

CIV structural proteins:

>gi|11467051|ref|NP_042527.1| cytochrome oxidase subunit 1 and subunit 2 [Acanthamoeba castellanii], 873 aa, 2371

MINRLLNNTSFFTDNRWLFSTNHKDIGTLYLIFGGFSGIIGTIFSMIIR
LELAAPGSQILSGNSQLYNVITAHAFVMIFFFVMPVMIGGFNWFVPLM
IGAPDMAFPRLNNSIFWLLPSSLFLLLCSSLVEFGAGTGWTVPPLSSIV
AHSGGSVDLAIFSLHLGAGISSLLGAINFITTFIFNMRVPGLSMHKLPFLVW
SVLITAFLLLSLPLVLAGAITMLLTDNRNFTSFFDPSGGGDPILYQHLFW
FFGHPEVYIILILPAFGIVSQIIGTFSNKSIFGYIGMUYAMLSIAVLGFIV
WAHHMYTVGLDVDTRAYFTAATMMIAVPTGIKIFSWIATLWGGQIVRKTP
LLFVIGFLILFTLGGTLGIVLSNAGLDIMLHDTYYVVAHFHYVLSMGAVF
AFFAGFYWFWKISGYTYNEMYGNVHFWMFIGVNLTFPPMHFVGLAGMP
RRIPDYPDNYWYNNILSSFGSIISSVSIVVFFYLIYLAFNNTNTPKLIK
VHSIFAPYINTLSKNLLTFASIKSTSDSSFFKFSKFFIFFMVSLSVLFIF
YDSSLCLNDHTNSWKIGFQDPTPIAYGIIKLDHILFFLAVILFVVGYL
LLSTYKFFYYGSLNNDLPESKRISLFDTLINTYKENLSFNVTNRTYNINH
GTTIEIITWILPAFILLFIAVPSFALLYAMDEIIDPVLTVKVIHQYWS
YEYSDYSVVYSNRMLDYDSIDRFAAMEMMYKGMGYLKDRSLLSYLYIPMV
IPETTIKFDYSMIHEAELNLGDLRLLKTDMPFLPKNTHIRLLITSSDVL
HSWAVPSFGVKVDAVPGRLNQTSLYLKNTGTFYGCSELGCVNHAFMPIE
VYVVPVYFYNYVYIYFKNFNLI

>gi|11467056|ref|NP_042532.1| cytochrome oxidase, subunit 3 [Acanthamoeba castellanii], 329 aa, 99D

MKLNDFFLNKFNNVYNNDIRLVDLSNKWYHNCRVHFAFNQKHSFHIIVT
RSPWPLYSSIAALMFTFGLVMHMNYFYGNLLSLAGFFLILLMMFVWWRD
VIRESTFSGYHTKKVQOGLRGLVILFIISEVMFFFFSFFWAFPHASLSPSV
VLGSLVWPLGINVLNPLKIPLNLTLLSGLTVTWSHHVIRDKSWQKFF
FSNSNNEEFKAPLLDNYVICAFALFLTVFLGLEFTVWQGYEYKASFYIY
DGVYGSTFYMTTGLHGLHVIIGTLFLIVCFRLLIDLHFIYNHFFGYEAAI
WYWHFVDVWVIFLFLSIYCWGSGVDSFFK

>Cox1-c Contig12260 (complete), 219 aa, 225E

MRRCSSTLRGSFSSRAISSARSLAAPAHASAPQDASVYRSKQGGSF
EEALDINVVDVEDLFPASGYWENPANWMDMDYVWKLKVERLQOELNIPA
EQAAKFRKEHDISKGYLTLEWILPSPPEHTFEELPILKETEEEPATSE
ARAARLLESAAKAKTVSAEHTQTFESLAKEFSFSDREKTAFAKELLNRYAK
GQTPSPNEEYEEHAHDEHH

>CoxIV Contig15163 (complete), 161 aa, BA5

MSRILRRGALSNTSATLNATAFAARRSFAASALRLASLKEPATSLDVESQ
DDTDARHTGMRLEKVPWTKLYEGDAILTGKFGTLEPTIVHSWFPSTRIV
GCQGSADHPHDILWHEVRRGRDTCLECGQVFRLRPNLFHQVSEVEADLF
PPTEAKESAAH

>CoxVa Contig13338 (complete), 94 aa, 4BC

MASRAARVTKNRFALPLDHRATRPGFQAPWGSIDPAQEVROSSVLMGVL
GGIFVSWGLFALTRRDNRKLPESVKNKEWATVSEERLAKNRGA

>CoxVIa Contig10747 (complete), 97 aa, 131D

MQRTPFLRSSAPSLGRTSSRGFASAAGHGAHGNHAYGYSSAAGFGVVI
VAHLIIALQAHEHEHRHEYSHMHQMRKKFPFRDGTTPFLGLVDEEEH

>CoxVib related Contig27789 (complete), 100 aa, B09

MEQRKEPAAASTTPSSGGEGAANAPLVDAQKRERCWAARDAYHACIDGSK
TGGGEEECGAALRLYAAECPRSWLLHFEEKRRKADQERSAREAAYQNRQSG

>CoxVib Contig12762 (complete), 148 aa, 1188

MSSTRIYSVVEDHEDKKAEEVEEVEEAPVEEVEEQEVEEVEEVEEAGERTLGS
ILKPGVTTVEQFLQFLPHPTPAYNPHFPNTNQTCKHCWSSYINYTQCTKLG
GEGDAECRRFYVSARSLCPDEWLDWAEAKEEDKFASPYDVTSEKSAH

>CoxVII Contig16044 (complete), 80 aa, 1AF3

MSSALHSARPLANTVIRRSTKLYGQQAHIHGREAQHRVIFLRTGQDKFFY
GVATSVAGAGIATLLFGATRLATGNGKREE

>Cox8a Contig4720 (complete) 80 aa, 2286 ---- NOT DETECTED ---

MNFLRRTPLSGVRSFALRGHGPSHGPDGFLGQAVGTTLPFSTAQTAKPF

RVGLSTWGYFVAGIGLPTWAVWYSANKEAK
>Cox8b Contig11857 (complete) 81 aa, 2288
MNFLRRTPLSGVRTLFVRGHGPTHGPDGRLLGQGIGTTFPFSTAETAKKK
YHTGRAVWGYFVVGVVAPCWAVWFSANKEAK

CIV-associated proteins:

>Cox11 Contig16747 (complete)
MRRATAAARGLTSRPLRSWFSSSPSSTTAPLRLRFSTTRPLGSLRSSPSRSLWSPASLLRS
GTCRLPSSSPFLLTIRRAYATPGGKGGSKQEWQKKNMGMILTTLILGGIAISYASVPL
YQRFQVOTGYGGTTTRVEESNMSSPDRWKKRPERPLTVKFYSNTNSNIPWVFYPLQNEVK
LVPGESTLAFYRAENPSPDDIVGSIYNVVPKAGIYFQKIQCFCFEEQLLPAKKGVDMV
VYFVIDPDFVDDPNMHDVESISLFTYFFRAKDFDDLNAQAYDESQQQKEQOTPHQLAQLQ
AVVEKKEETQT
>Cox17 Contig10134 (complete)
MSSATATSSTSAAPAAAAAPTNAAGKRICCVCKDTKKVRDECIFQFGEEKCQEPHELHK
VCLRSEGFDIQ
>Cox19 Contig22998 (incomplete C-terminus)
MTSHSMRNKAPLVLPPEKGSFPLDREQACSEKGSYRTCLRDNHNSSSICRQKARDYFEC
RMDHGLMQREPWDKLGDDQIEEKSAPIDVHTKEQTGWVAGAKYR
>Cox23 Contig3955 (likely complete)
MEEERKPVSAAREAARRRRAEQNKHQQAAGINRHPCYELHQASLKCLEENDYAOQACTYS
FAAYKECLANQNEAKRAGEQKSIFG
>CMC1 cytochrome oxidase assembly factor Contig15299 (complete)
MAQADASQTKTYRLSDDPSFLTNOEKNHIYRVQHKRAYKLCDPVVKPYVDCTKHRLISLL
WACRDEKAQMAADCLHEVAERAREEVTEEYLRQROAKRAAEDAALSKETAASS
>Scol Contig13084 (probably complete)
MRSCRAASARNLTSAGFRACRQASATRLYASGIIRDGCKDNLSLISTATRSKTSVWPA
RSPLVVRTQALPRRRAEPPSSTPGPAGGSNTRTSPPPPPEARPPQAPITWKSALLALGACG
VVLAYFEFEKAKRKPRIEIAVAGTPSIGGPFLLVDQDGHVVTNHTFRGRYMLVYFGFTFC
PDICPAELAKVTKTLKILEEEEEGITPLVVPVVISVDPYRDTVGKIRSYLKDFHPSFVGL
TGTPQQVESMARSFRVYSSTSQHSEEDEDYLDVHDSIFLYLMDKEGSFLSHHGSQYDAHAL
AQRIATDVRSKGDCPPSLWAQLKERGSNFVATFIH
>Pet100 Contig4380 (complete)
MDRFRSFVRRGLSLETFFKFTLYLAIPAGITVALLYPGQVNRLVSHFPFVVYPPEDPTIRE
ANDRFRQQQLEALERQSREAEQKAKQQQ

>Cox10 Contig23727 (incomplete) NOT DETECTED, 382 aa, 1982 .
MLPIPHLGVHALGRSAFNPVRLAVEGCSSTERSWGWNGAWSRAEQPGEAASGVCIFPSFP
HTVAHTKRVSFLQSIRETLAMYSELGKIKLGSVMVITTMAGYYMAPFSSFDLKRFAITSL
GTGLAVISANTFNHIIIEAKLDRMVRTSTRPLPSGRMSSTHATMFGVITGIVGPALLMAR
VDNTAAALALANIVLYAGVYTPKQMPINTWVGSVVGAIIPMIGWVAVTKGKLDLGAWA
LGGLLFLWQIPHFLSLSFPLKEDYARAGYKMLSVTNVDAVMSLSYVFSAMLLPLGFVSSY
AGMTSWVYAIDSTLCNGYLLWMAHKFYTRRDTSARKLFFASLIYLPLOMSLMMLOEQP
PRQDEQRKTKGKLDLGAWATWR
>Cox15 Contig7183 NOT DETECTED, 428 aa, FAE .
MRTSSSGVAPLFTSARPGIAARVFPRLATATNGAALRPATLLRRANSTVTHQATQPGVMP
KVAAATWHDVPTSMKVVIAGCTATVFGMVVVGGLTRLTESGLSMVDWGVLMKPPITQEE
WEAEFDKYKQFPEYKKNLSKMTVEEFKSIYYEWAHRNLGRFLGAAAYTLPLLYFTARGHV
RGPLRTRLYAIAAGIGFQGLLGWYMKVSGLVEKDHPRVSQYRLAAHLGSAFVLYTAMLWT
TFDFVLTPLTTAKLTTSAASAAAASAPTVLKLQAKMRKYAHGVAGLVFLTAISGAFVA
GLDAGLIYTDFFPYMGGQVVPNEILDMDPKWRNFTENDVTVQFQHRVLGITTFSSIVAMWL
WSRKVPLPPRSRLAMNALLGMSLQVTLGIATLYTLVMTHVAATHQAGSLTLLSIATWLM
HELKRLPK
>Pet191 Contig2276 NOT DETECTED, 90 aa, 1739 .
MASSCKSLKEELVACLKISPCMQDKEKTFHECLKSKDEDEIGQCSKVRRGYFECKRGQLD
MRKRFFKGNVDFIRKSPTQAPAQPPAAGGRS
>Surf1/Shyl (likely incomplete) NOT DETECTED, 284 aa, 17E8 .
MPPRSSLGRAPLRSFANESREDIAARQQDLKNFVGGGNKAAATKPASGEAGQVMEGGLAA
WFWIFPAITVCLGTWQVYRWQEKEMIRYRKERLLEPTVDLPPHLTDETLRDFEFRHVEV

SGKFDPVREFVVRPRTDQNGGLLLTPFRRSDDGTIVLVNRGWIPAALMNDIVQRRAML
DRVSGDTRLFGLIRPGEKGGMFSPENKLADEQWYWFEVDKMRQALGLDYTPALLDFLPRT
HTQCRRPIVTKLRDNHLNYIITWYSLTVALVATMLLKGRGRVRR