

| Majority | M----- | -----I |
|-------------------------------|---|--------|
| | 10 20 30 40 50 60 70 80 | |
| Trypanosoma brucei | MM---QYGGGTHYGA--YA-----QQQPQPQPQPHQRFPSAALKAGNVSLIPSLSKSPM----- | 49 |
| Trichomonas vaginalis 80378 | MKAA----- | 4 |
| Trichomonas vaginalis 80473 | MD---D-----RI----- | 5 |
| Trichomonas vaginalis 81399 | MKAG----- | 4 |
| Trichomonas vaginalis 85323 | ME-----KN----- | 4 |
| Trichomonas vaginalis 96423 | MKQ----- | 3 |
| Trichomonas vaginalis 97465 | M--S----- | 2 |
| Caenorhabditis elegans | MASS----- | 4 |
| Drosophila Isoform A | MK---WTMPSAISG-----APHAH-----IPS-NEECG----- | 24 |
| Drosophila Isoform B | -----MPSAISG-----APHAH-----IPS-NEECG----- | 20 |
| Saccaromyces cerevisiae | MQSMNVQPRVLAVGGEQFFSQRQASEQHQQQNMGPOVYSPKVNRRMFPQGMPVNTINGSVNQEMNNAYLLKQKNEPLLT | 80 |
| Arabidopsis thaliana | MS---LFLK-----DDSIQ----- | 11 |
| Aspergillus fumigatus | MPPVGRYGPSGLSGP--YSHLQQAHLQQQQQQQQQQQAQHPAQAQSANTALPPPSLGGHPGFAAGNPNTNINPFTLS | 78 |
| Strongylocentrotus purpuratus | M-----PTQTN-----EPH----- | 9 |
| Schistosoma mansoni | MCHLCYSMHFPRELQS--ITQNGYSN-HILHTSLPESVNPFGKYNRYRANMTVTNDSYTPGATYHNHGHTTHNH---- | 72 |
| Chlamydomonas reinhardtii | MS---QLASLAPQV-----QTRAE-----GLTGITPA-GDTLR----- | 29 |
| Ciona intestinalis | M-----PG-QTEDP----- | 8 |
| Homo sapiens CAF1 | -----MPAATVD-----HSQR----- | 11 |
| Homo sapiens POP2 | -----MPAALVE-----NSQV----- | 11 |
| Giardia lamblia | MS----- | 2 |
| Schizosaccharomyces pombe | MN---SNFSYPALG-----VDGI-----S-SQISP----- | 21 |
| Entamoeba histolytica | MQ-----P--YPGMEYPFMNINASPFYTGFSMQRFQP-----MPIMPNNRQFP-----PYVIP | 46 |
| Plasmodium chabaudi chabaudi | MDE----- | 3 |

| Majority | -----I | -----I |
|-------------------------------|---|--------|
| | 90 100 110 120 130 140 150 160 | |
| Trypanosoma brucei | ----- | I 50 |
| Trichomonas vaginalis 80378 | -----DD----- | I 7 |
| Trichomonas vaginalis 80473 | ----- | I 6 |
| Trichomonas vaginalis 81399 | -----DD----- | V 7 |
| Trichomonas vaginalis 85323 | ----- | I 5 |
| Trichomonas vaginalis 96423 | -----DD----- | I 6 |
| Trichomonas vaginalis 97465 | -----DD----- | I 5 |
| Caenorhabditis elegans | -----SSGAGGAGGASGAPEV-----K----- | I 23 |
| Drosophila Isoform A | ----- | I 25 |
| Drosophila Isoform B | ----- | I 21 |
| Saccaromyces cerevisiae | QQQQQQQQQQQPFNIGTPVSVASLPPGLNVLQQQQQQQQQQQQQVGLNRPLASQLPKHLTNQSMPPIFLPPPNYLFV | 160 |
| Arabidopsis thaliana | ----- | I 12 |
| Aspergillus fumigatus | GTGIANGMSVAGFTGAGDGGGSLASHAAQIGFARGAQMQQQLLQTHDGRLETKAGGVKTR---- | I 143 |
| Strongylocentrotus purpuratus | ----- | I 10 |
| Schistosoma mansoni | ---IHHGLLHPVHSNPSNVTALTVSQDSSQV-----R----- | V 102 |
| Chlamydomonas reinhardtii | ----- | V 30 |
| Ciona intestinalis | ----- | I 9 |
| Homo sapiens CAF1 | ----- | I 12 |
| Homo sapiens POP2 | ----- | I 12 |
| Giardia lamblia | -----GDTSE----- | I 8 |
| Schizosaccharomyces pombe | ----- | I 22 |
| Entamoeba histolytica | EPNYQNSY----FT----- | 56 |
| Plasmodium chabaudi chabaudi | -----RTK----- | I 7 |

| Majority | RDVWASNLEEEEMAKIRELVEDYPYVAMDFEPGVVARPV-----GEFRSS--ADYHYQTLRCNVDLLKIIQLGITLSDEK | |
|-------------------------------|---|-----|
| | 170 180 190 200 210 220 230 240 | |
| Trypanosoma brucei | RDVWEDNLEQEFGIIRSLIKDYPFVAMDFEPGVVAKPV-----GNFKST--HEFYQTLRCNVNLLKMIQLGITLNEK | 123 |
| Trichomonas vaginalis 80378 | VDVWAHLEETEIEKIAQLLPKYFYVGMDFEFGFVKSP-----PVTAT--DEVKYQAEENVNRMKIIQIGITLADD | 79 |
| Trichomonas vaginalis 80473 | RDVWASNLEQELKIIISDLIEDYPYIAMDFEFGVIVKPV-----GSFKST--QELEYQTLRCNVDLLKIIQIGITLGDKE | 79 |
| Trichomonas vaginalis 81399 | MDVWANLEEEELKISKLVETIKFVGMDFEFGFIVKTF-----N-NTP--DDVKYHAEQTNVNLKLIQIGITLGDKE | 78 |
| Trichomonas vaginalis 85323 | RDVWAHLEEDMKKISELIEDYPYIAMDFEFGQIAKPF-----GSFSSQ--EDYVYQLTRLNVDYKLIQIGITLGDGQ | 78 |
| Trichomonas vaginalis 96423 | VDVWYNLETEEMKIAFLLPKYFYVGMDFEFGFVFKSP-----PFSAS--DEVKYQVERENVNRMKIIQIGITLADDE | 78 |
| Trichomonas vaginalis 97465 | IDVWDYNLEEEHFKISLVEHFHFVGMDFEFGFVFKSP-----PVTAT--PTVKYLTERENVNRMKIIQIGITLGDEN | 77 |
| Caenorhabditis elegans | HNVMYSNVEEEFARIRGFVEDYPYVAMDFEPGVVATPL-----GIFRSK--EDFNYQQVFCNVNMLKLIQVGFAMVNDK | 96 |
| Drosophila Isoform A | RDVWKQNLLEEFRTIRKVMQKYFYVAMDFEPGVVARPV-----GEFRST--ADYHYQLRCNVDLLRIIQLGLTFMDD | 98 |
| Drosophila Isoform B | RDVWKQNLLEEFRTIRKVMQKYFYVAMDFEPGVVARPV-----GEFRST--ADYHYQLRCNVDLLRIIQLGLTFMDD | 94 |
| Saccaromyces cerevisiae | RDVWKSNTLYSEFAVIRQLVSOYHVSISTEFVGLARPI-----GIFRSKV--DYHYQTLRANVDLNLPIQLGLSLSDAN | 233 |
| Arabidopsis thaliana | REVMNDNLESEMALIREVDDFPEVAMDFEFGVIGRPV-----GITFKN--TEYHYETLKTINVNILKVIQLGLTFSDDEK | 85 |
| Aspergillus fumigatus | RDVWKHNLAEEMAVLRCLVEKYPYISMDTEFPGVVARPI-----GSFTNK--ADYHYQTLRCNVDLLKMIQLGITLFSAD | 216 |
| Strongylocentrotus purpuratus | VDVWNTNLEDFVKIRIVVQKYFYVAMDFEPGVVARPL-----GEFRTN--SEYQYQLRCNVDLLKIIQLGITLFDQDQ | 83 |
| Schistosoma mansoni | WDIWTNHFHEGMLVRRLLVRECOYVAMDFEFGVVAKVF-----GEYANSFEQA--YHNKIVNIDMLKPIQIGFSFFDES | 175 |
| Chlamydomonas reinhardtii | REVWADNMEVEFALLRDIYEDYPYIAMDFEFGVVAKPI-----GITFKSS--REYLYKALKMNVDMKLIQIGLTLTDAK | 103 |
| Ciona intestinalis | VEVWANNVESVFKAIRKLVKQYFYVAMDFEPGVVARPI-----GEFRTN--SDYQYQLRCNVDMKLIQIGLTFMDEN | 82 |
| Homo sapiens CAF1 | CEVWACNLDDEEMKKIRQVIRKYYVAMDFEPGVVARPI-----GEFRSN--ADYQYQLRCNVDLLKIIQLGLTFMDEQ | 85 |
| Homo sapiens POP2 | CEVWASNLEEEEMRKIREIVPSYSYIAMDFEFGVVARPI-----GEFRSS--IDYQYQLRCNVDLLKIIQLGLTFTNEK | 85 |
| Giardia lamblia | FDVYASDLTQAMQEISSLLADYPTVAIDTEFPGYFENTVQLSLLTORQILSKHASAYAAKYINVDLSLQIQLGITLSNSA | 88 |
| Schizosaccharomyces pombe | RDVWSTNLEQEMNLIIMSLIERYPVYSMDTEFPGVVARPL-----GVFKSS--DDYHYQTLRANVDSLKIIQIGLALSDEE | 95 |
| Entamoeba histolytica | -DVYQNNLQEEEMNISELIDNYPVYSMDTEFPGFSSRTS-----CNMQDSVDPDEHYSLKGNVDELKIIQIGITLQNKK | 130 |
| Plasmodium chabaudi chabaudi | VDVWANLEEEEFKIRIDVIESHPYVATDTEFPGVVARPT-----GNV-----VDYNYQTLRCNVDLLKVIQLGVTFNNGK | 77 |

| Majority | GETP-P-----CTWQFNFK-FNLSEDMYAQDSIELLQSGIDFKKHEEDGIDPADFAELLMSSGLVL | |
|-------------------------------|---|-----|
| | 250 260 270 280 290 300 310 320 | |
| Trypanosoma brucei | GEVPEPENC-----CTWQFNFR-FCLTEDVYAQDSIELLCHGGINFDFYSEYVGEVTHFAELLISSGLVL | 185 |
| Trichomonas vaginalis 80378 | GKVPQPI-----CTWQFNFK-FDVSHDMQSLDSINLLYQSGIDFQFAEDGIDLNDFIPIFFSSGLVM | 141 |
| Trichomonas vaginalis 80473 | GFYPTPC-----CTWQFNFK-FDEKRDPHFHRSTVLLQSGIDFKRFNNDGIDVYEFARLLIPSGLM | 141 |
| Trichomonas vaginalis 81399 | GNRPSPY-----CTWQFNFK-FVNSDLCAEESTINLLRQSGIDFKFYKDGIDIDYDFVPMFYSSGLVM | 140 |
| Trichomonas vaginalis 85323 | GGYPOPC-----STWQFNFK-FNLDEDMYTSESTIELLQSGIDFKRFNNEGISTPFDFTQLLYTSGLM | 140 |
| Trichomonas vaginalis 96423 | GKVPQPI-----CTWQFNFK-FDLSDHMQSSTDSINLLFQSGIDFKKFLKDGIDISDFIPIFYASGLIM | 140 |
| Trichomonas vaginalis 97465 | GNIPKPI-----CTWQFNFR-FNIKNDMHTSDSINLLKQAGIDFKKFKKDGIEADVFVSLIASGLVM | 139 |
| Caenorhabditis elegans | GELP-----PTGDVWQFNFN-FSFAEDMFSHESVEMLRQAGIDFTLLONNGIPTAVFCELLTTSGLIT | 158 |
| Drosophila Isoform A | GKTP-P-----GY-----STWQFNFK-FNLSEDMYAQDSIDLLQNSGIDFKKHEEDGIDPFDFAELLMSSGLVL | 160 |
| Drosophila Isoform B | GKTP-P-----GY-----STWQFNFK-FNLSEDMYAQDSIDLLQNSGIDFKKHEEDGIDPFDFAELLMSSGLVL | 156 |
| Saccaromyces cerevisiae | GNKPDN-----GPSTWQFNFR-FDPKKEIMSTESLELLRKSGINFKEKHNELGIDVFEFSQLLMDSSGLMM | 296 |
| Arabidopsis thaliana | GNLP-TCGTDNKY-----CTWQFNFR-FDLESDIYATDSIELLRQSGIDFKVKNNEFGIDSKRFAELLMSSGLVL | 153 |
| Aspergillus fumigatus | GEVPPP NATDANGQPLGNSLVAPCTWQFNFR-FSLENMYAQESTAMLAKAGIDFNMHEKNGIDPFEFGALLISSGLVL | 295 |
| Strongylocentrotus purpuratus | GNFP-K-----SG-----STWQFNFR-FNLSEDMYAKDSIELLQSGIDFKKHEEDGIEVDHFAELLMTSGVL | 145 |
| Schistosoma mansoni | GQTVDAVSTV-----QFNFK-WNVDNEMHAADSIQLLEVSGIDFKLKRIGVELSDFAEAFLTSGLP | 237 |
| Chlamydomonas reinhardtii | GILP-R-AANGEL-----CWQFNFKFKLSDDVYAQDSIELLRQSGIDFALHEARGIDVHRFGCELLMTSGIVL | 170 |
| Ciona intestinalis | GETP-P-----DV-----STWQFNFK-FNLTEDMYAQDSIDLLNNSGIDFKQHEIDGIEPLFYAELLMSSGLVL | 144 |
| Homo sapiens CAF1 | GEYP-P-----GT-----STWQFNFK-FNLTEDMYAQDSIELLTSIGIDFKKHEEFGIETQYFAELLMTSGVL | 147 |
| Homo sapiens POP2 | GEYP-S-----GI-----NTWQFNFK-FNLTEDMYSQDSIDLLANSGLQFKKHEEFGIDTLHFAELLMTSGVL | 147 |
| Giardia lamblia | GETPKPHST-----WQFNML-FDETTPLSTSNMNLLEHSGIDFPRLSRDGIHPVAFSYEIQISGLIY | 150 |
| Schizosaccharomyces pombe | GNAP-V-----EA-----CTWQFNFT-FNLQDDMYAPESTIELLTKSGIDFKKHEEFGIEPADFAELLISSGLVL | 157 |
| Entamoeba histolytica | GQYPD-----NVRTWQFNFR-FDTDKDESSVDSIQLLQKAGINFCKFKNAGISAEDFGEATMASGLVL | 192 |
| Plasmodium chabaudi chabaudi | G-----VLPKVSSTWQFNFK-FDLSDMYAQNSIDFLKLSGINFEKQSLGIELLHFGVIMSSGLVM | 138 |

| Majority | NDNVTWLTFFHSGYDFGYLLKLLTC-QPLPETESEFFELLRIYFP-NIYDIKYLKMK-----SC-NLKG-G | |
|-------------------------------|--|-----|
| | 330 340 350 360 370 380 390 400 | |
| Trypanosoma brucei | NPDIRWLAFAHAGYDFGYLLKVVGG-KDLPKKEEDFLQTFHALFP-CVYDIKYLRLR-----STELTHSLG | 247 |
| Trichomonas vaginalis 80378 | NEHVIWITFAASDYDIAYLVKLVTA-DTLPKTSREFFDNVVKTYFP-HYYDVRYMIMSIFPGIG----- | 201 |
| Trichomonas vaginalis 80473 | NPGITWVWFHSLTDFGYLLKLVTA-KPLPETCAAFKVLLEYFP-NFYDIKYTYT-----PRTEIAD-G | 202 |
| Trichomonas vaginalis 81399 | NDKINWITFQCGDYDIAYLVKLSA-SPLPKSDTEFAKIVKQYFP-NYYDLRYIMGTITDQVG----- | 200 |
| Trichomonas vaginalis 85323 | NDRITYLTYHSVSDFAYLKMLTGC-KPLPPDVKFNAQLNLFYFP-HYYDIKLIAS-----NMDLMG-G | 201 |
| Trichomonas vaginalis 96423 | NDNVIWVTFAGYDYDIAYLVKLVTA-DI LPDTSAEFFDRVRYTYFP-HYYDVRYMIMQINPGVG----- | 200 |
| Trichomonas vaginalis 97465 | NDRVIWITFQAGDYDIAYLVKLSA-OPLPKTEAEFEKVTIRLYFP-HYYDLRYIMQTIHNVG----- | 199 |
| Caenorhabditis elegans | DPRITWLTFFHSGYDFGYLLKSLTIL-GDLPKEESTIFFMCHKTLFP-TSFDIKILLRT-----PNCASAKLKG | 222 |
| Drosophila Isoform A | VENIKWLCFHSGYDFGYLLKLLTD-QNLPDSEFFDLLHIYFP-NIFDIKYLKMK-----SCKNLKG-G | 221 |
| Drosophila Isoform B | VENIKWLCFHSGYDFGYLLKLLTD-QNLPDSEFFDLLHIYFP-NIFDIKYLKMK-----SCKNLKG-G | 217 |
| Saccaromyces cerevisiae | DDSVTWITFHAAYDLCFLINILMN-DSMPNKKEDFEWVWHQYMP-NFYDLNLVYKII-----QEFKNPQLQSSSQOQQO | 368 |
| Arabidopsis thaliana | NENVHWVTFHSGYDFGYLLKLLTC-QNLPETOTGFFEMISVYFP-RVYDIKILKMK-----FQNSLH-G-G | 214 |
| Aspergillus fumigatus | LDDVHWVWFHSGYDFGYLLKMLTGC-KPLPENEDFHTLLKIFFP-SLYDIKYLKMHAGRNQAVNDSPLTAAAIQILTNLG | 373 |
| Strongylocentrotus purpuratus | NDSVKWVTFHSSYDFAYLTKLVTA-TNLPSESEFFELLRIFFFP-RIYDVKYLKMK-----SCKDLKG-G | 206 |
| Schistosoma mansoni | NDKITWIGFHSAYDFAYLTKICTDWMRMPDNLFQKLLIIFFP-KIVDLKSMSE-----HKFP----- | 296 |
| Chlamydomonas reinhardtii | NDDVRWVTFHSSYDFGYLLKLLTC-QPLPGTEQEFFELLNIYFP-NIFDIKYLKMK-----YCDNLH-G-G | 231 |
| Ciona intestinalis | MENVKWVWFHSGYDFGYLLKLLTC-QNLPDSESLFFELLQMFPP-TIYDIKYLKMK-----SCKNLKG-G | 205 |
| Homo sapiens CAF1 | CEGVKWLWFHSGYDFGYLLKILTN-SNLPPEELDFEETIRLFFFP-VIYDVKYLKMK-----SCKNLKG-G | 208 |
| Homo sapiens POP2 | CDNVKWLWFHSGYDFGYMMKLLTD-SRLPEEEHEFLHILNLFSP-SIYDVKYLKMK-----SCKNLKG-G | 208 |
| Giardia lamblia | NRSITYVGFHGSDFGYLLKAVTGC-NDLPYSKKDFDELLRTLFFPKLYDLKH-----CGSWSG-G | 207 |
| Schizosaccharomyces pombe | QEEVWVTFHSGYDFAYLTKAVTQ-IPLPAEYEFYKILCIYFP-KNYDIKYLKMK-----SVLNNSK-G | 218 |
| Entamoeba histolytica | NENTHWLTFHSGYDFGYLLKLLTC-EKLPSTVDGFIKKLRIFFP-NIIDLYKVTNQISQTYHG----- | 253 |
| Plasmodium chabaudi chabaudi | NEDVKWVTFHSGYDFAYLTKLLTGC-CALPHSEREFFDLDHDFFP-SLYDIKYLKLLNL-----NIRKQLS | 199 |

| Majority | ---LQEVADQLGVQRIGPQHAGSDSLLTGLTFFKLRKYFEGNID--K---G-LYGL----- | |
|-------------------------------|---|-----|
| | 410 420 430 440 450 460 470 480 | |
| Trypanosoma brucei | ---LDHLADSLRVRRFQMAHQAGSDSLLTGHCYFKLLRDCFNINIPVAN--N-GVLYGL----- | 300 |
| Trichomonas vaginalis 80378 | ---SLQSTSKDLGVVRFQPMHQAGSDSYVTLISYFAACRYKFKGAI-----VHDFRFRNKSCK | 255 |
| Trichomonas vaginalis 80473 | ---LQKIANQLGVSRYGREHQAGSDAFVTLKVFELKRQLVITDAELNN-----TLEKFRNKG-Q | 248 |
| Trichomonas vaginalis 81399 | ---SLQEVARDLVNVRYPGVHQAGSDSYVTLISYKVTIEQHFDGNL-----IHEKFRNKSCK | 253 |
| Trichomonas vaginalis 85323 | ---LQALANELNVRYPGPAHQAGSDALVTLDTFVALMKYFGGKLENEK-----LNERYRNKGLK | 247 |
| Trichomonas vaginalis 96423 | ---SLQSLSKELGVLRYGPMHQAGSDSYVTLISYFAACRRHFRGTL-----IHEKFRNKSCK | 254 |
| Trichomonas vaginalis 97465 | ---SLQVAKDFDVVRSQTMHQAGSDSYVTLISYKAMAKHFGVL-----LNERYRNKGLK | 253 |
| Caenorhabditis elegans | ---GLQEVADQLDVKRCQVRHQAGSDALLTAATFFKIKKOFFGDNWNIAPLICGHMFGLSLFLHS----- | 288 |
| Drosophila Isoform A | ---LQEVADQLELRRVGPQHAGSDALLTGMAFFKMRMFFEDNIDHAK--YSGHLYGL----- | 275 |
| Drosophila Isoform B | ---LQEVADQLELRRVGPQHAGSDALLTGMAFFKMRMFFEDNIDHAK--YSGHLYGL----- | 271 |
| Saccaromyces cerevisiae | QQYSLTTLADELGLPRFSIFTTTIGCSLLMMLSFQCQLS-----KLSMHKFPNGT----- | 417 |
| Arabidopsis thaliana | ---LNKLAELLQVVERVGIHQAGSDSLLTSCIFRKLQENFF--IGSMK--YSGVLYGL----- | 266 |
| Aspergillus fumigatus | QKSGLDIADLGVKRVGIAHQAGSDSLVTGEIYWKMRQLIFNGKIDEGK--YSGIHWGL----- | 431 |
| Strongylocentrotus purpuratus | ---LQEVADILQIQRIGPQHAGSDSLLTVCTFLKMRCEYFEDNIDDDK--YCGHLYGL----- | 260 |
| Schistosoma mansoni | -KSQLQELADLMRVPRIGIQHQAGSDAMLTGETFRFLIEHSGGKIDQ-RVL--NLVYGL-----NYCPNGVSNT- | 362 |
| Chlamydomonas reinhardtii | ---LNKLAEMLDVQRIGPQHAGSDSLLTSATFIKLANKYFHGIDGASK--HMGVLFGL----- | 285 |
| Ciona intestinalis | ---LQEVSEQLQVVERVGIHQAGSDSLLTGMVTFKMRKYFDNEMNIPK--FCGHLYGL----- | 259 |
| Homo sapiens CAF1 | ---LQEVAEQLQLERIGPQHAGSDSLLTGMAFFKMRMFFEDHIDDAK--YCGHLYGL----- | 262 |
| Homo sapiens POP2 | ---LQEVADQLDLQRIGPQHAGSDSLLTGMAFFKMRMFFEDHIDDAK--YCGHLYGL----- | 262 |
| Giardia lamblia | ---SLESLAGSYGVRWCGPQHAGSDALVTLRTFHLKDNV----- | 245 |
| Schizosaccharomyces pombe | ---LQDIADDLQIHRIGPQHAGSDALLTARIFFEIRSRYFDGSDSRM--L-NQLYGL----- | 271 |
| Entamoeba histolytica | ---SLQAIASSLVQRIGTMHQAGSDSLLTGGLYFKLKEK--HPEFDDEK--FNGILFGL----- | 306 |
| Plasmodium chabaudi chabaudi | RTFSLQKISEILSVKRIQHQAGSDSLVTCKTFFKLLLELYFDNKIDDKK--YSGIYGLGTTIKNYNKFDDNAYKHNN | 277 |

| Majority | -----G----- | ----- |
|-------------------------------|--|--|
| | 490 | 500 |
| Trypanosoma brucei | -----CEDSS----- | -----SAGTPN----- |
| Trichomonas vaginalis 80378 | ----- | -----STTIPGSGGGGHA----- |
| Trichomonas vaginalis 80473 | ----- | ----- |
| Trichomonas vaginalis 81399 | ----- | ----- |
| Trichomonas vaginalis 85323 | ----- | ----- |
| Trichomonas vaginalis 96423 | ----- | ----- |
| Trichomonas vaginalis 97465 | ----- | ----- |
| Caenorhabditis elegans | ----- | -----SGSTSRLGD-----ETPQGLIGVPQ----- |
| Drosophila Isoform A | -----GTS----- | -----FIVNGTNFHDSNGET----- |
| Drosophila Isoform B | -----GTS----- | -----FIVNGTNFHDSNGET----- |
| Saccaromyces cerevisiae | ----- | ----- |
| Arabidopsis thaliana | -----GVENG----- | -----QIVH----- |
| Aspergillus fumigatus | -----NGQMPAMTYHMQPHQTPNLNGATIYSAAGTPSTPNTGRQTPQ----- | ----- |
| Strongylocentrotus purpuratus | -----GSA----- | -----YMQNGSAYTEENNAAPAT----- |
| Schistosoma mansoni | ----- | -----WMQMNG--SSPQHDSE----- |
| Chlamydomonas reinhardtii | -----GVDGA----- | -----PESKGGQDNGS----- |
| Ciona intestinalis | -----GSS----- | -----YIQNGNPY---SAEE----- |
| Homo sapiens CAF1 | -----GSG----- | -----SSYVQNGTGNAYEEE----- |
| Homo sapiens POP2 | -----GTG----- | -----VAQKQNEVDVSAQEKMSE----- |
| Giardia lamblia | ----- | -----DFLTPANDHVIY----- |
| Schizosaccharomyces pombe | -----GSTGSVLWH--NNSSTPQIQ--- | -----FRDLPGAHPSPTPSNAGI----- |
| Entamoeba histolytica | ----- | -----NDEY----- |
| Plasmodium chabaudi chabaudi | NNNNNNNG | NNNSGVYYGNNNYAKKNNNGNNTSIYGNNSNDKNHDNNNNNQYWDGKNDIISANNNSHYMHNNINGNNNG |

| Majority | ----- | ----- |
|-------------------------------|--|-----------------------------|
| | 570 | 580 |
| Trypanosoma brucei | -----FSNFTGSKNAA--FPASPIMTQAVKG----- | -----HS----- |
| Trichomonas vaginalis 80378 | ----- | ----- |
| Trichomonas vaginalis 80473 | -----AKNKL--FGASAIV----- | ----- |
| Trichomonas vaginalis 81399 | ----- | ----- |
| Trichomonas vaginalis 85323 | -----FENKI--YS----I----- | ----- |
| Trichomonas vaginalis 96423 | ----- | ----- |
| Trichomonas vaginalis 97465 | ----- | ----- |
| Caenorhabditis elegans | ----- | -----QA----- |
| Drosophila Isoform A | -----NSAS----- | ----- |
| Drosophila Isoform B | -----NSAS----- | ----- |
| Saccaromyces cerevisiae | DFAKY----- | -----QGVIIYGIDGD-----Q----- |
| Arabidopsis thaliana | ----- | ----- |
| Aspergillus fumigatus | -----HHGGNIGGALTPGGPGGVMGAFQTG----- | -----KA----- |
| Strongylocentrotus purpuratus | -----TAT----- | ----- |
| Schistosoma mansoni | -----SSAGHNVSAYSSIFRNNVHSAD----- | -----HSGRTSPADSTGGHKSS----- |
| Chlamydomonas reinhardtii | ----- | ----- |
| Ciona intestinalis | -----YNKN----- | ----- |
| Homo sapiens CAF1 | -----ANKQS----- | ----- |
| Homo sapiens POP2 | -----LAIINMQQ----- | ----- |
| Giardia lamblia | ----- | -----GFH----- |
| Schizosaccharomyces pombe | -----PTTLTNTSSAPNFANSTFRFPPRVV----- | ----- |
| Entamoeba histolytica | ----- | -----E----- |
| Plasmodium chabaudi chabaudi | DLYTYVDSTNNREYMIASFSDAVKGNIKSDVLYNLYSDMNQNNYMMMPGMNMMGTNNNFNTNICNTNNNTNGNINN | ----- |

Decoration 'Decoration #1': Shade (with solid black) residues that match the Consensus exactly.