

AtAAH (At4g20070)	1	MAVPHPSSSSSSRSHPLSHVYHTSFHHHHHHNPSFTFWCLFSLLSPLAISSSSSSSS
AtAAH-2 (At5g43600)	1MESLRFPCSIALLIISLIISSSLAQQQQHF
GmAAH	1MSSATASNTFFLSCFLLECLLSAFSCVSMFSGIE
AiC (E. coli)	1
AtAAH (At4g20070)	61	SSDSSSSSHISIGITETRGTHOLHCALRDEAVARIHELQVSDAATHERRFMS
AtAAH-2 (At5g43600)	33	IRMEDEFSGYPIHEPQFCSINLASSLSVDAFGLQNOIDELSSFS..DAPSPSTRVLY
GmAAH	36	IG.....DLEK...DDIFPQILRDEAVARIYELQVSDASGYERRTFLS
AiC (E. coli)	1MITFRQAIETPWLSSFS..ADPAGGTRLLYS
AtAAH (At4g20070)	120	PASPRATPLTIGWEDAGLSTWVLYGNVHGRVPKNGSSCALIGSHMDTVDAQKYDG
AtAAH-2 (At5g43600)	91	DKDSRRRYGNLALAGLIVREDAIGNIFGADGLEPILPATSSHIDAPYSKRYDG
GmAAH	78	PASPRATDILIKWEDAGLRTWVLYGNVHGRVDCANENAEALIGSHMDTVVDAGMDG
AiC (E. coli)	34	PEWRETQQQFRRMAASGLETRFDIGNIYGRNGTEYPCQVILSSSHIDTVNIGNLDG
		▲81 ▲92 (M1) (M1+M2)
AtAAH (At4g20070)	180	SLGISAISAKVLRDGLGLKRPVEVIAFSDREGVRFCTPLGSAIAGI....EV
AtAAH-2 (At5g43600)	151	VIGLSAIEAINVLR..SGFPKPSLEILFSEPTRFGLCLGRLAGSKRLA.EA
GmAAH	138	SLGISAISAKVLRDGLKRPVEVIAFSDREGVRFCTPLGSGIAGI....FG
AiC (E. coli)	94	QFGANLWLAIDWGLT..QYCAPRTVEVYAMAEEGSRIFVYVNGSKNIFGA...NEP
		▲127 (M2)
AtAAH (At4g20070)	236	SRLEVDKSGISVQALKENSIDITENLQCKLYDE..ASVWGVVEHIEQGPVLEWVGYP
AtAAH-2 (At5g43600)	208	LETTVFGQNVSTFANASAGYAEDKDDISSVLLKGSYFATFIEHIEQGFLEDEGLD
GmAAH	194	ITLEISDKFEVMIKGLKENSMDITRESLIKLYDE..KSVWGVVEHIEQGPVLEWVGYP
AiC (E. coli)	149	DVRNCCDAGNSFDKACGFTPMAPLTPR.....QDIKATVEHIEQGVLESNQGS
		▲190 (M1)
AtAAH (At4g20070)	295	IGVVKIAGQTRLKVTVSGSQHAGTVFMSMRQDPMTAAELIVLESVCKNKVYLSCN
AtAAH-2 (At5g43600)	268	IGVVTIAIPASLKVEEENGSHAGAVIMPYRIFAGIAAAEIAAIPKHVLESE.....
GmAAH	253	IGVVKIAGQTRLKVTVSGSQHAGTVFMSMRQDPMAAAEIVVLESCKKPEVYLSYD
AiC (E. coli)	204	IGVNVIVGRRYTVTNGESNHAGITPMGYRRTVYAFSRCHQSVEKAKR.....
		213▲ 215 ▲226 (SO ₄) (SO ₄) (a1) <----- dimerisation domain (dd)----->
AtAAH (At4g20070)	355	VOCNIDTVESLANSLVCTVGEISTWPSASNVIPQVTFITVDRTIDDVGRKATIDLSR
AtAAH-2 (At5g43600)	322S..IDTVGTVGIELHFGAINSIKSKHLEIDTRIIDARRNTVIRKQES
GmAAH	313	GHSSSTVKSLSSSLVCTVGEISTWPSASNVIPQVTFITVDRAIDDLGRAVIVDLSKQ
AiC (E. coli)	256G...DFLMTFGKLEPRENTVNVPGRTFTTIDRHTAAVLEDFTOQIEND
		▲275 ▲288 (a1) (a1+SO ₄) ----- (dd) -----
AtAAH (At4g20070)	415	MYQICDRRSILCSIEKHDALAVSIPQDSQLKSANQSALKKMTGEVQDEVPMMSGAG
AtAAH-2 (At5g43600)	371	ANTIAKRRKVKLSEFIVNQLPPASDKLVKKMAEAA.....EAILSHKMMISRAY
GmAAH	373	IYQICDRRSVSCITEKHDAGAVICISLSSQLKSANYSALKKMSQIQDEVFTMSGAG
AiC (E. coli)	306	MRAICDGMIDGIDILWMDLPPPNKSLVATITELCE.....REKLNRYVHMSGAG
		▲357 (SO ₄) ----- (dd) ----->
AtAAH (At4g20070)	475	HDAMAMAHLTKVGMFVRCRGGISHSPAHEVLDVWANGLATSEFLSQM...
AtAAH-2 (At5g43600)	424	HDSTFVNRISPGMIFPCYKCYSHKPEEYSSPDCANQVKVISTIAKLSLD.
GmAAH	433	HDAMASHLTKVGMFVRCRGGISHSPAHEVLDVWANGLATSEFLSLS...
AiC (E. coli)	358	HDAQIFPRVPTCMEFPSINGISNPAERTNITDREVKTAAMVYGLANQK
		▲382 (M2+a1)

Figure S1