

AT4G20140

TT 1 10 20 30 40 50 60 70 80

α1 η1 β1 β2

AT4G20140 MQP..LVLLLFVLCFS..GLGQFGIINNDLQTLLEVKKSLVITNPQEDDPLRQWNSDNINYSWTVGTCDDTGLFRVVALNLTGL

BnaA01G0107600ZS MQTLHTLLLVMFLLCSSLGSISTQTGTNDLQNLLELKKSFVITNPQEDDPLRQWNSVNIINYSWTVGTCDDTGLFRVVALLNLSGL

BnaC01G0131100ZS MQTLHTLILVMFLLCSSLGSILATGTNDLQNLLELKKSFVITNPQEDDPLRQWNSVNIINYSWTVGTCDDTGLFRVVALLNLSGL

AT5G44700 MQ.QNSVLLALFFLCFSSGLGSGQPQGGQDRLQTLLELKKNSFITNPKEEDVDRDWNSSGSPSYCNWTVGTCGGR...EIIIGLNLSSGL

BnaA06G0433600ZS MQ.R.LSLLLVFFLCFLVCGSGSQPGGQSDNLQTLLELKKSLVANPKDETIVRSWNSDDPNYCNWTVGTCGGR...EVIIGLNLSSGL

BnaC07G0234000ZS MQ.R.LSLLLVLCFLCFSVGLGSGQPQGGQSDNLQTLQVKKKSLVITNPKEEKVILRSWNSDDSNFCNWTVGTCGGR...EVIIGLNLSSGL

BnaA02G0289000ZS MQ.QSSLLIVLLVLFWSIGPGLGQPVGQSDNLQTLLEVKKSIITNPDEKVTQWNSDDLNYCNWTVGTCRGR...VVIIGLNLSDF

BnaC02G0393400ZS MQ.QSSLLIVLLVLFWSIGPGLGQPVGQSDNLQTLLEVKKSIITNPDEKVTQWNSDDLNYCNWTVGTCRGR...VVIIGLNLSDF

AT4G20140

90 100 110 120 130 140 150 160

η2 β3 β4 η3 β5 β6 η4 β7 β8 η5

AT4G20140 GLTGSISPFGRFDNLIIHDLSSNNLVGPIPTALSNT.SLESILFLFSNQLTGEIPSQLGSLVNIRSLRIGDNEVLVDIPETLGN

BnaA01G0107600ZS GLTGSISPSFGRFDNLIIHDLSSNNLVGPIPTALSNTLS.SLESILFLFSNQLTGEIPSQLGSLNLRSLRIGDNEVLVDIPETLGS

BnaC01G0131100ZS GLTGSISPSFGRFDNLIIHDLSSNNLVGPIPTALSNTLS.SLESILFLFSNQLTGEIPSQLGSLNLRSLRIGDNEVLVDIPETLGS

AT5G44700 GLTGSISPSIGRFNNLIHDLSSNNLVGPIPTTLSNLS.SLESILHFLFSNQLSGDIPSQLGSLVNLSKSLKLDGNEVLVDIPETLGN

BnaA06G0433600ZS NLTGSISPSIGRFNNIIDDLSSNNLVGPIPAALSNTLS.SLESILHFLFSNQLSGEIPSQLGSLVNLSKSLKIGNNDLAGSIPETLGN

BnaC07G0234000ZS NLTGSISPSIGRFNNIIDDLSSNNLVGPIPASLSNTLS.SLETILHFLFSNQLSGEIPSQLGSLVNLSKSLKIGNNDLAGSIPETLGN

BnaA02G0289000ZS DLTGSISPSIGRFNNLIHDLSSNNLVGPIPTALSNTLSASLETILHFLFSNQLTGEIPSQLGSLVNLRSLKLDGNDLIGPIPDTLGN

BnaC02G0393400ZS DLTGSISPSIGRFNNLIHDLSSNNLVGPIPTALSNTLSASLETILHFLFSNQLTGEIPSQLGSLVNLRSLKLDGNDLIGSIPDTLGN

AT4G20140

170 180 190 200 210 220 230 240 250

β9 β10 η6 β11 β12 η7 β13 β14 η8 β15

AT4G20140 LVNLQMLALASCRLTGPVPSQLGRLLVRVQS.LILODNYLEGPIPAELGNCSDITVFATAENMLNGTIPAEIGRLLENLEIINLANN

BnaA01G0107600ZS LANLQMLALASCRLTGPVPSQLGRLLARVQS.LILODNNLEGPIPAELANCSDITVFATAAANRLNGTIPAEIGRLLENLEIINLASNG

BnaC01G0131100ZS LANLQMLALASCRLTGPVPSQLGRLLARVQS.LILODNNLEGPIPAELANCSDITVFATAAANRLNGTIPAEIGRLLENLEIINLASNG

AT5G44700 LVNLQMLALASCRLTGLIPSRFGRLLVQLT.LILODNELEGPIPAELGNCSTALFAAANRLNGSPAEILNRLKNLQTLNLDGNS

BnaA06G0433600ZS LANLQTLGLAACRLTGPIPSQLGRLLVQMYLYLRNNYLEGPIPELGNCNTLVMFSAEANRLNGSPAEILNRLGNLESINLANN

BnaC07G0234000ZS LDNLQTLGLAACRLTGPIPSQLGRLLVQMYLYLRNNYLEGPIPELGNCNTLVTFSAEAVNSLNGSPAEILNRLGNLESINLANN

BnaA02G0289000ZS LVNLQTLALAKCRLTGSIPSQLGRLLVQLQAL.LILOQNYLQGPPIPELGNCSTLVLFATAANRLNGSLTELSELQGLNLQIINLGN

BnaC02G0393400ZS LVNLQTLALAKCRLTGSIPSQLGRLLVQLQAL.LILOQNYLQGPPIPELGNCSTLVLFATAANRLNGSLTELSELQGLNLQIINLGN

AT4G20140

260 270 280 290 300 310 320 330

β16 η9 β17 β18 η10 β19 β20 η11 β21 β22

AT4G20140 LTGEIPSQLGEMSQLQYLSLMAQLQGLIPKSLADLGNLQTLDLSSANNLTGBITPEEFWNMSQLDLVLANNHLSGSLPKSICSNN

BnaA01G0107600ZS LSGEIPSQLGELSQLLEYLNDMMENQLOGPVPKTLANDKNLQTLDLSSANNLTGBITPEEIIWNMSQLDLVLALANNFSGSLPKSMCSNN

BnaC01G0131100ZS LSGEIPSQLGELSQLLEYLNDMMENKLOGLVPSKSLTNLKNLQTLDLSSANNLTGBITPEEIIWNMSQLDLVLALANNFSGSLPKSMCSNN

AT5G44700 FSGEIPSQLGLDLSIQYLLNLIGNQLGLIPKRLTBLANLQTLDLSSANNLTGBITHEEFWRMNOLEFLVLAKNRLSGSLPKTICSNN

BnaA06G0433600ZS LSGEIPSQLGLDLSLNLHLYLIGNKLOGLIPKTLTBLKNLRIIDLSSKNSLTGCHHEEFWNMOLEYLVLEYNPLSGSLPKSLCSNN

BnaC07G0234000ZS FSGEIPSQLGLDLSLKHLYLIGNKLOGLIPKTLTBLKSLTIDLSSKNSLTGCHHEEFWNMOLEYLVLEYNPLSGSLPKSLCSNN

BnaA02G0289000ZS LSGEIPSQLGLDLSLNLQYLLNLVGNRLQGLIPKRVTLLENLQTLDLSSNNLTGBITHKEFWNMNOLEFLVANNRSGSLPKSLCSNN

BnaC02G0393400ZS FSGEIPSQLGLDLSLNLHLYLNLVGNRLQGLIPKRVTLLENLQTLDLSSNNLTGBITHKEFWNMNOLEFLVANNRSGSLPKSLCSNN

AT4G20140

340 350 360 370 380 390 400 410 420

β23 β24 η12 β25 β26 η13 β27 η14 β28

AT4G20140 TNLKQLVLVSGTQLSGEIPAEVSKCOSLKQLDLSNNSLTGSIPESLFLQTLTDLLYLHNNTLDEGLTSPSISNLTNLQWLVLVYHNNL

BnaA01G0107600ZS TKLEQLVLVSGTQLSGEIPAEVSKCOSLKQLDLSNNSLTGSIPESLFLQTLTDLLYLHNNTLDEGLTSPSISNLTNLQWLVLVYHNNL

BnaC01G0131100ZS TNLKQLVLVSGTQLSGEIPAEVSKCOSLKQLDLSNNSLTGSIPESLFLQTLTDLLYLHNNTLDEGLTSPSISNLTNLQWLVLVYHNNL

AT5G44700 TSLKQLVLVSGTQLSGEIPAEVSKCOSLKQLDLSNNSLTGSIPESLFLQTLTDLLYLHNNTLDEGLTSPSISNLTNLQWFTLVYHNNL

BnaA06G0433600ZS TNLKQLVLVSGTQLSGEIPAEVSKCOSLKQLDLSNNSLTGSIPESLFLQTLTDLLYLHNNTLDEGLTSPSISNLTNLQWFTLVYHNNL

BnaC07G0234000ZS TNLKQLVLVSGTQLSGEIPAEVSKCOSLKQLDLSNNSLTGSIPESLFLQTLTDLLYLHNNTLDEGLTSPSISNLTNLQWFTLVYHNNL

BnaA02G0289000ZS TSLKQLVLVSGTQLSGEIPAEVSKCOSLKQLDLSNNSLTGSIPESLFLQTLTDLLYLHNNTLDEGLTSPSISNLTNLQWFTLVYHNNL

BnaC02G0393400ZS TSLKQLVLVSGTQLSGEIPAEVSKCOSLKQLDLSNNSLTGSIPESLFLKLAELETVLVYLNNTLKGTLSPHFISSLRNLQWFTLVYHNNL

AT4G20140

430 440 450 460 470 480 490 500

β29 η15 β30 β31 η16 β32 β33 η17 β34 η18

AT4G20140 EGKLPKEISALRKLEVLFLYENRFSGEIPQEIGNCTSLKMDIMFGNHFEGEIPSSIGRLKELNLLHLRQNEFVGLPATLGNCHQ

BnaA01G0107600ZS DGTLPNEIAALKKLEVLFLYENRFSGEIPKEIGNCTSLKMDIDLFGNHFEGEIPSSIGRLKELNLLHLRQNEFVGLPATLGNCHQ

BnaC01G0131100ZS EGKLPNEIAALKKLEVLFLYENRFSGEIPKEIGNCTSLKMDIDLFGNHFEGEIPSSIGRLKELNLLHLRQNEFVGLPATLGNCHQ

AT5G44700 EGKVPKEIGFLGKLEIMYLYENRFSGEMPEIGNCTRLQEDIDVGNRLSGEIPSSIGRLKDLTLHLRRENEFVGNIPATLGNCHQ

BnaA06G0433600ZS EGKLPKEIGFLSKLERLLLDNRFSGEIPVEIGNCTSLQEDIDVGNHFSGEIPSSIGRLKDLTLHLRRENEFVGNIPATLGNCHQ

BnaC07G0234000ZS EGKLPKEIGFLSKLERLLLDNRFSGEIPVEIGNCTSLQEDIDVGNHFSGEIPSSIGRLKDLTLHLRRENEFVGNIPATLGNCHQ

BnaA02G0289000ZS EGKLPKEIGFLSKLEVLFLYENRFSGEIPTEIGNCTCLKSVDIMFGNHFSGEIPSSIGRLKDLTLHLRRENEFVGNIPATLGNCHQ

BnaC02G0393400ZS EGKLPNEIGFLSKLEVLFLYENRFSGEIPTEIGNCTSLKSVDIMFGNHFSGEIPSSIGRLKDLTLHLRRENEFVGNIPATLGNCHQ

AT4G20140

510 520 530 540 550 560 570 580 590

β35 η19 β36 β37 η20 β38 β39 η21 β40

AT4G20140 LNIIDDLADNQLSGSIPSSFGFLKGLQELMLYNNNSIQGNLPSLISLRNLTRINLSHNNRLNGTILPLCGSSSYLSFDVTDNNEFDE

BnaA01G0107600ZS LKIIDDLADNQLSGSIPSSFGFLKGLQELMLYNNNSIQGNLPSLISLRNLTRINLSHNNRLNGTILPLCGSSSYLSFDVTDNNEFDE

BnaC01G0131100ZS LKIIDDLADNQLSGSIPSSFGFLKGLQELMLYNNNSIQGNLPSLISLRNLTRINLSHNNRLNGTILPLCGSSSYLSFDVTDNNEFDE

AT5G44700 MTVIDDLADNQLSGSIPSSFGFLKGLQELMLYNNNSIQGNLPSLISLRNLTRINLSHNNRLNGTILPLCGSSSYLSFDVTDNNEFDE

BnaA06G0433600ZS LRIIDDLADNQLSGSIPSSFGFLKGLQELMLYNNNSIQGNLPSLISLRNLTRINLSHNNRLNGTILPLCGSSSYLSFDVTDNNEFDE

BnaC07G0234000ZS LRIIDDLADNQLSGSIPSSFGFLKGLQELMLYNNNSIQGNLPSLISLRNLTRINLSHNNRLNGTILPLCGSSSYLSFDVTDNNEFDE

BnaA02G0289000ZS LTIIDDLADNQLSGSIPSSFGFLKGLQELMLYNNNSIQGNLPSLISLRNLTRINLSHNNRLNGTILPLCGSSSYLSFDVTDNNEFDE

BnaC02G0393400ZS LTIIDDLADNQLSGTIPSSFEFLKSLQELMLYNNNSIQGNLPSLISLRNLTRINLSHNNRLNGTILPLCGSSSYLSFDVTDNNEFDE

	α11	η36	α12				TTT	α13			
	0000	000	000000000000000000					000000000000000000			
AT4G20140	1190	1200	1210	1220			1230	1240			
AT4G20140	VA..GS	ARDKLID	PKLKPLLP	FEED	AACQVLEIALQCTKT	SPO	ERPSSRQACD	SLLH	VYNNRT	AGYKK	L.....
BnaA01G0107600ZS	IA..GS	AREKLID	PKLKPLMP	FEED	AAYKVLEIALECTKT	SPO	ERPSSRQACD	SLLH	VFNNRT	AGYKK	L.....
BnaC01G0131100ZS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
AT5G44700	TPPGSE	AREKLID	SELKSLLP	CEEE	AAYQVLEIALQCTKS	YPO	ERPSSRQASE	YLLN	VFNNRA	AS	YREMQTDTDK
BnaA06G0433600ZS	MPPGSR	AREKLID	SELKPLLP	CEEE	AAYQLLEIAIQCTKT	YPO	ERPSSRQACD	CLLN	VFNNRA	AS	YREMQTGSEK
BnaC07G0234000ZS	MPPGSR	ARENLD	SELKPLLP	CEEE	AAYQVLEIAIQCTKT	YPO	ERPSSRQACD	CLLN	VFNNRA	AS	YREMQTGSEK
BnaA02G0289000ZS	...GSA	AREKLID	SELKPLLP	CEEE	AAYQVLEIAIQCTKT	YPO	ERPSSRQACD	CLLN	VFNSRG	AS	YREMQTDPOK
BnaC02G0393400ZS	...GSA	AREKLID	SELKPLLP	CEEE	AAYQILEIAIQCTKT	YPO	ERPSSRQACD	CLLN	VFNSRG	AS	YREMQTDSQK