

M-COFFEE SCORE=86

BAD AVG GOOD

G.1	: 83
Paracoccidioides brasiliensis	: 89
Trichophyton rubrum CBS 118892	: 91
Aspers terreus NIH2624	: 85
Arthroderma otae CBS 113480	: 84
Aspergillus niger CBS 513.88	: 87
cons	: 86

G.1	1	-----MPVVKNGDHTGL--EESTSGIVHTRA	24
Paracoccidioides	1	-----MSQAAKYPVIDSALKNGIGLDSYAASVFTPRA	32
Trichophyton	1	MPIKTHQEHLSTTAAATKRRRQQRCMATAKPELPGQMLALEEHKQGRKRPRSSSGSSDMRQNEAAQKAGLDSLEDAPDMMRPRG	84
Aspers	1	-----MASLSDQDLEMGLFCPRN	18
Arthroderma	1	MAA-----VELDLHSQKFLLEEKGQKRKRPSSSLGSSEMPQDESAGGASLNGQEGASAVVKSRA	59
Aspergillus	1	-----MTVAATVLPAGEDAPAYRPRS	21
cons	1	-----:-----*	84

G.1	25	YQHELLEESLRNIIIALDTGSGKTHIAVLRMKHETEHSRKVSWFIAPTVALVEQQYEVIKSTIPVSVGYVSGSSEPQWK	106
Paracoccidioides	33	YQLEMLEASLKENIIIAMDTGSGKTQIAILRIRHELETCTEDKLVWFLTPPTVALADQQHKNISQQLSVYQTRLLLGTDKVHYWS	116
Trichophyton	85	YQREMLEASIKQNIIVAMDTGSGKTQIAILRIRHELERCSNDKLVWFLAPKVPLAEQQYRAISEQLPAYQTKILTGDNLERWS	168
Aspers	19	YQTEMFEASLQENIIIVAMDTGSGKTHVALLRIMNELETRRPQKLIWFLAPTVALCFQQHDVITKNLPAVKSRTLTGQDKVELWT	102
Arthroderma	60	YQVEMLEESLQNIIVAMDTGSGKTQIAILRIRHELERCPHKLIVWFLAPKVPLAEQQYLAISKQLPAYQTRILTGDNLERWS	143
Aspergillus	22	YQVEMFEASLKENIIVTMGTGSGKTHIALLRRIKELESNPHKLIWFLTPPTVALCLQQFKFLSDNIPAVRARTLTSLDKVELWT	104
cons	85	** *::* *:::***:::*****:::***: * * * : **::*.*.* ** . :. :. : . : . *	168

G.1	107	DAKLWRRILQGHRIMVTTTPQVLLDALHH--VRIRGYGFYWFVGSRRSSSRDWQAPVQHDHEEPLFVTAQRYRCLNFSCTS	YGP	188
Paracoccidioide	117	TKKIWDVLLNIKIVVSTPQILLDALSHGFITMSRISLLVFDEAHHCDFSPANTIMQRF-----	YHE	179
Trichophyton	169	TQQIWDAFLLNTRIVVSTPQILLDVLSNGFITLRRIALLVFDEAHHCVKASPENKIMKNF-----	YHA	231
Aspers	103	EQAIWDAILKDMQVVVSTHAVLADAMSNGFVRSQGLLIFDEAHHCMRRHPANRIMQDF-----	YHP	165
Arthroderma	144	TQKIWDFAFLLNTRIVVSTPQVLLDALSNGFITLRRIALLVFDEAHHCVKASAPENRIMQNF-----	YHA	206
Aspergillus	105	EQPVWDAILKEMQVVVSTHAVLADAMSHGFVKITQLGLMIFDEAHHCMRRHPANKIMQDF-----	YHP	167
cons	169	:* .* :::** : * *.: : : : .: * :.: . : : .	*	252

G.1	189	RTHSKSYVWGQRRDCLQVRAFCSGTTLGFTTNLVRCVRDLEKNLDSTIRSSRNNRDELAQHVRPEFKHIYASPVHTWDGIPS	272	
Paracoccidioide	180	QLQ----RTGKTDLPHILGLTASPVTRADP---ESLKRVEKNLNARCETPRIHREELMRYVHRPELYTVKFRT----	DSLIHS	252
Trichophyton	232	RID----QLSETNDLPSILGLTASPTSRLIE---DSLRLQLEQNDAFCKTPAIHREEMMQYVHIPELLKVSQK----	DSIIPH	304
Aspers	166	TLV----KQG-PDAVPGILGLTASPVVRTNS---QELSMIESNMNAICKTPRAHRQELLTHTHRPHLQQIWTYPVNIDDPTS	SGT	241
Arthroderma	207	QVH----QLRKTNDLPYILGLTASPTSSSAE---DALRQLELNLHACCKTPNIHREEMMQFVHIPELRKVSQK----	DLMLLN	279
Aspergillus	168	ALE----RHG-AEAVPKILGLTASPVVRSNR---QELLKIESNLDAVCKTPRTHRSELMTHTHRPHLQQILFTPVLDDLQVGS		243
cons	253	: .: :... : : * *.: : .: : * *.: : .: : * *.: : :		336

G.1	273	VNYKALSNVMLTLDIEKDPYVIALRERLAKLQPGDDRRRVDQQLSKAIDKEDTFTHKGLRDFARTAADVCIELGTWAADWYVAK	356	
Paracoccidioide	253	DMLQNLRSRIVGTVDIEKDPWIKRLRQEQE-----DRRSQEKLLYALEKRKTHCLSQLSKLLRQAINVHDDLGPWAADAFISE	328	
Trichophyton	305	NMKMKYLHMLDDIDIESDPFFQRYKGKT-----DRKSTERFLCALA-RKTPCLDQLKRCFTKVSHMYGELGHWASSTYISE	379	
Aspers	242	RTLRALIHAWETIDLEDDPYVKQLRRST-----F--DGKALQKALLTRKTYCNESLRRFVERSCHIFQELGGWAVDYFIHA	315	
Arthroderma	280	NLEVKFFAMLNSIDIQDDPFFQRYKGKH-----DRKSQERYTLALE-RKTPCLIQLKRCFSKIVYMFSELGLWAASTYISE	354	
Aspergillus	244	KTLKALVSAWTSRLREDDPYIKLRKSP-----L--DGRALQKVLES GKTYCNDQLKRFATRSLHIFEELGEWAADYFIHA	317	
cons	337	: :. **.: : : .: .: * * : : ** ** .: :		420

G.1	357	VVEHAKKAANPYNN--LMSAWQEKEKRYLLSILESVDIM--EP-SNDTGEILANITPKVRALIDNLILEEAIFRSMDEYSGLI	435
Paracoccidioide	329	VIERLETKRTMYQHVELHSSLDREEEAFIFELLSSELSISPVKQ-DWDSKSN--IVSTKVNLLVELLESEH-----TADFTGII	403

Arthroderma	592	IESTGALLTLDNARQHLSHF CSTLP CD - FTDIQPDFIISKAVAGTMFTAKVLLPTALDP ----- QFREFEGIRT	659
Aspergillus	553	VQSTGAVLTADTAVAHLNHFCAVLPRQPYPASNEPEFSYKDDA - DLLRGTVTLPSCVHP ----- GVERRIQGQRW	620
cons	673	: *** ::: .: * . : : *	756

G.1	684	HRTKRRAQQHVAYKAYVALYQAGLLNNHLLPHTSGVEPDKEEEVQAMLAEVAKRESTAQVSVQIDPWVGVAETSTWFAHDLVVE	767
Paracoccidioides	634	WKTERMAQRDASFQAYLKLYNEGLVNDYLLPVHWRGDEDPK ----- LEYCEQRPSVVKISRHFDPWSTIA --SRWETTQKIFYQ	709
Trichophyton	683	WKREKMAKRDAAFQAYLQLYEVGLVNDHLMPEHCR - TTDEE ----- TAHVEKRTSMATCSEVFNPKMVA --YRWHSTDTFYQ	757
Aspers	619	WTTERAATKEAAFQTCRKYEFGLLNDHLLPLTRK - PELR ----- LTDFGGLPSIIEVAEQYDPWTDWAY --SWSSPD -IHQ	691
Arthroderma	660	WKKEKMAKRDAAFQAYLQLYEVSLVNEHLMPEHCH - TTDEE ----- TAHIEKHPSTATCSEAFSPWETIA --DQWQATDTFYQ	734
Aspergillus	621	WQTERAARKEAAFQAYKRLYEFGLLSDHLLPFKRN - LELK ----- ETDLTNLPALVEVSEQYDPWVDWAC --SWSSPD -VHQ	693
cons	757	: : * : : : * : * : : . :	840

G.1	768	G-----LPSLRM - FTRRPLPTFTQEDFPTLYVGRKELSM T LGAAASSPASVEDIQLARRWYRFLFRMYGARMERGN	839
Paracoccidioides	710	TLIEISSDSIPFPQMRLL - VLPVPLPC --- DISFNIFWNNENTFEVHLK - QESSITASLIKHAQAATHAIFSSMF SHKMP SDR	787
Trichophyton	758	SSIVIASGTEELPRMLL - ILPIPLPC --- DFTVKLFWNEKSTLLASVS - PQELTVSDEDIVSAPLATHILLSSVFP SRMNGTS	835
Aspers	692	SRIRVQLNGNPEYQLSMLMGPTVLPA --- LDAMTLFWDSQNIFTLAFDAAQRVPLVPGDVIEHMRAITAYLQAPSSRSIREE	772
Arthroderma	735	SSIVISSGTEELPKMLL - ILPAPLPC --- SFTFKLFWNETSTLSVSVS - PEALTISDKDITSAPLATHILLSSVYSSRMNGDS	812
Aspergillus	694	TRIAIKHNGDS - RMCIRLTSPTS LPP --- VEPMTLFWDSETIYTLDFDKPKRMKEIAAESIENMRLATAYLQAASSRQMRPE	772
cons	841	: : * : * : : : : :	924

G.1	840	EDFSYLFLPTGFPWNAQEWDERRRWMEERLMSGLADHGETPFLANA AVFGAAFSYPRNLAMVRGTSKYDKPLRLLQW -----R-	917
Paracoccidioides	788	FDFSCFLPEVELTE --- DEMMKWYSSVQGIQA ----- SDASHYDIESLSKLG LVRRCRDLERPWTAERYRWMKPFS	857
Trichophyton	836	RDFSCIFAPDLAEGH --- GGLESWCTKVSESILG ----- RNIVSGGLSSIGDFGLARRTDIYARAWVAEKFWVMKRVR	905
Aspers	773	RDYVALFGPDL - PH --- TELGAWLLKNGGNDTA ----- LDVYSRQVASP - TMGIVRDRTRYDEPLLFKKW -----VV	834
Arthroderma	813	RDFSCVFPALDKGY --- SGLKEWCTKVNKSILG ----- KDIENYNLSPV - DFGLARRTDITARPWTVDKFWVMKPV	881
Aspergillus	773	QDFVTLFGPDL - TD --- LELAEWLNKHAGDEPA ----- LEVYSRKDFPT - VMGIVRDRSRYNEPMLFKRW -----VV	834

Trichophyton	1358	SRGSILACQKFLTRIGLMDYLQRVLEDDGIDFMHPKQRLGVVAQSLSVQYVSEVHVKPG-----V-TQWKCQVLVGDEEIS--	1433
Aspers	1273	SRGDLVDCAMFVERIGLLPYLRRILADR-VDVMHPRHT-AQRLSKGEALFTAKRVVDGSG-----NASYRCVVKRNKEE-I-V	1346
Arthroderma	1336	SRGSVEACQTFLSRIGLMGYLNRVLDGNIIDFMHPKQRLGQIVQSLTVKYIVSDVH-KHG-----V-MRWNCQILVGDQEIC--	1410
Aspergillus	1276	SHGNLAECEKFLERLGLLRYLRRILKDE-VDVMHPRNI-AQQMAKGEIRFEVLRVPNEGGGGEDDGATYRC'VKMAGVDGVAV	1357
cons	1513	*:*.:. .: *:**: *.*:*: * :* :**	1596

G.1	1482	TVTRTYRSKVSEDEVRFATAEEANKMVLAGDID--FDKIEDDQSDDEEEQVEAILANREDEVRN	1544
Paracoccidioide	1387	EE----HDGVSLVEVETKAAEAALSVLQNR-----GAG	1415
Trichophyton	1434	RV----DDGVSQNQARAKAADLAEVLRTE-----N	1460
Aspers	1347	VV----EGCLSSEEAEVKAANATIGILRANAVN--L-----V	1377
Arthroderma	1411	QI----NDGVSRIHAETKAAEIALEILQTR-----N	1437
Aspergillus	1358	VV----EGCLTSEEAETAAERAVEILVEQINASRFL-----GWVSSSPSNTSSRRSYQ	1407
cons	1597	. :. . . .** : : :	1661