

	1	50	100
G27-babc	MKKHILSLALGSLLVSA	SAEDDGFYTSVGYQIG	EAAQMVNTTKGIQELSDRYE
KH-k17	MKKHILSLALGSLLVSA	SAEDDGFYTSVGYQIG	EAAQMVNTTKGIQELSDRYE
KH-k241	MKKHILSLALGSLLVSA	SAEDDGFYTSVGYQIG	EAAQMVNTTKGIQELSDRYE
AH-J58	MKKHILSLALGSLLVSTLSA	EDDGFYTSVGYQIG	EAAQMVNTTKGIQQLSDNYE
AH-J68	MKKKT---	LLLSLSFLHAEDDGFYTSVGYQIG	EAAQMVNTTKGIQQLSDNYE
AH-J44	MKKHILSLTLGSLLVSTLSA	EDDGFYTSVGYQIG	EAAQMVNTTKGIQELSDNYE
AH-J75	MKKHILSLTLGSLLVSA	SAEDDGFYTSVGYQIG	EAAQMVNTTKGIQELSDNYE
AH-B147	MKKHILSLTLGSLLVSTLSA	EDDGFYTSVGYQIG	EAAQMVNTTKGIQELSDNYE
AH-B175A	MKKHILSLTLGSLLVSTLSA	EDDGFYTSVGYQIG	EAAQMVNTTKGIQELSDNYE
AH-B201A	MKKHILSLTLGSLLVSTLSA	EDDGFYTSVGYQIG	EAAQMVNTTKGIQELSDNYE
AH-B253A	MKKHILSLTLGSLLVSA	SAEDDGFYTSVGYQIG	EAAQMVNTTKGIQELSDNYE
AH-B269A	MKKHILSLTLGSLLVSA	SAEDDGFYTSVGYQIG	EAAQMVNTTKGIQELSDNYE
AH-B279A	MKKHILSLALGSLLVSTLSA	EDDGFYTSVGYQIG	EAAQMVNTTKGIQQLSDRYE
AH-B212A	MKKHILSLTLGSLLVSA	SAEDDGFYTSVGYQIG	EAAQMVNTTKGIQELSDNYE
AH-B234A	MKKHILSLTLGSLLVSTLSA	EDDGFYTSVGYQIG	EAAQMVNTTKGIQELSDNYE
AH-B301A	MKKHILSLALGSLLVSTLSA	EDDGFYTSVGYQIG	EAAQMVNTTKGIQQLSDNYE
Consensus	MKKHILSLTLGSLLVSTLSA	EDDGFYTSVGYQIG	EAAQMVNTTKGIQELSDNYE

	101	150	200
G27-babc	PAYQAVSLALNAAVGLWNT	IGYAVMCGNGNGTEGGPGSVV	FVFSNEPGQKSTQITCNRYEAT
KH-k17	PAYQAVSLALNAAVGLWNT	IGYAVMCGNGNGTEGGPGSVV	FVFSNEPGQKSTQITCNRYEAT
KH-k241	PAYQAVSLALNAAVGLWNT	IGYAVMCGNGNGTEGGPGSVV	FVFSNEPGQKSTQITCNRYEAT
AH-J58	PAYQAVSLALNAAVGLWNT	IGYAVMCGNGNDTGS	SGPGSVIFNQPGQGSTTITCNRYE
AH-J68	PAYQAVSLALNAAVGLWNT	IGYAVMCGNGNGTGGGPGSVI	FNGQPGQNSTAITCNRF
AH-J44	PAYQAVSLALNAAVGLWNT	IGYAVMCGNGNGTGGGPGSVV	FNDQPGQDSTQITCNRYE
AH-J75	PAYQAVSLALNAAVGLWNT	IGYAVMCGNGNGTGGGPGSVI	FDGQPGQGSTITCNRF
AH-B147	PAYQAVSLALNAAVGLWNT	IGYAVMCGNGNGTGS	SGPGSVVFNEEPGQKSTAITCNRF
AH-B175A	PAYQAVFLALNAAVGLWNT	IGYAVMCGNGNGTGS	SGPGSVIFNNQPGQSSNITCNRF
AH-B201A	PAYQAVSLALNAAVGLWNT	IGYAVMCGNGNGTDS	SGPGSVIFNKQPGQSTKITCNRYE
AH-B253A	PAYQAVSLALNAAVGLWNT	IGYAVMCGNGNDTDS	SGPGSVVFNGEPGEHSTAITCNRF
AH-B269A	PAYQAVSLALNAAVGLWNT	IGYAVMCGNGNGTGS	SGPGSVIFNGEPGQSTAITCNRF
AH-B279A	PAYQAVSLALNAAVGLWNT	IGYAVMCGNGNGTGS	SGPGSVIFNGQPGQSTQITCNRF
AH-B212A	PAYQAVFLALNAAVGLWNT	IGYAVMCGNGNGTGGG	PGRVIFNGQPGAHSTHICDRYE
AH-B234A	PAYQAVSLALNAAVGLWNT	IGYAVMCGNGNNTGGG	PGSVIFKQPGQNSTAITCDRYE
AH-B301A	PAYQAVSLALNAAVGLWNT	IGYAVMCGNGNDTGS	SGPGSVVFSGEPGENSTQITCNRYE
Consensus	PAYQAVSLALNAAVGLWNT	IGYAVMCGNGNGTGS	SGPGSVIFNGQPGQ ST ITCNRYEAT

	201	-VR1-	250	300
G27-babC	VTVEYEYECQNNN	--GNNINDGVNQFCRAKNGSSSSGS	---NDTSTQTTTQDGVITITTYSN	----NKATVNF SITNNAQELLNQAANIMQVLNTQCPL
KH-k17	VTVEYEYECQNNN	--GNNINDGVNQFCRAKNGSSSSGS	---NDTSTQTTTQDGVITITTYSN	----NKATVNF SITNNAQELLNQAANIMQVLNTQCPL
KH-k241	VTVEYEYECQNNN	--GNNINDGVNQFCRAKNGSSSSGS	---NDTSTQTTTQDGVITITTYSN	----NKATVNF SITNNAQELLNQAANIMQVLNTQCPL
AH-J58	VSVNYHYECKQIN	---SEINGGVNQFCQAKNGSSSNHNGSNGTSTQTTTQDGVITITTYK	----NKATVNF SITNNAQELLNQAANIMQVLNTQCPL	----NKATVNF SITNNAQELLNQAANIMQVLNTQCPL
AH-J68	VTVKYTYECQEAKD	---SKINNGVDQFCQAKNGSSSNHNGSNGTSTQTTTQDGVITITTYNN	----NKATVNF SITNNAQELLNQAANIMQVLNTQCPL	----NKATVNF SITNNAQELLNQAANIMQVLNTQCPL
AH-J44	VNVEYGYECKQKDD	-SDSSISGGVNVQFCQAEHGS	---GT---NGNSTTTTQDGVITITTYHN	----NNATVNFQIINNAQELLNQAANIMQVLNTQCPL
AH-J75	VNVSYKYECKQENR	-----TNGGVVQFCQAKNGSS	---NGNGTTTQDGVITITTYNN	---KDKATVSFGITNNAQQLLNQAANIMQVLNTQCPL
AH-B147	VKNVNTYECQTS	-----NINGGVNQFCQK-NGSS	-----GSNSTSTQTTNQDGVITITTYND	----HKATVNFNITNNAQELLNQAANIMQVLNTQCPL
AH-B175A	VNVKYEYECQQT	---S-INGGVNQFCQAKNGSS	-----NSTSKQMTNQDGVITITTYNN	----NKAIVTFSITNNAQQLLNQAANIMQVLNTQCPL
AH-B201A	VNITYEYKCEQT	-----ADINGGVVQFCRAKNGSS	---GSNGSNGTSTQITTTQDGVITITTYSD	----NNATVNF SITNNAQELLNQAANIMQVLNTQCPL
AH-B253A	VNVKYEYECQKNQ	---AINGGVNQFCQAKNGSS	-----G---TSTQTTTQDGVITITTYGG	----NKATVEFDITNNAEQLLNQAANIMQVLNTQCPL
AH-B269A	VNVNNTYECRHNNDNDNN	INGGVNQFCQAKNGSSGTS	SGSDSNSSTQTTTQDGMITITTYSD	----NKATVNF SITNNAEQLLNQAANIMQVLNTQCPL
AH-B279A	VNVSYEYECQTS	-----DINGGVDQFCQVKNSSGTG	-----TQTTNQDGVITITTYNN	----NKATVNFNITNNAQQLLNQAANIMQVLNTQCPL
AH-B212A	VSVSYEYECQSNDSNDSS	INGGVNQFCQTKNGSS	-----GSNGSDVQTTTQDGVKIITEYRN	----NKATVNF SITNNAQQLLNQAANIMQVLNTQCPL
AH-B234A	VNVEYEYECNQKNN	-----INGGVDQFCRAKNGSSSSSSG	-TNGTSTQTTTQDGVITITTYHNNNNNSATVKFDITNNAEQLLNQAANIMQVLNTQCPL	----NKATVNF SITNNAQQLLNQAANIMQVLNTQCPL
AH-B301A	VEIKYNYECNQ	TANNQDANINGGVNQFCQAKN	-----GNTTQTTTQDGVITITTYNN	----NKAIVNF SITNNAQQLLAQAANIMQVLNTQCPL
Consensus	VNV YEYECQ	N INGGVNVQFCQAKNGSS S	NGTSTQTTTQDGVITITTY N	NKATVNF SITNNAQQLLNQAANIMQVLNTQCPL

	301		350	400
G27-babC	VRSTHDENNA	GNPNWGLSTSGNACQIFQQEF	SQVTSMIKNAQEIVAQSQIANANQKAEIANPSNFPFTDASFAQSMLKNARAQAEMFNLAEQVKKNLE	
KH-k17	VRSTHDENNA	GNPNWGLSTSGNACQIFQQEF	SQVTSMIKNAQEIVAQSQIANANQKAEIANPSNFPFTDASFAQSMLKNARAQAEMFNLAEQVKKNLE	
KH-k241	VRSTHDENNA	GNPNWGLSTSGNACQIFQQEF	SQVTSMIKNAQEIVAQSQIANANQKAEIANPSNFPFTDASFAQSMLKNARAQAEMFNLAEQVKKNLE	
AH-J58	VRSMHDVNAKGDGQ	PWGLSTTGNACTIFQQEF	SQVTSMIKNAQEIVAQSKIANANQKAEISNPSNFPYTDASFSQSMLKNARAQAEMFNLAEQVKKNLE	
AH-J68	VRSTSNENRPGNGSPWGL	TTGGDACQIFQQEF	SQVTSMIKNAQEIIAQSKIANAKQAEIANPSNFPFTDASFAQSMLKNARAQAEMFNLSQVKKNLE	
AH-J44	VRSSHDQNASGDGRPWGL	STSGDACQIFQQEF	SQVTSMIKNAQEIVAQSQIANANQKAEISNPSNFPFTDASFAQGMKNAQAQAEMFNLSQVKKNLE	
AH-J75	VRSKNNENVQDGS	PWGLSTSGDACQIFQQEF	SQVTSMIKNAQEIVAQSKIANANQNAEIANPSNFPFTDASFAQDMLKNARAQAEMFNLAEQVKKNLE	
AH-B147	VRSMYNNVPGGQ	PWGLSTSGDACQIFQQEF	SQVTSMIKNAQEIVVQSEIANTNQNAQIHNPSNFPFTDASFAQGMLANARAQAEMFNLAEQVKKNLE	
AH-B175A	VRSRHDENNASGDGSPWGL	STSGDACQIFQQEF	SQVTSMIKNAQEIVAQSKIANANQKAEIANPSNFPFTDASFAQDMLKNARAQAEMFNLAEQVKKNLE	
AH-B201A	VRSRHNNASGDGSPWGL	STSGDACQIFQQEF	SAVTSMIKNAKEIVAQSKIANANQKVEIANPSNFPFTDASFAQDMLKNARAQAEMFNLAEQVKKNLE	
AH-B253A	VRSTNENKPGGQ	PWGLSTHGNACQIFQQEF	SAVTSMIKNAKEIVAQSKIANANQKVEIANPSNFPFTDASFAQDMLKNARAQAEMFNLAEQVKKNLE	
AH-B269A	VRSTHDVNASGDGQ	PWGLTTSGDACQIFQQEF	SQVTSMIKNAQEIVAQSKIANANQKAEIHNPSNFPFTDASFAQSMLKNARAQAEMFNLAEQVKKNLE	
AH-B279A	VRSTNDVNTPGGQ	PWGLSTSGDACQIFQQEF	SQVTSMIKNAQEIVAQSKIANANQKAEISNPSNFPFTDASFAQDMLKNARAQAEMFNLAEQVQNLE	
AH-B212A	VRSMYHVNNDG	SPWGLSTSGNACTIFQQEF	SQVTSMIKNAQEIVAQSQIANANRRAEISNPSNFPFTDASFAQSMLKNARAQAEMFNLAEQVKKNLE	
AH-B234A	VRSTHSENAQGDGK	PWGLSTSGNACQIFQQEF	SQVTSMIKNAQEIVAQSKIANNNQKAEIANPSSFNFPYTDAGFAQSMLKNARAQAEMFNLAEQVKKNLE	
AH-B301A	VRSTNNANAPGDGR	PWGLSTSGNACQIFQQEF	SQVTSMIKNAQEIVAQSKIANANQKAEITNPSNFPFTDASFAQSMLKNARAQAEMFNLAEQVKKNLE	
Consensus	VRSTHDEN	GDGQPWGLSTSGNACQIFQQEF	SQVTSMIKNAQEIVAQSKIANANQKAEIANPSNFPFTDASFAQSMLKNARAQAEMFNLAEQVKKNLE	

	401	-VR2-	450	500						
G27-babC	VMQNNNNV	NAELSGFGK	GMTNFVSAFLASCRN	GGTLPNEGVT	SNTWGAGCAYVGETI	SALNNSIAHF	GTQEQQIQQAENI	ADTLVNF	FKSRYSELGNTYN	
KH-k17	VMQNNNNV	NAELSGFGK	GMTNFVSAFLASCRN	GGTLPNEGVT	SNTWGAGCAYVGETI	SALNNSIAHF	GTQEQQIQQAENI	ADTLVNF	FKSRYSELGNTYN	
KH-k241	VMQNNNNV	NAELSGFGK	GMTNFVSAFLASCRN	GGTLPNEGVT	SNTWGAGCAYVGETI	SALNNSIAHF	GTQEQQIQQAENI	ADTLVNF	FKSRYSG-----	
AH-J58	VMQNNNNV	-KE----	GKGTNFVSAFLANCH	NGGGTLPNAGVT	SNTWGAGCAYVGETI	TALNNSIAHF	GTQAQQIQQAADI	ADTLVNF	FKSRYSELGNTYN	
AH-J68	VMQNNNNV	NKKLSGFG	EGMTNFVSAFLASCK	DGG-TLPNEGVT	FNTWGAGCAYVGETI	TALNNSIAHF	GTQAQQIQQAENI	ADTLVNF	FKSRYSELGNTYN	
AH-J44	VMQNNNNV	----GGF	GKMTNFVSAFLASCK	DGGTLPNQGV	TNTWGAGCAYVQETI	TALNNSIAHF	GTQAQQIQQAENI	ADTLVNF	HFKSRYNELGNTYN	
AH-J75	VMQNNNNV	DANLSGFG	KGMTNFVSAFLASCK	DGG-TLPNEGVT	SNTWGAGCAYVEETI	TALNNSIAHF	GTQAQQIQQAENI	ADTLVNF	FKSRYSELGNTYN	
AH-B147	VMQNNNNV	II-----	DGKATNFVSAFLATCK	VDDG-TLPNAGVT	SNTWGAGCAYVGETI	TALNNSIAHF	GTQEQQIQQAENI	ADTLVNF	FKSRYSELGNTYN	
AH-B175A	VMQNNNNV	NVNL	SRLGERMTNFVSAFLAS	CRDDG-TLPDQGV	TNTWGAGCAYVGETI	TALNNSIAHF	GTQAQQIQQAENI	ADTLVNF	FKSRYSELGNTYN	
AH-B201A	VMENIT	-V--TGY--	GN-NQNFVSAFLASCK	ADG-TLPNHGVT	SNTWGAGCAYVEETI	STLNNSIAHF	GTQEQQIQQAENI	ADTLVNF	FKSRYSELGNTYN	
AH-B253A	VMKNNNNV	TI-----	EGKATNFVSAFLASCK	ADG-TLPNAGVT	SNTWGAGCAYVGETI	TALNNSIAHF	GTQEQQIQQAENI	ADTLVNF	FKSRYSELGNTYN	
AH-B269A	VMQNNNNV	NAELSGFG	TGMTNFVSAFLASCK	NGG-TLPNEGVT	RTSWGAGCAYVGETI	TALNNSIAHF	GTQAQQIQQAENI	ADTLVNF	FKSRYNELGNTYN	
AH-B279A	VMENNNNV	TI-----	GFGSGMTNFVSAFLATCK	VDDG-TLPNAGVT	SNTWGAGCAYVGETI	TALNNSIAHF	GTQAQQIQQAENI	ADTLVNF	FKSRYNELGNTYN	
AH-B212A	VMQNNNNV	KI-----	DGGLTNFVSAFLASCR	HDDG-TLPNAGVT	NNTWGAGCAYVGETI	SALTNSIAHF	GTQAQQIQQAENI	ADTLVNF	FKSKYSELGNTYN	
AH-B234A	VMQNNNNV	DAGLSGFG	KGMTNFVSAFLASCK	DGG-TLPDAGVT	SDTWGAGCAYVQETI	TALNNSIAHF	GTQAQQIQQAENI	ADTLVNF	FKSKYSELGNTYN	
AH-B301A	VMQNNNNV	NKKLSGFG	EGMTNFVSAFLASCR	DDG-TLPNAGVT	SNTWGAGCAYVGETI	TALNNSIAHF	GTQEQQIQQAENI	ADTLVNF	FKSRYNELGNTYN	
Consensus	VMQNNNNV	LSGFG	GMTNFVSAFLASCK	GG	TLPN	GVTSNTWGAGCAYVGETI	TALNNSIAHF	GTQAQQIQQAENI	ADTLVNF	FKSRYSELGNTYN

	501	550	600
G27-babC	SITTALSSIP	NGSSLQNVV	SKKNNPYPSPQGIETNYYLNQNSYNQVQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
KH-k17	SITTALSSIP	NGSSLQNVV	SKKNNPYPSPQGIETNYYLNQNSYNQVQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
KH-k241	-----	-----	-----KVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
AH-J58	SITTALSSIP	NAQSLQNAV	SKKNNPYPSPQGIETNYYLNQNTYNQIQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
AH-J68	SITTALSSIP	NVQSLQNVV	GKNNPYPSPQGIETNYYLNQNAYNQIQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
AH-J44	SITTALSKVP	NAQSLQNVV	GKNNPYPSPQGIETNYYLNQNSYNQIQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
AH-J75	SITTALSKVP	NAQSLQNVV	SKKNNPYPSPQGIETNYYLNQNSYNQIQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
AH-B147	SITTALSKVP	NAQSLQNAV	SKKNNPYPSPQGIETNYYLNQNSYNQIQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
AH-B175A	SITTALSSIP	NAQSLQNAV	NKNNPYPSPQGIETNYYLNQNSYNQIQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
AH-B201A	SITTALSSIP	NAQSLQNAV	SKKNNPYPSPQGIETNYYLNQNSYNQIQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
AH-B253A	SITTALSKVP	NAQSLQNAV	SKKNNPYPSPQGIETNYYLNQNSYNQIQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
AH-B269A	SITTALSSIP	NAQSLQNAV	SKKNNPYPSPQGIETNYYLNQNSYNQIQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
AH-B279A	SITTALSSIP	NAQALQNAV	SKKNNPYPSPQGIETNYYLNQNTYNQIQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
AH-B212A	SITTALSSIP	NAQSLQNAV	SKKNNPYPSPQGIETNYYLNQNSYNQIQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
AH-B234A	SITTALSNIP	NAQSLQNVV	SKKNNPYPSPQGIETNYYLNQNSYNQVQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
AH-B301A	SITTALSKVP	NAQSLQNVV	GKNNPYPSPQGIETNYYLNQNSYNQIQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD
Consensus	SITTALSSIP	NAQSLQNAV	SKKNNPYPSPQGIETNYYLNQNSYNQIQTINQELGRNPFRKVGIVSSQTNNGAMNIGIQVGYKQFFGQKRKWGARYYGFFD

	601	650	700
G27-babC	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATMNNVYNAKMNVANFQFLFNMGVRMNLARSK		
KH-k17	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATMNNVYNAKMNVANFQFLFNMGVRMNLARSK		
KH-k241	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATMNNVYNAKMNVANFQFLFNMGVRMNLARSK		
AH-J58	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATVNNVYNAKLNVANFQFLFNMGVRMNLARSK		
AH-J68	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATVNNVYNAKMNVANFQFLFNMGVRMNLARPK		
AH-J44	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATMNNVYNAKMNVANFQFLFNMGVRMNLARPK		
AH-J75	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATMNNVYNAKMNVANFQFLFNMGVRMNLARPK		
AH-B147	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATVNNVYNAKMNVANFQFLFNMGVRMNLARPK		
AH-B175A	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATVNNVYNAKMNVANFQFLFNMGVRMNLARPK		
AH-B201A	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALSRHFMA*-----		
AH-B253A	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATMNNVYNAKMNVANFQFLFNMGVRMNLARPK		
AH-B269A	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATMNNVYNAKMNVANFQFLFNMGVRMNLARPK		
AH-B279A	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATMNNVYNAKMNVANFQFLFNMGVRMNLARSK		
AH-B212A	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATVNNVYNAKMNVANFQFLFNMGVRMNLARPK		
AH-B234A	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATMNNVYNAKMNVANFQFLFNMGVRMNLARSK		
AH-B301A	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATMNNVYNAKLNVANFQFLFNMGVRMNLARPK		
Consensus	YNHAFIKSSFFNSASDVWTYGFGADALYNFINDKATNFLGKNNKLSVGLFGGIALAGTSWLNSEYVNLATMNNVYNAKMNVANFQFLFNMGVRMNLARPK		
	701	750	
G27-babC	KKGSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY*		
KH-k17	KKGSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY*		
KH-k241	KKGSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY*		
AH-J58	KKGSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY*		
AH-J68	KKSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY*		
AH-J44	KKSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY*		
AH-J75	KKGSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY*		
AH-B147	KKSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY*		
AH-B175A	KKSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY*		
AH-B201A	-----		
AH-B253A	KKSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY*		
AH-B269A	KKSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY*		
AH-B279A	KKSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY*		
AH-B212A	KKSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY*		
AH-B234A	KKSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY*		
AH-B301A	KKSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY*		
Consensus	KKSDHAAQHGIELGLKIPTINTNYYSFMGAELKYRRLYSVYLNIVFAY		

S3 Fig. Alignment of the amino acid sequences of 13 BabCs and 1 BabBC (AH-J68).