```
                                 : .**:*  * * :*::.*    *:::*  :    : *      ::*::.  : *:* : **  :* :.::: **::* *  : **
Tbrucei            -----MSDEEQTAIVCDNGSGMVKSGFSGDDAPRHLFPSIVGPPKNEQAMMGSAKQEMFVGDEAQAKRGVLALKYPIEHGIVTNWDDMEKVWHHTFYNEL    95
Tcruzi             -----MSDEEQSAIVCDNGSGMVKAGFSGDDAPRHVFPSIVGRPKNEQAMMGSASKKLFVGDEAQAKRGVLSLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Linfantum          -----MADNEQSSIVCDNGSGMVKAGFSGDDAPRHVFPSIVGRPKNMQAMMGSANKTVYVGDEAQSKRGVLSLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Euglena            ----MAEEIEQQALVCDNGSGMVKAGFAGDDAPRCVFPSIVGRRKNDSAMMGTAKKDAYIGDDAQAKRGILFIKYPIEHGIVTNWDDMEKIWHHTFFNEL    96
Trichomonas        -----MAEEDVQTLVIDNGSGMCKAGFSGDEAPRSVFPSVVGRPKYKQQLVGGNAKDVFVGDEACSKAGVLILKYPIEHGIVNNWDDMEKIWHHTFYNEL    95
Histomonas         ---------EVQTLVIDNGSGMCKAGFAGDEAPRSVFPSIVGRPKYVQTIAGGQNKDTYVGDEACAKAGILILKYPIEHGIVTNWDDMEKIWHHTFYNEL    91
Tetrahymena        -----MAESESPAIVIDNGSGMCKAGIAGDDAPRAAFPSIVGRPKMPGIMVGMDQKECYVGEEAQAKRGVLNLKYPIEHGIVTDYDDMEKIWHHCFYNEL    95
Paramecium         ------MSEEHPAVVIDNGSGQCKAGIAGDDAPRCCFPAVVGRPKHQGIMVGMDSKEAYVGDEAQAKRGVLTLKYPIENGIVNNWDDMERIWHHAFFNEL    94
PvivaxII           ------MAEEAVALVVDNGSGMVKSGLAGDDAPKCVFPSIVGRPKMPNIMVGMEQKECYVGDEAQNKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    94
PknowlesiII        ------MSEEAVALVVDNGSGMVKSGLAGDDAPKCVFPSIVGRPKMPNIMVGMEQKECYVGDEAQNKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    94
PfalciparumII      ------MSEEAVALVVDNGSGMVKSGLAGDDAPKCVFPSIVGRPKMPNIMIGMEQKECYVGDEAQNKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    94
PyoeliiII          ------MPEESIALVVDNGSGMVKSGLAGDDAPKCVFPSIIGIPKMPNIMVGMEQKECYVGDEAQNKRGILTLKYPIEHGIVTNWDDMEKIWRHTFFNEL    94
PbergheiII         ------MPEESIALVVDNGSGMVKSGLAGDDAPKCVFPSIIGIPKMPNIMVGMEQKECYVGDEAQNKRGILTLKYPIEHGIVTNWDDMEKIWRHTFFNEL    94
Gregarina          -----MADEEQAPVVVDNGSGMVKAGAAGEDAPSNVFPSIIGRPKHAGIMVGMEKKEAYVGDEAQAKRGVLQLTYPIAHGIITNWDDMEKIWHHTFYDEL    95
Toxoplasma         -----MADEEVQALVVDNGSGNVKAGVAGDDAPRAVFPSIVGKPKNPGIMVGMEEKDCYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Neospora           -----MADEEVQALVVDNGSGNVKAGVAGDDAPRAVFPSIVGKPKNPGIMVGMEEKDCYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Eimeria            -----MADEEVQALVVDNGSGNVKAGVAGDDAPRAVFPSIVGRPKNPGIMVGMEEKDCYVGDEAQSKRGILSLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
PvivaxI            -----MGDEEVQALVVDNGSGNVKAGVAGDDAPRSVFPSIVGRPKNPGIMVGMEEKDAFVGDEAQTKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Pknowlesi          -----MGDEEVQALVVDNGSGNVKAGVAGDDAPRSVFPSIVGRPKNPGIMVGMEEKDAFVGDEAQTKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
PbergheiI          -----MGDEEVQALVIDNGSGNVKAGVAGDDAPRSVFPSIVGRPKNPGIMVGMEEKDAFVGDEAQTKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Pyoelli            -----MGDEEVQALVIDNGSGNVKAGVAGDDAPRSVFPSIVGRPKNPGIMVGMEEKDAFVGDEAQTKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
PfalciparumI       -----MGEEVVQALVVDNGSGNVKAGVAGDDAPRSVFPSIVGRPKNPGIMVGMEEKDAFVGDEAQTKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Tparva             -----MSDEETTALVVDNGSGNVKAGFAGDDAPRCVFPSIVGRPKNPALMVGMDEKDTYVGDEAQSKRGILTLKYPIEHGIVTNWEDMEKIWHHTFYNEL    95
Tannulata          -----MSDEETTALVVDNGSGNVKAGFAGDDAPRCVFPSIVGRPKNPALMVGMDEKDTYVGDEAQSKRGILTLKYPIEHGIVTNWEDMEKIWHHTFYNEL    95
Babesia            -----MSDEEATALVIDNGSGNVKAGVAGDDAPRCVFPSIVGRPKNPALMVGMDEKDTYVGDEAQAKRGILTLKYPIEHGIVTNWEDMEKIWHHTFYNEL    95
CparvumACT1        -----MSEEETQALVVDNGSGMVKAGVAGDDAPRCVFPSIVGRPKMPGVMVGMDQKDCYVGDEAQSKRGILTLKYPIEHGIVTNWEDMEKIWHHTFYNEL    95
Chominis           -----MSEEETQALVVDNGSGMVKAGVAGDDAPRCVFPSIVGRPKMPGVMVGMDQKDCYVGDEAQSKRGILTLKYPIEHGIITNWEDMEKIWHHTFYNEL    95
Cmuris             -----MSEEETLALVVDNGSGMVKAGFAGDDAPRCVFPSIVGRPRMPGVMVGMDQKNCYVGDEAQSKRGILTLKYPIEHGIVTNWEDMEKIWHHTFYNEL    95
Aedes              -----MCDDDVRRSVVDNGSGMCKAGFAGDDVPRAVFPSIVGRPRHQGVMVGMGNKDSYVGDEVQSKRGILTLKYPNEHGIITNWDDMEKIWHHTFYNEL    95
Anopheles          -----MCDDDAGALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGNKDAYVGDEAQSKRGILTLKYPIEHGIITNWDDMEKIWHHTFYNEL    95
Drosophila         -----MCDDDAGALVIDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIITNWDDMEKIWHHTFYNEL    95
Culex              -----MWDEEVAALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIITNWDDMEKIWHHTFYNEL    95
Ciona              ---MSEEEEEQTALVCDNGSGLVKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIITNWDDMEKIWHHTFYNEL    97
Ornithorhynchus    ----MCEEEDSTALVCDNGSGLCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIITNWDDMEKIWHHSFYNEL    96
Strongylocentrotus -----MCDEDVAALVVDNGSGMCKTGFAGDDAPRAVFPSIVGRPRHHGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Homobeta           ------MDDDIAALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    94
Sus                ------MDDDIAALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    94
Gallus             ------MDDDIAALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    94
Xenopus            ------MDDDIAALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    94
Monodelphis        -----MNYWNNPALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Danio              ------MDEEIAALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILSLKYPIEHGIVTNWDDMEKIWHHTFYNEL    94
Bombyx             -----MCDEEVAALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Haemaphysalis      -----MCDDEVAALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Caenorhabditis     -----MCDDDVAALILDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Wuchereria         -----MCDDDVAALVIDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Hydra              -----MADDEVAALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Haliotis           ------MDDDVAALVIDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    94
Schistosoma        -----MAEEDVAALVIDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Dictyostelium      -----MDGEDVQALVIDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHTGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Pyrocystis         ------MLRRSQALVVHNGSGMCKAGFAGDDAPRAVFPSIVGRPRHTGVMVGMGQKDSYVGDEAQSKRGILPLKYPIEHGIVTNWDDMEKIWHHTLYNEL    94
Thecamoeba         -----MSDEEVQALVIDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHTGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Amoeba             -------MEEIAALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHKGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    93
Chaos              -------MEEIAALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHKGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    93
Hartmannella       -------MEEIAALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHKGVMVGMGQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    93
Ehistolytica       -----MGDEEVQALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHVSVMAGMGQKDAYVGDEAQSKRGILTLKYPIEHGIVNNWDDMEKIWHHTFYNEL    95
Edispar            -----MGEEEVQALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHVSVMAGMGQKDAYVGDEAQSKRGILTLKYPIEHGIVNNWDDMEKIWHHTFYNEL    95
Pichia             -----MDGEEVAALVIDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGIMVGMGQKDSYVGDEAQSKRGILTLRYPIEHGIVSNWDDMEKIWHHTFYNEL    95
Candida            MNTNSRFVEEVAALVIDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGIMVGMGQKDSYVGDEAQSKRGILTLRYPIEHGIVSNWDDMEKIWHHTFYNEL   100
Yeast              ------MDSEVAALVIDNGSGMCKAGFAGDDAPRAVFPSIVGRPRHQGIMVGMGQKDSYVGDEAQSKRGILTLRYPIEHGIVTNWDDMEKIWHHTFYNEL    94
Nicotinia          ----MADGEDIQPLVCDNGTGMVKAGFAGDDAPRAVFPSIVGRPRHTGVMVGMGQKDAYVGDEAQSKRGILTLKYPIEHGIVSNWDDMEKIWHHTFYNEL    96
Brachypodium       ----MADGEDIQPLVCDNGTGMVKAGFAGDDAPRAVFPSIVGRPRHTGVMVGMGQKDAYVGDEAQSKRGILTLKYPIEHGIVSNWDDMEKIWHHTFYNEL    96
Arabidopsis        ----MADGEDIQPLVCDNGTGMVKAGFAGDDAPRAVFPSIVGRPRHTGVMVGMGQKDAYVGDEAQSKRGILTLKYPIEHGIVNNWDDMEKIWHHTFYNEL    96
Zea                ----MADGEDIQPLVCDNGTGMVKAGFAGDDAPRAVFPSIVGRPRHTGVMVGMGQKDAYVGDEAQSKRGILTLKYPIEHGIVSNWDDMEKIWHHTFYNEL    96
Physcomitrella     ----MADGEDVQPLVCDNGSGMVKAGFAGDDAPRAVFPSIVGRPRHTGVMVGMGQKDAYVGDEAQSKRGILTLKYPIEHGVVTNWDDMEKIWHHTFYNEL    96
Dunaliella         --MDSGDVGSVSALVCDNGSGMVKSGFAGDDTPRSVIPSIVGRPRHTGVMVGMGHKDSYVGDEAQSKRGILSLRYPIEHGIVSNWDDMEKIWDHTFFNEL    98
Chlamydomonas      ----MADEGEVSALVCDNGSGMVKAGFAGDDAPRAVFPSIVGRPRHTGVMVGMGQKDSYVGDEAQSKRGILTLRYPIEHGIVTNWDDMEKIWHHTFFNEL    96
Micromonas         ----MADEGEVSALVCDNGSGMVKAGFAGDDAPRAVFPSIVGRPRHQGVMVGMGQKDAYVGDEAQSKRGILTLRYPIEHGIVTNWDDMEKIWHHTFYNEL    96
Acetabularia       -----MADEEITALVVDNGSGVVKAGFAGDDAPRAVFPSIVGKPKHQGVMVGMGQKDTYVGEEAQSRRGILTIRYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Amphidinium        -----MAEEEVAALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPKMPGIMVGMDQKDSYVGDEAQSKRGVLTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Symbiodinium       -----MGDEEVAALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPKMPGIMVGMDQKDSYVGDEAQSKRGVLTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Lingulodinium      -----MGDEEVAALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPKMPGIMVGMDQKDSYIGDEAQSKRGVLTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Crypthecodinium    -----MADDEVAAIVCDNGSGMVKCGFAGDDAPRAVFPSIVGRPKMPGIMVGMDQKDSYVGDEAQSKRGVLTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Perkinsus          -----MADEEVAALVIDNGSGMCKAGFAGDDAPRSVFPSIVGRPKMPGIMVGMDQKDSYVGDEAQSKRGILTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Pythium            -----MADEDVQALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPKHLGIMVGMDQKDAYVGDEAQSKRGVLTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Phytophthora       -----MADEDVQALVVDNGSGMCKAGFAGDDAPRAVFPSIVGRPKHLGIMVGMDQKDAYVGDEAQSKRGVLTLKYPIEHGIVTNWDDMEKIWHHTFYNEL    95
Histriculus        -------MSEQQTCVIDNGSGVVKAGFSGEDAPRAVYPSIVGRPKNVSALIGVDSASEYLGDEAQQKRGVLKIFYPIEHGIVKDWDDMEKIWNHTFYVEL    93
Oxytricha          -------MSDQQTCVIDNGSGVVKAGFAGEDAPRAVFPSIVGRPKNVSALIGVDSASEYLGDEAQQKRGVLKIFYPIEHGIVKDWDDMEKIWNHTFYVEL    93
Stylonychia        -------MSDQQTCVIDNGSGVVKAGFSGEDAPRAIFPSIVGRPKNSSALIGVDSATEYLGDEAQQKRGVLKIFYPIEHGIVKDWDDMEKIWNHTFYVEL    93
Uroleptus          ------MSEEQQTIVIDNGSGVVKAGFSGEDAPRAIFPSIVGRPKMVSVLIGVESKDEYLGDEAQQKRGVLRISYPIEHGIIKDWDDMEKIWNHTFYVEL    94
Engelmanniella     ------MAEDQQTVVIDNGSGVVKAGFSGEDAPRAIFPSIVGRPKNLNALIGVESKDEYLGDEAQQKRGVLKITYPIEHGIVKDWDDMEKIWNHTYYVEL    94
Hypothrichida      -------MADKQTVVVDNGSGVVKAGFSGEDAPRAVFPSIVGRPKNASALLGVESASEYIGDQAQQKRGVLKIFYPIEHGIIKDWDDMEKIWNHTFYVEL    93
Glamblia           ------MTDDNPAIVIDNGSGMCKAGFAGDDAPRAVFPTVVGRPKRETVLVGSTHKEEYIGDEALAKRGVLKLSYPIEHGQIKDWDMMEKVWHHCYFNEL    94
Gintestinalis      ------MTDDNPAIVIDNGTGMCKAGFAGDDAPRAVFPTVVGRPKRETVLVGSTHKEEYIGDEALAKRGVLKLSYPIEHGQIKDWDVMEKVWHHCYFNEL    94
                   1.......10........20........30........40........50........60........70........80........90.......100
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                  *  *  *  ***:.* *** ***::    *:..  *: *: ::*:*:**::***** .   **** * **:* *: :* .: * ::**:  *      :
Tbrucei           RVNPESHNVLLTEAPMNPKQNREKMTQIMFETFGVPAMYVGIQAVLSLYSSGRTTGIVLDAGDGVTHTVPIYEGYSLPHAIRRVDMAGRDLTEYLMKILM   195
Tcruzi            RVNPESHSVLLTEAPMNPKQNREKMTQIMFETFGVPAMYVGIQAVLSLYSSGRTTGIVLDAGDGVTHTVPIYEGYSLPHAIRRMDMAGRDLTEYLMKLLM   195
Linfantum         RVNPEQHNVLLTEAPMNPKQNREKMTQIMFETFNVPSLYIGIQAVLSLYSSGRTTGIVLDAGDGVTHTVPIYEGYSLPHAVRRVDMAGRDLTEYLMKIMM   195
Euglena           RVAPEDHPVLLTEAPMNPKSNREKMTQIMFETFNVPALYVSIQAVLSLYSSGRTTGIVLDCGDGVSHTVPIYEGYSLPHAVLRIDMAGRDLTDYMMKLLT   196
Trichomonas       RVDPTEHPVLLTEAPLNPKANREKMISLMFDTFNVPSFYVGIQAVLSLYSSGRTTGIVFDAGDGVSHTVPIYEGYSLPHAIMRLNLAGRDLTAWMVKLLT   195
Histomonas        RVDPAEHPVLLTEAPMNPKANREKMIQLQFETFNVPAFYVGIQAVLSLYSSGRTTGIVFDAGDGVSHTVPIYEGYSLPHAIMRINLAGRDLTAYLQKILN   191
Tetrahymena       RVTPEEHPCLLTEAPQNPKLNREKMTKTMFETFNVPSFYVAIQAVLSLYASGRTTGIVVDSGDGVTHTVPIYEGYALPHAILRIDLAGRELTEYCMKLLY   195
Paramecium        RVTPEDHPALLTEAPMNPKANREKMTQILFETFNVPSFYVAIQAVLSLYASGRTTGIVVDSGDGVSHTVPIYEGYALPHAVLRIDLAGRACTQYLVNILN   194
PvivaxII          RVSPEEHPVLLTEAPLNPKTNRERMTQIMFESFDVPAMYVSIQAILSLYASGRTTGIVLDSGDGVSHTVPIYEGYVLPHAINRIDMAGRDLTYHMMKLFT   194
PknowlesiII       RVSPEEHPVLLTEAPLNPKTNRERMTQIMFESFDVPAMYVSIQAILSLYASGRTTGIVLDSGDGVSHTVPIYEGYVLPHAINRIDMAGRDLTYHMMKLFT   194
PfalciparumII     RVSPEEHPVLLTEAPLNPKTNREKMTQIMFETFDVPAMYVSIQAILSLYASGRTTGIVLDSGDGVSHTVPIYEGYVLPHAINRIDMAGRDLTYHMMKWFT   194
PyoeliiII         RVSPEEHPVLLTEAPLNPKTNREKMTQIMFESFDVPAMYVSIQAILSLYASGRTTGIVLDSGDGVTHTVPIYEGYVLPHAINRTDMAGRDLTYYMMKLFT   194
PbergheiII        RVSPEEHPVLLTEAPLNPKTNREKMTQIMFESFDVPAMYVSIQAILSLYASGRTTGIVLDSGDGVTHTVPIYEGYVLPHAINRTDMAGRDLTYYMMKLFT   194
Gregarina         RISPEEHPVLLTEAPLNPKANREKMVQMMFENFSCPATYVSIQAVLSLYASGRTTGIVMDSGDGVSHTVPIYDGFALPHAVMRLDLAGRDLTEYMMTLLH   195
Toxoplasma        RVAPEEHPVLLTEAPLNPKANRERMTQIMFETFNVPAMYVAIQAVLSLYSSGRTTGIVLDSGDGVSHTVPIYEGYALPHAIMRLDLAGRDLTEYMMKILH   195
Neospora          RVAPEEHPVLLTEAPLNPKANRERMTQIMFETFNVPAMYVAIQAVLSLYSSGRTTGIVLDSGDGVSHTVPIYEGYALPHAIMRLDLAGRDLTEYMMKILH   195
Eimeria           RVAPEEHPVLLTEAPLNPKANRERMTQIMFETFNVPAMYVAIQAVLSLYSSGRTTGIVLDSGDGVSHTVPIYEGYALPHAMMRLDLAGRDLTEYMMTILH   195
PvivaxI           RAAPEEHPVLLTEAPLNPKGNRERMTQIMFESFNVPAMYVAIQAVLSLYSSGRTTGIVLDSGDGVSHTVPIYEGYALPHAIMRLDLAGRDLTEYLMKILH   195
Pknowlesi         RAAPEEHPVLLTEAPLNPKGNRERMTQIMFESFNVPAMYVAIQAVLSLYSSGRTTGIVLDSGDGVSHTVPIYEGYALPHAIMRLDLAGRDLTEYLMKILH   195
PbergheiI         RAAP-EHPVLLTEAPLNPKGNRERMTQIMFESFNVPAMYVAIQAVLSLYSSGRTTGIVLDSGDGVSHTVPIYEGYALPHAIMRLDLAGRDLTEYLMKILH   194
Pyoelli           RAAPEEHPVLLTEAPLNPKGNRERMTQIMFESFNVPAMYVAIQAVLSLYSSGRTTGIVLDSGDGVSHTVPIYEGYALPHAIMRLDLAGRDLTEYLMKILH   195
PfalciparumI      RAAPEEHPVLLTEAPLNPKGNRERMTQIMFESFNVPAMYVAIQAVLSLYSSGRTTGIVLDSGDGVSHTVPIYEGYALPHAIMRLDLAGRDLTEYLMKILH   195
Tparva            RIAPEEHPVLLTEAPMNPKANREKMTTIMFETHNVPAMYVAIQAVLSLYSSGRTTGIVLDSGDGVTHTVPIYEGYALPHAIMRLDLAGRDLTEFMQKILV   195
Tannulata         RIAPEEHPVLLTEAPMNPKANREKMTTIMFETHNVPAMYVAIQAVLSLYSSGRTTGIVLDSGDGVTHTVPIYEGYALPHAIMRLDLAGRDLTEFMQKILV   195
Babesia           RIAPEEHPVLLTEAPMNPKANREKMTTIMFETHNVPAMYVAIQAVLSLYSSGRTTGIVLDSGDGVTHTVPIYEGYALPHAIMRIDLAGRDLTEFMQKILA   195
CparvumACT1       RVAPEEHPVLLTEAPMNPKVNRERMTQIMFETFNVPAMYVNIQAVLSLYASGRTTGIVLDSGDGVSHTVPIYEGYAIPHAIMRLDLAGRDLTDFLMKILH   195
Chominis          RVAPEEHPVLLTEAPMNPKVNRERMTQIMFETFNVPAMYVNIQAVLSLYASGRTTGIVLDSGDGVSHTVPIYEGYALPHAIMRLDLAGRDLTDFLMKILH   195
Cmuris            RVAPEEHPVLLTEAPMNPKANRERMTQIMFETFNVPAMYVNIQAVLSLYASGRTTGIVLDSGDGVSHTVPIYEGYALPHAIMRLDLAGRDLTDYLMKILH   195
Aedes             RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNSPAMYVAIQAVLSLYASGRTTGIVLDSGDGVSHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   195
Anopheles         RVAPEEHPVLLTEAPLNPKSNREKMTQIMFETFAAPAVYVAIQAVLSLYASGRTTGVVLDSGDGVSHTVPIYEGYALPHAILRMDLAGRDLTDYLMKILT   195
Drosophila        RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNSPAMYVAIQAVLSLYASGRTTGIVLDSGDGVSHTVPIYEGFALPHAILRLDLAGRDLTDYLMKILT   195
Culex             RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNSPAMYVAIQAVLSLYASGRTTGIVLDSGDGVSHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   195
Ciona             RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAVLSLYASGRTTGIVLDSGDGVSHNVPIYEGYALPHAIMRLDLAGRDLTDYLMKILT   197
Ornithorhynchus   RVAPEEHPTLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAVLSLYASGRTTGIVLDSGDGVTHNVPIYEGYALPHAIMRLDLAGRDLTDYLMKILT   196
Strongylocentrotus RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNAPAMYVAIKAVLSLYASGRTTGIAXXXGDGVTHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   195
Homobeta          RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVLSLYASGRTTGIVMDSGDGVTHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   194
Sus               RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVLSLYASGRTTGIVMDSGDGVTHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   194
Gallus            RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVLSLYASGRTTGIVMDSGDGVTHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   194
Xenopus           RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVLSLYASGRTTGIVMDSGDGVTHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   194
Monodelphis       RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVLSLYASGRTTGIVMDSGDGVTHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   195
Danio             RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVLSLYASGRTTGIVMDSGDGVTHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   194
Bombyx            RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVLSLYASGRTTGIVLDSGDGVSHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   195
Haemaphysalis     RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVLSLYASGRTTGIVLDSGDGVSHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   195
Caenorhabditis    RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVLSLYASGRTTGIVLDSGDGVTHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   195
Wuchereria        RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVLSLYASGRTTGIVLDTGDGVTHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   195
Hydra             RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNSPAMYVAIQAVLSLYASGRTTGIVLDSGDGVSHTVPIYEGYALPHAIIRLDLAGRDLTDYLMKILT   195
Haliotis          RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNSPAMYVAIQAVLSLYASGRTTGIVLDSGDGVTHTVPIYEGYALPHAILRLDLAGRDLTDYMMKILT   194
Schistosoma       RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAVLSLYASGRTTGIVLDSGDGVTHTVPIYEGYALPHAILRLDLAGRDLTDYMMKILT   195
Dictyostelium     RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVLSLYASGRTTGIVMDSGDGVSHTVPIYEGYALPHAILRLDLAGRDLTDYMMKILT   195
Pyrocystis        RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVLSLYASGRTTGIVLDSGDGVSHTVPIYEGYALPHAILRLDLAGRDLTDYMMKILT   194
Thecamoeba        RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVLSLYASGRTTGIVLDSGDGVTHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   195
Amoeba            RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAVLSLYASGRTTGIVCDIGDGVCHTVPIYEGYALPHAIARLDLAGRDLTDYCMKILT   193
Chaos             RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAVLSLYASGRTTGIVCDIGDGVCHTVPIYEGYALPHAIARLDLAGRDLTDYCMKILT   193
Hartmannella      RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAVLSLYASGRTTGIVLDIGDGVCHTVPIYEGYALPHAIARLDLAGRDLTDYCMKILT   193
Ehistolytica      RVAPEEHPVLLTEAPMNPKANREKMTQIMFETFNTPAMYVGIQAVLSLYASGRTTGIVMDSGDGVSHTVPIYEGFSLPHAILRLDLAGRDLTDYLMKILT   195
Edispar           RVAPEEHPVLLTEAPMNPKANREKMTQIMFETFNTPAMYVGIQAVLSLYASGRTTGIVMDSGDGVSHTVPIYEGFSLPHAILRLDLAGRDLTDYLMKILT   195
Pichia            RVAPEEHPVLLTEAPMNPKSNREKMTQIMFETFNVPAFYVSIQAVLSLYSSGRTTGIVLDSGDGVTHVVPIYAGFSLPHGILRIDLAGRDLTDYLMKILS   195
Candida           RVAPEEHPVLLTEAPMNPKSNREKMTQIMFETFNVPAFYVSIQAVLSLYSSGRTTGIVLDSGDGVTHVVPIYAGFSLPHGILRIDLAGRDLTDYLMKILS   200
Yeast             RVAPEEHPVLLTEAPMNPKSNREKMTQIMFETFNVPAFYVSIQAVLSLYSSGRTTGIVLDSGDGVTHVVPIYAGFSLPHAILRIDLAGRDLTDYLMKILS   194
Nicotinia         RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVLSLYASGRTTGIVLDSGDGVSHTVPIYEGYALPHAILRLDLAGRDLTDHLMKILT   196
Brachypodium      RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVLSLYASGRTTGIVLDSGDGVSHTVPIYEGYALPHAILRLDLAGRDLTDYMMKILT   196
Arabidopsis       RVAPEEHPILLTEAPLNPKANREKMTQIMFETFNAPAMYVAIQAVLSLYASGRTTGIVLDSGDGVSHTVPIYEGYALPHAILRLDLAGRDLTDALMKILT   196
Zea               RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAVLSLYASGRTTGIVLDSGDGVSHTVPIYEGYALPHAILRLDLAGRDLTDSLMKILT   196
Physcomitrella    RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAVLSLYASGRTTGIVLDSGDGVTHTVPIYEGYALPHAILRLDLAGRDLTDALMKILT   196
Dunaliella        RVAPEEHPVLLTEAPLNPKGNREKMTQIMFETFNVPAMYVAIQAVLSLYASGRTTGIVLDSGDGVTHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILM   198
Chlamydomonas     RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAVLSLYASGRTTGIVLDSGDGVTHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILM   196
Micromonas        RVAPEEHPVLLTEAPLNPKANREKMCQIMFETFNVPAMYVAIQAVLSLYASGRTTGIVLDCGDGVSHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   196
Acetabularia      RVAPEEHPVLLTEAPMNPKSNREKLTQIMFETFNVPAMYVSIQAVLSLYASGRTTGIVLDSGDGVSHTVPIYEGYALPHAILRLDLAGRDLTDYLTKLLM   195
Amphidinium       RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAVLSLYASGRTTGIVMDSGDGVSHTVPIYEGYALPHAILRLDLAGRDLTEYLMKILT   195
Symbiodinium      RXAPEEHPVLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAVLSLYASGRTTGIVMDSGDGVSHTVPIYEGYALPHAILRLDLAGRDLTEYMMKILT   195
Lingulodinium     RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAVLSLYASGRTTGIVMDSGDGVSHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILT   195
Crypthecodinium   RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNVPAMYVAIQAVLSLYASGRTTGIVMDSGDGVSHTVPIYEGYALPHAILRLDLAGRDLTEYMMKILT   195
Perkinsus         RVSPEGHPVLLTKAPLNPKANREKMTQLMFETFNVPAMYVQIQAVLSLYASGRTTGIVMDSGDGVSHTVPIYEGYALPHAIQRLDLAGRDLTEFMMKILT   195
Pythium           RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNVPAMYVNIQAVLSLYASGRTTGCVLDSGDGVSHTVPIYEGYALPHAIVRLDLAGRDLTDYMMKILT   195
Phytophthora      RVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNVPAMYVNIQAVLSLYASGRTTGCVLDSGDGVSHTVPIYEGYALPHAIVRLDLAGRDLTDYMMKILT   195
Histriculus       RVSPDEHPVLLTEAPLNPKVNREKMTQIMFETFNVPALYVAIQAVLSLYSAGRTTGIVCDAGDGVTHTVPIYEGFSIPHAVSRIQLAGRDLTTFMAKLLT   193
Oxytricha         RVQPDEHPILLTEAPLNPKTNREKMTQIMFETFNVPALYVAIQAVLSLYSAGRTTGIVCDAGDGVTHTVPIYEGFSIPHAVSRIQLAGRDLTTFMAKLLT   193
Stylonychia       RVSPDEHPVLLTEAPLNPKINREKMTQIMFETFNVPALYVAIQAVLSLYSAGRTTGIVCDAGDGVTHTVPIYEGFSIPHAVQRIQLAGRDLTMFMAKLLT   193
Uroleptus         RVSPDEHPVLLTEAPLNPKVNREKMTQIMFETFNVPALYVAIQAVLSLYSAGRTTGIVCDAGDGVTHTVPIYEGFSIPHAVSRIQLAGRDLTQFMAKLLT   194
Engelmanniella    RVSPDEHPVLLTEAPLNPKVNREKMTQIMFETFNVPSLYVAIQAVLSLYSAGRTTGIVCDSGDGVTHTVPIYEGFSIPXAISRIQLAGRDLTTFMAKLLT   194
Hypothrichida     RVQPDEHPILLTEAPLNPKVNREKMTQIMFETFNVPALYVAIQAVLSLYSAGRTTGIVCDAGDGVTHTVPIYEGFSIPHAVSRIQLAGRDLTTFMAKLLT   193
Glamblia          RAQPSDHAVLLTEAPKNPKANREKICQIMFETFAVPAFYVQVQAVLALYSSGRTTGIVIDTGDGVTHTVPVYEGYSLPHAVLRSEIAGKELTDFCQINLQ   194
Gintestinalis     RAQPSDHAVLLTEPPKNPKANREKLCQIMFETFAVPAFYVQVQAVLALYSSGRTTGIVIDTGDGVTHTVPVIEGYSLPHAVLRSEIAGKELTDFCQINLQ   194
                  .......110.......120.......130.......140.......150.......160.......170.......180.......190.......200
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                  *  * ::*: **:*: **   : * : :                 : ****  : :   *::  :       .      .    :.::  **:*:* :
Tbrucei           ETGMTFTTSAQKEIVRNIKEQLCYVALDFDEEMTNSAKS-VSEEP-FELPDGNVMQVGNQRFRCPQALFKPALIGLDEAPGFHEMTFQSINKCDIDVRRD   293
Tcruzi            ESGMTFTTSAEKEIVRNVKEQLCYVALDFDEEVTNSAKT-VNEEP-FELPDGTIMQVGNQRFRCPEALFKPMLIGLDEAPGFHEMTFQSINKCDIDVRRD   293
Linfantum         ETGMTFTTTAEKEIVRNVKEQLCYVALDFEEEMTNSAKS-ANEEA-FELPDGNVMMVGNQRFRCPEVLFKPSLIGLDEAPGFPEMVYQSINKCDIDVRRE   293
Euglena           ERGLSFTTSAEREIVRDVKEKLCYVALDFDEEMSLATSSSSVEKE-YELPDGNIIQVGSERFRCPEVLMKPSMIGLEACG-VHETTFNSINKCDIDVRKD   294
Trichomonas       ERGNAFNTTAEKEIVRDIKEKLCYVALDFDAEMEKAATDSSINVN-YTLPDGNVITIGNERFRCPEMLFKPYFDGM-EYDGIDKTLFDSIMKCDIDVRKD   293
Histomonas        ERGYTFTTSAEKEIVRDIKEKHAYVALDFDEEMNKAATTSECDIS-YTLPDGNVITIANERFRCPELLFKPHFNGF-EFEGIDQTLFNSIMACDIDVRKD   289
Tetrahymena       EIGLNFSSTAEREIIRDIKEKLCYVAIDYEAELKAYKESSQNDKS-YELPDGNTITVQDERFRCPELLFKPAFIGK-EFPGIHELTFNSIMKCDVDVRKD   293
Paramecium        ELGVSFTSSAEMEIVRDMKEKLCYVALDYEEELKKYKESAANNRP-YELPDGNVVVIQNQRFRCPELLFKPAFIGL-EVSGLHELTFKSIMKCDIDVRKD   292
PvivaxII          ERGHTFTTTAEREIVRDIKEKLCYIALDYDEELKKSEEHADQIEEIYELPDGNLITVGSERFRCPEALFNPTLIGR-ECPGLHITAYQSIMKCDIDIRKE   293
PknowlesiII       ERGHTFTTTAEREIVRDIKEKLCYIALDYDEELKKSEEHSDQIEEIYELPDGNLITVGSERFRCPEALFNPTLIGR-ECPGLHITAYQSIMKCDIDIRKE   293
PfalciparumII     ERGHTFTTTAEREIVRDIKEKLCYIAMDYDEELKRSEEHSDEIEEIYELPDGNLITVGSERFRCPEALFNPTLIGR-ECPGLHITAYQSIMKCDIDIRKE   293
PyoeliiII         ERGYTFTTTAEREIVRDIKEKLCYIALDYDEELKKSEERTEQVEEMYELPDGNLITVGSERFRCPEALFNPSLIGR-ECPGLHITAYQSIMKCDIDIRKE   293
PbergheiII        ERGYTFTTTAEREIVRDIKEKLCYIALDYDEELKKSEERTEEVEEMYELPDGNLITVGSERFRCPEALFNPSLIGR-ECPGLHITAYQSIMKCDIDIRKE   293
Gregarina         LRGHAFTTSAEKEIVRDIKEKLCYIALEFDEELKKAEE-SDEVEKTYELPDGNVISVGKERFQTPEALFKPSLIGR-EAQGVHHTTFQSVMKCDVDIRKD   293
Toxoplasma        ERGYGFTTSAEKEIVRDIKEKLCYIALDFDEEMKAAEDSSDIEKS-YELPDGNIITVGNERFRCPEALFQPSFLGK-EAAGVHRTTFDSIMKCDVDIRKD   293
Neospora          ERGYGFTTSAEKEIVRDIKEKLCYIALDFDEEMKAAEDSSDIEKS-YELPDGNIITVGNERFRCPEALFQPSFLGK-EAAGVHRTTFDSIMKCDVDIRKD   293
Eimeria           ERGYGFTTTAEKEIVRDIKEKLCYIALDFDEEMK--EDSSDIEKS-YELPDGNIITVGNGRLRCPEALFQPSFLGK-EASGIHRTTFDSIMKCDVDIRKD   291
PvivaxI           ERGYGFSTSAEKEIVRDIKEKLCYIALNFDEEMKTSEQSSDIEKS-YELPDGNIITVGNERFRCPEALFQPSFLGK-EAAGIHTTTFNSIKKCDVDIRKD   293
Pknowlesi         ERGYGFSTSAEKEIVRDIKEKLCYIALNFDEEMKTSEQSSDIEKS-YELPDGNIITVGNERFRCPEALFQPSFLGK-EAAGIHTTTFNSIKKCDVDIRKD   293
PbergheiI         ERGYGFSTSAEKEIVRDIKEKLCYIALNFDEEMKTSEQSSDIEKS-YELPDGNIITVGNERFRCPEALFQPSFLGK-EAAGIHTTTFNSIKKCDVDIRKD   292
Pyoelli           ERGYGFSTSAEKEIVRDIKEKLCYIALNFDEEMKTSEQSSDIEKS-YELPDGNIITVGNERFRCPEALFQPSFLGK-EAAGIHTTTFNSIKKCDVDIRKD   293
PfalciparumI      ERGYGFSTSAEKEIVRDIKEKLCYIALNFDEEMKTSEQSSDIEKS-YELPDGNIITVGNERFRCPEALFQPSFLGK-EAAGIHTTTFNSIKKCDVDIRKD   293
Tparva            ERGFSFTTTAEKEIVRDIKEKLCYIALDFDEEMTSSSSSEVEKS-YELPDGNIITVGNERFRCPEVLFQPTFIGM-EAPGIHTTTYNSIVRCDVDIRKD   293
Tannulata         ERGFSFTTTAEKEIVRDIKEKLCYIALDFDDEMTSSSSSEVEKS-YELPDGNIITVGNERFRCPEVLFQPTFIGM-EAPGIHTTTYNSIVRCDVDIRKD   293
Babesia           ERGFTFTTTAEKEIVRDIKEKLCYIALDFEEEMNSSASSSEIEKS-YELPDGNIITVGNERFRCPEVLFQPSFIGQ-ESAGIHTTTFNSIARCDVDIRKD   293
CparvumACT1       DRGYSFTTTAEREIVRDIKEKLCYIALDYEEEMKKSQESSELEKT-YELPDGHVITVGSERFRCPEALFQPGFLGK-EAVGIGETTFQSIMKCDLDIRKD   293
Chominis          DRGYSFTTTAEREIVRDIKEKLCYIALDYEEEMKKSQESSELEKT-YELPDGHVITVGSERFRCPEALFQPGLLGK-EAVGIGETTFQSIMKCDLDIRKD   293
Cmuris            DRGYSFTTTAEREIVRDIKEKLCYIALDYEDELKKAQESSEIEKT-YELPDGNVITVGSERFRCPEALFQPNLLGK-EASGVGETTFQSIMKCDLDIRKD   293
Aedes             ERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMATAAASTSLEKS-YELPDGQVITIGNERFRAQKLSSSHPSLGM-ESCGIHETVYNSIMKCDVDIRKD   293
Anopheles         ERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMQAAAASSSSEKS-YELPDGQVITIGNERFRAPEALFQPSFLGM-ESTGIHETVYNSIMRCDVDIRKD   293
Drosophila        ERGYTFTTTAEREIVRDTKEKLCYVALDFEDEMATAAASTSLEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-ESCGIHETVYNSIMKCDVDIRKD   293
Culex             ERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMATAAASTSLEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-ESAGIHETVYNSIMKCDVDIRKD   293
Ciona             ERGYSFVTTAEREIVRDIKEKLCYVALDFEQEMATAASSSGLEKS-YELPDGQVITIGNERFRCPETMFQPSFIGM-ESSGVHETTYNSIMKCDIDIRKD   295
Ornithorhynchus   ERGYSFVTTAEREIVRDIKEKLCYVALDFENEMATAATSSSLEKS-YELPDGQVITIGNERFRCPETLFQPSFIGM-ESAGIHETTYNSIMKCDIDIRKD   294
Strongylocentrotus ERGYSFTTTAEREIVRDIKEKLCYTALNFEREMATAAASSSLEKS-YELPDGQVITIGNERFRCPETLFQPAFIGM-ESAGIHETTYNSIMKCDIDIRKD   293
Homobeta          ERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMATAASSSSLEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-ESCGIHETTFNSIMKCDVDIRKD   292
Sus               ERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMATAASSSSLEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-ESCGIHETTFNSIMKCDVDIRKD   292
Gallus            ERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMATAASSSSLEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-ESCGIHETTFNSIMKCDVDIRKD   292
Xenopus           ERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMATAASSSSLEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-ESCGIHETTYNSIMKCDVDIRKD   292
Monodelphis       ERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMATAASSSSLEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-ESCGIHETTFNSIMKCDVDIRKD   293
Danio             ERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMGTAASSSSLEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-ESCGIHETTFNSIMKCDVDIRKD   292
Bombyx            ERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMATAASSSSLEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-EANGIHETTYNSIMKCDVDIRKD   293
Haemaphysalis     ERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMATAASSSSLEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-ESCGIHETTYNSIMKCDVDIRKD   293
Caenorhabditis    ERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMATAASSSSLEKS-YELPDGQVITVGNERFRCPEALFQPSFLGM-ESAGIHETSYNSIMKCDIDIRKD   293
Wuchereria        ERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMATAASSSSLEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-ESTGIHETTYNSIMKCDVDIRKD   293
Hydra             ERGYSFTTTAEREIVRDIKEKLSYVALDFEQEMQTAASSSSLEKS-YELPDGQVITIGNERFRCPETLFQPSFIGM-ESAGIHETTYNSIMKCDVDIRKD   293
Haliotis          ERGYSFTTTAEREIVRDIKEKLAYVALDFEQEMQTAASSSSLEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-ESAGIHETTYNSIMKCDVDIRKD   292
Schistosoma       ERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMGTAASSSALEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-EASGIHETTYNSIMKCDVDIRKD   293
Dictyostelium     ERGYSFTTTAEREIVRDIKEKLAYVALDFEQEMATAASSSALEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-ESAGIHETTYNSIMKCDVDIRKD   293
Pyrocystis        ERGYSFTTTAEREIVRDIKEKLAYVALDFEQEMQTAASSSALEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-ESAGVHETTYNSIMKCDVDIRKD   292
Thecamoeba        ERGYSFTTTAEREIVRDIKEKLAYVALDFEQEMQTAASSSSLEKS-YELPDGQVITIGNERFRCPEALFQPSFLGM-EAAGIHETTYNSIMKCDVDIRKD   293
Amoeba            ERGYAFTTTAEREIVRDIKEKLCYVALDFDAEMDTAATSSTIEKS-YELPDGQVITVGNERFRTPEALFQPSFLGR-ESAGIHEATYNSIMKCDIDIRKD   291
Chaos             ERGYAFTTTAEREIVRDIKEKLCYVALDFDAEMDTAATSSTIEKS-YELPDGQVITVGNERFHTPEALFQPSFLGR-ESAGIHEATYNSIMKCDIDIRKD   291
Hartmannella      ERGYAFTTTAEREIVRDIKEKLCYVALDFDAEMDTAASSTIEKS-YELPDGQVITVGNERFRTPEALFQPSFLGR-ESAGIHEATYNSIMKCDIDIRKD   291
Ehistolytica      ERGYAFTTTAEREIVRDIKEKLCYVAEDFNEEMQKAASSSELEKS-YELPDGQVITVGNERFRCPEALFQPSFLGM-ECNGIHETTYNSIMKCDVDIRKD   293
Edispar           ERGYAFTTTAEREIVRDIKEKLCYVAEDFNEEMQKAASSSELEKS-YELPDGQVITVGNERFRCPEALFQPSFLGM-ECNGIHETTYNSIMKCDVDIRKD   293
Pichia            ERGYTFSTTAEREIVRDIKEKLCYVALDFEQEMQTSSQSSAIEKS-YELPDGQVITIGNERFRAAEALFRPADLGL-EAAGIDQTTFNSIMKCDVDVRKE   293
Candida           ERGYTFSTTAEREIVRDIKERLCYVALDFEQEMQTSSQSSAIEKS-YELPDGQVITIGNERFRAPEALFRPADLGL-EAAGIDQTTFNSIMKCDLDVRKE   298
Yeast             ERGYSFSTTAEREIVRDIKEKLCYVALDFEQEMQTAAQSSSIEKS-YELPDGQVITIGNERFRAPEALFHPSVLGL-ESAGIDQTTYNSIMKCDVDVRKE   292
Nicotinia         ERGYSFTTTAEREIVRDVKEKLSYIALDFEQEMETSKTSSSVEKS-YELPDGQVITIGAERFRCPEVLFQPSMIGM-EAAGIHETTYNSIMECDVDIRKD   294
Brachypodium      ERGYSFTTTAEREIVRDMKEKLSYIALDYDQEMETSKTSSSVEKS-YELPDGQVITIGAERFRCPEVLFQPSFIGM-EAAGIHETTYNSIMKCDVDIRKD   294
Arabidopsis       ERGYSFTTTAEREIVRDIKEKLCYIALDYEQELETAKTSSSVEKN-YELPDGQVITIGSERFRCPEVLYQPSMIGM-ENAGIHETTYNSIMKCDVDIRKD   294
Zea               ERGYSFTTTAEREIVRDIKEKLAYVALDYDQELENAKSSSVEKS-YELPDGQVITIGAERFRCPEVLFQPSFIGM-EAPGIHETTYNSIMKCDVDIRKD   294
Physcomitrella    ERGYSFTTTAEREIVRDMKEKLAYVAIDFEQELDTARSSSSLEKS-YELPDGQVITIGAERFRCPEVLFNPSLIGM-EAAGIHETTYNSIMKCDVDIRKD   294
Dunaliella        ERGYSFTTTAEREIVRDIKEKLAYVALDFEQEMATAQSSSALDKN-YELPDGQTITIGNERFRCPEVMFNPNTVGM-EAVGVHDTTFNSIMKCDVDIRKD   296
Chlamydomonas     ERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMATALSSSALEKT-YELPDGQMITIGNERFRCPEVLFNPNMIGM-EAVGIHDTTFNSIMKCDVDIRKD   294
Micromonas        ERGYSFTTSAEREIVRDIKEKLAYVALDFENEMQVANGSSSLEKS-YELPDGQVITIADERFRCPEVLFNPAIIGM-EAVGIHETTYNSIMKCDVDIRKD   294
Acetabularia      ERGYSFTTTAEREIVRDIKEKLCYVALDIEQELTS--STETLEKS-YELPDGQVITVGSERFRCPEALFPPGLLGM-EQLGLHDTCFNSIMKCDVDIRKD   291
Amphidinium       ERGYSFTTTAEREIVRDVKEKLCYIALDFDTELKAATESSDKEKT-YELPDGNIITVGAERFRCPEVLFNPSFIGK-EASGIHDTTFQSIMKCDVDIRKD   293
Symbiodinium      ERGYSFTTTAEREIVRDVKEKLCYIALDFDSEMKAASESSDKEKT-YELPDGNIITVGSERFRCPEVLFQPSFVGK-EASGIHDTTFQSIMKCDVDIRKD   293
Lingulodinium     ERGYSFTTTAEREIVRDVKEKLCYIALDYDSEMKAATESSDKEKT-YELPDGNIITVGSERFRCPEVLFQPSLVGK-EASGVHDTTFQSIMKCDVDIRKD   293
Crypthecodinium   ERGYSFTTTAEREIVRDIKEKLSYIALDYDSEMKVATESSDKEKT-YELPDGNIITVGSERFRCPEVLFNPSLLGK-ESSGIHDTTFQSIMKCDVDIRKD   293
Perkinsus         ERGYTFTTTAEREIVRDIKEKLSYVALDFDTEMKAAAESSEKEKT-YELPDGNIITVGNERFRCPEVLFQPTFIGK-EASGIHDTTFQSIMKCDVDIRKD   293
Pythium           ERGYSFTTTAEREIVRDIKEKLTYIALDFDQEMKTAAESSGLEKS-YELPDGNVIVIGNERFRTPEVLFQPSLIGK-EASGIHDCTFQTIMKCDVDIRKD   293
Phytophthora      ERGYSFTTTAEREIVRDIKEKLTYIALDFDQEMKTAAESSGLEKS-YELPDGNVIVIGNERFRTPEVLFQPSLIGK-EASGIHDCTFQTIMKCDVDIRKD   293
Histriculus       ERGYSFTSSAELEIVRDIKEKLCFVALDYEAALKQSHDSSTFEKN-YELPDGKIITIGSERFRCPEYLFKPLEMNGKELDSIQDLTYKSIQECDVDVRRD   292
Oxytricha         ERGYSFTSSAELEIVRDIKEKLCFVALDYEAAYKQSFDSSTFEKN-YELPDGKVITIGSERFRCPEYLFKPLEMNGRELDSIQDLTYKSIQECDVDVRRD   292
Stylonychia       ERGYVFTSSAEMEIVRDIKEXLCFVALDYESALKQSHDSSQFEKN-YELPDGKVITIGNERFRCPEYLFKPLEMNGRELSSIQDLTYNSIQECDVDVRRD   292
Uroleptus         ERGYNFTSSAEMEIVRDIKEKTCFVATDYEAALKQAHDSSTFEKN-YELPDGKVITIGSERFRCPEYLFKPLEMNGRELDSIQDLTYKSIQECDVDVRRE   293
Engelmanniella    ERGYSFTSSAELEIVRDIKEKLCFVALDYEAAMKQSYNSSTFEKN-YELPDGKVITIGNARFRCPEYLFKALEMNGRELDSIQVLTYKSIQECDVDVRRK   293
Hypothrichida     ERGYTFTSSAEMEIVRDIKEKLCFVALDYEAALKQSHDSSTFEKN-YELPDGKVITIGNERFRCPEYXFKPLEMNGRELDSIQSLTYNSIQECDVDVRRD   292
Glamblia          ENGASFTTSAEFEIVRDIKEKLCFVALDYESVLAASMESANYTKT-YELPDGVVITVNQARFKTPELLFRPELNNS-DMDGIHQLCYKTIQKCDIDIRSE   292
Gintestinalis     ENGASFTTSAEFEIVRDIKEKLCFVALDYESVLAASMENTNYTKT-YELPDGVVITVNQARFKTPELLFRPELNNS-DMDGIHQLCYKTIQKCDIDIRSE   292
                  .......210.......220.......230.......240.......250.......260.......270.......280.......290.......300
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                   * . : ***:        *:  ::    *     :: :. :*:: .* **  * **:**    :   :    *.
Tbrucei            LYGNIVLSGGTTMFKNLPERLGKEISNLAPSSIKPKVVAPPERKYSVWIGGSILSSLTTFQSMWITKSEYDESGPSIVHSKCF   376
Tcruzi             LYGNIVLSGGTTMFKNLPERLGKEISNLAPSSIKPKVVAPPERKYSVWIGGSILSSLTTFQTMWIKKSEYDEAGPSIVHNKCF   376
Linfantum          LYGNIVLSGGSTMFLNLPERLAKEISNLAPSSIKPKVVAPPERKYSVWIGGSILSSLTTFQTMWVKKSEYDESGPSIVHNKCF   376
Euglena            LYSNIVLSGGTTMYEGLPERMSKEITNLAPNSMKIKVVAPPERKYSVWIGGSILASLSTFQSMWIKKEEYDEAGPGIVHRKCF   377
Trichomonas        LYANIVLSGGTTMFKGIAERLDKEITALAPPTMKVKIVAPEERKYAVWVGGSILASLATFPQMVITKEEYDEAGPSIVHRKCF   376
Histomonas         LYANIVLSGGTTMFEGLPERMEKEMVPLAPPTMKIKVVAPPERKYAVWIGGSILASLATFPQMVITRDEYNEAGPGIVPRKCF   372
Tetrahymena        PYNNIVLSGGTTMFPGIAERLSKEVSALAPSSMKIKVVAPPERRYSVWIGGSILSSLSTFQTMWITKAEYDESGPSIVHRKCF   376
Paramecium         LYGNVVMSGGTTMFPGIPERLSKELTSLAPSSMKIKVVAPPERKFSVWIGGSILSSLSTFQAMWITRSEYDESGPSIVHRKCF   375
PvivaxII           LYNNIVLSGGTTMYNNIGERLTKEMTNLAPSSMKIKVIAPPERKYSVWIGGSILSSLSTFQQMWITKEEYEDAGPSIVHRKCF   376
PknowlesiII        LYSNIVLSGGTTMYNNIGERLTKEMTNLAPSSMKIKVIAPPERKYSVWIGGSILSSLSTFQQMWITKEEYEDAGPSIVHRKCF   376
PfalciparumII      LYNNIVLSGGTTMYNNIGERLTKEMTNLAPSSMKIKVIAPPERKYSVWIGGSILSSLSTFQQMWITKEEYEDSGPSIVHRKCF   376
PyoeliiII          LYNNIVLSGGTTMYNYIGERLTNEMTNLAPPSMKIKVIAPPERKYSVWIGGSILSSLSTFQKMWITKEEYDESGPSIVHRKCF   376
PbergheiII         LYNNIVLSGGTTMYNYIGERLTNEMTSLAPPSMKIKVIAPPERKYSVWIGGSILSSLSTFQKMWITKEEYDESGPSIVHRKCF   376
Gregarina          LYSNVVLSGGTTMYEGIGERMTKELTDLAPSTVGIKVIAPPERKFSVWIGGSILSSLTTFQNMWITADEYEECGPVIVHKKCM   376
Toxoplasma         LYGNVVLSGGTTMYEGIGERLTKELTSLAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWITKEEYDESGPSIVHRKCF   376
Neospora           LYGNVVLSGGTTMYEGIGERLTKELTSLAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWITKEEYDESGPSIVHRKCF   376
Eimeria            LYGNVVLSGGTTMYEGIGERLTRELTSLAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWITKEEYDESGPSIVHRKCF   374
PvivaxI            LYGNIVLSGGTTMYEGIGERLTRDITTLAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWITKEEYDESGPSIVHRKCF   376
Pknowlesi          LYGNIVLSGGTTMYEGIGERLTRDITTLAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWITKEEYDESGPSIVHRKCF   376
PbergheiI          LYGNIVLSGGTTMYEGIGERLTRDITTLAPSTMKIKVVAPLERKYSVWIGGSILSSLSTFQQMWITKEEYDESGPSIVHRKCF   375
Pyoelli            LYGNIVLSGGTTMYEGIGERLTRDITTLAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWITKEEYDESGPSIVHRKCF   376
PfalciparumI       LYGNIVLSGGTTMYEGTGERLTRDITTLAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWITKEEYDESGPSIVHRKCF   376
Tparva             LYANVVLSGGTTMFEGIGQRMTKELNALVPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWITKEEFDESGPNIVHRKCF   376
Tannulata          LYANVVLSGGTTMFEGIGQRMTKELNALVPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWITKEEFDESGPNIVHRKCF   376
Babesia            LYANVVLSGGTTMYEGIGQRMTKELNALVPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWITKEEFDESGPNIVHRKCF   376
CparvumACT1        LYANIVLSGGTTMYPGIGERMTKELTSLAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWITKEEYDESGPSIVHRKCF   376
Chominis           LYANIVLSGGTTMYPGIGERMTKELTSLAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWITKEEYDESGPSIVHRKCF   376
Cmuris             LYANVVLSGGTTMYPGLGERMTKELTCLAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWITKEEYDESGPSIVHRKCF   376
Aedes              LYANTVLSGGTTMYPGIADRMQKEITALAPSSIKIKIIAPPERKYSVWIGGSILASLSTFQAMWISKQEYDESGPAIVHRKCF   376
Anopheles          LYANSVLSGGTTMYPGIADRMQKEITSLAPSTIKIKIIAPPERKYSVWIGGSILASLSTFQTMWISKHEYDEGGPGIVHRKCF   376
Drosophila         LYANSVLSGGTTMYPGIADRMQKEITTLAPSTIKIKIIAPPERKYSVWIGGLILASLSTFQQMWISKQEYDESGPSIVHRKCF   376
Culex              LYANTVLSGGTTMYPGIADRMQKEITALAPSTIKIKIIAPPERKYSVWIGGSILASLSTFQAMWISKQEYDESGPSIVHRKCF   376
Ciona              LYANNVLSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWITKQEYDEAGPSIVHRKCF   378
Ornithorhynchus    LYANNVLSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYDEAGPSIVHRKCF   377
Strongylocentrotus LYANTVLSGGTSMYPGIADRMQKEITALAPSSVKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYXXSGASIVHRKCF   376
Homobeta           LYANTVLSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYDESGPSIVHRKCF   375
Sus                LYANTVLSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYDESGPSIVHRKCF   375
Gallus             LYANTVLSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERYSVWIGGSILASLSTFQQMWISKQEYDESGPSIVHRKCF   375
Xenopus            LYANTVLSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYDESGPSIVHRKCF   375
Monodelphis        LYANTVLSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYDESGPSIVHRKCF   376
Danio              LYANTVLSGGTTMYPGIADRMQKEITSLAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYDESGPSIVHRKCF   375
Bombyx             LYANTVLSGGTTMYPGIADRMQKEITRLAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYDESGPSIVHRKCF   376
Haemaphysalis      LYANTVLSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYDESGPSIVHRKCF   376
Caenorhabditis     LYANTVLSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYDESGPSIVHRKCF   376
Wuchereria         LYANTVLSGGTSMFPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYDESGPSIVHRKCF   376
Hydra              LYANTVLSGGTTMFPGIADRMQKEISALAPPTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYDESGPSIVHRKCF   376
Haliotis           LYANTVLSGGTTMFPGIADRMQKEITALAPATMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYDESGPSIVHRKCF   375
Schistosoma        LYSNTVLSGGSTMYPGIADRMQKEISALAPSTMKIKIVAPPERKYSVWIGGSILASLSTFQQMWISKQEYDESGPGIVHRKCF   376
Dictyostelium      LYGNVVLSGGTTMFPGIADRMNKELTALAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKEEYDESGPSIVHRKCF   376
Pyrocystis         LYGNVVLSGGSTMFPGIAERMNKELVALAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKEEYDESGPSIVHRKCF   375
Thecamoeba         LYGNVVCSGGTTMFPGIADRLQKELTALAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKEEYDESGPSIVHRKCF   376
Amoeba             LYGNIVLSGGTTMFPGIADRLQKEIVNLAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKEEYDESGPSIVHRKCF   374
Chaos              LYGNIVLSGGTTMFPGIADRLQKEIVNLAPSTMKIKIIAPPERKYSVWIGGSILASLSTFQQMWISKEEYDESGP--------   366
Hartmannella       LYGNIVLSGGTTMFPGIADRLQKELVNLAPSTMKVKIIAPPERKYSVWIGGSILSSLSTFQQMWISKEEYDESGPQIVHRKCF   374
Ehistolytica       LYGNIVLSGGTSMYPGINTRLEKEMIQLAPPTMKIKVIAPPERKYSVWIGGSILASLSTFQNMWITKEEYDESGPAIVHRKCF   376
Edispar            LYGNIVLSGGTSMYPGINTRLEKEMIQLAPPTMKIKVIAPPERKYSVWIGGSILASLSTFQNMWITKEEYDESGPAIVHRKCF   376
Pichia             LYGNIVMSGGTTMFPGIAERMQKEITALAPSSMKVKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYDESGPSIVHHKCF   376
Candida            LYGNIVMSGGTTMFPGIAERMQKEITALAPSSMKVKIIAPPERKYSVWIGGSILASLSTFQQMWISKQEYDESGPSIVHHKCF   381
Yeast              LYGNIVMSGGTTMFPGIAERMQKEITALAPSSMKVKIIAPPERKYSVWIGGSILASLTTFQQMWISKQEYDESGPSIVHHKCF   375
Nicotinia          LYGNIVLSGGSTMFPGIADRMSKEITALAPSSMKIKVVAPPERKYSVWIGGSILASLSTFQQMWIAKAEYDESGPSIVHRKCF   377
Brachypodium       LYGNIVLSGGTTMFTGIADRMSKEITALAPSSMKIKVVAPPERKYSVWIGGSILASLSTFQQMWIAKAEYDESGPSIVHRKCF   377
Arabidopsis        LYGNIVLSGGTTMFPGIADRMSKEITALAPSSMKIKVVAPPERKYSVWIGGSILASLSTFQQMWIAKAEYDESGPSIVHRKCF   377
Zea                LYGNIVLSGGTTMFPGIADRMSKEITALAPSSMKIKVVAPPERKYSVWIGGSILASLSTFQQMWISKAEYDESGPAIVHRKCF   377
Physcomitrella     LYGNIVLSGGSTMFPGIADRMSKEITALAPSSMKIKVVAPPERKYSVWIGGSILASLSTFQQMWIAKSEYDESGPSIVHRKCF   377
Dunaliella         LYNNIVLSGGTTMFPGIADRMSKEITALAPSAMKIKVVAPPERKYSVWIGGSILASLSTFQQMWIAKSEYDESGPSIVHRKCF   379
Chlamydomonas      LYNNIVLSGGTTMFPGIADRMSKEITALAPSAMKIKVVAPPERKYSVWIGGSILASLSTFQQMWIAKSEYDESGPSIVHRKCF   377
Micromonas         LYSNIVLSGGTTMFPGVADRMSKEITALAPSSMKIKVVAPPERKYSVWIGGSILASLSTFQQMWIAKSEYDESGPSIVHRKCF   377
Acetabularia       LYSNTVLSGGTMMFPGIGERMQKEITTLAPSSMKIKVVAPPERKFSVWIGGSILSSLSTFQQMWISKEEYDEAGPAIVHRKCF   374
Amphidinium        LYANVVLSGGTTMFPGIGERMTKELTALAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWISKGEYDESGPTIVHRKCF   376
Symbiodinium       LYANVVLSGGTTMFQGIGERMTKELTALAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWISKGEYVESGPTIVHRKCF   376
Lingulodinium      LYANVVLSGGTTMFIGIGERMAKELTALAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWITKTEYDEAGPSIVHRKCF   376
Crypthecodinium    LYANVVLSGGTTMFSGIGERMTKELTALAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWISKGEYDESGPTIVHRKCF   376
Perkinsus          LYANVVLSGGTTMFNGIGERMTKELTALAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWISKQEYDESGPTIVHRKCF   376
Pythium            LYCNIVLSGGTTMYPGIGERMTKELTALAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWISKAEYDESGPSIVHRKCF   376
Phytophthora       LYCNIVLSGGTTMYPGVGERMTKELTALAPSTMKIKVVAPPERKYSVWIGGSILSSLSTFQQMWISKAEYDESGPSIVHRKCF   376
Histriculus        LYQTIILSGGSTSIEGIGERLLKEIENRAPKSINVKVIASPDRRFAVWRGGSTLTSLSTFASMWITKEDYDENGASIVHRKCI   375
Oxytricha          LYQNIILSGGTTMYEGIGERLLKEIENRAPKSINVKVIASPDRRFAVWRGGSTLTSLSTFASMWITKEDYDENGASIVHRKCI   375
Stylonychia        LYQNIILSGGTTMYEGIGERLLKEIENRAPKSITVKVIASPDRRFAVWRGGSTLTSLSTFASMWITKEDYDEHGAQIVHRKCI   375
Uroleptus          LYQNIILSGGTTLYEGIGERLLKEIESRAPKSITVKVIASPDRRFAVWRGGSTLTSLSTFASMWITKEDYDEHGAQIVHRKCI   376
Engelmanniella     LYQNIILSGGTTMYEGTGERLLTEIENRAPKSINVKVIASPDRKYAVWRGGSTLTSLSTFASMWITKEDCDEHGASIVHRKCI   376
Hypothrichida      HYQNIILSGGTTMYEGIGERFLQEIENRAPKSMTVKVIASPDRRFEVWRGGSILSSLSTFATTSITKEEYEENGSHIVHKKCL   375
Glamblia           LYSNVVLSGGSSMFAGLPERLEKELLDLIPAGKRVRISSPEDRKYSAWVGGSVLGSLATFESMWVSSQEYQENGASIANRKCM   375
Gintestinalis      LYSNVVLSGGSSMFTGLPERLEKELLDLIPAGKRVRISSPEDRKYSAWVGGSVLGSLATFESMWVSSQEYQENGASIANRKCM   375
                   .......310.......320.......330.......340.......350.......360.......370.......380...
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