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-----motif T-----
Homo sapiens      -----CVPAAEHRLREEILAKFLHWLMS-VYVVELLRSF----FYVTEITTF----QKNRLEFFYRKSVMWSKLSIGIRQHLKRVQLRELSEAEVRQHREARP-----
Mus musculus      -----RVPAAEHRLRERILATFLFWLMD-TYVQLLRSF----FYIIESTF----QKNRLEFFYRKSVMWSKLSIGVROHLERVRLRELSQEEVRHHQDTWL-----
Gallus gallus     -----SVPAYEHCYREEILAKFLYWLMD-SYVIELLKSF----FYIIEITMF----QKNMLFYRKFIFWGLQNIIGIRDHFQAKVHLRALSSSEMEVIRQKKY-----
Xenopus laevis    -----FVPASEHLLREKILAKFVFWLMD-TYVIQLLKSF----FYVTEITMF----QKHRLLEFYRKSVMWSKLSIGIRLKRHLEKVKLRSLSSELEENMQQWKN-----
Oryzias latipes   -----RFPPSELAYRTRILSQFLTWLMD-GFVVGVLVRC----FYATESVG----QKNALRFYRQEVWSKLSQDLAFRRRIAKGEMEELSPAQVASLPG-----
Ciona intestinalis -----SSNLLRFFQWMI-E-DYVFWVLSGS----FYITENSNG----FKNRLEFFYRKSVMWSKLSIGIRQHLKRVQLRELSEAEVRQHREARP-----
Strongylocentrotus purpuratus -----PPFTSLVKQRQLVDFHFHLM-I-GYTVPLIMMC----FYVTEITSS----SRNQLVBYRKPVWLLLEKIGIQYVAHGIMKPKENDVTKKLVSAGL-----
Apis mellifera    -----TKWLVMAQFVKWFET-EFLFNILYTY----FHIITKVSQ----NTNERLYITRFTWNNIQKFKIKEGIHNTLQPNIKRNTWNP-----
Bombyx mori       -----YTILHKILLWLT-AILPSIICLT----FYVITCKLD----SDENKLIYFWKSQWQSFCDKIKSKMLFSNVMEKFEPEYCLGKKIKRNLPIA-----
Tribolium castaneum -----NLRPKLLKHN-LFLDNIVKPII-AFYKPIKTL----NGHEIKFIRKEEYISFESKVFHKLKMKYLVVEVQDEVK-----
Caenorhabditis elegans -----VDPNVKRNIQTSIVNNLKSQVH-WWALMALRQV----MIPIVIK----EERVLLWRDGYLNLITKEIKDFKQRYIVQKAPHFIRPN-----
Schizosaccharomyces pombe -----AKMCLSDFEKRQIFAELIYWLIN-SFIIPILQSF----FYIITESSD----LRNRIVYERKDIWKLICRPFITSS--MKMEAFKINENNVRMDTQKT-----
Saccharomyces cerevisiae -----DIWFTKHNFNENLQLAICFISWLFER-QLIPKIIQTF----FYCTEIS----STVTIVYERHDTWNLITPFIVE-YFKTYLVENNVCRNHNSTYLS-----
Kluyveromyces lactis -----TQKIPYYDVKNRQALYKLFWFILS-CYVPKLLSTF----FYVTELS----STVDIVYIRHDTWKTMSQPFLKSYFRYLLNENKYCFQHRSFTE-----
Aspergillus nidulans -----ENNISASDLQKRRELFHEFLYLFED-SILLPLIRGS----FYVTEISQV----HRYRLEFYERHDTWRRRLTAQPLAH-LRASIFEELAPETAEKLLSG-----
Encephalitozoon cuniculi -----TLRCTRSEFVFRFRVSSRFLVYITE-KLIIPISKY----FYCTETSF----SKFKVHYEPRSIWRHFSIHDR--FLEKFEPAKGSTH-----
Ostreococcus lucimarinus -----AKTTNASNAGQVEASQRRMVTKWISWLVQ-EMVFPPIIRCH----FYATDTQT----HKNRIFFYRKGISWRLVTATLQSLSETSFKRLTAKEVTAMMDRSNASNL-----
Arabidopsis thaliana -----HELQSESIRSTQOMLCTKWISWLFEL-EIVKLVHFN----FYATESQG----GRLNIYYRKRSWERLISKEDSKALDGYVLVDDAEAESSRK-----
Doryanthes excelsa -----CKFAKKGIKISNDVKITLQNHIFQNWYWFSS-SIVVPIISSC----FYVTERQS----KRHHVFYYPKTVWRKIVDNAINC-LKEQNYRLLDHASFTYIISKR-----
Iris tectorum     -----CKFAKKRLHKSSDIRRVLQHTLRSWVHWFFS-EIVVPLISSS----FYVTERQG----ERNCFVYYPKAVWVRLVRSPIDC-LDGGHYRLMEYSLVTSI IKAR-----
Oryza sativa      -----KQTGSSTSAAEQEQKNILHCWISWLFES-DIVIPVVRTY----FYVTERES----KRYDVFYYPKSVWRDLTSTNAIAS-LNKKNFRILRGEPRKAVRHL-----
Zea mays          -----KEIWSSNGSEEEKLQNLRCWISWLFES-DIVIPVVRTY----FYVTERES----RRYDVLVYYPKTVWRNLSTNAIAS-LNRQNFRI LRGTSTRKEA IQ-----
Tetrahymena thermophila -----FTQKRKYISDKRKILGDLIVFIIN-KIVIPVLRYN----FYITEKHK----EGSQFYRKPVWLLLEKIGIQYVAHGIMKPKENDVTKKLVSAGL-----
Paramecium caudatum -----KQRLLIKKRNQMIPLMKFMFQ-EIIPFLRHN----FYIITERMK----DDWKLVEYRKEIWHLLQLSLTS-LTKNNFEEISVNSIKTP-----
Euplotes aediculatus -----HFYYFDHENIYVWKLRLWIFE-DLVVSLIRCF----FYVTEQQK----SYKTYYYRKNIDVIMKMSIAD-LKKETLAEVQEKVEVEWKKSL-----
Oxytricha trifallax -----NKKFFMNEHEVFFKVLKWFEL-DLAILMRCY----FYSTEKAK----EYQRIFYRKNINMIMRLSIDD-LLKQNLKQVEKKEMRIFCESQ-----
Cryptosporidium parvum -----NQRSKKVPNNKTRSSIKKSLISLGKTYLARNIYFLIV-YLVFPILRRH----FYATEIEG----SNKRVYERHPVWIKIVRQADKW-YLESILKGIQSKDYIMNLSISIQEISK-----
Eimeria tenella   -----INRSKKQPNNVTRSKSKSLISLGIKYLATRENIYFLIYLVFPVILRR----HYATEIEG----FSKRVYERHPVWIKIVRQADKW-YLESILKGIQSKDYIMNLSISIQEISK-----
Giardia lamblia   -----KAEGEVRHHLIAYFVVYVLD-FVILPALYQSFSAVSMHTELSNRIETANSMPALLSRSLWVS YKNYLKSSARLEIAATYEFVCSLSNLHSIPLTNE-----
Leishmania amazonensis -----SDATSSASRHARRERSQVQQRVWLQVLFELTQ-DILPFLLRAS----FTIIVSSKN----THKLLFFPAFVWRRILVREVRRTSRSCHAPRSQMSLAERTRMSGADHAALVSAP-----
Trypanosoma brucei -----ARKRRSMIQQRVFLQVLFELIYQ-CVVPFLIRRS----EHVACTSKS----PYIFFFIPRAVWRRILVREVRRTSRSCHAPRSQMSLAERTRMSGADHAALVSAP-----

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	motif 1	-2-
Homo sapiens	ALLTSRLRFIPKPDG	LRPIVNMDYVVGAR
Mus musculus	AMPICRLRFIPKPNG	LRPIVNMSYSYGTR
Gallus gallus	FPIASRLRFIPKMNG	LRPVVRLSRVVEGQK
Xenopus laevis	VPLVSRLRFIPKTNG	LRPISKISSTLSSQ
Oryzias latipes	TVISQLRFIPKTDG	MRPITRVIGAD
Ciona intestinalis	IRPYFSVRFCKVNG	LRPIMRLRNAD
Strongylocentrotus purpuratus	TLGFSRLRFVPKTKG	LRPITRMGKSV
Apis mellifera	IGIYKLLCKYSD	VRPIFKLKKK
Bombyx mori	KRLDLKLIKEVPKLHLVLPNYD	CRPIVKYRN
Tribolium castaneum	PRGVLNIIIPKQDN	FRAIVSIFP
Caenorhabditis elegans	VATFKLSISRQK	LRPLFKRKA
Schizosaccharomyces pombe	TLPPAVIRLLPKKNT	FRLITNLRKRFLIKQ
Saccharomyces cerevisiae	NFNHSMRIIPKKSNEFRITAI PCRG	
Kluyveromyces lactis	KFNHRNLRLIPKKSGLDFRIIAVPC	
Aspergillus nidulans	KKSIYGSLRLLPKTTG	IRPILNLRRTLVRSIYA
Encephalitozoon cuniculi	SYSELRCIPKMNG	ARIISNMS
Ostreococcus lucimarinus	GFSNMRFIPKSGS	LRPLATLNKPTTFVVKGG
Arabidopsis thaliana	KLSKFRFLPKANG	VRMVLD
Doryanthes excelsa	NFGFSRVRFIPKQKC	VRILANTKVPSKIPLHRN
Iris tectorum	GFGFSRVRLIPKHD	IRITANARIPSKL
Oryza sativa	NCSSRVRFIPKAKD	MRPLVD
Zea mays	SCYFSTVRFIPKAKD	MRPLVNLRA
Tetrahymena thermophila	YPQGLRIIPKGS	FRPIMTFLRKDKQKN
Paramecium caudatum	YVGKLRIVPKPGT	FRPIVTYNRKA
Euplotes aediculatus	GFAPGKLRLIPKTT	FRPIMTFNKKIVNSD
Oxytricha trifallax	NFAPGKLRLIPKGD	FRPIMTFNRKIPNQV
Cryptosporidium parvum	LIDKNSEFSENIPKIRWVPKSKG	LRPLINLSKVGSGQILQONLERDHTC
Eimeria tenella	ELDKNISFSEENIPKIRWVPKSKG	LRPLINLSKLVSGQIGLVQNLQEDHTVREEKCKGFCDICSVWCTNG
Giardia lamblia	DAVNRIFWKQVSPGRLSFVYKSNR	VRPLCNFSFCSRR
Leishmania amazonensis	NACGGAVAAAFPSPHSAASNASAAISAPRDEWRAVRTGGALAHWSARATLATRGGGASCLYAGVRFRRPDRR	LRPIAVVRSASLR
Trypanosoma brucei	VTSEGLMQLIGPS	SQPVGDDSGGVSDVCKLRDSSSPLLYSDVRFVLDGSK

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|-----3A
Homo sapiens -----TFRREKRAERLTSRVKALFS
Mus musculus -----ALGRRKQAOHFTQRLKTLFS
Gallus gallus -----LSKESREKKIQRyntQIKNLFS
Xenopus laevis -----QSKENQEKKIHHFSSQIRNLFS
Oryzias latipes -----SNTRLHHKRIRDLS
Ciona intestinalis -----KMPDMVPPFEVIAS
Strongylocentrotus purpuratus -----IEEKKGLSVRLLIQDLFD
Apis mellifera -----FRDTDYIFIIFK
Bombyx mori -----DELNKRQKYRIKE
Tribolium castaneum -----DSARKPFFKLIITSKIY
Caenorhabditis elegans -----IDKKTETMQWKRLNS
Schizosaccharomyces pombe -----MGSNKMLVSTNQITRPVAS
Saccharomyces cerevisiae -----DEEFTIYKENHKNAIQPTQK
Kluyveromyces lactis -----NIQEFNEFN DYVTNAIKPTKI
Aspergillus nidulans -----GKNRYHPAQSVNSAIAPVYS
Encephalitozoon cuniculi -----KARNGRPSINKSIYPEFC
Ostreococcus lucimarinus -----GKNSMRWLKKFDAINRRKDVQD
Arabidopsis thaliana -----FSSSSRSQSLRDTHA
Doryanthes excelsa -----NNRKRRFVFLKSINSSIKELHA
Iris tectorum -----IYFYKSINTSIKELHA
Oryza sativa -----LRAKSKDANLNKCHL
Zea mays -----QSKNALNNCHL
Tetrahymena thermophila -----IKLNLNQIIMDSQL
Paramecium caudatum -----KTSKISLNRKLV
Euplotes aediculatus -----RKTTKLTTNTKLNLSHL
Oxytricha trifallax -----GKFQSRMTTNNKIQTAHM
Cryptosporidium parvum D-LPTSW-INNNYYYNY-FNSNG-NNGIV-GNNHNYGHINNIGKNFTSFSSQNC-QIMTPPGRLGVGLGFGNYNIGIGINS GSSVPTTPINKVMRRPSSNRIIDIRRPSTNNMIFYP SK
Eimeria tenella DCLPTGSCINNNWYYNYF SYNGNNGIVNNHNYGHIYNNGGGIKFTSFSNSQCTQIMTNP PGRGVGLGFGNLNIGIGYISGSSVPTNTPINVMRRPSSNRKIIDIRPSTNNRMLFYPS
Giardia lamblia -----HRVSLNSFLRSALQVIIFELE
Leishmania amazonensis -----SLKEMARGSPSPYSHASAIVRLLRRLGCSADAGQLPAATATLLRQVQARSRHNRRTGVHRS AHPLP-PHLPKKAALQDALRCLVSGVE
Trypanosoma brucei -----SLLKAADGVGSSTLASALAKAGKYLATDGKAM-WPSPNSAVLRDALRCLDAGVE

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-----||-----3B (linker)-----||-----3C-----|      |--motif A--|      | -IFD A-- ||-----
Homo sapiens          VLNYERA---RRPGLLGASVVLGLDDIHRWRTEVLRVRAQD-----PPPELYFVKVDVTGAYDTIPQDRITEVIASIIKPNQNTYCVRRYAVVQKA-----
Mus musculus          MLNYERT---KHPHLMGSSVVLGMNDIYRTWRFAVLRVRALD-----QTPRMYFVKADVTGAYDAIPQGGIVEVNVANMIRHSESTYCIQYAVVRR-----
Gallus gallus         VLNYERT---VNTSIIIGSSVFGRDDIYRKWKKEVTKVFESG-----GEMPHFYFVKGDVSRAFDTIPHKKIVEVISQVLKPESTQTVYGIRWYAVIM-----
Xenopus laevis        VLNYEWN---RNCSLIGSSVFGMDDIYKWKKEVLDFEKQPQ-----VEKLQFYFVKTDVKGAYDTIPHSKIDEVIVSKVINPNANEVYCIIRRYATVS-----
Oryzias latipes       MLQARVR---SAPALLGSTVWGMTDIHKVLRSLAPAQKDK-----PQPLYFVKVDVSGAYDSLPHDKIKEVITEALSPVQEEVFTVRHYAKIW-----
Ciona intestinalis    VTKLVCS---KVPQATGFATQHHAHYNGWKLFLVLSLAGIP-----GRKRLFYFKMDIHRCFDSIPVVKIILIVEGLLD-----
Strongylocentrotus purpuratus VLYTHKI---NQPSVMGSSLGIDGIYHKVLEKIKDRKERK-----DTRPLFYFKMDIEKCYDSIKHSHKILQIISMLLQGHDKPDEYQLQRYVTV-----
Apis mellifera        FLKQLYV---TNYEVINFPKKWKSIVQKLNSTK-----EKLRYFCQDVINAFGSIHQVEIYNIQSLCKDLPENLILK-----
Bombyx mori           KIQLLKL---LTGNQQHKIETAYPKLHSHKWLKLNK-----PKLYFIKTDLSDAFGSINTDKMMKILHENYLNHYKTESNM-----
Tribolium castaneum   KVLEEKY---KTSGSLYTCWSEFTQKTK-----GQIYGIKVDIRDAYGNVKIPVICKLIQSIPTH-----
Caenorhabditis elegans MLSWCLE---RSGVYRHTIRDSCKKVSDFLKKN-----QNSKIIGYTADVSKCFSTVNHVLSISIIDRLFSQEH-----
Schizosaccharomyces pombe IIKHLIN---EESGIPFNLEVMKLLTFKKDLLKHRM-----FGRKKYFVIRIDIKSCYDRIKQDLMFRIVKKKLDPEFVIRK-----
Saccharomyces cerevisiae ILEYLRNKRPTSFTKIYSPQIADRIKEFKQRLKKFNN-----ALPELYFMKEDVKSICYDSIPRMECMRILKDALKNENGFVRSQYFFNT-----
Kluyveromyces lactis  ILERLRMRNRTKFTKAFSPLEIPKIVLSYQORLLKHG-----KIPNLVLLKFDIQSCYDSIPVQKVMKLVEARICEEQOFFIRSQDILT-----
Aspergillus nidulans  MLNYERG---RRNDLLGSSMFSVGDMSRLKKEKESLMSRGW-----DQRKLYFVKLDIQSCFDTIPOAKIVRLVEKLVSEENYHWMKYVEMRLASEFDN-----
Encephalitozoon cuniculi VLRHETH---GMLGNSILNHSGMYEKLSYLSRSV-----RPLYILKVDLSGCFDNIPQDEVVSLVRRLLHKSRYHTKSFSILEEV-----
Ostreococcus lucimarinus IHHETV---RDPNVLCAAVG DYKAALLRLGPCLRAIRRQKL-----LGRRPQAYIILATDIKGAFDNLPLESIERVALDLISSSYQTLHYAVVKQNGEAKYKLVSS-----
Arabidopsis thaliana  VIKDIQL---KEPDVLGSSVFDHDDFYRNLCPYL IHLRSQS-----GELPPLYFVADVFKAFDSVDQKILHVIQSFLKDEYILNRCRLVCC-----
Doryanthes excelsa    IIRRIKH---EHPQALGSSVFGYDDAYRKL YQELPKVKEGS-----PMPKVIIVVGDVSKAFDSINQDKLVEIMKDI IQDKYYLRSYARVISTTK-----
Iris tectorum         VIKTIKQ---EHPQLLGSSVFGYNEIHKWESQELPKLRGRK-----QKIPNVYIIVADVAKAFDSIDQDKILEILKGI VENDRYFLREYTHVVCITFK-----
Oryza sativa          IMKKLRD---EKPEMFGSSVFDYNNVHQNLSQF ISSKRSQL-----MKKLKVIIVVADVSKAFDCVSHDMVLKMIIDAFKCEDEYTVRKCSKVICNRSK-----
Zea mays              IINKVKD---ENPDKFGSSVFDYNNVHQN IWHF ISSVRSHL-----KEKIIYIIVVADVSKAFDCI THDMILKVVDDALKCDDYVLRKCKKVVVCNKR-----
Tetrahymena thermophila VFRNLKD---MLGQKIGYSVFDNKQISEKFAQFIEKWKNK-----GRPQLYYVTLDIKKCYDSIDQKILNFFNQSDLIQDTYFINKYLFQRNKRPLLQIQOT-----
Paramecium caudatum    IKYILRN---LRIQPLGYSVFGNPEVFSRLEEBEKKLWIKL-----QPKTYITMDIQKCYDTHILQKILNQFIEESKQFSSIIYAINKYHIVSRNRM-----
Euplotes aediculatus MLKTLKN---RMFKDPFGFAVFN YDDVMKKYEEFVCKWKQV-----GQPKLFFATMDIEKCYDSVNRKILSTFLKTTKLLSSDFWIMTAQILKRKNNIVI-----
Oxytricha trifallax  MLKNLKS---KMFKHSFGFAVFN YDDIMKRYENFVQKWKQI-----NSPKLYFVAMDIEKCYDNVDCERVVNFLQKSDLMDKEYFILNTFVLRKKNNIIV-----
Cryptosporidium parvum IIRSFLL---RMTGKNHLGASLVQFGDIYKIIKNWWIKNRRDKQQFQMNEDFY--QNQGKMSHVKIYI IKADLVNCFENIN KSKIFEFLDV I SLPNEISL SLSYLRALS KTTIIPPFDM-----
Eimeria tenella       IIRSFKL---LRMGKNHTLASLVGQGD IYKFIKNWIKNWRDKQQFRQNEFY--QNQDKQKMSHVYIYI IKADLVNCKFENIN KSKIFEFLDV I SLPNEISL SLSYLRALS KTTIIPPFDM-----
Giardia lamblia       RPRNRYL---QAHLAKNLGHTIAVDYAAWLDATY TENPE-----AQIYMTTDMITAFESVSPRIILYYISHYIVTGNAYVVLTYKEIAPSKMP-----
Leishmania amazonensis EQVRDGL---PRLSNLSHQDEYAE LRSFCEEVGRHAIPCEGPAKTPAVSSASPPGATAC-FAPYVTLRLSDASRCYDNL PQGRVLA AVRS L VKHDAYRVL RFTVIH AVDSEATCKGGCL-----
Trypanosoma brucei    ERRITGA---RQRAIGSHNDEYIEVRSFIQCARQFCTIPTLVQGETSAALLA-----DATAVTMVRGDAARCYDHL PQEAVVNI MRGLVTHE TYSLKLT VVTLT TVKNVSKKTRS-----

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-----IFD B (linker)-----|
Homo sapiens -----AHGHVRFKAFKSHVSTLTLDPYMRQFVAHLQETSPLRDAVVIEQSSSLNEASSGLFD
Mus musculus -----DSQGVVHKSFRQVTTLSDLQPYMGQFLKHLQSDASALRNSVVIEQSISSMNESSSSSLFD
Gallus gallus -----ITPTGKARKLYKRHVSTFEDFIPDMKQFVSKLQERTSLRNAIVVEQCLTFNENSSTLFT
Xenopus laevis -----VDPTGRIIKSFKRHVSELADVLPNMKQFVSNQEQKNLLRNTILVEQNLLLNESSVKLLA
Oryzias latipes -----ADSHEGLKKAFAFARQVDFSDGSMGSTSMKGFVMSLQKSSKVHHAVLVEQAFGSNLRGKDALQ
Ciona intestinalis -----RSGEVDLTSATKGLNCKVKHCTHCILT
Strongylocentrotus purpuratus -----TRAASASTGLQKRSHRVTTTELSSFHRQLIQMAQHGIKNAIIINQVHTVVKVTPKDLLQ
Apis mellifera -----YYTMKSEISKDNTYHKYFSDLQLPFPSPDQFYANLVDNQWYQLINKSWLLE
Bombyx mori -----VLKRVSEQFRN
Tribolium castaneum -----LLDSEKKN
Caenorhabditis elegans -----IYTVCGKGRNHGGFHKLI FCSAGTELNAHEALRRKMKELKGVFNFEVCYREMSSTTLYS
Schizosaccharomyces pombe -----YATIHATSDRATKNFVSEAFSYFDMVPPFEKVVQLLSMKTSDTLFVDFVDYWTKSSSEIFK
Saccharomyces cerevisiae -----NTGVLKLFNVVNASRVPKPYELYIDNVRTVHLSNQDVIN
Kluyveromyces lactis -----ASTRLKRLHAVNGDIQFQENDLVIDSVKTTVLSKEDVLT
Aspergillus nidulans -----MWPLRKPQRRTWISKYLQRVGPVGRPENLADAIANGSVVGRRNTVLVDITIAQKEYNGEGLLD
Encephalitozoon cuniculi -----GGELRSRYVCKVTENAETINELMMEPGAFAVNVKVENASQRILSREEVEG
Ostreococcus lucimarinus LPTAA-----KGERVPGPLVTEAQRVSNTGGAAILGRESRNSIVIDAGFAKESDENIVP
Arabidopsis thaliana -----GKRSNWNKILVSSDKNSNFSRFTSTVPYNALQSIIVDKGENHRVRKKDLMV
Doryanthes excelsa -----GIKTFYEQVSSDHSSSNDIINFEALTRLRPSYSVYIDQGTSKCIKKDVLHL
Iris tectorum -----CVRTFTDRISCEDHGNNQIIRSKVAARVCSSPSIIIDQGRSQCVDKKTLHS
Oryza sativa -----NSLYRFDSNASIGNGNSIYDLSIQLSSGGGIFVDQGTICRILKEQFHH
Zea mays -----NAIYRFDSNVSISNGDNVCDFLIQLSSRRGFLIVDQKSKIRKKEIQ
Tetrahymena thermophila NNLNSA-----MEIEEEKINKKPKMDNINFPYFNLKERQIAYSLYDDDDQILQKGFKEIQSDDRPFIVINQDKPRCITKDIHN
Paramecium caudatum -----KPSFSMKDLFNILDRTCAIPFNKPQLLQKGYIEHIQKNKQTIIINQGFQNSVTSEFLN
Euplotes aediculatus -----DSKNFRKKEMKDYFRQKFKQIALEGGQYPTLFSVLENEQNDLNAKKTLLIVEAKQRNYFKKDNLLQ
Oxytricha trifallax -----ERSNFRKLPKQYFRYKFKQIGIDGSSYPTLFEILEDEFNDLNMKRTIIVEQEQRKKFPKNDLLQ
Cryptosporidium parvum NRDSY-QDELGRSCIITSGKGLNMVPIFEKDHD-EDQKVVKSKIKRIIGPDLDELWNLKNSCLSNKDLNILGQKAEIFTFLNRRVINWKLVEIKIHLNTSFFRLRTCSSKSLRLIK
Eimeria tenella NRDSYIQDELRS CGI-TSGKGLNMIVIFEKDHPEDQKVVKSKIKIIGPRDLDELWNLKNSCLSKDLINLQ-QAEIFTFKLSRRVINWKLVEIKIHLNTSFFRLRTCSSKSLRLI
Giardia lamblia -----KIRTVALPCQHNGCVSMDSISRYLLCKETPKKQPNMMLCPMHARIYKREDI IK
Leishmania amazonensis LRRFTTRTIPCAEAECG-----FLARIPRGHYWEEGRTPTGPHTSAAVSRTTDASSRCGANLISGAAVRAL
Trypanosoma brucei SHAESQLSSMKETNGSTVK-----HRKLQLSKRVKLVPGRYVQEGVLYGIARGCIAEYEQSVGSDSLVSGEIRS

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|---IFD C---| |-----motif B-----|
Homo sapiens      VFLRFMCHHAVRIRGKSYVQCQG-IPQGSILSTLLCSLCYGD MENKLFAGIR-----
Mus musculus      FFLHFLRHSVVKIGDRCYTQCQG-IPQGSILSTLLCSLCFGD MENKLFAEVQ-----
Gallus gallus     FFLQMLHNNILEIGHRYMIQCSG-IPQGSILSTLLCSLCYGD MENKLLCGIQ-----
Xenopus laevis    VFQIIRSHILRIKDRYVMQCCG-IPQGSMLSTLLCSLCYGD MENAMGGIQ-----
Oryzias latipes   FFTQMLTGSVVQHGKKTTRQCRG-IPQGSVVSSLLCCLCYGH MENVLFRDIK-----
Ciona intestinalis TLKYFLNKVTVLSVLSKFFVKLHG-IPQGWELSNLLCDIFYG HMEQQHLINVLDPIDG-----
Strongylocentrotus purpuratus RLKQHVMAADVVKSGRKYWRQDG-ISQGSILSLLCSFFFYAHLERCYLSIDID-----
Apis mellifera    SISKYIFYQRIKINKNIHILGKG-IVQGSMLSPILSDIYYNYILNKEMSTYLK-----
Bombyx mori       LVAELRKPILLVRFGSTIFRWKEG-LVQGYKYSPALSELYYSYMDKKYLTEHLKVDNR-----
Tribolium castaneum FIVDHISNQFVAFRRKIMKWNHG-LLQGDPLSGCLCELYMAFM DRLYFSNLD-----
Caenorhabditis elegans VIRTTLSTYYYYKRGPTSWRITKG-VPQGHPISSNLAHMYLNNFEQKYWSNEKED-----
Schizosaccharomyces pombe MLKEHLSGHIVKIGNSQMLQKVG-IPQGSILSSEFLCHFYMEDLIDEYLSFTTK-----
Saccharomyces cerevisiae VVEMEIFKTALWVEDKCYIREDC-LFQGSLSAPIVDLVYDDLLEFYSEFKASPS-----
Kluyveromyces lactis VVKMELFKTISIFYRGKCYLRKDG-LFQGTPLSSVLVDILYDDLLEFYTEFTDEND-----
Aspergillus nidulans ILNEHIRNNLVKIGKKYFRQRKG-IPQGSVLSLLCSLLYAEMERDVLGFLQT-----
Encephalitozoon cuniculi AMTNMIKRNYVKHNGKLFVQKTG-IAQGSVASTLLCSLYYKSIDDLFYFDRVF-----
Ostreococcus lucimarinus LLRAHLRENIISARGKFLLOTVG-IPQGSIVSPLLCSLFYGHLEHEYGLLSG-----
Arabidopsis thaliana WIGNMLKNMQLDKSFYVQIAG-IPQGHRLSSILCCFYFGHLERTLIYPFLEEASKDVSSKECS-----
Doryanthes excelsa LLTEHLKHNILQIGQNFYLOKVG-LSQGSISICLLCSFYLGHIERSIVLPYLEKAHEQSNANIMNKELVVNRCMLTSDDCRTEL RGNASHNIESVKDDVACL-----
Iris tectorum     LMAEHLGNILRIGWRFYLOKVG-TCQGSISILLCSFYLAHLERSKILPHLEKARGLKSEPSCDPYRKKDLDRDDTSCIRNSAIINL-----
Oryza sativa      LLYEQIKCNILKIGQKYLOQVVG-IAQGSKLSPNLCSLYYGHLENSVLSKFLHDSKLNAG-----
Zea mays          FLSKQVKCNILKIGQNFYSORVG-IITQGNKLSPNLCSLYFGHLENSSELLKSLHDNKI-----
Tetrahymena thermophila HLKHISQYNVISFQNKVFRQRKG-IPQGLNISGVLCSEFYGKLEEEYTFQLKNAEQVNG-----
Paramecium caudatum SIKNICQNNIVQFENRYFRQTLG-IPQGLNISGILLCSFYLANLEQKLTNKKILG-----
Euplotes aediculatus PVINICQYNYINFNGKFKYQTKG-IPQGLCVSSILSSFFYYATLEESSLGFLRDESMNPENP-----
Oxytricha trifallax PVLKICQNNYVTFNKKQYKQMKG-IPQGLCVSYILSSFFYYANLEENALQFLRKESMDPEKP-----
Cryptosporidium parvum SKQLGNSIKFGRFSLFLKQDFG-IPQGSISISYILCCLYYNFDLNP EIQNLLGHSFSSSYISLSFSLNPIKQEKVQLLDPTEKDLFSQH DLETGLSR-YPEFKENEINIYNTSTSKRRR
Eimeria tenella   SKQLGNSKIKFGRFSLFLKQDFG-IKQGSISYILCICLYYNFDLNP EIQNLLGHSFSSSYFISFSLNPIKQEVQLLDPTEKDLFSQH KDLLEGLSRTYPEKENEIFNIYNTS-SKTRR
Giardia lamblia   MLELHLLNPLVIHEGGVYRLTSG-IPQGSVVSTVLFNCYSSLLHVQLLNTGIVS-----
Leishmania amazonensis LSEHIRHHLVVVSGGSLFEORVG-ILQGSVAMLLCDRLF SNVVDALSSILS-----
Trypanosoma brucei VLQKHLQSHLVMLNGKMYIORMG-INQGSVAMLLCDOLLERVDAALSSILS-----

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	--motif C--	-----motif D-----
Homo sapiens	RDGLLRLRLVDDFLLVTPHLTHAKTEFLRTLVRG	VPEYGCVVNLRKTVVNFVPEDEALGGTAFVQMP
Mus musculus	RDGLLRLRFVDDFLLVTPHLDOAKTFLSTLVHG	VPEYGCMLNLQKTVVNFVPEPGTLGGAAPYQLP
Gallus gallus	KDGLVLRLLDDFLLVTPHLMQARTFLRTIAAG	IPEYGFLLNAKKTIVVNFVVDIPGCSKFKHLP
Xenopus laevis	KNGVLMRLIDDFLLVTPHLDOAKTELRTLAEG	IPOYGCISISPKKTVVNFVVDIPECSEVEQLP
Oryzias latipes	NKGCLMRLVDDFLLITPDRNQAQSEFLSILLAC	VPOYGVVANPQKVVVNFVQSGEGGAFDPDIRVLP
Ciona intestinalis	EPHLILRYVDDYLFVITTSRYKANAFKLMYS	NFKEYGFIVNTKKTCTNFASDCSQQLEDLQ
Strongylocentrotus purpuratus	QEGLLMRLIDDFLLITPHDKAQRFLQLLLSG	VKOYGCASANPSKKTLANLDFMHDGQLVPR
Apis mellifera	TGEILIKYMDLILYITENKTLAEQFELTKKG	IPOYNCYFKQSKTQSLNDFISDRNK
Bombyx mori	KIKMFFRVDDYLYITDCFDALAFLSKISNY	RNVNYSKTAVNFQHPISR
Tribolium castaneum	KDAFIHRTVDDYFFCSPHPHKVYDFELLIKGV	YQVNPTRTRTNLPTHRHP
Caenorhabditis elegans	SRIVFCRYEDDFIFITTENSLFKMMKPLSTG	NNTHFLTANPKFKKSERCG
Schizosaccharomyces pombe	KGSVLLRLVDDFLFITVNKDKAKKELNLSLRG	FEKHNFTSLEKTVINFEENSNGIINNTFFNE
Saccharomyces cerevisiae	QDTLILKLADDFLIISTDRQQVINIKKLAGG	FQKYNAKANRDKILAVSSQSD
Kluyveromyces lactis	SDPMIIRLVDDFLIVSTSKKYIERLNNLAQTG	FKSFTYINPQKVLVTSSESE
Aspergillus nidulans	DDALLRLLDDFLLVTLDSGLAMDFLRVMVRC	QPDYGISVNPAKSLVNFVAAVDGAQIPRLVD
Encephalitozoon cuniculi	KEGILTRYVDDFLVISPIDEIMKELEVSQSI	SHLGINFSKEKMESNFGLEEHLKAASSISELSK
Ostreococcus lucimarinus	FCGEQSTVCRWDDMLLVTTDLDRAKAFVDMCKKG	FEAHGCTLNTTKTLSNFDHGEDVRQRTFVNAD
Arabidopsis thaliana	REEELIPTS YKLLRFIDYLFVSTSRDQASSEYHRLKHG	FKDYNCFMNETKFCINFEDKKEHRCSNRMFVGD
Doryanthes excelsa	GNSAIIIDLDEGDVAACLDNGRWCKDHA TRGANETRHENLSSPMNLLRLIDDFLFISTSKQQAISEYIRMTRG	FEKYKCFMNEKFGLNFDAGONSHELLNLLYTGKD
Iris tectorum	HKKDVSLLETDLWHRDHTSGCTDDARHENS SSPSNMRLRLIDDFLFISTSKQQAITEFNRYVKG	FGEYNCNMNSKFGLNFDLGAKHLPNRLYTGAD
Oryza sativa	EAFSEPEYLLMRFIDDFIFISFSLEHAQKFLNRMRRG	FVFNVCYMNDSKYGFNFCAGNSEPSSNRLYRGDD
Zea mays	DSEKDVLTPRSLLMRFIDDFIFISFSKEQALNEFNRMRRG	FVFNVCYMNDSKYGFNFVANSEHCSNRIYKDD
Tetrahymena thermophila	SINLLMRLTDDYLFISDSQQNALNLIVQLQNC	ANNNGFMFNQKITTNEFPQEDYNLEHFKIS
Paramecium caudatum	DTLLMRLTDDYCCLAFSQDSSIKILNNFTQI	EKOYQIRLNHDKTQHNIERSD
Euplotes aediculatus	NVNLLMRLTDDYLLITTEENAVLEFIEKLIINV	SRENGFKFNMKKLTQTSFPLSPSKFAKYGMDSVEE
Oxytricha trifallax	EINLLMRLTDDYLLMITEKNAMLEFIEKLYQL	SLGNFFKFKHMKLKTNEFALNLQKIGCTNNTQDID
Cryptosporidium parvum	LEISEYNINAKSVLLQPSEEFNNNINQNCQIRANLKS YDQESPSQSNKQESLLLRVDDFLFLTS DLESFAKKELKLLYI	QKLWGSNVSKDKINSNFPWIDHNEIILEEDDV
Eimeria tenella	LEISEYNINAKSVKLLQPEEFNNNSINQNCQIRANLKS YDQESPKSSNKQESLLLRVDDFLFLTS DLESFAKKELKLLYI	QLLWGSNVSKDKINSNFPWIDHNEIIFILEDDV
Giardia lamblia	SRLFFYRTFVDDWLLLTTSIALLDAYIEYLNIMRDHGAYFRLSCFTKPHKNSPFAP IATLDCSREP IPKKSL	
Leishmania amazonensis	EHAERSLLRLRVDDVLVATTSPAAERCLRAM	QRGWPSVGYLSNPSKLTLSKA
Trypanosoma brucei	EHEEPALLRLRVDDVLVVTL SRAASRCEDAL	RSGWSEIGFFCQEEKLRVTV

