

SOS Domain sequence

AVLFV GMSLVLGAS

RHLLRGTRVP YTVALLVIGI ALGSLEYGAK HNLGKIGHGI RIWNEIDPEL
LLAVFLPALL FESSFSMEVH QIKRCLGQMV LLAVPGVLIS TACLGSLVKV
TFPYEWDWKT SLLLGGLLSA TDPVAVVALL KELGASKKLS TIEGESLMN
DGTAIVVFQL FLKMAMGQNS DWSSIIKFL KVALGAVGIG LAFGIASVIW
LKIFINDTVI EITLTIASVY FAYYTAQEWA GASGVLTVM T LGMFYAAFAR
TAFKGDSQKS LHHFWEMVAY IANTLIFILS GVVIAEGILD SDKIAYQGNS
WRFLFLLYVY IQLSRVVVVG VLYPLLCRFG YGLDWKESII LVWSGLRGAV
ALALSLSVK

>Acat_1g009860

AVGLFRRMDIGSLDIGDFLAIGAIFSATDSVCTLQDETPLYSLVFGEGVVNDATSVVLFNAIQNFDDVHIDAIIVLKFBVGNF
FYLFFSNTFLGAFKNTVHLLPDTLYLTVNYIDRYLSGNEMNRQQLQLLGVACMLIAAFYKWKLLHVLNLYLKFEEDSSNNQ
VFLEIMSFFLFTKGARFVCAAQGWVPVLLQLQLANHVAELSLEYNML

>Acat_1g019830

MVVAVEAVIGFRRIPLSRGPFVSGHQFGLSSVEGFHNMTFHSQFPVHYALLLLCYLWVIAICISIFAIGAIFSATDSVCTL
QVLNQDETPLYSLVFGEGVVNDATSVVLFNAIQNFDDVHIDAIIVLKFBVGNFFYLFFSSTFLGTFVGTIYSYLEPGKIPLIG
CGGVSSNEDAYKKIRAGATLVQLYIAFSYGGPALIP

>Acat_1g017970

MAFDLGAYLVRLGILSSTS DHTSVVSINL FVALLCTCIIGHLLEENRWMNESITALVIGLCTGVVILLTTKGKSSHILVFSEDLF
FIYLLPPIIFNAGFQVKKKQFFRNFM TILFGAIGTLISFSIISLGAVGFFRRMDIGSLDIGDFLAIGAIFSATDSVCTLQVLNQD
ETPLYSLVFGEGVVNDATSVVLFNAIQNFDDVHIDAIIVLKFBVGNFFYLFFSSTFLGAFTGLLSAYIIKKLYFGRHSTDREVAL
MMLMAYLSYMLAEARFLLTIQILLFPSRNLLDLSGILTVFFCGIVMSHYTWHNVTESSRVTTKHAFATLSFISETFLLYVG
MDALDIEKWKVSDSPGKSIGVSSILLVLVLVGRAAFVPLSFLSNLTKKSPDEKISFKKQITIWWAGLMRGAVSIALAYNQ
FTRSGHTQLRGNAMMITSTITVVL FSTMVFGMLTKPLIRFLLLSGTHFSSMSSEPSTPKSLFSSLLANGQESEVEAGGQI
ERPSSLRMLLSKPTHTVHYWYWKFD DAFMRPMFGGRGFVPFVPGSPTEQSLHGSE

>Acat_6g002750

MAISTISFSLSSILYSHFTSSSSSTVVSITVFTTLLCFCLVIGHLLEENLWANESITSLLLGLIAGLVTGLSGWKSSHILEFDEEL
FFIYLLPPIIFNAGFQVKKKQFFRNFS TILLGVFGTLISFCIISTGSFLLKEIGITSLKIQDFLAIGAIFSATDSVCTLQVLNQEET
PLLYSIVFGEGVVNDATSI VLFNAVQSLNFNNVDAVTTLLKLGTFLYLFSTALGI AVGLVSAYLIKLYFGRHSTNREVAIML
LMAYLSYMLAEFLSLSGILTIFFCGIIMSHYTWHNITERSRVTRHAF AAMSFISETFIFLYVGMDALDIDKWKRSDGSIGTT
VATSGTILFLVMAGRAVFVFS LANVANCFRNEPDAKIDLRKQFATGSSSKMGAFFITNSIIVLFSSVVF GTVTKPMIQALL

WQNPKALNSEDNVVSNLDDIHLFLFNIRGNENGNRRSSLSRLLANPTSTIHQFWRKFDDKYM RPVFGGRGFMPYV
PGSPSSAAEDNV

>Acat_8g000210

MIIIVGVAMAGEEGKGATTSNGMQEVVVAIAKTDVGGGATITYRDKLESINEKNLRLISIGAIFSATDSVCTLQVLNQDETT
LLYSLVFGEGVVNDATSVVLFNANQNFIDIVHIDAIIVLKFVGNFFYLFFSSTFLGTGFKIPLIGCGGVSRVWNIIVSTDVAGCF
LNRNSLTMLNVTEYSNEDAYKKIRARATLV

>Acat_8g002990

MAMGLGSVMVKMGVLSSEDHMSVVSINL FVALLCACIVIGQLLEENRWMNESITALLIGICTGVIILLTTKRTSSHLLVFSE
ELFFIYLLPPIIFNAGFQVKKKQFFRNFITIMLFGAVGT LISFTIISLGAIGIKKMDIGDLEIGDYLAIGAIFSATDSVCTLQVLS
QDETPLLYSLVFGEGVVNDATSVL FKAIQNFDPGHVDAVTVLKFVANFFYLFFTSTLLGVFLDL SGILTVFFCGIVMSHYT
WHNVTESSRVTTKHAFATLSFIAEIFLFLYVGMDALDIEKWKVASNSPGKSAGVSSIVLGLVLIGRAAFVPLSFLSNLSKKS
PNEKITYKQQVIIWWAGLMRGAVSIALAYNKHLSRDLMSDDPPSPKSFLLGNGQGSEVETGQDLPRPTGLRMLLTA
PTRSVHHYWRKFDDAVMRPVFGGRGFAPFVPGSPTARSAHALQ

>Acat_10g013220

MALFDLFPAAVIFSNETDDDHVVSISVYAPVLCLCNVVIYLLGENRWVNGSIIAMLIGCSIGTIILLSSEGKSSHILRFDEELFF
IYLLPPIIFNAGFQVKKKQFFHNILTITLFGVVGVFISFVIISAGSWWLF SKIGFNGLNARDYLGVLVHQDET PRLYSLVFGEG
VVNDATSVVLFNAIQKMDVSKLESWQAFSVIGDFVYFFPTGTILGIATGLLTAYALKTYFCRHSTDREIALMVL MAYLSYM
LAESLQSSGILTVFFCGIVMSHYAWHNVS DNSRTTTR

>Acat_10g003600

MEMDLGSVLIKMGVLSASDHTSVVSINL FVALLCGCIVIGHLLEENRWMNESITALLIGLCTGVVILLTTKGRSSHLLVFSED
LFFIYVLPPIIFNAGFQVKKKQFFRNFMTIMLFGAAGTLISFIIISLAIGAIFSATDSVCTLQVLSQDETPLLYSLVFGEGVVND
ATSIVLFNAIQNF DLEHADAVTILKFVADFFYLFFTSTFLGVFAGLLSAYIIKKLYFGRHSTNREVALMILMAYLSYMLAELLNL
SGILTVFFCGIVMSHYTWHNVTECSRVTTKHAFATLSFIAETFLFLYVGMDALDIEKWA AVSNSLTAERVFGILGGVDDFRL
GGSLGSSSGVKRDSEGSLEFGVVVQSLPGSLSGQEVQKNTLLPGNAVSAYVGKQQSHETISAKLKNALGSVGLPQGDRL
RVLLQSRLMFKGLPQLGWGMFKGPISSGKGSFLWKSIGVSSILLGMVLIGRAAFVFLSFLSNLSKKYPNEKITFRQQVIV
WWAGLMRGAVSIALAYNQFARTGHTQQPGNAFMITSTITVVLFSTVVFGLMTKPLIRFLLPPSTRQLCRDLSMPSDPTT
PKSLLSPLLNGNGQGSEVEAGLN IARPSSLRMLLTAPSRSVHRYWRKFDDAFMRPVFGGRGFAPFVPGSPTERGVDAWQ

>Acat_10g009410

MMELNVTAPPAGSPPPGKEQQAAGVGILLQISMLVLSFVLGHVLRKKFYLLPEASASLLIGLIVGVLANISNTETSIRAWF
NFHEEFFFLFLLPPIIYPIFAICMMFLLTSTYSIRVQLSTANWPLQKPFFSNFGAIATFAILGTFIASIVTGILVYLGGLTFLMYR
LPLVECLMF GALISATDPVTVLSIFQELGTD MNLYALVFGE SVLNDAMAI SLYRTMSSVRSHASSGQNFFMIVVRFLET FV
GSMSSGVGVGFTSALISFSNTFLYLQNLECCFLVLPYFSYMLAEGGLSGIVSILFTGIVMKHYTFSNLSENSQRFATAFFH
LISSLAETFVAANVFGCAYLVNLVRPAHRQIPPKHQKALWYSGLRGAMAFALALQSIHELPEGHGQTIFTATT AIVVLTVLLI
GGSTGTMLEALEVVGDGYNGPIGESYEGNNGYVAPSYEEGTSSGSRLKMKLKEFHKSTTSFTALDKNYLT PFFTSQNGDE
EDFEVLSCLLLPNAKLHDQASQSKIREEGASGGMVSCPLTG

>Acat_13g008520

MLEQNMTGQPAGAPPPPPAPT PPGKEQQAAGVGILLQISMLVLAFVLGHVLR RHKIYYLPEASASLLIGLIVGGLANISNT
ETSIRGW FNFHEEFFFLFLLPPIILYPKILLWRILFEALNCLLFAL THSTQSGFSLAPKPFFSNFGAIITFALLGTFIASIVTGVLVY

LGGLTYLMYRLPLVESLMFGALISATDPVTVLSIFQELGTDVNLYALVFGESVLNDAVAISLYRTMSSIRSNDSSGENLFLVILS
FLETFVGSMSSVSMTVLIFLFYKYSLLSDISKTMLEETDFHVQIGCSFQSS