIERYANNKLTYEELAKELGVMPMAKHQQLID  
RISQVQEEEEAHKRWLTKMK--G-----KSMKVIWLYGAAGVGKTRMAEIMLSKVI----LGSSRDYFQDYHGE--  
-HYIVLNDLRPNDFPYS--DLLRLLDPYQ-HDKAAPSRYHDKKL-SAEIITTPYSPYDFYRNISIH--DKSVDTIDQL  
LRRVIP-----

>pCRESS8\_WP\_016226904

NMMYTQQRHLPVSTDQLVSRVK-VNE-----QGEPADHVHVMLSFENARSINS----IAKELGDE----PQSIEMWKG  
KAENG-----YSYLHATKDSSTEEVER---S---RQTASKILLDSLYKGEISKEELEKRLSGSQYGRMRRQIE  
DVWCKHLQFQAAKWREEMKKS-----KRIKVIWISGEAGTGKTSLAKEYAEKFI----TGSSRDIFQNYSG---  
EHTIILDEFRADMMKYP--DLLRILDPFG-SQVMAPSRYNDKPL-ACDLILITSPYNPVEFYRQLFS---RAFVDSLEQL  
LRRISLT----

>pCRESS8\_WP\_016356676

NFMYENQLKYMKEDINMLAKYVEETIN-----ESELVAPHYHIALKFENPRNVNS----VAKKFN-DLP---QNFEIWLN  
RPNNL-----YSYLHKTSDATKSIHR---GRNEE---IRHLIDSGNGEITLKLMEELSPTEYARNENQIN  
IHKLLANKRFEAFKKRMDSEE-----KRIEVFYLFGGTGTGKTRFAKTRYK-YI----TGSNRDLFANYDGE--  
-TVVILDELRPNSISYN--ELLKITDPFN-FENVVGSRYLDDKKL-VAETIVITPPSPEEFYQTLKGE--QTNIDKKEQL  
FRRINV-----

>pCRESS8\_WP\_016622553

NFMYENQIEYMKKEIDKLSKYVKEFIT-----ENKLVAPHYHIALKFENPRKVVN----VAKVFN-DSP---QNFEIWLN  
RPNNM-----YSYLHKTNQATKSIKR---NRKEE---IQHLIDSGNGKVTLNQLMNELSPTEYARNEHQIT  
IVKKLLANQRFEFKSRMENEQ-----KKIEVFYLFGDTGTGKTRFAKSRYK-YI----TGSNRDLFANYDGE--  
-SILILDELRPNSISYN--ELLKLTDPFN-FENVAGSRYFDKKI-VAEKIITSPFSPNDFYRALKSD--KSDVDKKEQF  
FRRINV-----

>pCRESS8\_WP\_024410839

NVMFVQQIEYLNSS--NLQGIHDKGQ-----NGDTVEPHIHLVLQFESARSLNN----LAKLTEQP----IQCFEQWRG  
SVNNA-----YSYLVHHTESNEKNVTK---RH-EVNTMIIDNLLDLYTGEITKSEIEQRLTGSQYAKAKAKIE  
AVHLKQLENKSCREWQKEMREKN-----EKSIVIWLFQKAGTGKTRLARRYAKQFI----TGSIRDPFQHYQM---  
EPVILDELRPHQDYS--DLLKMFDPYN-VKAIASSRYFDKPL-LANVFIATSPYSPYDFLELRKG--RHDVDNYQQL  
MRRLTLV----

>pCRESS8\_WP\_033683822

NVMFVQQIEYFQSS--NLQDIIEYIGQ-----DGNLVAPHIHLVLQFESARSLNN----LAKLTKQP----IQCFEQWRG  
SVNNA-----YSYLVHHTESNERNVTK---RY-EINTMIIDNLLDLYTGNITKSEIEQRLTGSQYAKARQKIE  
TVYLRLETQAEWLRQEMIDKN-----EIVTIIWLFQKAGTGKTRLARQYAEQFI----TGSIRDPFQYQNL---  
EHVILDELRPHQDYS--DLLKMFDPYN-VKAMASSRYFDKPL-LANIYIITSPYSPYDFLELTKK--RKHIDSWGQL  
MRRLSLV----

>pCRESS8\_WP\_034540695

VLMFEEQDQHFQDSSSIEEFLTDRCEVT---NNGQPVKPHYHLTMYFDNRPMVSS----IADALDTT---ENQIEKJET  
ARVNA-----LMYLIHATRNAS-LNDD-----P-----TDILDDLGNKIVRTQARSRMMMAQVLAKYNRKID  
EIAEASLAIQNEVWRKEHEDSH-----SELKVYWFFGQTGTGKTRFAKYLAKEFV----TGARRDAMQDYEG---  
QHLLIWDDEL-DDVEYS--ELLRLLDPYN-FDKAISSRYYNKLN-MPDIVIITSPYSPDELYSVMRIT--DRKIDKVDQL



VRRVPPII----

>pCRESS8\_WP\_042900192

AIMYTQQMRLAILS--DWKKEIDRVNE-----DGETVEPHIHLMMYFKHARSPHS----IAWEINERNKGQIERLEFFK-  
HPNNG-----FSYLVHQTKDARKQVER----NQ-SKKGELIREYLDMLYDGLLTLEEIESELTSQYAKASTRLK  
AVAEKRQERLGREFLNRMKYEQ-----KTKQVVYIYGESGLGKTRLAKTYAENFV----TGSSRDPFQSYQN---  
QETIIDELRPDSFRYD--DLLKILDPYN-FDVFLPSRYIDKAL-TAELIFITSPYSPKELY-DNFQT--SKRIDRFDQL  
ERRIQTA----

>pCRESS8\_WP\_046025501

VMMFEEQDKFF-EASDIGEFLKQSCQK-----EPAEPHYHLTMYFKGRPMVSS----IAEMLGTT----PKQIEKVET  
ARKNA-----FMYLIHATLNAL-MQVT----P-----EGILEDLGVGKLTKTQAREKFMATVLAKYNRKIN  
DVAEASLAIQYTKWRKEREAKH-----YQLMTFWFCGPTGTGKTRYAKYLAENFV----SGGQRDAMQDYEG---  
EHLIMWDELN-NNVYYL--ELLRLDPYN-YDKAISSRYFNKNL-MPEVMIITSPYRPDELYKIMDIS--DRKQDKLNQL  
TRRVPLI----

>pCRESS8\_WP\_046324376

QFMYMQDFAHLKDFTELTKALDQ-----GNRLIRKHLHVVLKYANPQILSH----VVRLFN-DKP---QYLEVWQG  
RISNA-----YSYLHATLEAQSSVNQ---SRLSK---VVANFLTQYANEEIDYQELADIIGLAEVAKRKSVID  
NITKLIADKKHEEWLHEYH--D-----RKAETIWLWGEAGVGKTRYANKLVRGAI----LGSSRDYFQDYHGE--  
-HYVILNDRPNDFRYA--DLLRLDPYE-HDKVAPRRYHDVKL-NVEMLIITTPYSPFEFYQHVKIA--DEKTDTFEQL  
KRRVHA----

>pCRESS8\_WP\_046923918

VFMFEQQVGYMPPIDQLYEKRKE-----DGTLKTPHYHMSMYFDHRKTVNS----VAKMLNSK----PQQUIESTVE  
AKNNA-----FAYLCHRTKNAE-SKVN---NA-----NDILELLNDRHITKDQAIERIKGVAYSRNAKKIE  
TIAYANLRADYKDWLKRMEKEK-----RDVKVLWLYGYAGTGKSHFATDLATDKK----LTSKHDDLTDLNIK-D  
QDVLIFDDFRPDTLPYS--SILQIFDPLN-LGVSLDARYHNAYL-MSEYIIVTTPFSPYEFYQSMYIR--NRKIDTFEQL  
SRRYAT----

>pCRESS8\_WP\_049150683

QWMYVQYFKYLPKINNLTILTKDTKE-----DGSLISPHVHVLIKYSNPQTLKH----VANLFK-DKP---QYFDIWK  
RINNG-----YSYLHSTSEAQRQVLN----KKISN---NSNLFIEKYAEGEISYNDLENIIGVVQVARHKTIID  
HINQINASNKHKEWLKSFK--G-----KPMETHWLWGAAGVGKTRYAKWLAKNAI----LGSSRDYFQDYHGE--  
-HIVILNDRPNDFNYG--DLLRLDPYE-HNKMAPRRYHDVYL-NLEMLIITTPYSPWFSYKQCKID--  
NPEVDYKQL  
NRRVHA----

>pCRESS8\_WP\_049523992

NVMFVQQIDYFKTP--NIQAIKEIGS-----DGTAVAPHIHLILQFESARSLNN----LAKLTSQP----IQCFEQWRG  
SINNA-----YSYLVHHTSSDEKNVRK----RN-EVNSMIIDNLLDLYAGEITKSEIEERLTGSQYAKAKHKID  
TVHLKRLEIQAESWRHEMKNKN-----AIVTIIWLFKGAGTGKTRLARQYAEQFI----TGSIRDYFQSYQN---  
EHVILDELPHQFDYS--DLLKMFDPYN-DRAMASSRYFDKPL-LANVYIITSPYSPYNFFLELTKK--  
KQHIDSWGQL  
MRRLTLV----

>pCRESS8\_WP\_050444210

NVMYEQQLRYLPTKRKTLNSIIKLIND-----KGEVIEKHVHVVLQFQHARSLKN----LARLLKEPQ---VSAFQKWHG  
NVNNA-----YSYLVHRTADASKKITG----SN-RQRNEIHKQLDRLGAGELTREEVISNLTGSQFAKAKKNIQ  
DVHEQVQADKAKIWLEKRKEK-----ESTTVIWIYQSGAGKTLAKKYATKFI----TGSSKDSFQHYQG---  
EHIVILDELRPKTFPYD--DLLKMLDPFG-ETPKAPSRFFDKSL-MVDVFIITSPYSPKQFYDEIFRR--KKTIDSFQKQL  
QRRINYV----

>pCRESS8\_WP\_050492321

AIMYTQQMRLAILS--DWKKEIDRVNE-----DGETVEPHIHLMMYFKHARSPHS----IAWEINERNKGQIERLEFFK-  
HPNNG-----FSYLVHQTKDARKQVER----NQ-SKKGELIREYLDMLYDGLLTLEEIESELTSQYAKASTRLK  
AVAEKRQERLGREFLNRMKYEQ-----KTKQVVYIYGESGLGKTRLAKTYAENFV----TGSSRDPFQSYQN---

QETIIIDELRPDSFRYD--DLLKILDPYN-FDVFLPSRYIDKAL-TAELIFITSPYSPKELY-DNFQT--SKRIDRFDQL  
ERRIQTAAAA

>pCRESS8\_WP\_051448806

--MYQQQLSHLPSKRKTLNSIVKSVNE-----EGDSIEKHVHVVLQFENQRSLELRAKVLNEPQ---ISSFQQWRG  
NVNNA-----YSYLVHQTKEATKKIEQ---KI-KMKSEIIKSLLDQLGAGELSKDEVILNLTGSQFAKAKKQIN  
DVYQQVQEQKSKFWLEEQKSKN-----EPITVIWIYGSSGTGKTALAKKYADEFI-----TGSSRDSFQHYDG---  
EHLVILDELRPDTTFNYD--DLLKMLDPFG-ENPKAPSRFFDKSL-MIDIFIITSPYSPKQFYDEIFRH--KKTVDSTFGQL  
QRRITFV----

>pCRESS8\_WP\_056985318

QYMMVQDLKLPDLKKEILSGLKSE-----NGGLVTPHVHAVIKFENERMLDT---LADTLK-VKP---QYLQVWKG  
RINNA-----YSYLIHLTSGATNRVSK---Q-----EIKDALNMYANGGLSQTTELKTKIGNLAYAQNLETIK  
KLNTVLDNQAHEWLKSFQ--G-----QKMTVDWYYGKAGVGKTRLALKEAKECV-----LGSSNDYFQDYDSQD-  
-HVVILDELRPNDLYG--DLLKIMDPYQ-HDKHAPRRYRNVAL-NIEKLIITPYKPFYKMTKIA--DRRVDTVEQL  
KRRISKV----

>pCRESS8\_WP\_057827085

GVMYVQQLDKMKFS--SLDALKRRTNG-----DNELVKPHVHVMLEFESPRMLSA---IAKELDDA---PEHFEHNKN  
GINNG-----FAYLVHRTKNAKTEVNE---G--RYEKMGISNLLGDFINGKLTKEAKEIAKPGQFAHICKRID  
ESEVQMEELKADKWIQEMQGH-----EAKKVFWIYGPAVGKTTLAKMITESFT-----SGSSRDYFQNYHG---  
EHCILIDELRPNVIDYS--DLLRILDPYN-YNCNVPSRYHDHRL-TANAIVITSPFSPGDFYIHQRDL--NTEVDAFKQL  
HRRLNYV----

>pCRESS8\_WP\_057827851

AYMYVQQVDNLPKAGQSLDALIKRSDE-----GGNTIKPHIHVMLELDKQRSVKN---IAKALDDS---SERLEYKRH  
GIENG-----YAYLIHRTQGAQQKVRV---VN-KKSKEFIKEVLNNYLAGRISEIEAKRQVPLMLPRFLRQLD  
AIKNTKLEVEADEWFQSRKGD-----TPKSIVIWISGSGGTGKTVLAEMVARNYL-----SGSDRDYFQDYNG---  
EHCILIDELRPNVIDYS--DLLKMLDNNR-FDVSAPARYHDKKI-LADLIVITSPYDPARYYQNVEDI--RPAIDGFDQL  
DRRLTMV----

>pCRESS8\_WP\_057906729

AYMYVQQDLKLPKADQSIDVLIKRSDE-----DGNAIKPHVHVMLELDKQRSVKN---IAKALDDS---SERLEYKRH  
GIENG-----YAYLIHQQTGAQQRVRV---TN-KKSKEFIKEVLNNYLAGKISEIEAKRQVPLMLPRFLRQLD  
AVKSTKFEIESDEWFKNRSENN-----KSKSVVWISGHGGTGTVLAKMIAENYM-----SGSDKDYFQDYNG---  
EHCILIDELRPNVIDYS--DLLKMLDNNR-FDVNAPSRYHDKKI-LADLIITSPYNPARYYQNDESI--RPTVDGFQEL  
DRRITMT----

>pCRESS8\_WP\_060461663

QFMYVQDLHLKDEKDLSTILKQSKDQ-----DGKTIRPHIHVVLKYENPQKISS---VASMFK-DQP---QYVGVWKG  
RIANA-----YSYLLHETEEARAKVTK---S--PK---YVSSLIDQYAESKITYDELESQIGISQLARRKLVLD  
QITELRAEKEHEKWLKDFK--G-----KKMKVLWLYGAAGVGKTRFAEYLFNRNSI-----LGSRRDYFQDYCGE--  
-HFVILNDLRPRDFSYS--DLLRILDPYQ-HDKSAPSRYHDKKL-NLEEIIITPYAPTDFYKYVFID--DRRVDTDEQL  
LRRIQP-----

>pCRESS8\_WP\_062359070

TFGYTQQLSHLN-RLEDFPRMEERTA-----DGVLKASHVHVVMKFENPRSLQA---VSKIFHDS---PQYVEKTRN  
GYNNM-----LAYLTHRTKGATAKVEQ---RD---SKTLDELLERLMDYSITYEEAVGELTASEFSRYHQRLK  
VTAEYGRQQYAKRWIKEHEDNH-----KPIEVIWITGPAGSGKTVEAKKIAREYV-----AVGVRDPFQLYTD---  
ENVIIDDLRAKTFDYN--TLLQLLDPFN--STMADARYSNKTL-IADTIIITSVYSPLDFYHMLVPE--IYDVTYKQL  
ERRIS-----

>pCRESS8\_YP\_006939186

TQQLKYLNSIEQLKNNLENDAYIQDFAMILDENNQNAEHLHVFILNQQKTIDY---VADLVDDKA---QYIENKSR  
NEQNG-----YLYLLHKTKSAEHKHYENNLKKYQSKRKTVVQSILNDYADRIIDEKELKDSLTLNLELAKNKKLIN  
DIKQVLIIEFDFTYLEQERYKN-----KQVWVIFGKSSTGKSMMSQLLAKDYV-----TSSNRDPFEDYQNNQ--  
-KVLIIIEFRNENIGTN--ELLQLLDKTN-GQVRVGSRYSNKKIMADLIINTIYEPKYFMFDEPIYQLLRIDKLVKLD

NQKIET-----

>pCRESS9\_ATL14544

NTKDIFLTYSKCPLGKDKIHNHIELMVSENHQDHKE-IHTHVLFQLTKRFNIKS-----ERFFDIEG--FHPKIENARD  
IEKSI-----DYIKKDG---DFIV-----RKSLDNFIKLNDRDFYYEQIDLIEKILKKKFIKQTELLD  
KGYDLDTFKVVKSTQEIGSDQL--KVK-----RPLSIVIEGPSRLGKTEFIISYNHFN-----IRGSFDFSKENYND-S  
FKVDVYDDISINYISAG--LLKNIIGGQR--GFIVDVKYSPKRLSGNKLIFLVNPD--ISFESWCEEDEKYAGETYIK  
DNCIF-----

>pCRESS9\_BAD36752

KAQNIFLTYSCDLSKEEIKTFIINICDEENHQDHKG-KHHHVFFQLNKRLQTRD-----LTIFNIPKNNYSPHIEPIKD  
TTDVR-----NYVKKDG---DFII-----FKKLKLYAESLEPNYAFKN-----AKRFKNMVFVFE  
SIFDFCTFKKIPILTSTYETQK--EQSS-ISKRFKTLIVEGNSKSGKTQFFKSVTPFN-----IKDDVDFSDENYDE-D  
KYVNIYDDIDIYDIARN--LTKVVIGNQK--DSIVNMRYKPRTKIKGSDISIMLVNED--TSIEKYCFDNFKRGRKEYIR  
ENAIF-----

>pCRESS9\_CBX25033

RTKDFMTYSQCDLGKEKIFNHLKQLMASENHADNNG-VHSHVFLQLKKYLDIQS-----GRFFDIDG--KHPEIERART  
VQGSV-----DYVKKDG---DFII-----KSLNDFILKTDRDFYKIDLIKKILNERFTKKKELED  
EDYSFNSFKSNTNEIQTQL--SVS--LGKRPKSIVIEGPSRLGKTEFISYTHYNY-----TRGEFNFSKQSHKN-A  
YKINIFDDISLTKIKEG--LIKDIIGGQK--GFTVDVKYAPKRNISGKKLSIFLVNPD--ISFENYCEWSRNNGHKIFYE  
DNCIF-----

>pCRESS9\_KXT29014

KTKMVGLTYSRFPVKEKFIQLLKELFNSKCNDYHMDSGLHIIHALLVFDKKIQLRD---AQKVFPALPN-----YQTAKF  
GHLDR-----FRAYIIKKGNFIENGIP---DIERLVLSGLIVAELKQLSFGYKLDNVLYWDKLRDKMSKTFVFE  
LIYDFDSLFEFPMVEKMVLKLMNSG-----VRKKSFLIVGGTGIGKTRMIKTILKYSY-----IKGKIDFSPKKFDD-S  
RPVVIMDDITLQYLPED--GFKNFIGNGD--  
TTEVDVKMQKTATITGGKLFYIVNKHPEKWKVKNDEYDHIYIRKNIEVI  
EFDEKDKL---

>pCRESS9\_KXT29032

HSRNIGFTYPNLSLSKEEVQKIFIQKESRSRELHEDGEPHIHILIQLNKKTEFCN---AREFFALPT-----FNKNNE  
TPEHWY-----RYIGAYGDVLDGIFKLLISAFEAEKALNQYLQELDVVIYYKQFPIRDRVIQENFYPKSPVVK  
REHSLQTFRLYHEKVQLIIEQFN-----SKSPLTIVLEGLTQIGKTDLAELIQPN-----YTKIDFNFSRENYNDS  
YKICIYDDMGMEEVSKK--LMHALIAGRG--  
SFQTPREPYGKKRTISGNKLNIFIVNRNKSFKGWIEKNKEWKRFEYVEPN  
VIIDLDF---

>pCRESS9\_WP\_011264167

QAQNIFLTYSCDLSKEVIKTFNINLCNEENHQDHKG-KHHHVFFQLNKQFRTRD-----LTIFNIPKNIYSPHIEPIKD  
TTDVR-----NYVKKDG---DFII-----FKKLKLYAESLEPNYAFKN-----AKRFKNMVFIFE  
SIFDFCTFKKIPILISYETQK--GQSS-ISKRFKTLIVEGNSKSGKTQFFKSVTPFN-----IKDDVDFSDENYDE-D  
KCVNIYDDIDIYDIARN--LTKVVIGNQK--DSIVNMKYKPRTKIKGTDISIMLVNED--TSIEKYCFDNFKRGRKEYIR  
ENAIF-----

>pCRESS9\_WP\_011412950

NTKDFMTYSQCDLGKEKIYHHIKQLMASENHADNNG-VHSHVFLQLKKRYQVVN-----NRFFDIDG--  
KHPEIERART  
VQGSV-----DYVKKDG---DFIV-----KSLDDFILKTDRDFYKIDLIKKILNERFTKKKELED  
EDYSFNSFKTNSKTNEIQTQL--SVS--LGKRPKSIVIEGPSRLGKTEFISYTHYNY-----TRGEFNFSKENHKN-A  
YKINIFDDISLTKIKEG--LIKDIIGGQK--GFTVDVKYAPKRNISGKKLNIFLVNPD--ISFENYCEWSRNDGHKIFYE  
DNCIF-----

>pCRESS9\_WP\_011412958

NAKDIFLTYSKCPLGKDKIHNHYIKEIMISENHQDHKE-IHTHVLFQLTKRFNIQS-----DRFFDIEG--FHPRIETARN  
IEKSI-----SYIKKDG---DFIV-----KSLNDFIKILDRDFYKIDFVEQVLNKKFTKKKELED

EDYSFDSFKSNSKTNEIINQQL--SVS--LGKRPKSIVIEGPSRLGKTEFILSYTHYNY-----TRGEFDFSKQNHKN-A  
YKINIFDDISLRIKEG--LIKDIIGGQK--GFSYNVKYAPKRTIAGKCLSIFLVNPD--ISFENYCEWSRNKGYKYYLE  
DNCIF-----

>pCRESS9\_WP\_012662291

QAQNIFLTYSQCDLSKEEIKNFIINLCNEENHQDHKG-KHHHVFFQLNKRFKTRD-----LNIFNIPKNIYSPHIEPIKD  
TTDVR-----NYVKKDG---DFII-----FKKLKLYAESLEPNYAFKN-----TKRFKNMAYIYE  
SIFNFCTFKKIPILICIYKTQK--EQSV-ISQRFKTLIVEGNSKSGKTQFFKSVTPFNY-----IKDDVDFSDENYDE-D  
KYVNIYDDIDIYDIARN--LTKVVIGNQK--DSIVNMKYKPRN-----

>pCRESS9\_WP\_013747472

QTKDIFLTYSKCPLGKDKIHNYIKELMISENHQDHKE-IHTHVLFQLTKQLSIRN-----QRFFDIEG--FHPKIENARD  
IEKSI-----DYIKKDG---DFIV-----RKSLLDFILNIDRDFYLEQSELIDRILNKKFTKKELED  
EDYSFDSFKSNSKTNEIQTQL--SVS--LGERPKSIVIEGPSRLGKTEFILSYTHYNY-----TRGDFDFSKQSHKN-A  
YKVNIFDDISIPQIKEG--LFKQIIGGQK--GFKYNVKYAPKRTIAGKCLSIFLVNPD--ISFENYCEWSEDNGHKFYIK  
DNCIF-----

>pCRESS9\_WP\_015060110

QAQNIFLTYSQCDLSKEEIKTFIINLCNEENHQDHKG-KHHHVFFQLNKQFRTRD-----LTIFNIPKNIYSPHIEPIKD  
TTDVR-----NYVKKDG---DFII-----FKKLKLYAESLEPNYAFKN-----AKRFKNMVFIFE  
SIFDFCTFKKIPILISYETQK--EQSS-ISKRFKTLIVEGNSKSGKTQFFKSVTPFNY-----IKDDVDFSDENYDE-D  
KCVNIYDDIDIYDIARN--LTKVVIGNQK--DSIVNMKYKPRTKIKGTDISIMLVNED--TSIEKYCFDNFKRGRKEYIR  
ENAIF-----

>pCRESS9\_WP\_015083745

QTKDIFLTYSKCPLGKDKIHNYIKELLVSENHQDHKE-IHTHVLFQLNKIIQIEN-----QRFFDIEG--FHPKIENARD  
IEKSI-----DYIKKDG---DFIV-----KKTLDDEFIINLDRDFYSEQIDLIEKILKKKFIKQAEID  
KGYDLNTEFKVVDKSTQEIGTNQL--KVK-----RPLSIVIEGPSRLGKTEFIISYNHFNHY-----IRGSFDFSKENYND-S  
FKVDVYDDISMNYISSG--LLKNIIGGQR--GFIVDVKYSPKRLLSGNKLSIFLVNPD--ISFESYCEEDEKHAGETYIK  
SNCIF-----

>pCRESS9\_WP\_017193171

NSKDIFLTYSKCSLGKNVIHNIHKNLMNEENHADHKE-IHTHVLLQLEKRSNIKD-----ARFFDIEG--FHPRIENAQH  
IEKSI-----DYIKKDG---DFIV-----KKTLDDEFIKMDRDFYQEIELIERILKKKFIKKEEMNE  
EIYDFDSFKDNEITRKIIQKEK--DVH-----RPRSLVIEGLSRIGKTEFIISYNPFNY-----IRGSLDFSKEIYKN-E  
YKINVFDDISIFEIKHG--LLKNIIGGQR--GFNADIKYAPKRRIAGNKLNIFLCNED--ISFVRFCKKNKEMGGKEYIE  
KNCLF-----

>pCRESS9\_WP\_017193695

SSKDIFLTYSKCSLGKNVIHNIHKNLMNEENHADHKE-IHTHVLLQLEKIFQTEN-----ARFFDIEG--FHPRIENAQH  
IEKSI-----DYIKKDG---DFII-----RKNLDEFMIKIDRDFYLEQIELIERILKKKFIKKAEMND  
NIYDFDSFKDNEITRKIIQKEK--DVH-----RPRSLVIEGLSRIGKTEFIISYNPFNY-----IRGSLDFSKEIYKN-E  
YKINVFDDISIFEIKHG--LLKNIIGGQR--GFNADIKYAPKRRIAGNKLNIFLCNED--ISFVRFCKKNKEMGGKEYIE  
KNCIF-----

>pCRESS9\_WP\_042068233

KAQNIFLTYSQCDLSKEEIKTFIINICDEENHQDHKG-KHHHVFFQLNKRLQTRD-----LTIFNIPKNNYSPHIEPIKD  
TTDVR-----NYVKKDG---DFII-----FKKLKLYAESLEPNYAFKN-----AKRFKNMVFIFE  
SIFDFCTFKKIPILTSTYETQK--EQSS-ISKRFKTLIVEGNSKSGKTQFFKSVTPFNY-----IKDDVDFSDENYDE-D  
KYVNIYDDIDIYDIARN--LTKVVIGNQK--DSIVNMKYKPRTKIKGSDISIMLVNED--TSIEKYCFDNFKRGRKEYIR  
ENAIF-----

>pCRESS9\_YP\_001708784

KTKDIFLTYSKCPLGKDKIHNIHKNQLMASENHQDHKE-IHSHVLFQLTKSATFNG-----ERFFDIEG--FHPEIEVARD  
IEKSI-----SYIKKDG---DFIV-----KKTLDDEFIINLDRDFYLEQIDLIEKILKKKFIKDELDD  
KGYDLNTEFKFNKSTQEIEVEQL--KVK-----RPLSIVIEGASRLGKTEFIISYNHYNY-----IRGSFDFSKENYND-N

FKVDVYDDISINYISAG--LLKNIIGGQG--GFIVDVKYSPKRLLSGNKLSIFLVNPD--ISFESWCEEDEKYAGETYIK  
TNCIF-----

>pCRESS9\_YP\_001708790

NAKDIFLTYSKCPLGKDKIHNHIELMASENHQDHKE-IHSHVLFQLTKRTTFNG-----ERFFDIEG--FHPEIETARD  
IEKSI-----NYIKKDG---DFIV-----KRTLDFIINLDRDFYEQISFIKTILNEVFTKKKELED  
EDYSFDSFKSNSKTNEIINQQL--SVS--LGERPKSIVIEGFSRLGKTEFILSYTHYNY-----TRGDFDFSKQSHKN-A  
YKVNIFDDISIPKIEG--LFKDIIGGQK--GFKYNVKYAPKRTIAGKKLSIFLVNPD--ISFEDYCEWSENNGHKFYIR  
DNCIF-----

>pCRESS9\_YP\_001965305

RTRDIFLTYSKCPLGKEKIHNHLKQLLASENHQDHKE-IHSHVLFQLKKQIEITN-----QRFFDIEG--YHPKIETARD  
VEKSV-----SYIKKDK---DFII-----RKEIDDFILKIDRDFYEQIELIDRILNRRFIRKKEELAD  
THYQFNSFKTNSETNEIINSQL--LSH-----RPKSIVIEGESRMGKTQFILSYTQYNY-----IKGEFDFSKKTYKD-Y  
YKIDVYDDFGVPEISQG--LQKNIIGGQE--CFTCNVKYAPKRQLSGNKLSIFLVNPD--NSFKGYCEWSRNNGHKFYIE  
ENCIF-----

>pCRESS9\_YP\_001965310

QTKDIFLTYSKCPLGKEKIHNHILKQLMESENHQDHKE-IHSHVLFQLNKRCNLTS-----QRFFDLG--YHPKIENARD  
VEKAI-----EYIKKDG---DFVV-----KKTLDFFIINLDRDFYLEQIEFIKRVLKEAFKKEELAD  
DDYSFESFKTNSTTNEIISQL--SVS--LSKRPKSIVIEGSPRIGKTEFLSYTHYNY-----IRGEFDFSKESHKN-A  
YKINIFDDISIPKIEG--LFKNIIGGQR--GFRFNVKYAPKRFIAGKKINIFLINPD--ISFKGYCEWSYKKGHKFYIE  
DNCIF-----

>pCRESS9\_YP\_006959585

QAQNIFLTYSCDLSKEEIKTFIINLCNEENHQDHKG-KHHHVFFQLNKQFRTRD-----LTIFNIPKNIYSPHIEPIKD  
TTDVR-----NYVKKDG---DFII-----FKKLKLYAESLEPNYAFKN-----AKRFKNMVFIFE  
SIFDFCTFKKIPILISYETQK--EQSS-ISKRFKTLIVEGNSKSGKTQFFKSVTPFNY-----IKDDVDFSDENYDE-D  
KCVNIYDDIDIYDIARN--LTKVVIGNQK--DSIVNMKYKPRTKIKGTDISIMLVNED--TSIEKYCFDNFKRGRKEYIR  
ENAI-----

>pCRESS9\_YP\_006961991

NTKDIFLTYSKCNLGGKDKIHNHIELMASENHQDHKE-IHSHVLFQLTKRLNIKS-----ERFFDIEG--FHPKIENARD  
IEKSI-----DYIKKDG---DFIV-----KKTLDFFIINLDRDFYLEQIDLIEKILKKKFIKKDELDE  
EAYSFDSFKTNSETNKIISQL--NINSKTNKRIKSIVIEGSPRIGKTEFILSYTQYNY-----IRGEFNFSKESHKN-A  
YKVSIFDDISIPKIEG--LLKNIIGGQR--GFEYNVKYSPKRTVMRNLISIFLVNPD--ISFESYCEWSRDNGHKFYIE  
DNCIF-----

>pCRESS9\_YP\_007008175

NTKDIFLTYSKCPLGKDKIHNHILKQLIISENHQDHKE-IHSHVLFQLTKRTTFHG-----ERFFDIEG--FHPKIETARD  
IEKSI-----DYIKKDG---DFIV-----KKTLDFFIINLDRDFYEQIDLIEKILKKKFIKQAEID  
KGYDLNFTKVDKSTQEIGTNQL--KVK-----RPLSIVIEGSPRIGKTEFIISYNHFNY-----IRGSFDFSKENYND-S  
FKVDVYDDISMNYISSG--LLKNIIGGQR--GFIVDVKYPPKRLLSGNKLSIFLVNPD--ISFESYCEEDEKHAGETYIK  
SNCIF-----

>pCRESS9\_YP\_007008179

NTKDIFLTYSKCPLGKDKIHNHILKQLLVSENHQDHKE-IHSHVLFQLTKPTTFNG-----ERYFDIEG--FHPKIENARD  
IEKSI-----DYIKKDG---DFIV-----KKTLDNFILNDRDFYEQIDLIEKILKKKFIKQAEID  
EDYSFDSFKSNSKTNEIIEIETQL--SVS--LGERPKSIVIEGFSRLGKTEFILSYTHYNY-----TRGDFDFSKQSHKN-A  
YKINIFDDISIPKIEG--LFKQIIGGQK--GFKHNVKYAPKRTIAGKKLSIFLVNPD--ISFENYCEWSENNGHKFYIK  
DNCIF-----

>PpulchraPlasmids\_AAF36422

AAKTFFLTYPQSGL-TKELILLELGGIITDERGED-GYDHFHVLLLEAKSRKNYKS-----PRCFDILG--VHGKYETVKS  
KKKAL-----KYICKEGDVLLS-----ENPSVLIF-----EIYNDYLISPKKYKQYILESVKVS  
TSPRLWIHKLKMDLMIWAKTI-----VSDHISKSLEYIHGASGVGKTNMARLMFDDMF-----IVKHVDKLEADVE-S  
SVAIGFDDVNLNKYTRE--DCINIVDPEV--GSQINVKNSMVSLESYVPKVFISNFLPER-VYKG--YDEAVERRLKVIY

LE----QAIY

>PpulchraPlasmids\_AAF36423

NAKIMFLTYPQSGL-TKEVILQELKKKIFDERGED-GYDHFHVLLLETKTKKKNYKD----PRCFDILG--VHGKYESTRN  
KKRAM-----KYICKEGNVLLG-----ENPSELIF----EIYNDYLISPKKYKQYILESVKVS  
SSPRLWIHKLKMDELMIWAKTI-----VSDHISKSLYIHGAPGVGKTNMARLMFDDMF-----IVKHVDKLKEADVE-S  
SVAIGFDDVNLNKYTRE--DCINIVDPEI--GSQINVKNSMISLEPYVPKVFISNFLPER--VYKG--YDEAVERRLKVIC  
LE----QAIY

>PpulchraPlasmids\_AAF36424

NARLFFLTYPQSGL-TKELILRELKIVSDERGED-GYDHFHVLLLEAKTKKKNYKD----PRCFDILG--VHGKYETVRN  
RKRSL-----KYICKEGDVLLD-----ENPSRLIF----EIYVDYLSSPKRYEKFAIEYRKDS  
TIPRLWIHKLKMSLMDWAEKI-----VEGVVEKSLYIHGKPGIGKTNMARLMFNDA-----IHKHLDKLKEASVD-Q  
SVAIGFDDVNLKKYTRE--DCINIVDGEV--GSQIDVKYGMVVLEPYVPKVFISNLLPEM--VYKG--YDKAVERRLRIIY  
LE----QAIY

>PpulchraPlasmids\_ETO15557

QAKNLFLLTYPQCTL-QPEEALAILETKLQENHIQ--KGRHLHCYINCKKKVDIRS----AHRDLDDG--FHGNYQGCRS  
LTAVK-----KYCTKEKNYIVN-----SAINIIA-----NLARDYIRDLSLRIEQSIKRLAKSN  
DE-----NYKFKNVNVL-----NWNRSKHVWLWLHGKTNTGKTQFALSFLKNPL-----LVRHIDQLKCLDN--S  
YDGIVFDDMNFSYWKRE--EQIHIVDVEE--TTAVNVKHGHVEIKKGLPRVFTSNNR----IFN----DPSIKRRIRYIK  
I-----DDIR

>PpulchraPlasmids\_OLY79389

-----AVCLL-TKQEVYDELKPKPTEVSGA--GNPHIHVYLKGTGSKLNIKN----ARYFDIRG--YHGDYRSCLS  
LKKIA-----CYVTKGGNFIFE-----EAMEVIMY----NLGRDWLRNPMAYEQGIRYIKRRG  
TK-----NPNYKFDLPLS-----SWDPLKYSLWLFGGAGLGKIEFAKTLFKNPL-----LVKHIEQLKGLHS--D  
HDGIIFDDTKFDRWTRN--DQLLLTDIEN--TNAFGVKYGSVTIPRNTGRIFISNNK----IFQ----YPEIHKRLFIVR  
M-----KDLK

>PpulchraPlasmids\_OLY79419

SAKSFFLTYPNCNL-TKQEVYDEMCKKPFEESSHEA--GHPHVHVYLKSKNKLNVKS----ARYFDIGG--YHGEYGTCS  
ASAVS-----GYVIKGGDFIFE-----EAMEIVMY----NMGRDWVKNPLAYEQGVRYIKRKS  
KK-----NPNYKFREPLVS-----FWNPKRVLWMHGGTGLGKTEFAKTLFYNNPL-----LVKHIEQLKDLHS--D  
HDGIIFDDTKFAAWDRN--DQLLLTDVEN--DNAFGVKYGAHVIPRLTGRIFISNNP----IFL----DSAIRRRIFYIY  
I-----DDL

>PpulchraPlasmids\_OLY79699

SGKKAIVVYPGILT-DRDLVLNELKKDRPNLVNEENGEINMHVFLFSTKVNIRN----EGYFDILG--IHGIAKTVKD  
KTPVL-----RKIFRNDDFLTNGTPT-EILRSKSLQNSLKILLR----ILSRLLMNPSSLFENIRKLTTPRK  
NS-----ELNLRFREVPQIS-----IWRDKKSSLWLKGGPGTGKTTFAKSLFNNPL-----IVNINEALLNFNI--F  
HDGIIFDDMNFTKYTVE--FQIHMTDVTD--EKVIKIGNSKINIPAETPRVFTSNVP----IFS----EYRVRRRVALIK  
INKLQLTEDGR

>PpulchraPlasmids\_OMJ09562

EGKSFFLTYPRCNL-DLNVILTELEKIMSEKHAS--GEPHIVFLSRFEKKATRNL----PKFFDILG--FHGNYQTCRS  
SKSVM-----AYVAKDKDYIVE-----EAEVAKN----DLGRDYIRNAELFEKSARYLKERP  
VEP----FDPSHRFIPPHGIR-----KWDRTKQALMLFGKTGTGKSSYAETLFNNPL-----VVNSLEDLKRRLP--V  
HDGIVFDEFNPLKLPRE--TMIMLTNVEF--HSTVSVKHGSVTIPRLLPRVFLTNVK----IFN----DPAIVRRVKTIP  
VN-----KDVI

>PpulchraPlasmids\_OMJ21113

ASMSFFLTYPKCAL-SKETVLAELKKICDELHAD--GTPHIIHAYLKVKKTINSKN----PRYFDIMG--YHGNYESCRY  
PKNVM-----KYVMKDKNYIVE-----EAIIVIRY----NLARDYLRNPIGYEQGLAHILHPP  
KP-----NPAHRFRDPELL-----NWDQRDKTLWLYGVTGTGKTSFAKTLTYMPL-----FVTHLEDLKKIKP--Y  
HNGIIFDDMNFTVFSRE--EMIKLTDLDD--DRSFSVKYTSKTIPAKMSRVFCSNVS----IFD----DKAIRRRRLKIVL  
V-----TDLR

>Smaco\_ADB24799

QR--THTNA---ERWFKIFRDDIHKWVIGLEEG-KGGYGHWQVRCNI---EYLRA---VFSWLGPISE-----IWTEE  
CSDKY-----TYETKEGRYWAS-----WDTMGARQQRG-----KMRNQ-----GAV  
QALQRTNDRE-----IVVWYD-EQNMGKSWLCGHLFETY-----MSTVASLVL  
QRPLIVIDIPRS-----LYTAIEAIK-DGLIMDPYRGARPVNIH-GIKVIVLTNT--KPKLD-----KLE  
-DRWVLYD---

>Smaco\_AEW47007

SRTSIPEHH---LVRLK-LDLHEAYIGRETG-ARGFEHYQCCIDC---LVRFN---TEHQLGWHI-----EECS-  
WEAS-----NYCRKTDNYRYV-----GDSIEEREYS-IATRNI---VA-----RIQ  
FHIDHRNDRA-----ISICVDTIG-TGKSTYGYLCARRTA-----T-----YIAMHYD  
NQPVIWIDLPRS-----LAECLEDIK-DGLVASAKYEGCLRFIR-GVKVLVTTNH--KTTYK-----ML-  
ADRWDIFT---

>Smaco\_AIY31243

WKHLTWTME---QLA-EWFKQHAKKEGVIGLEISPTSCKEYQFKIHLDRGETLEG---WKALIGPMG-----HIEIAV  
DKNF-----GYEEKDGNFIKWPTS---PLEKYK-LKLR-----WQ-----DVV  
ETFERQDDR-----ILVVVDKQG-NGKSYLSRFMEATVI-----S-----EYCLDN  
PC--YVFDLPR-----AMWMGIEQIK-NGLLYEKRYRPRKMWIE-PPKVLVFTND--DVPWD-----ML-  
RDRWEAYE---

>Smaco\_AIY31246

PRKSGGTGK---EKWRTFFYIDVHKWTLGAETG-KGGYKHWQVRLQISDNEVFNK---IKDEFPTAH-----IEKGS-  
--DTW-----SYECKEKMHWTS-----NDTPNILRVRG-----HMRYQ-----DVI  
EAVRRQNDRQ-----IAYWYD-PENKGKSWLVNHLFEST-----LSWVASVYI  
NREILVIDIPRS-----LYTAIETIK-DGLVYDPRYHAQMINIR-GVKILVLCNH--EPKLD-----ALA  
-DRWYAVA---

>Smaco\_AIY31250

PR-----TIHKRIRELFQDVKEYIIAKETG-KGGYEHWQIRCKASRPDFEY---VHDREPRFN-----IQK  
ATEDF-----DYERKDGHFWS-----EDNNEILKCRG---ELGMWQ-----QLM  
KRLKKQSVRE-----IDVVLD-PANKGKSFATIALWERA-----QTFVCSAWK  
GEWLIIDIPRS-----LYETMEEIK-DGLVFDWRYSGKTRNIR-GTKLVVFTNE--PLNLK-----GLS  
-DRWKLHG---

>Smaco\_AIY31256

WKDKYGSKE---QLA-EWFRLHAKKEGVIGEEISPTSCKIHYQFRIHLDRGETLKG---WQELIKAVG-----HVEVCQ  
EKKF-----DYEKKDGHNWIEWPES---YLGKFK-MPLL-----WQ-----QLL  
EQWNEQDDRQ-----ILFVKDVKG-NGKSTFGKIMEARVC-----S-----DFCLEY  
PA--YIFDIPR-----ALWSGIEQIK-NGLLYEKRYKPRKVWIE-PPKVVVFTND--EPPWD-----LL-  
LDRWRVFD---

>Smaco\_AJD07511

SREETWHAP---DVGKQLMEHGAERCVVGEEVG-EDGYQHFQIRVVFKKPTSFEK---ATAILPGHW-----SETSQF  
GRNF-----DYVEKEGHFWRS-----WETALGRFMLDM-----YWQ-----EIM  
TRLEKQNDRK-----VMVIVDRYN-SGKTAIAMRLTAELD-----W-----ALAHK  
--NCFCLDIPR-----AIWKAVEQMK-NGYLWDKRHHWQEAQFIM-PSKGLVLTND---EPDR-----NLL  
RDRWDIGH---

>Smaco\_AJE25845

SKAK--CPE---EILRKWLDENGERAYGRERG-EDGYEHFQVRVVLNPTSWET---MREIWGNSG-----HCSPTS  
IRNF-----DYVLKEGDFVCS-----WIKVPDAIRAQL-----RWQ-----HLV  
NLK--QNDRE-----VDCIIDLRN-TGKSFVTKYMCMTGT-----M-----CMKR-  
-AKTYIFDIPR-----ATWSAIESIK-NGYMWDDRYTWEEMWID-SPRVVFTNE---YPKY-----DLL  
EDRFRFWA---

>Smaco\_AJE25847

SADK--VPE---KTMVEVLNKCERYAYGRETG-ENGYKHYQIRLVKVGADISE----MRKVWSAFG-----HVSCTS  
VRNF-----DYVLKEGDYVCS-----WIKIPESMVPEF-----RWQ-----ALL  
DLE--QDDRQ-----IDVIIDLQN-SGKSWLTKYCALKGE-----M-----CLKRG  
-AQLYIFDMPR-----AVWSAIESIK-NGYLWDDRYTWEEKWID-PPRIWVFTNE---YPKY-----DLV  
EDRLRFWA---

>Smaco\_AJE25851

SADK--VPE---KTMVEWLEKYCERYAYGRETG-ENGYKHYQVRLVLKVGADISE---MRKVWSAFG-----HVSCTS  
VRNF-----DYVLKEGDFVCS-----WIKVPDAIRAQL-----KWQ-----HLV  
DLK--QNDRE-----VDCIIDVRN-TGKSFVTKYMCMKGT-----M-----CMKR-  
-AKTYIFDIPR-----ATWSAIESIK-NGYMWDDRYTWEEMWID-SPRVFVFTNE---YPKY-----DLL  
EDRFRFWA---

>Smaco\_AJF23060

SKEK--LPR---SILEKWLNERCERWAYGNEVG-EGGYEHYQIRVVLKEPTDEYE---MRKMWAAFG-----HVSPTH  
VRNF-----DYVLKEGDYVCS-----WIKIPENMQATF-----RWQ-----ALL  
DLE--QDDRQ-----IDVIIDLAN-TGKSWLTKYCALKGE-----M-----CLKRG  
-AQLYIFDMPR-----AVWSAIESIK-NGYLWDDRYTWEEKWID-PPRIWVFTNE---YPKY-----DLV  
EDRLRFWA---

>Smaco\_AJF23062

SKEK--LPR---SILEKWLNERCERWAYGNEVG-EGGYEHYQIRIVLKEPTDEYE---MRKMWAAFG-----HVSPTH  
VRNF-----DYVLKDGDFVCS-----WIKYPESMVPTF-----RWQ-----CLL  
ELE--QSDRE-----IDVIIDLKN-TGKSWITKYLALKGE-----M-----CLKR-  
-PTWYIFDMPR-----ATWSAIESIK-NGYLWDDRYTWEEKWIE-PPKVTVFTNE---YPKY-----DLV  
EDRLRMWA---

>Smaco\_AMR73071

G---RTGYS---GEIMAIREDIHKWIIGAEVG-AGGYQHWQCRFKTSPEEMTEK---LRARIGGPS-----IYTAE  
CSDNW-----EYEAKEGAYLAS-----WDTMKVRSTRG-----KPSQQ-----VAL  
QALRDTNDRQ-----VVVWYD-PQNIGKSWLTNHLYEQT-----MNTVASLAV  
KRPYVIIDIPRS-----LYTAIESIK-DGLIMDPRYSAQPINIR-GVKVMVMTNT--MPKID-----KLS  
-DRWVIHT---

>Smaco\_AMR73073

PR--THVSK---RAIRIMIDTDCKKWIVAKERG-KNGYEHWQIRIESSNTGFFEW---CKLYIPTAH-----VEKAER  
GVDES-----RYETKEGQYVLY-----TDRVEILKQRG-----KMRNQ-----RAL  
EALESTNDRE-----VLVWYD-EGNVGKSWLTGALWERT-----VSWVASCYQ  
SRPYVIIDIPRS-----LYVAIESIK-DGLVYDTRYHAQCINIR-GVKVLVLTNT--QPKLD-----KLQ  
-DRWRICV---

>Smaco\_GQ351275

QR--THTNA---ERWFKIFRDDIHKWVIGLEEG-KGEYGHWQVRCNV---EYLRA---VFGWLGPIIS-----IWTEE  
CSDKY-----TYETKEGKYWAS-----WDTMGARQQRG-----KMRNQ-----GAV  
QALQRTNDRE-----IVVWYD-EGNMGKSWLCGHLFETY-----MSTVASLVL  
QRPLIVIDIPRS-----LYTAIEAIK-GGLIMDPRYGARPVNIH-GTKVIVLTNT--KPKLD-----KLE  
-DRWVLYD---

>Smaco\_KJ547633

DNFEGVKDE---SEWRSRFAGLFFERYAYGRETAPETGRRHFQFRGVLKVACDASC---LAYLSSLGF-----NISPTH  
VRDF-----DYVYKDRDFFCV-WD---VYRPEYDVRNSH-----VWQ-----QLE  
DME--RDDRT-----IEIVWDERN-SGKTAWAMYQDYLPD-----C-----VLGKR  
--EWYIIDTPR-----ADWASIEQLK-NGYVFDTRYSFDRYLS-RPRVTVLCNT---LPEY-----EYF  
ADRVLPR---

>Smaco\_KJ577810

PR--TVSK---RALRIMIEKDCKKWVIGKEEG-KNGYKHWQIRIETSNDFFEW---MQDHIPTAH-----VEKSEN



GVDAC-----RYETKEGQYVMY-----SDRVQNLQMRG-----AFRNQ-----RAM  
QALQATNDRQ-----VVVWYD-ETNVGKSWFTGALWERT-----ITWVASCYI  
DRPYVIIDVPRS-----LYSAIESIK-DGLIYDTRYHSRMINIR-GVKVLVMTNT--MPKLD-----KLK  
-DRWCICT--

>Smaco\_KJ577813

PR--NNTAK--EAISKWLRADVHKWICAMETG-ADGYDHWQIRLQVN--KTWEK---LKEEWGPKA-----HIEE  
ASDVW-----DYERKSGLFFSS-----QDTPEVRKCRG-----HLTRQ-----AVL  
RAVQSTNDRQ-----VVVWYD-PDNKGKSWLLGHLYET-----QTDVASEYI  
NRPMVVIDIPRT-----LYVAIERIK-DGLIKDPRYSSKTVHIR-GVKILVTCNT--MPKLD-----KLE  
-DRWIID---

>Smaco\_KM573771

PTK----HACKRQVKMILEIDTKRYIFAQEKG-KNGLDHWQLRIQIKEENFERL---QKLFCNKAH-----IEV  
ANDSW-----EYERKEGKFWSS-----EDTKEILKIRG----KL-REQ-----KIL  
QILSSQGDRE-----IDVWLD-PTCHGKSWLTIHLWETS-----STFVCSWR  
GEDIIVIDVRA-----LLETMEELK-DGLVFDHRYTGKTRNVR-GTKLMVFTNS---PLPLN-----KLT  
-DRWRLHG---

>Smaco\_KM573775

P-----AKRHWLKLFEVNVKHHVVGLEEG-KNGYKHWQARIQLSEISFFQY---MKIYYPKAH-----IEE  
ASNTW-----EYERKEGKFWTS-----EDTASILAVRG----SL-REQ-----KIL  
QILESQGDRE-----IDVWLD-PSNHGKSWLTVHLWETS-----STFICSSWK  
GEPVIIDIPRS-----LLETMEELK-DGLVFDHRYTGRTRNVR-GVKVMVFTNS---ELPLK-----KLK  
-DRWRLHG---

>Smaco\_KM598409

SAEDWNEDG---IIRVFE-NDGHELYIGREIG-KHGFRHYQFCMDC---LEKYT---ADNRTGWHV-----ERCS-  
WEMS-----GYCRKTGDYRYI-----GDSREERYYA-LRARL---IW-----SFG  
ASVVKQNDRS-----ITVWVDTEK-AGKSTFSYILERRTE-----N-----FVAMHYK  
GEPLIIDIPRD-----LCRALETIK-DGVITSAKYQGTFKFIK-GVKILVFTNH---KTTYA-----AL-  
EDRWDVKS---

>Smaco\_KP233175

SADK--VPE--KTMVEWLNKYCERYAYGRETG-ENGYKHYQIRLVKVGADISE---MRKVWSAFG-----HVSCTS  
VRNF-----DYVLKEGDYVCS-----WIKIPENMKPEF-----RWQ-----ALL  
DLE--QDDRQ-----IDVIIDLQN-SGKSWLTKYCALKGE-----M-----CLKRG  
-AQLYIFDMPR-----AVWSAIESIK-NGYLWDDRYTWEK WID-PPRIWVFTNE---YPKY-----DLV  
EDRLRFA---

>Smaco\_KP233189

PR--DKVSK--RELRIMLDKDCKKWIIGKETG-KNGYKHWQIRLETSNEEFFDW---CKKHIPTAS-----IRKAE-  
-VPKW-----DYEAKEGQYWTS-----SDRTDNLIRG-----EFRNQ-----RAI  
QALRATNDRE-----VLVWYD-EGNVGKSWFTGALWERT-----VTFVAS---  
--PYVFIDIPRS-----LYCAIESIK-DGLVYDSRYQGRMVNIR-GVKIIVMTNN--KPDLD-----KLY  
-DRWRMVV---

>Smaco\_KT862218

PR-----TIHKRIIREIFKKDVKKYIIMETG-NGGYEHWQIRCTASRPDFFEY---VHDREPRFN-----IQK  
ATESM-----EYERKEGRFWS-----EDTTEIRQCRG-----ELGRWQ-----QIL  
KVLKNQDVRT-----IDVVLD-PVARGKSHFTIALWERY-----STFVCSAYK  
GEKIIIDIPRA-----LYESMEEMK-DGLVFDPRYSGKTRNIR-GTKVLVFTNN--PLDLK-----KLH  
-DRWNLHG---

>Smaco\_KT862221

PRR----IICSKLLSYIFEQDVKRYIVAIEKG-KNGLDHFQIRLSCSDPDFFEH---MKDWCEWAH-----VEK  
ATDNF-----DYERKEGRFWS-----DDTTEIRICRR-----ELGRWQ-----QIM

QVLKKQDVRT-----IDVVLD-PVARGKSHFAIALWERY-----STFVCSAYR  
GRKIIIDIPRA-----LYETMEEMK-DGLVFDPRYSGKTRNIR-GTKVLVFTNN---PLDLK-----KLH  
-DRWNLHG---

>Smaco\_KT862224

---HGTTQ---RL---AYQ-HAKEGVIGEEISPTSGKTHYQCKWHLRSGESIDG----WKLIGPMG-----HVDIAV  
EKRF-----GYEEKDGKFKWPES---PIAKHK-LALK-----WE-----ALL  
DSIKNQDDRH-----ITVVVDKQG-NGKSTFSKYLEANVV----S-----EYCMEF  
PK--YVFDLPR-----AMWSGIEQIK-NGLLYEKRYKPRKMWIE-PPSILVFTND--DIPWE-----LL-  
EDRWDAYR---

>Smaco\_KU043403

ER--RETYK---EWFLFAIRKDIHKWIIAAEEG-KGGYKHWQIRIAS-DAKWTRA---LLIQFGQRS-----IHTEN  
ASNTW-----TYEAKEGCVLAS-----WDTLEVRQQRG----KLRVQ-----YAL  
NVLEGTNDRQ-----VMVWVD-EENSGKSWLGHLYETY-----LSTIASLAV  
KKKYALIDIPRS-----LYTAIEAIK-DGLIMEPRYSAQPINIK-GIKVLVVTNT--RPKLD-----KLK  
-DRWEIFE---

>Smaco\_KU043420

TR--KSVLIKRCRIKSSFKNLDCKRWTLGIETG-KGGYKHCQWRVECGDDQFFEH---FSEFTGWGIE---KKSHIEK  
-SDKW-----DYETKEGHYVKS-----DDRVENIIQRG----KYRAQ-----RVI  
KALRRTNDRE-----VVLWYD-KVNCGKSWFTGALWERE-----KDIASDFL  
DRPFVIIDLPR-----LYLAIERIK-DGLIKDPRYSRTVNIR-GVKVLCNS--LPKLD-----KLK  
-DRWVRLE---

>Smaco\_KU043422

PKN---ARN---LIKNIETDLHKWTYGYEIG-KNGYKHIQARIRCD---FDY---LQEYFGQAH-----IEE  
ASDEW-----DYETKGGIYFTS-----EDWGERLKQRL----PLKVQK-----AL  
EGLEATNDRE-----VYVWYD-EKNAGKSWLCGHLWETKD-----V-ANEYIN-----  
-RPYVIIDLPR-----LYAIEKIK-DGLLKDPYQSKTVNIH-GVKVMVMCNH--RPNVS-----KLA  
-DRWKMFT---

>Smaco\_KU043428

PR--RKTAR---EGISKWLRDDVHKWTVAMETG-DNGYDHWQIRLQVN--KTFKQ---LKKEWGPKA-----HIEE  
ASDTW-----NYERKSGLFFSS-----NDTPEVRKCRG----RLTRQ-----AVV  
QAVQGSNDRQ-----IVVWYD-PNNAGKSWLLGHLYET-----QTDCASEYI  
QRPFVVIDIPRS-----LYVALERIK-DGLIKDPRYGSKTVHIR-GVKVLVTCNT--KPKLD-----KLA  
-DRWVIMN---

>Smaco\_KU043430

PR--NDTYR---EKIFAWFRKDIHKWVLGAKEG-SGGYEHQMRVQCR--FGFEE---LKVLF-PTA-----HIEE  
CSDKW-----TYEAKEGVYWS-----NDRRENIQQRG----KLRAQ-----RVI  
ERADGTNDRE-----VYVWYD-QEKAGKSWLTGAMWER-----DSDIASEYL  
KRPYIIDIPRA-----LYEAIERIK-DGLIKDPRYSSEAVNIH-GVKVIVMTNT--MPKLD-----KLA  
-DRWKII---

>Smaco\_KU058671

PR--NDTYK---ESIWMWVFKDVKKWVFGLEKG-RFGYKHWQIRFKSN--LKFED---LKVMF-PTG-----HIEE  
ASDTW-----TYETKEGVFWKS-----TDRPENRAQRG----KLNDQ-----GVI  
RALQSTNDRE-----VVLWYD-SEKKGKSWLTRALWER-----DNDVACEFI  
KRPYVIDIPRA-----LYEAIERIK-DGLIKDPRYSSESINIS-GVKVLVNSNS--LPELD-----NLK  
-DRWKIYP---

>Smaco\_KU203352

DANENVMKL---EDWKNGLSGYFERYAFGCEVAPETQRRHYQFRGVLKADLSNDI---ALALSDLGL-----HITPTH  
VRDF-----EYVYKDRNFYCS-WE---VFRPEYEVQNSH-----VWQ-----QLE  
ELD--RDERS-----IEIHWDEKN-SGKTAWAMYQDYSLR-----C-----VLGKR

--EWYIIDTPR-----ADWASIEQLK-NGYVFDTRYSFRDKYLS-RPRVTILCNH----MPDY-----EYF  
ADRVL PFR---  
>Smaco\_KX838317  
PRSESRISK--KAIMIMLSKDCKKWTIGQEVG-KNGYKHWQIRVSSNTNFFKW----CKQHPSAH-----VEKAEK  
GVDES-----RYETKEGQYTQY-----TDRVEILKQRG-----KMRNQ-----RAL  
EAL EATNDRE-----VLVWYD-ESNVGKSWLTGALWERT-----VSWVASCYQ  
SRPYIIDIPRS-----LYAAIESIK-DGLVYDTRYHAQCINIR-GVKVLVLTNT--KPKLD-----KLA  
-DRWRICV---  
>Smaco\_KX838318  
PR--AHVSK---RAIRIMIDTDCCKWIIAKEKG-KNGYEHWQIRVSSNTGFFEW----CKQHIPTAH-----VEKAER  
GVDEC-----RYETKEGQYTCY-----SDRIPVLKQRG-----KLRNQ-----RAL  
TAL EATNDRE-----VLVWYD-EGNVGKSWLTGALWERT-----ITWVASCYQ  
DRPYIIDIPRS-----LYVAIESIK-DGLVYDTRYHSRLINIR-GVKVLVLTNT--KPKLD-----KLE  
-DRWRICV---  
>Smaco\_KY086298  
PR--KVHK---RTLKIMLEQDVKKYIIAKERG-FGGYEHWQIRLKTSNKNFFIW----CKINIP EAH-----VEEAM-  
--DTW-----DYERKEGVYWTS-----DDTNEIRALRG-----KPNKQ-----RVL  
KLLKYQGDRN-----ILVWYD-PVKAGKSWIVGHLWEQT-----LTWVHSAYD  
NEGLIIDIPRS-----LYTAIETIK-DGLVYDPRYSARMKNIR-GVKVLVMTNT--YPRVS-----ALE  
-DRWDIIN---  
>Smaco\_KY086301  
SKAK--CPE--EILRKWLDENGERYAYGREKG-TDGYEHFQVRVVLKNPTSEQD---MWK V WAPYG-----HVSPH  
TRNF-----NYVLKEGDFVCS-----WIKIPESMKPVF-----RWQ-----ALM  
DLE--QNDRE-----VDVIIDLKN-TGKSWITRYLALKGG-----M-----CLKR-  
-AVWYIFDMPR-----ALWSAIESIK-NGYLWDDRYT WEEKWID-PPKVTVFTNE---YPKY-----DLI  
EDRLRFWA---  
>Smaco\_QBP37051  
PHSGITKRA---FFKMIRDYDIHKWTYAVERG-RGGYKHIQCRFRTNK--SFEE---IRKALICGH-----IEE  
ASDNW-----EYEKKDGNMYS-----EDNHEILKLRYG--KLT KVQE-----WAL  
VLLESTNDRE-----VVVWVDKDGNSGKTWLT AHLWERLS-----T-PKELISWVHSAYN  
HEPYIIDIPRTWKWDD--ALYTAIETIK-DGLVYDPRYSAHMRNIR-GVKVMCMTNT--EPKLS-----KLS  
EDRWVMYR---  
>Smaco\_QBP37113  
PHSGITKRA---FFKMIRDYDIHKWTYAVERG-RGGYKHIQCRFRTNK--SFEE---IRRALICGH-----IEE  
ASDNW-----EYEKKDGNMYS-----EDNHEILKLRYG--KLT KVQE-----WAL  
VLLESTNDRE-----VVVWVDKDGNSGKTWLT AHLWERLS-----T-PKELISWVHSAYN  
HEPYIIDIPRTWKWDD--ALYTAIETIK-DGLVYDPRYSAHMRNIR-GVKVMCMTNT--EPKLS-----KLS  
EDRWVMYR---  
>smaco\_YP\_009252318  
LPDEHGTTQ---RL---AYQPHAKEGVIGEEISPTSGKTHYQCKWHL SRGESIDG---WKLLIGPMG-----HVDIAV  
EK RFT-----GYEEKDGKFKWPES---PIAKHKNLALKT-----WEV-----ALL  
DSIKNQDDRH-----ITVVVDKQGGNGKSTFSKYLEANVV-----SDEYN-DYTSYCM EF  
PKKAYVFDLPRATSIKRRTAMWSGIEQIK-NGLLYEKRYKPRKMWIE-PPSILVFTND---DIPWE-----LLS  
EDRWDAYR---  
>Smaco\_YP\_009022025  
PR--SVPK---KALKIMIDVDCKKWIIGKERG-KNGYEHWQIRIETSNDEFFKW----CKHHIPAAH-----IEEAQQ  
GVDEC-----LYERKEGQFWTS-----SDRVETLHQRG-----TLRRQ-----RAL  
LALQSTNDRE-----VMVWYD-ANNVGKSWFCGALWERT-----VTWVASCYM  
DRPYVIDIPRS-----LYCAIESIK-DGLIYDTRYHARMINIR-GVKVLVLTNT--LPKLD-----KLR

-DRWCIFE---

>Smaco\_YP\_009030025

PR---TVSK---RALRIMIEKDCKKWIIGKEKG-KNGYEHWQIRIETSNDNFFQW----IQDHIPTAH-----VEKSDN  
GVDEC-----RYETKEGQYVTY-----SDRVQNLIQRG-----AFRNQ-----RAI  
QALEATNDRQ-----VVVWYD-ETNVGKSWFTGALWERT-----ITWVASCYI  
DRPYVIIDVPRS-----LYSAIESIK-DGLIYDTRYHSRMINIR-GVKVLVMTNT--MPKLD-----KLK  
-DRWCICT--

>Smaco\_YP\_009054985

PR---TVSK---RALRIMIDVDCKKWIIGKEEG-KNGYKHWQIRIETSNDSEFFEW---MQDHIPTAH-----IERTEC  
GVDAC-----RYEAKEGQYVMY-----SDRPQNLMOQRG-----EFRNQ-----HAL  
QALQOSNDRE-----VVVWYD-ETNVGKSWFTGALWERT-----ITWIASCYI  
ERPVIIDIPRS-----LYSAIESIK-DGLIYDTRYHSSMMNIR-GVKVLVMTNT--MPKLD-----KLK  
-DRWCIRT--

>Smaco\_YP\_009054987

PR--NNTAK---EAISKWLRADVHKWICAMETG-ADGYDHWQIRLQVN--KTWEK---LKEEWGPKA-----HIEE  
ASDVW-----DYERKSGLFFSS-----QDTPEVRKCRG-----HLTRQ-----AVL  
RAVQSTNDRQ-----VVVWYD-PENKKGKSWLLGHLYET-----QTDVASEYI  
NRPMVVIDIPRT-----LYVAIERIK-DGLIKDPYSSKTVHIR-GVKILVTCNT--MPKLD-----KLE  
-DRWIID---

>Smaco\_YP\_009054993

PR--ERARIGTEPRLMRYIREDVKKWIVAMETG-RRGYEHWQVRLQAVTE---K---QKVGVGWIIP-----QAHVEE  
CSDNW-----EYEAKEGRYWAS-----WDTVEVHRMRG-----RPRYQ-----ALL  
NKLRTTTDRE-----VMVWYD-PENNGKSWLVGHLFETT-----LSTMASLAH  
QKPYVIIDIPRT-----LYCAIESIK-DGLIMDPYRSARPINIR-GVKVLVLTNE--MPKLD-----ALE  
-DRWIIEN---

>Smaco\_YP\_009118276

PR--RKTEK---EGIYKWLRRDDVHKWTVAMETG-NNGYDHWQIRFQVG--KTFKQ---LKKEWGPKA-----HIEE  
ASDTW-----EYERKSGMFFSS-----DDTPEVRKCRG-----RLNRQ-----TIV  
RAVQDTNDRE-----IVVWYD-PNNKGKSWLLGHLYET-----QTDCAFSEFI  
NRPIVVIDIPRT-----LYVAIERIK-DGLIKDPYNSKTVHIR-GVKVLITCNT--MPTRD-----KLA  
-DRWVIVE---

>Smaco\_YP\_009118278

PR---KGYS---GAIMRFFRKDVHKWIVSPEKG-AQGYEHWQIRFRCTPENAMIA---WRQWVCNGFN-----MLEA  
SDNGW-----EYEGKEGKFLAS-----WDSKGARSVRG-----KMERQ-----ATV  
LRARATNDRE-----IVVWYD-PKNSGKSWLVGHLVETY-----LTTLASMVK  
ARPLVVIDIPRS-----MYVAIEAIK-DGIIVDPYRSATVENVK-GIGVIVITNE--KPQVG-----KLA  
-DRWDIVD---

>Smaco\_YP\_009163761

PR--DEEMY---RIWRYINSDVHKWIIASEIG-RNGYKHWQIRIKTSDPDEYRK---VKIGTGWAIP-----RSHVEE  
CSDDW-----DYETKEGRYLAS-----WDTPEVRKLRG-----QPRHQ-----AII  
NRLESTNDRE-----VMVWYD-PTNSGKSWLVGHLVETT-----MSMMASLAI  
QRRYVVIDIPRT-----LYCAIETIK-DGLIVDPYRSARPINIR-GVKVLVLSND--RPSLD-----KLV  
-DRWVVNT---

>Smaco\_YP\_009252308

PW--TGQSK---RMINLYITRDIHEWIIIGYEVG-RDGYRHHVRFNGD---FGD---VQRAFPAH-----IEEG  
TTMET-----EYEEKDGHFVSY-----EDSPDVLRCRG-----KLRHQ-----RVV  
KLLEKQSDRG-----ILCWYD-ETSIGKSFTCRHLVERT-----VNWVCSGYQ  
RQRYLIIDIPRS-----LYTGLEAIK-DGLIYDTRYSAKLRDIW-GVKILVLTNS--LPNLD-----ALQ  
-DRWMIIN---

>Smaco\_YP\_009252310

PR-----EADLRPICRMLDAKKWTIGFEVG-EHGFRHYQIRLVSSDHDFFEW---CKAFLPTAH-----IEE  
ATEER-----DYERKSGNFLCS-----DDTDQIRQIRG----DL-RIQ-----KIL  
KLADDQNDRQ-----ISYFYD-PDGAGKSWLTIHLWERS-----KTFICSGYK  
AEEYIVIDLRA-----LYELLEDTK-NRLIFYSRYQPITRNIR-CPNLIVFSNH--KLDTK-----RLA  
-DRCQYYD---

>Smaco\_YP\_009252314

SADLWKERD---VVRLLD-MDLREYYIGREIG-KGGYHHYQCAIDC---LERFN---GQHQLGWHI-----EDCS-  
WDKL-----RYCRKGGDYRYI-----GDSIEEQSYR---SRT---VG-----TID  
THLKKQNDRQ-----ISICVDTKG-SGKTTHGYDRSRTNA-----T-----YVAMNYD  
NEPVIWIDLPR-----LATILEDMK-DGLIYSAKYEGQVRHIK-GVKVLVTTNH---KPAYK-----LL-  
ADRWDVFT---

>Smaco\_YP\_009252316

FFPE--FLE---KTLQEALDKICERYAYGNEVG-KDGYEHFQCRIVCSKPTDERA---LRVFLLSNG-----HTSPTQ  
VRNF-----EYVQKEGNLYCS-----WEAVLKQFPGTP-----YWQ-----IAF  
SMWKKQNDRE-----ILVITDDKR-HGKSWLRKYMVACLK-----C-----AMAKP  
---SYIIDMPR-----AMWSAIEQMK-DGYLYDKRYSWQEKWIE-PPKIMVFCND---FDP-----LML  
TDRWQSFD---

>Smaco\_YP\_009252320

PR--RTVCSK--KLLNYILEQDTKRYIIGIEKG-KNGLEHFQIRLSCSDPEFFEHE---MKEWYPYAH---EKSDVGI  
NSES-----EYERKEGRYWTS-----MDTTEIRIQRG-----KPNTQ-----RVL  
EVLRRNTDRE-----IVLWYS-DKSIKSWLVGHLWETQ-----TDVASEYI  
KRPCIVVDLPR-----LYCALESIK-DGLLDTRYSSDTINIK-GVKVLVTSNT---LPKFD-----SLF  
-DRWIVIE---

>Smaco\_YP\_009252326

PQAV--LSA---ENVETILEQECERYAYADEVG-EGGYKHWQIRYVLRKGSPEVE---QIMIWSMWK-----HVSPTH  
VRNF-----NYIMKTDNYFCS-----WESELREYRLEY-----RWQ-----YTL  
EMIEQQNDRE-----IFVIQDPLG-IGKTTFAKHLVANLE-----M-----AMAKA  
RRETFIIDVPR-----AMWSAVEQIK-NGFLYDKRYQWSEKWK-SPKIVVLTNE---LPK-----DKL  
NDRWNVYQ---

>Smaco\_YP\_009508826

SRTSIPEHH---LVRLKLLDLHEAYIGRETG-ARGFEHYQCCIDCAGDLVRFN---TEHQLGWHI-----EECVS  
WEASK-----NYCRKTDNYRYV-----GDSIEEREYSRIATRPNIVAD-----RIQ  
FHIDHRNDRA-----ISICVDTIGGTGKSTYGYLCARRTA-----ETPTRIMDYIAMHYD  
NQPVIWIDLPRSRVLDK--DLAECLEDIK-DGLVASAKYEGCLRFRIR-GVKVLVTTNHVWDKTTYK-----MLS  
ADRWDIFT---

>UJSL001\_MN621482

QRTVSPSGRSVSPSPRPYNTKEGETALAPIVAEEPEKTRWQGRIFLITLNQEEK----  
WPRRLREYLHTRPVEYMYAAHE  
VAPTTN-----ALEYCKKQG-----MLVEEYGECPIRSANKKGISIKDVMEMDQTQILELRASSFN  
YVRNIRSELLNTQIRNAKHYP-----IDFEWYYGPTGTGKSRKAFFEGATP-----IQYANGFFTDWA  
GSKVLVYEEFRGQVPYH--LILQLTDAYH--GYCLNIKGGFRVLDIDKLIVTSPLRPEECYPRQCQK-----RDSIQQL  
VRRITKMLHFT

>UJSL002\_MN621468

KDRYKGTKE---ELKAWLIAHHAKEGVIGEEISPTSGKMHYQCKIHLRGETLEG---WKALIGPFG-----HVDIAH  
DKNFS-----GYEEKDGNFIRWPES---PIEKFKDIGPLY-----FWEQ-----VVL  
AELEKQDDRK-----MLVVLDTTGKGGKTTFSKHLEAKVV-----SDEYN-DYTYGCMF  
PAKGYIFDIPRASSIKRRCAMWSGIEKIK-DGLLYEKRYKPRKKWIE-PPKVLIFTNEP--DIPYE-----MLS  
RDRWVVVD---

>UJSL003\_MN621469

KNWCWTLNNYTEEEVTR---LQALAYD--EFETGEQGTTEHLQGFMTFTRRLRLTQ---VKDLLG--HR---IHAEPAHG  
-TPKQ-----AADYCKKDGNTDNT-----GKNQ--WDAIRRELAGNL---EAIKEQFVGTYHKYRKVIE  
YECALHTVCHTVVDGLQ-----NKNKWIWGAPGLGKSRFVRE-----IYTKMSNKWWDGYEGE--  
-PAVIVEDLDPTRAEMLTQQLKIWADRYP---FTAEIKGGARKMEPSYRLYITSNYPPEACFK-----NDVDLQAI  
RRRFQVIHYD-

>UJSL004\_MN621481

SRESIKEHQ---LVRLNLLDLHEAYIGRETG-NRGFQHYQCCIDCAGDLERFN---REHNLGWHV-----ETCIS  
WECSK-----NYCRKTGNRYRV-----GDSIEEREFNRISRRPQNIVGK-----RIC  
EHLRSQGNRK-----ISICVDTDGGTGKSTNGYIHVRNTA-----ETPVRIMDYIAMKYN  
NEPVIWIDLPRTRSVDN--DLAECLEDIK-DGLIASAKYEGNLKLIR-GVKVLVTTNHWIKKETYK-----LLS  
QDRWDVFT---

>UJSL005\_MN604398

YNTSQATVEEWFANKPKIQSMAACLDVGGKFLKDSFGPECHMEVAKRYLQAYIY---  
VLGEGEHAANKKVFIERYTPKA  
GRSTT-----KKVQSDVFIRETLR-----NMVRPIPRMVVWINGHTGTGKSLANKFMDLHQPSSAYMC  
SPSGQVSGPDNDPRSVLLDDFN-----IALTPLTTLFNMTDQYNKTIDCKGSYMWFIYSPYNNVVGMEQTYTTPHRKIT  
DHDQDQLSRRINLYIKTASPVPNNVDGYR--  
VMHPDGTPELIPKMNLDEMIAYIDSIYKSWEQKYEEQLNNEENYHEV  
ENNNINTA---

>UJSL006\_MN621480

AVKTWFCTWPKCTIPKEFALKLLEKHG--LKEKHEDGSPHLHAYLKLIRKRFNEK---  
MFDLIDVDKVKVFGNYQKVKD  
VLAVE-----KYVTKG-----QHKSLLKEDYLDPLELLEEGKINFFQINNFLKNQDCYK  
MLLNRKQNRPLKPLEK-----RRHHWIFGESNTGKTERLWKAMDTEG--GWFQIPTNNDWKGYNGE--  
--INLYMDEYKQQLTIQ--ELNRICDGA---KVNTKGGSTQLSWEVTWICSNYSIDNCYNKAEK-----MLLMSL  
WNRFNEEEML-

>UJSL007\_MN621470

PHSGITKRA---FFQMIRDFDIHKWTYAVERG-RGGYKHIQCRFRTNK--SFDE---IRHALICGH-----IEE  
ASDTW-----EYEKKGNYMTS-----EDNHEILKLRYG--KPTKVQE-----WAL  
RLLESTNDRE-----VVVVVDKEGNSGKTWLT AHLWERLS-----T-PKELISWVHSAYN  
HEPYIIIDIPRTWKWDD--ALYTAIETIK-DGLVYDPRYSAHMRNIR-GVKVMCMTNT---EPKLS-----KLS  
EDRWVMYR---

>UJSL017\_MN621476

----FRAVCFTSFVPEAMWDRNWEQLLGHKEICPETGRLHIQGYVEFSGQKKMKQ---IKLIFGD-PA---IHLEPRRG  
-TQEE-----AIIYCKKEGQQ-----QGQRTDLEDTYERIKVGS--LLDIAEAHPGTYIRYFKGIE  
RLRDLMQQRAQKLEAR--V-----PPEVIVYIGKSGVGKSHACYNDPD-----YPVQQTGKVFYFDGYQGE--  
-RVIWFDEFGGSVLPFH--VFLRLADKWE---TRVETKGSICILGLKKILISTTTPKDWPNSEK-----FREDPNQL  
WRRLTRVYYI-