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Tetrahymena	-----	00NQYA0000	00000F0000	-----TV	TKQEADKQKK	SEDEDIHAKE	RFAETLKIES
Chondrus	-----	VLSAASRSAK	SSKSTNR	-----FV	RFGRYKQKQE	QITLPAAEQ	HGRALPQKSS
Galdieria	-----	SKIDSSRPVD	YVLDAFRSAL	---DAAQKAVQ	SNPLDGPDSV	NKQRSQAEEK	KDDARNLSSS
Naegleria	-----	SHNDSNENNI	NFHQPFKHP	-----KN	TSYKANHSNN	RITHSNSSS	NPEETPILFS
Guillardia	-----	PLFSYQKSGT	GGSE	-----IC	EVKGAGRSSS	GQGDSRGTA	EAAAAQWLKE
Fonticula	-----	STNNSSSASS	SNNSSTSSS	-----STS	SSSTSSSTSS	TSSSSSGNSN	NKNTAGAVSS
Spizellomyces	-----	SFLEASKRSS	QGRPONQDPT	---AD-TV	IELLKAHKGD	TLVSGAGHAL	QHTTVPKEEP
Dictyostelium	KSYSSLEEDL	LLKESKLLNE	DFEDSVKEKP	LHSLISSIAS	LFRKVEIEIE	DYTTKVGHLS	LNHQKSNLKQ
Saccharomyces	-----	TVEDIGNKEK	GGROKYTEEM	DKAINLLKTN	IKKEYRHDKY	LERTKVGTYP	GRRTYPGRRT
Phycomyces	-----	NKYNDKPDV	GTKDSDTNVV	-----II	KNKRRKTARE	HLSSQKNSPE	SKRGKNSKSG
Ustilago	-----	ALRQSSRPNV	QTSSSVSSSL	-----KFI	ESARKGKERD	SSHPRASSA	ADHSASLIKE
Suillus	-----	SQRDSSRSNS	SVQNPHTDIP	-----AAG	VSKRRKKEKH	SKKKKVGSA	ARPAVESARA
Candida	-----	VKNLINRLTA	TGRHEAKRNP	-----TT	TNASDAYKLF	QNPDKLKALK	RMFAQPKVSK
Talaromyces	-----	KVTNPAEPGE	QREQPETAKR	-----SK	SKKKAKSEKL	EEGEQGETG	ENESTKKKSS

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Tetrahymena	TEPG	-----	-----	-----	-----	-----	-----
Chondrus	IRAR	-----	-----	-----	-----	-----	-----
Galdieria	RISQ	-----	-----	-----	-----	-----	-----
Naegleria	FQPTNKIIRN	KNSKFKKKS	LSNETRIPSP	MNNDIDVSDS	LSNSQESSLE	PQTGNYGIPO	FKKELEYNVD
Guillardia	HRSS	-----	-----	-----	-----	-----	-----
Fonticula	SHSAASKPEP	QTVGKSPVSA	VANSNAPNAG	KPDAPARDPS	RAKHPHSTL	RRRPRHNHPA	GAPAHQASRS
Spizellomyces	LKVN	-----	-----	-----	-----L	PSRPPTQKP	-----
Dictyostelium	DIPKENNNNN	NNNNNNNNNN	NNNNNNNNNN	NNNNNNNNNN	NNNNNNNNNN	NNNNNNNNNN	NSDKLNSSQK
Saccharomyces	YPAR	-----	-----	-----	-----	-----	-----
Phycomyces	FVSRL	-----	-----	-----	-----	-----	-----
Ustilago	LHAL	DDQ	LDALQSQAFS	ISQRLRKLAS	RRSSADOLE	ETWGPDRLSA	PCRAETREN
Suillus	SLAG	SDA	KRAGLLKLLF	EGSGETNHAA	KDGTWTGWGE	DALRP	GENKNP
Candida	RRVKK	-----	-----	-----	-----	-----	-----
Talaromyces	KKKKSRIKR	TPGDIKSRMR	KVPVKPRA	-----	-----	-----	-----

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Tetrahymena	-----	-----	-----	KEGEVEEIKE	KRQ	-----	-----
Chondrus	-----	-----	SDVRKH	REFDWDPSLK	DVR	-----	-----
Galdieria	-----	-----	SNYGVES	SISTSSSSSED	DILLQLDLNK	LNKIG	-----
Naegleria	KLLKQV	-----	LQVKVTKQ	KSGEPEENAD	TEIDFSFILK	QDSESDIFS	LKELNVIDTI
Guillardia	-----	-----	IKTARKS	RDNLSDRTPK	RYVPS	-----	-----
Fonticula	RSNPSNPQSG	TSSDVTVKAT	VSAAAARESNS	STGTPSPKKH	ESAARAQSAP	QRAGSAPKSP	RTHAFINTSS
Spizellomyces	-----	-----	SVDHTAG	ACDTAPPTPS	DGVEQRKPOQ	KPRTP	-----
Dictyostelium	DNNIKSNK	-----	KINESQN	KKLFSSPPKK	DISRNIITKP	KVRKPIITKL	KTRRMIESRL
Saccharomyces	-----	-----	RTYPASRTYS	D	-----	-----	-----
Phycomyces	-----	-----	LSALEHD	AKENPKPLED	HTL	-----	-----
Ustilago	-----	-----	ESKAIWS	ASGSASESSS	SSRRTADKSS	ADEPKTKLLF	GNELLASSNL
Suillus	-----	-----	GLQGSFS	GDGRPSKIKS	TGRGQPPHVR	HPLPYTRRVE	G
Candida	-----	-----	HVKEKFO	KKHTEKNTKT	STEPFFK	-----	-----
Talaromyces	-----	-----	KPPTLTA	ROAGKKPSRS	KPARNPPGPP	KPL	-----

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Tetrahymena	-----	-----	-----	-----	-----	SSRFIFNSSF	NSIQIPLDDV
Chondrus	-----	-----	-----	-----	-----	TVDYSSWPEV	GNCPAQLV-P
Galdieria	-----	-----	-----	-----	-----	LSPWK	VLDDFSQOLE
Naegleria	EEQEEENIEK	PSTKQVDTID	LKFLKPOIKF	KNFKDEKEVV	ESVKLGTSEL	KNVYQPSKG	HNYRKDLVDE
Guillardia	-----	-----	-----	-----	-----	DVTW	NALPKPVGFQ
Fonticula	STKSSSSATA	PVSTGGAAAP	APAPIEGEGV	LFKRVPAAQAP	WMGLGHQGT	QAAWSSAVVS	ROEDAGRPHK
Spizellomyces	-----	-----	-----	-----	-----	RAKWQ	TVTPTFPFNYQ
Dictyostelium	LQIESEDKSK	EISNLNDDKE	NSTTENQSLI	LDMTGILKRR	HKLSDPMDAT	MQEFKEKLT	DSNRLNEQEM
Saccharomyces	-----	-----	-----	-----	-----	SNSYTFRINV	QKIRHALVRY
Phycomyces	-----	-----	-----	-----	-----	SSSW	SQIDNEIVYK
Ustilago	RWRDGGKGLI	Q	-----	S	LVYSGPFADE	QKKWTESITG	SVTPKSVPVD
Suillus	-----	-----	-----	-----	LFDD	ARDLNAPSSS	GPSSINNVLE
Candida	-----	-----	-----	-----	-----	DKSTDKYLTS	NNIKKHNLQ
Talaromyces	-----	-----	-----	-----	-----	NIEVSDTLVD	GLQKEDIDFK

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Tetrahymena	NIINIENEQ	-----	-----	-----	-----	-----	-----
Chondrus	VLSGQDPSI	-----	-----	-----	-----	-----	-----
Galdieria	TVEAPNPEK	-----	-----	-----	-----	-----	-----
Naegleria	PIAPHQKFL	-----	-----	-----	-----	-----	-----
Guillardia	LIEAHGPD	-----	-----	-----	-----	-----	-----
Fonticula	KKKSLGELAS	AGPWFLPEGS	AIELLTASEA	IPTVENDPAL	IDASVAFIES	ISLDNLPPEV	VKYFDGEEHV
Spizellomyces	AVERTDDAI	-----	-----	-----	-----	-----	-----
Dictyostelium	SDTPPRPLK	-----	-----	-----	-----	-----	-----
Saccharomyces	NQDGVQKH	-----	-----	-----	-----	-----	-----
Phycomyces	RVEPPREVK	-----	-----	-----	-----	-----	-----
Ustilago	KVAPLREMQ	-----	-----	-----	-----	-----	-----
Suillus	DIDPPSEHK	-----	-----	-----	-----	-----	-----
Candida	FVAPKNE	-----	-----	-----	-----	-----	-----
Talaromyces	ALDYDTPP	-----	-----	-----	-----	-----	-----

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Tetrahymena	-----	-----	-----	-----	-----	-----	-----	
Chondrus	-----	-----	-----	-----	L	AKRPRSETYD	YSNYDLTSLT	RDRFRVWEL-
Galdieria	-----	-----	-----	-----	-----	-----	-----	-----
Naegleria	-----	-----	-----	-----	-----	-----	-----	-----
Guillardia	-----	-----	T	GVQPSSGPKN	FEQASKGKEV	KSQQALEQDR	KLLLNKGLV	NVQPVLEKK
Fonticula	ALRSH	FHAFVKNVSM	SRDAGLFFRS	LEAQQIPDDI	WNSDIPVACI	SNDPNAPGSS	FVHRNKNFLK	-----
Spizellomyces	-----	-----	-----	-----	-----	-----	-----	-----
Dictyostelium	-----	-----	-----	-----	-----	-----	-----	-----
Saccharomyces	TESRKYI	SDMMKRDWYK	DIPSTQTPNF	FHASDVSTWE	VNSTFTDIND	KQILRKLYFK	YLDVKNLALK	-----
Phycomyces	-----	-----	-----	GHVESMF	RSLRRTQSNL	FSASKYPIPI	L	-----
Ustilago	ESKIRSNLEA	VRAKQASLNS	LILPNVEALN	AREQYRTEQL	AKNPDALQRF	LQERKSGVAA	GMPLAPGQLS	-----
Suillus	SRIRANLASA	KDRQFRAWNF	PANISGPEEM	ETWWNALDFG	RRKTAVSSSG	EG--EETLS	RLQDLVAGVE	-----
Candida	-----	-----	-----	-----	-----	KKYV	SNLLRFPDTK	ISQRL
Talaromyces	NITE	ILATTNQKGD	TNKPALSPLT	VLSEKIETSR	KVVQSVKQKI	DNILEEEREA	YIRPKLFGME	-----

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Tetrahymena	-----	-----	-----	-----	IGKP	AFLDYMNFLH	EAYKFETMNL	DLSYIGAWV-
Chondrus	-----	-----	-----	-----	RVAP	LVNDKMAPRN	LICLGEEDRF	RLKYNLKEVS
Galdieria	-----	-----	-----	-----	CLND	YIKALRLSLG	LEDMPQSRHF	SVSGLSSTEL
Naegleria	-----	-----	-----	-----	TDKF	LMNEYVLTLL	KAFFIEQ	-----
Guillardia	AEPTNVVMNE	NVEQQASNLS	DKGNS	-----	RGAA	KQRISQAAGK	QTNLKEGDQQ	TISQGRRRV
Fonticula	NGARWQGR	RPDRRTKVFA	PPGLEKARI	-----	KVD	QFRDSLSSVR	MARNAEGTSP	ADASAAAAA
Spizellomyces	-----	-----	-----	-----	ANIS	LMQLYDEYER	LRNRCNLKP	FVPTKGHKIF
Dictyostelium	-----	-----	-----	-----	TQDE	IKYHYALALK	ASKLYSQFSK	IQKSRN
Saccharomyces	NQVITRQEPD	MSK	-----	-----	KDEI	MNRIKSLOAR	NDHRDNGSNK	RYSNFGPTRL
Phycomyces	-----	-----	-----	-----	KQLK	SLSEKQLKME	RQSRKTGNSK	SIEPND
Ustilago	AENAASQSPS	TPPPAETSDA	SSSNTVLPDD	VLKPIEPNDI	SPRRKQAESR	FVRMRNARTL	RLRELAKLGA	-----
Suillus	SPVVTVEENG	LVEEEGPKAN	ENGVPFNRK	LFRPASTSIE	ILRQLSRDGR	EETLRAEAEF	EAMGREKIVW	-----
Candida	-----	-----	-----	-----	KKVH	QLYEKIGSIR	KKSWQEKDKK	SQVYHPKFKF
Talaromyces	IGIQNLVNNR	VVDRPTNLKP	TNDWKVVYI	-----	INEF	KIGDGGLWNH	FVGMRSRREK	ALSF EKRS

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Tetrahymena	-----	-----	-----	-----	-----	-----	-----	-----
Chondrus	DVKTEHVAKF	ITSLGRIYTY	-----	-----	-----	-----	-----	-----
Galdieria	ADILASTSFC	AFHLIK	-----	-----	-----	-----	-----	-----
Naegleria	-----	-----	-----	-----	-----	-----	-----	-----
Guillardia	NSQGNAAITG	NHGRDNRGSY	TAKNSVQGRK	PVTHQOMQGG	QRSS	-----	-----	-----
Fonticula	AALATAVATA	TAATSAAASI	PPAAPVAVAA	HSS	-----	-----	-----	-----
Spizellomyces	VNRLRKKANL	DLY	-----	-----	-----	-----	-----	-----
Dictyostelium	-----	-----	-----	-----	-----	-----	-----	-----
Saccharomyces	OTKLRAYAKK	GALRRKLLER	SNKFHI	-----	-----	-----	-----	-----
Phycomyces	-----	-----	-----	-----	-----	-----	-----	-----
Ustilago	KDANHNKSLD	KLILYQPRS	-----	-----	-----	-----	-----	-----
Suillus	GLVGNNGGIVN	SETKEVPEDG	SSVSTITQSS	EMGTVDAVEQ	TSQEKE	-----	-----	-----
Candida	-----	-----	-----	-----	-----	-----	-----	-----
Talaromyces	DDHYILNLR	LAMQKKFRE	EEDRIDKERG	IVVYEELKGG	DSAGSA	-----	-----	-----