#transcript\_id protein\_group site sequence\_window score delta\_score position

AT1G01090.1 AT1G01090.1 \_DAAEK(ac)AK(Ubi)YAAR\_ SLADPDELRDAAEKAKYAARDPIAALKKYLI 41.689 33.933 341

AT1G01090.1 AT1G01090.1 \_SQLLENVFADPK(Ubi)GFGIGPDGR\_ QPGRSQLLENVFADPKGFGIGPDGRYRCEDP 41.798 40.986 404

AT1G01130.1 AT1G01130.1 \_SNQPK(Ubi)EIESR\_ VPTSPESDYARSNQPKEIESRVSDKETASAS 99.283 90.875 45

AT1G01160.1 AT1G01160.1, AT1G01160.2 \_GGK(Ubi)QDGADGQGK(Ubi)DDGK(Ubi)\_ QPETGLGGNVGLRGGKQDGADGQGKDDGK\_\_ 78.902 78.271 182

AT1G01350.1 AT1G01350.1, AT5G06420.2, AT5G06420.1 \_EQTISSEK(Ubi)AGGSHGPLR\_ DHKAGFRREQTISSEKAGGSHGPLRASAHIR 120.63 97.742 179

AT1G01350.1 AT1G01350.1, AT5G06420.2, AT5G06420.1 \_SK(Ubi)AEQGL\_ NAAHEIKKRMAEERSKAEQGL\_\_\_\_\_\_\_\_\_\_ 92.47 80.039 338

AT1G01680.1 AT1G01680.1 \_K(ac)ETIEK(Ubi)SKSNESDEDPR\_ EPEESPKKGRKETIEKSKSNESDEDPRLEDF 36.597 36.131 222

AT1G01730.1 AT1G01730.1 \_(ac)MEK(Ubi)STSPATR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MEKSTSPATRVTEPPPAA 62.466 19.868 3

AT4G00680.1 AT4G00680.1, AT1G01750.1 \_SK(ac)M(ox)LYASSK(Ubi)DR\_ PDTSRVRSKMLYASSKDRFKREMEGIQVELQ 51.726 0 107

AT1G02160.1 AT1G02160.1, AT1G02160.2 \_(ac)STK(Ubi)GAAAAYPSAAR\_ \_\_\_\_\_\_\_\_\_\_\_\_MSTKGAAAAYPSAARISDS 55.98 49.076 4

AT1G02330.1 AT1G02330.1 \_EHPELYK(Ubi)DR\_ KDYAEKLRREHPELYKDRGGPQADGEAAKPS 86.898 83.181 226

AT1G02330.1 AT1G02330.1 \_GK(ac)DYAEK(Ubi)LR\_ SYSADYFQRGKDYAEKLRREHPELYKDRGGP 96.342 58.998 216

AT1G02330.1 AT1G02330.1 \_NIDDAEEVENELK(Ubi)R\_ RGRNIDDAEEVENELKRVEDELYKIPDHLKV 161.04 155.75 128

AT1G02330.1 AT1G02330.1 \_SFEEEEEDNDVNK(ac)AAISEEEEK(Ubi)R\_ EDNDVNKAAISEEEEKRRLALEEVKFLQKLR 111.38 111.35 32

AT4G01850.2 AT4G01850.2, AT4G01850.1, AT1G02500.2, AT1G02500.1 \_QAAK(Ubi)SVVANGMAR\_ TKVDRSGAYIVRQAAKSVVANGMARRALVQV 80.312 76.971 291

AT1G02680.1 AT1G02680.1 \_ELLAM(ox)QEELK(Ubi)QAR\_ KLNRCRELLAMQEELKQARKAFDVDEKELVD 66.004 60.631 111

AT1G02690.1 AT1G02690.1, AT1G02690.2, AT4G02150.1 \_EENLQK(Ubi)K(ac)R\_ NMVEIRKNKREENLQKKRREGFNPSMASQPG 52.716 33.738 47

AT1G02690.1 AT1G02690.1, AT1G02690.2, AT4G02150.1 \_EENLQK(ac)K(Ubi)R\_ MVEIRKNKREENLQKKRREGFNPSMASQPGQ 106.04 63.443 48

AT1G02750.1 AT1G02750.1 \_DVLK(Ubi)SEQK(ac)EM(ox)SYR\_ MHMVDHITSHHRDVLKSEQKEMSYREDPYLS 71.879 67.398 102

AT1G02750.1 AT1G02750.1 \_DVLK(ac)SEQK(Ubi)EM(ox)SYR\_ DHITSHHRDVLKSEQKEMSYREDPYLSDKYL 50.088 49.942 106

AT1G02780.1 AT1G02780.1, AT4G02230.1 \_AK(Ubi)NK(ac)ASR\_ AREKTLSDQFEAKRAKNKASRERKHARREER 89.698 52.052 165

AT1G02780.1 AT1G02780.1, AT4G02230.1 \_EK(Ubi)TLSDQFEAK(Ubi)R\_ LMESIHKSKAEKAREKTLSDQFEAKRAKNKA 112.02 102.22 153

AT1G02780.1 AT1G02780.1, AT4G02230.1 \_HSGYGK(Ubi)R\_ ALNEAKRKGRHSGYGKRKGTREARLPTKILW;KMKIAKMKGRHSGYGKRKGTREARLPTKVLW;QLNIAKRKGRHSGYGKRKGTREARLPTKVLW 108.24 99.465 80

AT1G02780.1 AT1G02780.1, AT4G02230.1 \_K(Ubi)LVK(Ubi)DGFIIR\_ EGSDISMANSRQNIRKLVKDGFIIRKPTKIH;ESGDISMANSRQNIRKLVKDGFIIRKPTKIH;ESSDISMANSRQNIRKLVKDGFIIRKPTKIH 143.97 113.77 43

AT1G02780.1 AT1G02780.1, AT4G02230.1 \_K(Ubi)PTK(ac)IHSR\_ RQNIRKLVKDGFIIRKPTKIHSRSRARALNE;RQNIRKLVKDGFIIRKPTKIHSRSRARKMKI;RQNIRKLVKDGFIIRKPTKIHSRSRARQLNI 112.36 80.863 53

AT1G02780.1 AT1G02780.1, AT4G02230.1 \_VK(ac)GNVFK(ac)NK(Ubi)R\_ YHDMYMRVKGNVFKNKRVLMESIHKSKAEKA 113.93 86.445 135

AT1G02780.1 AT1G02780.1, AT4G02230.1 \_VLM(ox)ESIHK(Ubi)SK(ac)AEK(ac)AR\_ GNVFKNKRVLMESIHKSKAEKAREKTLSDQF 84.41 82.412 144

AT1G02780.1 AT1G02780.1, AT4G02230.1 \_VLM(ox)ESIHK(ac)SK(Ubi)AEK(ac)AR\_ VFKNKRVLMESIHKSKAEKAREKTLSDQFEA 100.43 98.691 146

AT1G02780.1 AT1G02780.1, AT4G02230.1 \_VLMESIHK(ac)SK(ac)AEK(Ubi)AR\_ NKRVLMESIHKSKAEKAREKTLSDQFEAKRA 93.424 91.689 149

AT1G02780.1 AT1G02780.1, AT4G02230.1 \_(ac)VSLK(ac)LQK(Ubi)R\_ \_\_\_\_\_\_\_\_MVSLKLQKRLAASVMKCGKGKVW;\_\_\_\_\_\_\_\_MVSLKLQKRLASSVLKCGKRKVW 47.574 0 8

AT1G02870.1 AT1G02870.1 \_K(Ubi)DGK(ac)SAPLQPLTTM(ox)QR\_ ELEEDDLKTALGKQRKDGKSAPLQPLTTMQR 68.845 68.155 126

AT1G02870.1 AT1G02870.1 \_K(ac)DGK(Ubi)SAPLQPLTTMQR\_ EDDLKTALGKQRKDGKSAPLQPLTTMQRTHI 59.728 57.585 129

AT1G02870.1 AT1G02870.1 \_LVEK(Ubi)HGDDIEGMYR\_ PLTTMQRTHIRRLVEKHGDDIEGMYRDRKLN 85.837 83.286 150

AT1G03130.1 AT1G03130.1, AT4G02770.1 \_EGPNLLK(Ubi)LAR\_ PTGGAAIMREGPNLLKLARKEQCLALGTRLR 51.445 36.301 124

AT1G03140.1 AT1G03140.1 \_DIAELK(ac)K(Ubi)R\_ EGQTNDFLRDIAELKKRQKSGMMGDRKRKSR 68.224 39.266 166

AT1G03140.1 AT1G03140.1 \_EEILK(ac)K(Ubi)R\_ \_\_\_\_\_MDLLREEILKKRKSLAEESGGKKFFK 81.297 50.007 11

AT1G03350.1 AT1G03350.1 \_VNK(Ubi)LK(ac)QAEDLR\_ VDHETFWFRYFYRVNKLKQAEDLRANLVKRA 41.242 37.525 229

AT1G03350.1 AT1G03350.1 \_VNK(ac)LK(Ubi)QAEDLR\_ HETFWFRYFYRVNKLKQAEDLRANLVKRAIS 123.95 116.82 231

AT1G03600.1 AT1G03600.1 \_ILEEM(ox)ETAEK(Ubi)ALTR\_ AKRKARILEEMETAEKALTRGR\_\_\_\_\_\_\_\_\_ 83.692 80.83 168

AT1G03760.1 AT1G03760.1 \_SSK(Ubi)QTVDFLK(ac)R\_ CLVLLGENYYTDRSSKQTVDFLKRRDKTLQS 63.944 55.147 100

AT1G03820.1 AT1G03820.1 \_GYGNEEEK(Ubi)QGM(ox)SDTR\_ NNYNDNGRGYGNEEEKQGMSDTRVMENGKYF 78.326 72.409 160

AT1G03950.1 AT1G03950.1 \_TAK(Ubi)SGNEGATK(ac)ILAR\_ QSEEKKLVLEIKRTAKSGNEGATKILARQLI 46.89 44.503 51

AT1G03950.1 AT1G03950.1 \_TAK(ac)SGNEGATK(Ubi)ILAR\_ LEIKRTAKSGNEGATKILARQLIRLRQQIAN 67.136 62.232 59

AT1G04230.1 AT1G04230.1, AT5G43720.1 \_K(Ubi)DLPPEVR\_ SSLKNQIRSIGRMIRKDLPPEVREALEKKLD;VSIKNQMRSVERFLRKDLPPEVRESLVEKLE 76.064 65.306 51

AT1G04230.1 AT1G04230.1, AT5G43720.1 \_LK(Ubi)EDLEYVR\_ GYVQDAEIGGQLNRLKEDLEYVRFFPKNEKY 66.27 51.126 131

AT1G04270.2 AT1G04270.2, AT1G04270.1, AT5G09510.1 \_(ac)ADVEPEVAAAGVPK(Ubi)K(Ubi)R\_ \_MADVEPEVAAAGVPKKRTFKKFAFKGVDLD 137.21 135.96 15

AT1G04270.2 AT1G04270.2, AT1G04270.1, AT5G09510.1 \_EAPQGEK(Ubi)PEPVR\_ LIKKLRKKREAPQGEKPEPVRTHLRNMIIVP 74.237 64.458 78

AT5G43330.1 AT5G43330.1, AT1G04410.1 \_GAAIIK(Ubi)AR\_ GEFISTVQQRGAAIIKARKLSSALSAASSAC 94.262 65.1 237

AT3G04400.1 AT3G04400.1, AT2G33370.1, AT1G04480.1 \_GGTSGNK(Ubi)FR\_ \_\_\_MSKRGRGGTSGNKFRMSLGLPVAATVNC 111.95 26.735 13

AT3G04400.1 AT3G04400.1, AT2G33370.1, AT1G04480.1 \_K(Ubi)K(Ubi)VLPAVIVR\_ DMVMATVKKGKPDLRKKVLPAVIVRQRKPWR 61.78 57.234 74

AT1G04750.2 AT1G04750.2, AT1G04750.1, AT1G04760.1, AT2G33120.1, AT2G33120.2, AT2G32670.1 \_VK(Ubi)EDFNK(ac)R\_ DSAGRQIPMSFLERVKEDFNKRYGGGKAATA 52.579 42.207 48

AT1G04790.1 AT1G04790.1 \_ETIDLSSGK(Ubi)PQNR\_ SGSVPHRETIDLSSGKPQNRGTKRLVRHGCI 38.769 32.563 182

AT1G04850.1 AT1G04850.1 \_IGK(Ubi)ELLEAK(ac)R\_ KRMEREREKERIRIGKELLEAKRMEEVNERK 105.2 61.907 216

AT1G04850.1 AT1G04850.1 \_IGK(ac)ELLEAK(Ubi)R\_ REKERIRIGKELLEAKRMEEVNERKRLMFLR 74.611 53.239 222

AT1G04850.1 AT1G04850.1 \_K(Ubi)AEK(Ubi)EEEK(Ubi)R\_ RMEEVNERKRLMFLRKAEKEEEKRAREKIRQ 77.533 19.287 238

AT1G04850.1 AT1G04850.1 \_PATK(Ubi)TEQM(ox)R\_ VVEEKKVTLPIRPATKTEQMRECLRSLKQAH 79.489 69.834 299

AT1G04850.1 AT1G04850.1 \_QK(Ubi)LEEDK(ac)AER\_ AEKEEEKRAREKIRQKLEEDKAERRRKLGLP 90.306 81.896 254

AT1G04850.1 AT1G04850.1 \_SLK(Ubi)QAHK(ac)EDDAK(ac)VK(ac)R\_ PATKTEQMRECLRSLKQAHKEDDAKVKRAFQ 123.02 119.38 311

AT1G04850.1 AT1G04850.1 \_SLK(ac)QAHK(Ubi)EDDAK(ac)VK(ac)R\_ TEQMRECLRSLKQAHKEDDAKVKRAFQTLLT 48.216 46.598 315

AT1G04850.1 AT1G04850.1 \_SLK(ac)QAHK(ac)EDDAK(ac)VK(Ubi)R\_ LRSLKQAHKEDDAKVKRAFQTLLTYMGNVAK 48.216 45.742 322

AT1G04990.2 AT1G04990.2, AT1G04990.1 \_SSDK(Ubi)IEDAFR\_ TQHVQSSLVSIRSSDKIEDAFRKMKVNETGV 30.392 25.486 23

AT1G05190.1 AT1G05190.1 \_EVELTK(Ubi)EESGFLR\_ LGELALTYPREVELTKEESGFLRVKKTVETR 31.071 28.21 87

AT1G05190.1 AT1G05190.1 \_VK(ac)K(Ubi)TVETR\_ EVELTKEESGFLRVKKTVETRRANQMHGLFR 51.445 45.664 97

AT1G05205.1 AT1G05205.1 \_EVK(Ubi)LEEAKLE\_ EPFKYLDLEPPKREVKLEEAKLE\_\_\_\_\_\_\_\_ 68.536 32.994 84

AT1G05205.1 AT1G05205.1 \_EVK(ac)LEEAK(Ubi)LE\_ LDLEPPKREVKLEEAKLE\_\_\_\_\_\_\_\_\_\_\_\_\_ 59.198 51.066 89

AT1G05500.1 AT1G05500.1 \_VLK(Ubi)NDTTDEENASSR\_ NPFVTSSMTSLERVLKNDTTDEENASSRKRK 75.764 73.104 414

AT1G05910.1 AT1G05910.1 \_K(Ubi)DM(ox)DAELAPR\_ LRRRVHKNFSTSKSRKDMDAELAPRREGLRP 53.237 43.233 132

AT1G05910.1 AT1G05910.1 \_STTIANK(Ubi)R\_ RREGLRPRRSTTIANKRLKTESGADQDTSEE 79.469 54.574 156

AT1G06070.1 AT1G06070.1 \_DTNGLGVENNELK(Ubi)LR\_ LQRDTNGLGVENNELKLRVQTMEQQVHLQDA 205.28 196.25 274

AT1G06070.1 AT1G06070.1 \_M(ox)PDNPPK(Ubi)NLGHR\_ NRFSHDISRMPDNPPKNLGHRRAHSEILTLP 63.944 60.626 69

AT1G06070.1 AT1G06070.1 \_PM(ox)PSPGQK(Ubi)ESVTSPDR\_ SGASELRRPMPSPGQKESVTSPDRETPLTKD 58.98 58.156 408

AT1G06130.2 AT1G06130.2, AT1G06130.1 \_AK(Ubi)DNFK(ac)A\_ ETADEAEALGIIRRAKDNFKA\_\_\_\_\_\_\_\_\_\_ 63.565 56.345 325

AT1G06190.2 AT1G06190.2, AT1G06190.1 \_EK(Ubi)EIVELFR\_ SSPKFQATSSPGPREKEIVELFRKVQAQLRA 113.62 78.93 131

AT1G06190.2 AT1G06190.2, AT1G06190.1 \_K(ac)HSGEQSK(Ubi)R\_ DSLLKLLRKHSGEQSKRQVSKFSSQGEVQGD 146.71 140.41 187

AT1G06190.2 AT1G06190.2, AT1G06190.1 \_K(Ubi)VQAQLR\_ SSPGPREKEIVELFRKVQAQLRARAAAKKEE 139.27 84.741 139

AT1G06190.2 AT1G06190.2, AT1G06190.1 \_QVSK(ac)FSSQGEVQGDTVDK(Ubi)QDR\_ SKFSSQGEVQGDTVDKQDRTGNLVTSGNKDN 47.499 44.479 206

AT1G06190.2 AT1G06190.2, AT1G06190.1 \_TGNLVTSGNK(Ubi)DNNASSFTR\_ VDKQDRTGNLVTSGNKDNNASSFTRPTSSFR 92.474 90.612 219

AT1G06210.2 AT1G06210.2, AT1G06210.1 \_K(ac)ISGK(Ubi)SPVSQR\_ NGTEIVRAIKRKISGKSPVSQRLSLELLEAC 72.34 59.544 86

AT1G06530.1 AT1G06530.1 \_K(Ubi)VLEAIASR\_ MGEMEREIDKSDEERKVLEAIASRASELETE 59.067 20.5 95

AT1G06530.1 AT1G06530.1 \_SEISQK(Ubi)GGGIEELEK(ac)EVAGLR\_ EATAEAEKLRSEISQKGGGIEELEKEVAGLR 32.227 30.812 142

AT1G06530.1 AT1G06530.1 \_TEGEEATAEAEK(Ubi)LR\_ ITARTEGEEATAEAEKLRSEISQKGGGIEEL 159.52 156.32 134

AT1G06530.1 AT1G06530.1 \_TVK(Ubi)EENEK(Ubi)R\_ GIEELEKEVAGLRTVKEENEKRMKELESKLG 126.07 102.69 160

AT1G06530.1 AT1G06530.1 \_TVK(ac)EENEK(Ubi)R\_ EKEVAGLRTVKEENEKRMKELESKLGALEVK 129.85 73.447 165

AT1G06760.1 AT1G06760.1 \_ATAAATK(Ubi)R\_ KAKAKPVPRATAAATKRKAVDAKPKAKARPA 78.516 64.52 204

AT1G06760.1 AT1G06760.1 \_K(Ubi)AVDAK(ac)PK(ac)AK(Ubi)AR\_ KAKPVPRATAAATKRKAVDAKPKAKARPAKA 53.448 52.258 206

AT1G06760.1 AT1G06760.1 \_K(ac)AVDAK(Ubi)PK(ac)AK(ac)AR\_ PRATAAATKRKAVDAKPKAKARPAKAAKTAK 73.36 63.823 211

AT1G06760.1 AT1G06760.1 \_K(ac)AVDAK(ac)PK(Ubi)AK(ac)AR\_ ATAAATKRKAVDAKPKAKARPAKAAKTAKVT 60.157 53.68 213

AT1G06760.1 AT1G06760.1 \_K(ac)AVDAK(ac)PK(ac)AK(Ubi)AR\_ AAATKRKAVDAKPKAKARPAKAAKTAKVTSP 105.65 95.299 215

AT1G06760.1 AT1G06760.1 \_TGSSQYAIQK(Ubi)FIEEK(ac)R\_ VTLKERTGSSQYAIQKFIEEKRKELPPTFRK 106.38 104.87 89

AT1G06850.2 AT1G06850.2, AT1G06850.1 \_DTNGLANENTELK(Ubi)LR\_ YQRDTNGLANENTELKLRLQAMEQQAQLRNA 45.207 43.902 212

AT1G74270.1 AT1G74270.1, AT1G07070.1 \_GTILGYK(Ubi)R\_ GERVRLYVRGTILGYKRSKSNQYPNTSLVQI 80.229 40.126 22

AT1G07090.1 AT1G07090.1 \_SDPVK(Ubi)GDDPGPSFVSSPPATPSR\_ \_\_\_MESADSGRSDPVKGDDPGPSFVSSPPAT 87.511 83.975 13

AT1G07180.1 AT1G07180.1 \_YDGLAPTK(Ubi)EGEK(ac)PR\_ VNALEPQRYDGLAPTKEGEKPRVLVLGSGWA 74.789 69.578 69

AT1G07180.1 AT1G07180.1 \_YDGLAPTK(ac)EGEK(Ubi)PR\_ EPQRYDGLAPTKEGEKPRVLVLGSGWAGCRV 54.898 54.238 73

AT1G07210.1 AT1G07210.1 \_K(Ubi)QTGISAK(ac)AQR\_ FLANFITEAGIIIKRKQTGISAKAQRKIARE 101.5 94.372 197

AT1G07210.1 AT1G07210.1 \_K(ac)QTGISAK(Ubi)AQR\_ EAGIIIKRKQTGISAKAQRKIAREIKTARAF 120.55 113.53 204

AT1G07210.1 AT1G07210.1 \_MQK(Ubi)QMQNPR\_ DFNNSWGMNNFPRMQKQMQNPRQNNSKSEVT 147.36 145.21 152

AT1G07320.4 AT1G07320.4, AT1G07320.3, AT1G07320.2, AT1G07320.1 \_AIVTDLNNK(Ubi)R\_ ARAVVHRAIVTDLNNKRRGTASTLTRGEVRG 111.61 84.821 94

AT1G07360.1 AT1G07360.1, AT2G29580.1 \_DTALNISTHDSIPK(Ubi)SDVNR\_ VRDTALNISTHDSIPKSDVNREFFAEEHDRK;VRDTALNISTHDSIPKSDVNREYFAEEHDRK 30.042 29.615 110

AT1G07360.1 AT1G07360.1, AT2G29580.1 \_PK(Ubi)PDQDGANQQGGVAHSGLLPR\_ LVINGQRLKLTWGRPKPDQDGANQQGGVAHS 43.233 41.614 302

AT1G07480.2 AT1G07480.2, AT1G07480.1, AT1G07470.1 \_GNSNQQFTQDLFVPSSGK(Ubi)R\_ SNQQFTQDLFVPSSGKRKRDDSSGHYQNGGS 100.97 100.56 192

AT1G07550.1 AT1G07550.1 \_K(ac)PSAGK(Ubi)VTR\_ LVLIFVLRRRKPSAGKVTRSSFKSENRRFTY 72.928 39.666 537

AT5G59970.1 AT5G59970.1, AT5G59690.1, AT3G53730.1, AT3G46320.1, AT3G45930.1, AT2G28740.1, AT1G07820.2, AT1G07820.1, AT1G07660.1 \_DNIQGITK(Ubi)PAIR\_ KRHRKVLRDNIQGITKPAIRRLARRGGVKRI 152.96 143.76 32

AT5G59970.1 AT5G59970.1, AT5G59690.1, AT3G53730.1, AT3G46320.1, AT3G45930.1, AT2G28740.1, AT1G07820.2, AT1G07820.1, AT1G07660.1 \_GK(ac)GGK(Ubi)GLGK(ac)GGAK(ac)R\_ \_\_\_\_\_\_\_MSGRGKGGKGLGKGGAKRHRKVLR 99.834 82.24 9

AT5G59970.1 AT5G59970.1, AT5G59690.1, AT3G53730.1, AT3G46320.1, AT3G45930.1, AT2G28740.1, AT1G07820.2, AT1G07820.1, AT1G07660.1 \_GK(ac)GGK(ac)GLGK(Ubi)GGAK(ac)R\_ \_\_\_MSGRGKGGKGLGKGGAKRHRKVLRDNIQ 53.3 46.17 13

AT3G09480.1 AT3G09480.1, AT5G02570.1, AT3G53650.1, AT2G37470.1, AT5G22880.1, AT3G46030.1, AT1G07790.1, AT5G59910.1, AT3G45980.1, AT2G28720.1 \_YNK(Ubi)K(Ubi)PTITSR\_ FEKIALESSRLARYNKKPTITSREIQTAVRL 110.54 79.047 87

AT1G07830.1 AT1G07830.1 \_SQDEDK(Ubi)PVVYGR\_ PLEEFFEFDRSQDEDKPVVYGRGWKASELRL 91.245 84.389 52

AT1G07840.3 AT1G07840.3, AT1G07840.2, AT1G07840.1 \_DYYGVESNEQK(Ubi)R\_ PEEIRDYYGVESNEQKRFMAQYERQQKAEEE 102.4 100.03 233

AT1G07890.6 AT1G07890.6, AT1G07890.8, AT1G07890.7, AT1G07890.5, AT1G07890.4, AT1G07890.3, AT1G07890.2, AT1G07890.1 \_EDK(Ubi)PQPPPEGR\_ VTGGPDIPFHPGREDKPQPPPEGRLPDATKG 59.418 53.698 122

AT1G07890.6 AT1G07890.6, AT1G07890.8, AT1G07890.7, AT1G07890.5, AT1G07890.4, AT1G07890.3, AT1G07890.2, AT1G07890.1 \_LPDATK(Ubi)GCDHLR\_ DKPQPPPEGRLPDATKGCDHLRDVFAKQMGL 33.589 29.416 136

AT1G07930.2 AT1G07930.2, AT5G60390.2, AT5G60390.3, AT5G60390.1, AT1G07940.2, AT1G07940.1, AT1G07930.1, AT1G07920.1 \_LPLQDVYK(Ubi)IGGIGTVPVGR\_ RPSDKPLRLPLQDVYKIGGIGTVPVGRVIIM 66.152 62.913 243

AT1G07980.1 AT1G07980.1 \_SDVVVNK(Ubi)ASGR\_ KKPKEKKARSDVVVNKASGRSKRSSGSRTKK 96.745 89.771 20

AT2G27860.1 AT2G27860.1, AT1G08200.1 \_EPLK(Ubi)LVDGGESQR\_ VLACFSNNLLRREPLKLVDGGESQRTFVYIN 48.527 42.05 251

AT1G08360.1 AT1G08360.1 \_EAITTITGK(ac)SEAK(ac)K(Ubi)R\_ AVREAITTITGKSEAKKRNFVETIELQIGLK 30.072 29.367 23

AT1G08360.1 AT1G08360.1 \_(ac)SK(Ubi)LQSEAVR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MSKLQSEAVREAITTITG 52.579 32.372 3

AT1G08580.1 AT1G08580.1 \_AIHGDPLTNK(ac)LK(Ubi)TR\_ DRKRAIHGDPLTNKLKTRTPVPSVSGKRQRK 39.629 36.768 32

AT1G08820.2 AT1G08820.2, AT1G08820.1 \_DVVQLQK(Ubi)TDGQNVR\_ SEPKISKERDVVQLQKTDGQNVRGLDELKLV 65.043 49.245 289

AT1G08880.1 AT1G08880.1 \_FLK(Ubi)SGK(ac)YAER\_ KAGLQFPVGRIARFLKSGKYAERVGAGAPVY 42.976 39.303 43

AT1G08880.1 AT1G08880.1 \_FLK(ac)SGK(Ubi)YAER\_ LQFPVGRIARFLKSGKYAERVGAGAPVYLSA 32.329 30.576 46

AT1G08880.1 AT1G08880.1 \_GK(Ubi)PK(ac)ATK(ac)SVSR\_ MSSGAGSGTTKGGRGKPKATKSVSRSSKAGL;MSTGAGSGTTKGGRGKPKATKSVSRSSKAGL 74.987 70.835 16

AT1G08880.1 AT1G08880.1 \_GK(ac)PK(Ubi)ATK(ac)SVSR\_ SGAGSGTTKGGRGKPKATKSVSRSSKAGLQF;TGAGSGTTKGGRGKPKATKSVSRSSKAGLQF 70.089 61.679 18

AT1G08880.1 AT1G08880.1 \_GK(ac)PK(ac)ATK(Ubi)SVSR\_ GSGTTKGGRGKPKATKSVSRSSKAGLQFPVG 32.933 31.797 21

AT1G08880.1 AT1G08880.1 \_SSK(Ubi)AGLQFPVGR\_ GRGKPKATKSVSRSSKAGLQFPVGRIARFLK;QLGSGAAKKSTSRSSKAGLQFPVGRIARFLK;TLGSGGAKKATSRSSKAGLQFPVGRIARFLK;TLGSGSAKKATTRSSKAGLQFPVGRIARFLK;TLGSGVAKKSTSRSSKAGLQFPVGRIARFLK 150.51 146 28

AT1G08880.1 AT1G08880.1 \_(ac)STGAGSGTTK(Ubi)GGR\_ \_\_\_\_\_MSTGAGSGTTKGGRGKPKATKSVSRS 158.58 157.32 11

AT1G09040.1 AT1G09040.1 \_ESSTKK(Ubi)K(Ubi)R\_ STTKPEPRKRESSTKKKRSAKACNRNGSADL 40.268 12.06 826

AT5G65360.1 AT5G65360.1, AT5G10980.1, AT5G10400.1, AT5G10390.1, AT4G40040.2, AT4G40040.1, AT4G40030.3, AT4G40030.1, AT3G27360.1, AT1G09200.1, AT4G40030.2, AT5G65350.1 \_EIAQDFK(Ubi)TDLR\_ KLPFQRLVREIAQDFKTDLRFQSSAVAALQE 97.439 84.996 80

AT5G65360.1 AT5G65360.1, AT5G10980.1, AT5G10400.1, AT5G10390.1, AT4G40040.2, AT4G40040.1, AT4G40030.3, AT4G40030.1, AT3G27360.1, AT1G09200.1, AT4G40030.2, AT5G65350.1 \_K(Ubi)QLATK(ac)AAR\_ TKQTARKSTGGKAPRKQLATKAARKSAPATG 65.719 29.324 19

AT5G65360.1 AT5G65360.1, AT5G10980.1, AT5G10400.1, AT5G10390.1, AT4G40040.2, AT4G40040.1, AT4G40030.3, AT4G40030.1, AT3G27360.1, AT1G09200.1, AT4G40030.2, AT5G65350.1 \_K(ac)QLATK(Ubi)AAR\_ RKSTGGKAPRKQLATKAARKSAPATGGVKKP 109.66 40.749 24

AT5G65360.1 AT5G65360.1, AT5G10980.1, AT5G10400.1, AT5G10390.1, AT4G40040.2, AT4G40040.1, AT4G40030.3, AT4G40030.1, AT3G27360.1, AT1G09200.1, AT4G40030.2, AT5G65350.1 \_K(Ubi)STGGK(ac)APR\_ \_\_\_\_\_\_MARTKQTARKSTGGKAPRKQLATKA 78.136 39.135 10

AT5G65360.1 AT5G65360.1, AT5G10980.1, AT5G10400.1, AT5G10390.1, AT4G40040.2, AT4G40040.1, AT4G40030.3, AT4G40030.1, AT3G27360.1, AT1G09200.1, AT4G40030.2, AT5G65350.1 \_K(ac)STGGK(Ubi)APR\_ \_MARTKQTARKSTGGKAPRKQLATKAARKSA 96.665 26.409 15

AT5G65360.1 AT5G65360.1, AT5G10980.1, AT5G10400.1, AT5G10390.1, AT4G40040.2, AT4G40040.1, AT4G40030.3, AT4G40030.1, AT3G27360.1, AT1G09200.1, AT4G40030.2, AT5G65350.1 \_K(Ubi)YQK(ac)STELLIR\_ PHRFRPGTVALREIRKYQKSTELLIRKLPFQ;PHRYRPGTVALREIRKYQKSTELLIRKLPFQ 90.614 0 54

AT5G65360.1 AT5G65360.1, AT5G10980.1, AT5G10400.1, AT5G10390.1, AT4G40040.2, AT4G40040.1, AT4G40030.3, AT4G40030.1, AT3G27360.1, AT1G09200.1, AT4G40030.2, AT5G65350.1 \_K(ac)YQK(Ubi)STELLIR\_ FRPGTVALREIRKYQKSTELLIRKLPFQRLV;YRPGTVALREIRKYQKSTELLIRKLPFQRLV 138.45 0 57

AT5G65360.1 AT5G65360.1, AT5G10980.1, AT5G10400.1, AT5G10390.1, AT4G40040.2, AT4G40040.1, AT4G40030.3, AT4G40030.1, AT3G27360.1, AT1G09200.1, AT4G40030.2, AT5G65350.1 \_VTIMPK(Ubi)DIQLAR\_ TNLCAIHAKRVTIMPKDIQLARRIRGERA\_\_ 111.94 81.207 123

AT1G09270.2 AT1G09270.2, AT1G09270.1 \_EDSLLK(ac)K(Ubi)R\_ LVEIRKNKREDSLLKKRREGMMLQQQLPLGA 81.296 53.078 48

AT1G09290.1 AT1G09290.1 \_ETVSK(Ubi)LVQR\_ ATCGLTEKELRETVSKLVQRFVNDKDNTLSK 54.982 45.327 219

AT1G09575.1 AT1G09575.1 \_K(Ubi)LLK(ac)SHK(Ubi)FDCER\_ TYQDFMKRLFLSRQRKLLKSHKFDCERFKEL 42.031 36.976 242

AT1G09700.1 AT1G09700.1 \_K(Ubi)AAEQSAAEVALR\_ LDGVRYNSLPGFFNRKAAEQSAAEVALRELA 94.781 82.361 68

AT1G09770.1 AT1G09770.1 \_DGSSFSM(ox)TPK(Ubi)GTPFR\_ GLTPSRDGSSFSMTPKGTPFRDELHINEDMD 61.444 44.914 443

AT1G09770.1 AT1G09770.1 \_EK(Ubi)QLEEAR\_ LANTRGKKAKRKAREKQLEEARRLASLQKRR 107.57 53.417 173

AT1G09780.1 AT1G09780.1, AT3G08590.2, AT3G08590.1 \_DAILSGK(Ubi)FDQVR\_ ALEIAEKARDAILSGKFDQVRVNLPNGDMVG;ALEIGEKARDAILSGKFDQVRVNIPNGDMVG 92.19 81.145 419

AT1G10350.1 AT1G10350.1 \_FK(Ubi)SAEAGSQANR\_ GRTRGDGGDGGGRRFKSAEAGSQANRKTPPT 67.252 65.812 144

AT1G10350.1 AT1G10350.1 \_K(ac)TPPTNK(ac)K(Ubi)TTPPANR\_ AEAGSQANRKTPPTNKKTTPPANRKAPAIES 45.614 43.47 161

AT1G10350.1 AT1G10350.1 \_NANEDDLK(Ubi)K(Ubi)SYR\_ YNVLKVNRNANEDDLKKSYRRMAMKWHPDKN 51.286 44.6 21

AT1G10390.2 AT1G10390.2, AT1G10390.1 \_DK(Ubi)SILPK(ac)EQR\_ RALVIRPVQQWSSRDKSILPKEQRPTAPLHD 36.417 34.978 785

AT1G10522.2 AT1G10522.2, AT1G10522.1 \_DHM(ox)LNK(ac)LSK(Ubi)R\_ AETEKFRDHMLNKLSKRDLFEDSVDEIVGVC 52.247 47.906 100

AT1G10590.2 AT1G10590.2, AT1G10590.1, AT1G10590.3, AT1G23750.1 \_NAK(Ubi)IDM(ox)YK(Ubi)GSM(ox)R\_ VDLMKEGSTVTLRNAKIDMYKGSMRLAVDKW;VDMMKEGSVVTLRNAKIDMYKGSMRLAVDRW 40.475 0 92

AT1G10590.2 AT1G10590.2, AT1G10590.1, AT1G10590.3, AT1G23750.1 \_NDQVDM(ox)MK(Ubi)EGSVVTLR\_ GIIIFTARNDQVDMMKEGSVVTLRNAKIDMY 81.656 79.586 81

AT1G10865.2 AT1G10865.2, AT1G10865.1 \_ETYFNCK(Ubi)R\_ IPSECVGLRETYFNCKRGQT\_\_\_\_\_\_\_\_\_\_\_ 113.7 111.54 55

AT1G11240.1 AT1G11240.1 \_DK(Ubi)K(Ubi)K(ac)QAR\_ QSRRRSTTKTMKKRDKKKQARGIKTSR\_\_\_\_ 103.83 60.025 189

AT1G11240.1 AT1G11240.1 \_DK(ac)K(Ubi)K(Ubi)QAR\_ RRRSTTKTMKKRDKKKQARGIKTSR\_\_\_\_\_\_ 42.599 39.919 191

AT1G11240.1 AT1G11240.1 \_K(Ubi)EAQK(ac)QQEEAFR\_ KDFVTGFHKRKKKRRKEAQKQQEEAFRRKRI 85.837 78.054 57

AT1G11240.1 AT1G11240.1 \_K(ac)EAQK(Ubi)QQEEAFR\_ TGFHKRKKKRRKEAQKQQEEAFRRKRIEARK 135.02 127.3 61

AT1G11240.1 AT1G11240.1 \_K(ac)EK(ac)TQSTESGSTAK(Ubi)ASTK(ac)QPVPVR\_ IRKEKTQSTESGSTAKASTKQPVPVRKTKPM 82.177 81.515 157

AT1G11240.1 AT1G11240.1 \_K(ac)TK(Ubi)PM(ox)K(ac)QSR\_ TAKASTKQPVPVRKTKPMKQSRRRSTTKTMK 42.802 38.629 170

AT1G11240.1 AT1G11240.1 \_STTK(Ubi)TM(ox)K(ac)K(ac)R\_ RKTKPMKQSRRRSTTKTMKKRDKKKQARGIK 36.424 31.111 182

AT1G11240.1 AT1G11240.1 \_STTK(ac)TM(ox)K(Ubi)K(ac)R\_ KPMKQSRRRSTTKTMKKRDKKKQARGIKTSR 52.579 48.405 185

AT1G11360.4 AT1G11360.4, AT1G11360.3, AT1G11360.2, AT1G11360.1 \_K(Ubi)SPTVVTVQPSSPR\_ \_\_\_MTSPGKSPRSDRKSPTVVTVQPSSPRFP 76.728 75.694 13

AT1G11400.3 AT1G11400.3, AT1G11400.2, AT1G11400.1 \_LTEAQQQK(Ubi)TASR\_ RALKKKIRLTEAQQQKTASRDLNPEQLEKFS 197.38 174.81 172

AT1G11400.3 AT1G11400.3, AT1G11400.2, AT1G11400.1 \_M(ox)AELSK(Ubi)NLK(Ubi)EGER\_ GSRSGEQGKRMAELSKNLKEGERILEPTRRP 80.96 71.423 17

AT1G11400.3 AT1G11400.3, AT1G11400.2, AT1G11400.1 \_QELK(Ubi)ALEDK(ac)AA\_ QLEKFSKLEEWRQELKALEDKAA\_\_\_\_\_\_\_\_ 119.03 118.88 197

AT1G11430.1 AT1G11430.1 \_NNTK(Ubi)YQSK(ac)R\_ PCTYPTYQPKQRNNTKYQSKRYERKRDGPPP 46.001 44.248 201

AT1G11480.2 AT1G11480.2, AT1G11480.1 \_GIDEPEHHK(Ubi)LDQPTDR\_ ELVLKERGIDEPEHHKLDQPTDRMVLKPIER 130.72 130.31 406

AT1G11480.2 AT1G11480.2, AT1G11480.1 \_K(ac)FDQK(Ubi)DGR\_ PVSSPRDMRTRKFDQKDGRNVSDIARSETQR 62.463 58.29 445

AT1G11480.2 AT1G11480.2, AT1G11480.1 \_LEM(ox)K(Ubi)ADSVLAGR\_ VSDDVFRFANNRLEMKADSVLAGRHSGWAAG 62.088 53.956 106

AT1G11480.2 AT1G11480.2, AT1G11480.1 \_M(ox)VLK(Ubi)PIER\_ PEHHKLDQPTDRMVLKPIERVPEHASQRPVS 61.962 54.742 417

AT1G11930.2 AT1G11930.2, AT1G11930.1 \_VNQAAEK(Ubi)AGR\_ AALRSVFQRVNQAAEKAGRGSDQIRVVAVSK 136.96 120.49 40

AT1G12000.1 AT1G12000.1 \_DLTAVGSPENAPAK(Ubi)GR\_ TRDLTAVGSPENAPAKGRASVYSEVQSSRIN 107.35 105.04 23

AT1G12270.1 AT1G12270.1, AT1G62740.1 \_CVQQINK(Ubi)ANR\_ QELLDGVKRCVQQINKANRGDLTPEELKERQ 113.62 109.28 499

AT1G12270.1 AT1G12270.1, AT1G62740.1 \_EPEPEPEPEVTEEK(Ubi)EK(ac)K(ac)ER\_ KREPEPEPEPEVTEEKEKKERKEKAKKEKEL 92.474 92.095 235

AT1G12270.1 AT1G12270.1, AT1G62740.1 \_EPEPEPEPEVTEEK(ac)EK(Ubi)K(ac)ER\_ EPEPEPEPEVTEEKEKKERKEKAKKEKELGN 68.952 68.324 237

AT1G12270.1 AT1G12270.1, AT1G62740.1 \_EPEPEPEPEVTEEK(ac)EK(ac)K(Ubi)ER\_ PEPEPEPEVTEEKEKKERKEKAKKEKELGNA 50.226 49.542 238

AT1G12270.1 AT1G12270.1, AT1G62740.1 \_GDLTPEELK(Ubi)ER\_ QINKANRGDLTPEELKERQAKGMQDPEIQNI;QINKASRGDLTPEELKERQAKAMQDPEVQNI 113.22 106.06 511

AT1G12270.1 AT1G12270.1, AT1G62740.1 \_NPDTLK(Ubi)R\_ AFQKALTEHRNPDTLKRLNDAERAKKEWEQK 92.187 55.63 360

AT1G12270.1 AT1G12270.1, AT1G62740.1 \_NPNDHK(Ubi)AYSNR\_ IKHYTEAIKRNPNDHKAYSNRAASYTKLGAM 74.611 72.308 418

AT1G12270.1 AT1G12270.1, AT1G62740.1 \_SDYK(Ubi)M(ox)VAR\_ CNKAVERGRELRSDYKMVARALTRKGTALTK 47.082 44.402 316

AT1G12410.1 AT1G12410.1 \_GQADDIQNEAK(Ubi)ELSR\_ AGAARGQADDIQNEAKELSRIRDYLFNELAK 93.424 76.172 211

AT1G12440.2 AT1G12440.2, AT1G12440.1 \_GGDSAAAPLDPPK(Ubi)STATR\_ STRGGDSAAAPLDPPKSTATRCLSCNKKVGV 71.601 71.479 103

AT1G12530.1 AT1G12530.1 \_LK(Ubi)ENEDLR\_ DGDFDRLRLKIIRRLKENEDLRNNMISVVKE 82.287 52.12 35

AT1G12530.1 AT1G12530.1 \_SEDGM(ox)K(Ubi)NEIR\_ LSDGLWGIIRSEDGMKNEIRETVQSVYATLS 69.721 47.728 98

AT1G12650.4 AT1G12650.4, AT1G12650.3, AT1G12650.2, AT1G12650.1 \_EVVHVPK(ac)K(Ubi)EVR\_ SKKPVSRYREVVHVPKKEVRDPRFNQLGGTL 52.247 48.669 99

AT1G12650.4 AT1G12650.4, AT1G12650.3, AT1G12650.2, AT1G12650.1 \_K(ac)K(ac)NATK(Ubi)DHR\_ KLTSYLDKRRKKNATKDHRFMPYRRAEE\_\_\_ 78.342 75.299 236

AT1G12830.1 AT1G12830.1 \_(ac)ADVENQQDSSFPVK(Ubi)R\_ \_MADVENQQDSSFPVKRKSDLFCQDQDNVTN 268.59 264.61 15

AT1G12830.1 AT1G12830.1 \_K(ac)GK(Ubi)GISR\_ DEEEEEEEEVVDRKGKGISREDKGKGKMIEV 85.161 40.784 122

AT1G13020.1 AT1G13020.1 \_EK(Ubi)EK(Ubi)NLDLLIR\_ ESDSNHQNLPDLIREKEKNLDLLIRELDDKV 72.29 68.574 448

AT1G13020.1 AT1G13020.1 \_ELDDK(Ubi)VR\_ EKEKNLDLLIRELDDKVRFRPRAVERPGSSA;GKEKDLEILTRELDDKVRFRQKPVERPGSGA 85.265 26.45 462

AT1G13020.1 AT1G13020.1 \_EVLLEEQGK(Ubi)DWR\_ FGDAKPREVLLEEQGKDWRKIDSELEHRRVD;FGDAKPREVLLEEQGKDWRKMDLELEHRRVD 93.614 90.856 381

AT1G13020.1 AT1G13020.1 \_K(Ubi)ADTEVSETPTAVK(ac)TSK(ac)PSPFGAAR\_ GGVQEERRRLVFEPRKADTEVSETPTAVKTS 113.13 112.47 275

AT1G13020.1 AT1G13020.1 \_K(Ubi)IDSELEHR\_ KPREVLLEEQGKDWRKIDSELEHRRVDRPET 102.52 86.386 385

AT1G13020.1 AT1G13020.1 \_K(ac)K(ac)LEK(Ubi)EAAIAPESK(ac)ESQQESDSNHQNLPDLIR\_ TEGERMLKEEIEELRKKLEKEAAIAPESKES 59.944 59.915 415

AT1G13020.1 AT1G13020.1 \_M(ox)LK(Ubi)EEIEELR\_ HRRVDRPETEGERMLKEEIEELRKKLEKEAA 50.353 36.953 407

AT1G13020.1 AT1G13020.1 \_NFQGSK(Ubi)ER\_ NWPRPVDDRRNFQGSKERGFFNNRNFDRSSS 97.635 90.356 529

AT1G13020.1 AT1G13020.1 \_PK(Ubi)VNPFGDAK(ac)PR\_ RSESSGLNNVVKPRPKVNPFGDAKPREVLLE;SSALNNVENVVKPRPKVNPFGDAKPREVLLE 94.688 92.156 362

AT1G13020.1 AT1G13020.1 \_PK(ac)VNPFGDAK(Ubi)PR\_ NVVKPRPKVNPFGDAKPREVLLEEQGKDWRK 90.614 90.049 370

AT1G13020.1 AT1G13020.1 \_SESSALNNVENVVK(Ubi)PR\_ NRSESSALNNVENVVKPRPKVNPFGDAKPRE 104.09 103.43 358

AT1G13190.1 AT1G13190.1 \_VK(Ubi)EIK(ac)FFDER\_ TDAEIESVLSQYGRVKEIKFFDERVSGKSKG 35.523 31.945 229

AT1G13220.2 AT1G13220.2, AT1G13220.1 \_EIQEENSK(Ubi)IR\_ QELEKALREIQEENSKIRLSSEAKLVEANAL 48.284 39.584 179

AT1G13320.2 AT1G13320.2, AT1G13320.3, AT1G13320.1, AT1G25490.1 \_EAAANNLK(Ubi)R\_ QDKVHSIREAAANNLKRLAEEFGPEWAMQHI 80.438 76.392 461

AT1G13470.1 AT1G13470.1 \_AVVK(ac)K(Ubi)SER\_ EERFGWKIEPQRAVVKKSERFNGGGSNWKSY 43.808 5.0161 328

AT1G14320.1 AT1G14320.1, AT1G14320.2 \_ADFTK(Ubi)LR\_ SRKWGFTKFNRADFTKLRQEKRVVPDGVNAK 132.09 65.059 183

AT1G14320.1 AT1G14320.1, AT1G14320.2 \_AK(ac)FK(Ubi)FPGR\_ AHGHHAQEALRRAKFKFPGRQKIIVSRKWGF;NHGVHAQEALRRAKFKFPGRQKIIVSRKWGF 101.54 95.507 158

AT1G14320.1 AT1G14320.1, AT1G14320.2 \_IYDVGM(ox)K(Ubi)R\_ RGVPDPKIRIYDVGMKRKGVDEFPFCVHLVS;RGVPDPKIRIYDVGMKRKGVDEFPYCVHLVS 67.169 31.725 39

AT2G02510.1 AT2G02510.1, AT1G14450.1 \_(ac)AK(Ubi)PLGTTGEFFR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MAKPLGTTGEFFRRRDEW 88.021 85.489 3

AT1G14810.1 AT1G14810.1 \_ASNTFPTPLDVSNK(Ubi)DDVAVGR\_ DRASNTFPTPLDVSNKDDVAVGRIRRDVSQD 46.953 46.298 330

AT1G14810.1 AT1G14810.1 \_EILK(ac)K(Ubi)APGVYIIDDR\_ FENPLDENTAREILKKAPGVYIIDDRASNTF 60.489 59.911 306

AT1G14840.1 AT1G14840.1, AT1G14840.2, AT2G01750.1, AT2G01750.2 \_DK(Ubi)LAIADR\_ EERRFLQGEMQQLRDKLAIADRAAKSEAQLK 101.46 50.267 362

AT1G14840.1 AT1G14840.1, AT1G14840.2, AT2G01750.1, AT2G01750.2 \_ELSEGQAEIK(Ubi)ALR\_ VRDKDRELSEGQAEIKALRLSERQREKAVEE 71.558 6.2627 77

AT1G14840.1 AT1G14840.1, AT1G14840.2, AT2G01750.1, AT2G01750.2 \_K(ac)AAHEK(Ubi)DQSLR\_ LLQKEVITLRKAAHEKDQSLRDKDEAIEMLA 40.377 35.656 517

AT1G14840.1 AT1G14840.1, AT1G14840.2, AT2G01750.1, AT2G01750.2 \_K(Ubi)FQEM(ox)NEER\_ LAGGAAANAVRDYQRKFQEMNEERKILEREL;LAGGAAANAVRDYQRKFQEMNEERKTLDREL;LAGGTAANAVRDYQRKFQEMNEERRILDREL 110.39 108.63 299

AT1G14840.1 AT1G14840.1, AT1G14840.2, AT2G01750.1, AT2G01750.2 \_LTK(ac)SK(Ubi)EAALLDAER\_ IAKLQDDNKSLDRLTKSKEAALLDAERTVQS;IGKLQEDNRALDRLTKSKEAALLDAERTVET;IVKLQDDNRALDRLTKSKEAALLDAERTVQS 46.318 37.752 211

AT1G14840.1 AT1G14840.1, AT1G14840.2, AT2G01750.1, AT2G01750.2 \_QEIAK(Ubi)LQDDNK(ac)SLDR\_ APLEAELKLSRQEIAKLQDDNKSLDRLTKSK 67.646 65.91 174

AT1G14840.1 AT1G14840.1, AT1G14840.2, AT2G01750.1, AT2G01750.2 \_VVDK(Ubi)GQQDSK(ac)TR\_ VAVMGKEVAAMRVVDKGQQDSKTRRLSVSKG 51.726 49.713 568

AT1G15200.1 AT1G15200.1, AT1G15200.2, AT1G15200.4, AT1G15200.3 \_ENLTEK(Ubi)R\_ ESERLRLQERENLTEKRRRDLTLRARVAAKA 90.308 53.739 222

AT1G15200.1 AT1G15200.1, AT1G15200.2, AT1G15200.4, AT1G15200.3 \_(ac)GDTALEK(Ubi)TAEELR\_ \_\_\_\_\_\_\_\_MGDTALEKTAEELRHEIDELHRQ 130.1 127.24 8

AT1G15200.1 AT1G15200.1, AT1G15200.2, AT1G15200.4, AT1G15200.3 \_IYYAPVKPLEEDTSEVEQQK(Ubi)ER\_ PVKPLEEDTSEVEQQKERTFLEWKAARRQEV 179.19 176.98 287

AT1G15200.1 AT1G15200.1, AT1G15200.2, AT1G15200.4, AT1G15200.3 \_K(ac)ANNEGM(ox)NLQETMDK(Ubi)ELETHR\_ RKANNEGMNLQETMDKELETHRMEHGPKKRK 43.164 42.502 346

AT1G15200.1 AT1G15200.1, AT1G15200.2, AT1G15200.4, AT1G15200.3 \_M(ox)EHGPK(ac)K(Ubi)R\_ MDKELETHRMEHGPKKRKIPGGGVGDEDEED 77.923 74.804 359

AT1G15200.1 AT1G15200.1, AT1G15200.2, AT1G15200.4, AT1G15200.3 \_NDVEDEPPAK(Ubi)R\_ PRPAERNDVEDEPPAKRRLSSAVVKVDGEDV 107.03 105.12 71

AT1G15200.1 AT1G15200.1, AT1G15200.2, AT1G15200.4, AT1G15200.3 \_VLPK(Ubi)NEDPK(ac)LVNR\_ YEAFALPEPAPRVLPKNEDPKLVNRNRRMLG 77.894 75.959 153

AT1G15200.1 AT1G15200.1, AT1G15200.2, AT1G15200.4, AT1G15200.3 \_VLPK(ac)NEDPK(Ubi)LVNR\_ LPEPAPRVLPKNEDPKLVNRNRRMLGNLLGT 66.004 51.921 158

AT1G15230.1 AT1G15230.1 \_K(ac)AANAVK(Ubi)SR\_ PESIQEAFRKAANAVKSRAASIFDHEEEDGC 63.073 63.073 46

AT1G15230.1 AT1G15230.1 \_(ac)M(ox)EATK(Ubi)ER\_ \_\_\_\_\_\_\_\_\_\_\_MEATKERVGLLDTILPPALA 63.565 18.484 5

AT3G16040.1 AT3G16040.1, AT1G15270.1 \_AK(ac)ASQK(ac)GSFGGSGLK(ac)K(ac)SGK(ac)K(Ubi)\_ QKGSFGGSGLKKSGKK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 55.705 54.773 64

AT1G15280.1 AT1G15280.1, AT1G15280.2 \_EK(Ubi)M(ox)PHLDSR\_ SKQLRNSNGSQNSREKMPHLDSRRSPTAPAK 53.028 34.489 247

AT1G15280.1 AT1G15280.1, AT1G15280.2 \_K(Ubi)SDTPLR\_ QIYVPKAVSRGRGPRKSDTPLRNENQAHSEQ 181.81 130.23 216

AT1G15280.1 AT1G15280.1, AT1G15280.2 \_LHTNESVTPSGK(Ubi)K(ac)YR\_ SMERLHTNESVTPSGKKYRNTKSGYSPVWTA 125.97 123.67 317

AT1G15280.1 AT1G15280.1, AT1G15280.2 \_LHTNESVTPSGK(ac)K(Ubi)YR\_ MERLHTNESVTPSGKKYRNTKSGYSPVWTAK 118.52 108.95 318

AT1G15280.1 AT1G15280.1, AT1G15280.2 \_NENQAHSEQSK(Ubi)QLR\_ DTPLRNENQAHSEQSKQLRNSNGSQNSREKM 106.58 88.562 233

AT1G15280.1 AT1G15280.1, AT1G15280.2 \_QSNNPSK(Ubi)QPR\_ VAENGVSERQSNNPSKQPRRYSEMTFSK\_\_\_ 91.752 89.598 572

AT1G15280.1 AT1G15280.1, AT1G15280.2 \_SLSSSPQK(Ubi)TSLSR\_ DQHSAVVRSLSSSPQKTSLSRNRYPPDEIES 71.879 60.296 400

AT1G15280.1 AT1G15280.1, AT1G15280.2 \_YSEM(ox)TFSK(Ubi)\_ NPSKQPRRYSEMTFSK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 78.149 78.149 584

AT1G15340.1 AT1G15340.1 \_ISQK(ac)VK(ac)ATTPTPDK(ac)EPLLK(ac)K(Ubi)R\_ KVKATTPTPDKEPLLKKRRSSLTKKDNKEAA 73.672 73.329 99

AT1G15340.1 AT1G15340.1 \_K(Ubi)TEIVFVAPTGEEISSR\_ SWKKLFYPKRAGTPRKTEIVFVAPTGEEISS 100.69 100.25 32

AT1G15400.2 AT1G15400.2, AT1G15400.1, AT1G15400.3 \_LIAELNK(ac)SGNNEQK(Ubi)DESQR\_ DRLIAELNKSGNNEQKDESQRDEQPKPMSES 83.423 81.86 38

AT1G15470.1 AT1G15470.1 \_ISEK(ac)AAEAK(Ubi)\_ RKAESLRISEKAAEAK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 90.15 77.623 333

AT1G15660.1 AT1G15660.1 \_EELEGDGAIK(Ubi)LLEER\_ LLACSREELEGDGAIKLLEERLQIKSFNIEK 44.925 40.167 253

AT1G15810.1 AT1G15810.1 \_QVEEK(Ubi)EAQYR\_ EELNQRLVKLRQVEEKEAQYRTKNFAQLRNV 76.282 67.872 261

AT1G15810.1 AT1G15810.1 \_TQINTSNNM(ox)GK(Ubi)R\_ LKNLRTQINTSNNMGKRGGVLGSFKSTVGEA 50.786 49.347 174

AT1G15830.1 AT1G15830.1 \_GGGGEPVIPGAPPPK(Ubi)R\_ RGGGGEPVIPGAPPPKRGGGGEPVIPGAPPP 45.614 44.86 158

AT1G15910.1 AT1G15910.1 \_TVSDISQK(Ubi)NVQDR\_ LSKEGQLRTVSDISQKNVQDRNTVLEELSDM 51.726 49.066 247

AT1G15940.1 AT1G15940.1 \_IAGEEVESNTNELGEELVGK(Ubi)R\_ EVESNTNELGEELVGKRVNVWWPLDKKFYEG 102.43 101.36 574

AT1G15940.1 AT1G15940.1 \_K(ac)IVSK(Ubi)NVEPSSSPEVR\_ AFIQREKSKKRKIVSKNVEPSSSPEVRSSMQ 83.54 81.47 660

AT1G16210.1 AT1G16210.1 \_EAEGPK(Ubi)SK(ac)AVK(ac)K(ac)R\_ TREKEEQYWREAEGPKSKAVKKREEEAEKKA 54.898 49.003 45

AT1G16210.1 AT1G16210.1 \_EAEGPK(ac)SK(ac)AVK(Ubi)K(ac)R\_ EKEEQYWREAEGPKSKAVKKREEEAEKKAET 56.569 50.674 47

AT1G16210.1 AT1G16210.1 \_EAEGPK(ac)SK(ac)AVK(ac)K(Ubi)R\_ QYWREAEGPKSKAVKKREEEAEKKAETAAKK 48.527 42.632 51

AT1G16210.1 AT1G16210.1 \_K(Ubi)NAAEAEQK(ac)DR\_ KKMGLNSKAEVAKSRKNAAEAEQKDRQTREK 135.08 134.82 18

AT1G16210.1 AT1G16210.1 \_K(ac)NAAEAEQK(Ubi)DR\_ AEVAKSRKNAAEAEQKDRQTREKEEQYWREA 140.14 136.42 26

AT1G16210.1 AT1G16210.1 \_MAGEDEYEK(Ubi)MVLVTNTNR\_ SKKKQTRMAGEDEYEKMVLVTNTNRDDSLIE 148.44 148.05 139

AT1G16210.1 AT1G16210.1 \_VTVPVPK(Ubi)VTEAELIR\_ KKPDKKANRVTVPVPKVTEAELIRRREEDQV 38.376 32.481 100

AT1G79210.3 AT1G79210.3, AT1G79210.2, AT1G79210.1, AT1G16470.2, AT1G16470.1 \_K(Ubi)QAEQYLR\_ SGMGPDFRVLVRKSRKQAEQYLRLYKEPIPV 141.48 74.788 92

AT1G79210.3 AT1G79210.3, AT1G79210.2, AT1G79210.1, AT1G16470.2, AT1G16470.1 \_LYK(Ubi)EPIPVTQLVR\_ VRKSRKQAEQYLRLYKEPIPVTQLVRETATV 43.03 40.37 102

AT1G16520.1 AT1G16520.1 \_DLAK(ac)LETFK(Ubi)R\_ TVTKLTRDLAKLETFKRQLIKSLSDESGPQT 61.344 60.154 118

AT1G16520.1 AT1G16520.1 \_ELEEK(Ubi)ASR\_ QKLLGKESVVRELEEKASRLERDCREADSRL 114.28 55.3 68

AT1G16520.1 AT1G16520.1 \_GYSAAGSPK(Ubi)R\_ STSVSPRGYSAAGSPKRTSGAVSPTKATLWY 85.355 43.906 219

AT1G16520.1 AT1G16520.1 \_K(Ubi)ITSM(ox)AIASR\_ AVIPTDPYDQLDLARKITSMAIASRVSNLES;SVIPMDPFEQLDLARKITSMAIASRVSNLDS 73.951 42.53 31

AT1G16520.1 AT1G16520.1 \_QK(ac)LLGK(Ubi)ESVVR\_ NLDSEVVELRQKLLGKESVVRELEEKASRLE 57.175 30.077 58

AT1G16520.1 AT1G16520.1 \_QLIK(Ubi)SLSDESGPQTEPVDIR\_ TRDLAKLETFKRQLIKSLSDESGPQTEPVDI 43.164 40.363 123

AT1G16520.1 AT1G16520.1 \_TCDQPGSYPGK(Ubi)DGR\_ PVDIRTCDQPGSYPGKDGRINAHSIKQAYSG 44.925 44.925 150

AT1G16740.1 AT1G16740.1 \_VEK(Ubi)ALQYSYR\_ GRAKNCIRIARERVEKALQYSYRDRRNKKRE 33.875 29.535 30

AT1G16750.1 AT1G16750.1 \_LK(ac)NQLQK(Ubi)ETAM(ox)R\_ FELEHDVKRLKNQLQKETAMRALLLKASDQS 42.629 24.963 60

AT1G16810.2 AT1G16810.2, AT1G16810.1 \_LDVQK(Ubi)LAK(ac)EANK(ac)SHR\_ AERRYIEQKQRLDVQKLAKEANKSHRNRIED 99.344 87.426 109

AT1G16810.2 AT1G16810.2, AT1G16810.1 \_LDVQK(ac)LAK(Ubi)EANK(ac)SHR\_ RYIEQKQRLDVQKLAKEANKSHRNRIEDFNQ 100.43 98.282 112

AT1G16810.2 AT1G16810.2, AT1G16810.1 \_SEK(Ubi)ASEDAK(ac)LQQQLDDDDHLTPAER\_ LIEGEEGDEEMNRSEKASEDAKLQQQLDDDD 243.35 241.74 74

AT1G16810.2 AT1G16810.2, AT1G16810.1 \_SEK(ac)ASEDAK(Ubi)LQQQLDDDDHLTPAER\_ GDEEMNRSEKASEDAKLQQQLDDDDHLTPAE 86.946 86.238 80

AT1G16810.2 AT1G16810.2, AT1G16810.1 \_YIEQK(Ubi)QR\_ DDDHLTPAERRYIEQKQRLDVQKLAKEANKS 110.61 99.902 102

AT1G16870.1 AT1G16870.1 \_LADDEK(Ubi)IPSLDVGPNGR\_ DDLEAGRAKRLADDEKIPSLDVGPNGRPLFT 48.899 47.223 110

AT1G17490.1 AT1G17490.1 \_(ac)AEPK(Ubi)QSSLSEVK(ac)TNVIGSR\_ \_\_\_\_\_\_\_\_\_\_\_MAEPKQSSLSEVKTNVIGSR 56.719 53.698 5

AT1G17490.1 AT1G17490.1 \_(ac)AEPK(ac)QSSLSEVK(Ubi)TNVIGSR\_ \_\_\_MAEPKQSSLSEVKTNVIGSRKEEKESMF 103.9 102.49 13

AT1G17490.1 AT1G17490.1 \_SEDIDEK(Ubi)TR\_ FHGKETHGRSEDIDEKTRVDDVKGPGVLGRM 52.579 21.157 43

AT1G17490.1 AT1G17490.1 \_VDDVK(Ubi)GPGVLGR\_ GRSEDIDEKTRVDDVKGPGVLGRMMEEMEAI 113.24 104.64 50

AT1G73030.1 AT1G73030.1, AT1G17730.1 \_LAELK(Ubi)AR\_ EKVDEDDLSRRLAELKARG\_\_\_\_\_\_\_\_\_\_\_\_ 118.69 20.269 200

AT1G17880.1 AT1G17880.1, AT1G73230.1 \_EK(Ubi)LM(ox)K(Ubi)M(ox)ANTVR\_ \_\_\_\_\_\_\_\_\_\_\_MNREKLMKMANTVRTGGKGT 81.92 76.379 5

AT1G17880.1 AT1G17880.1, AT1G73230.1 \_EK(ac)LMK(Ubi)MANTVR\_ \_\_\_\_\_\_\_\_MNREKLMKMANTVRTGGKGTVRR 114.72 69.288 8

AT1G17880.1 AT1G17880.1, AT1G73230.1 \_K(ac)K(Ubi)K(ac)AVHK(ac)TNTTDDK(ac)R\_ ANTVRTGGKGTVRRKKKAVHKTNTTDDKRLQ 96.143 95.077 25

AT1G17880.1 AT1G17880.1, AT1G73230.1 \_K(ac)K(ac)K(Ubi)AVHK(ac)TNTTDDK(ac)R\_ NTVRTGGKGTVRRKKKAVHKTNTTDDKRLQS 61.265 60.575 26

AT1G17880.1 AT1G17880.1, AT1G73230.1 \_K(ac)K(ac)K(ac)AVHK(Ubi)TNTTDDK(ac)R\_ TGGKGTVRRKKKAVHKTNTTDDKRLQSTLKR 97.095 87.812 30

AT1G17880.1 AT1G17880.1, AT1G73230.1 \_LQSTLK(Ubi)R\_ HKTNTTDDKRLQSTLKRIGVNSIPAIEEVNI;HKTTTTDDKRLQSTLKRVGVNSIPAIEEVNI 119.57 52.534 44

AT1G17880.1 AT1G17880.1, AT1G73230.1 \_TGGK(Ubi)GTVR\_ REKLMKMANTVRTGGKGTVRRKKKAVHKTNT;REKLMKMANTVRTGGKGTVRRKKKAVHKTTT 156.35 77.577 18

AT1G18070.2 AT1G18070.2, AT1G18070.1, AT1G18070.3 \_K(Ubi)GEFETGYER\_ GASQADIGVLVISARKGEFETGYERGGQTRE 89.301 84.96 214

AT1G18080.1 AT1G18080.1 \_(ac)AEGLVLK(Ubi)GTMR\_ \_\_\_\_\_\_\_\_MAEGLVLKGTMRAHTDMVTAIAT 75.739 67.873 8

AT1G18190.1 AT1G18190.1 \_K(ac)K(Ubi)TYEGSDSGSGSQR\_ PKSGSSPVSLKDQLRKKTYEGSDSGSGSQRN 54.768 52.455 59

AT1G18210.2 AT1G18210.2, AT1G18210.1 \_DAFDLYDQDK(Ubi)NGLISASELHQVLNR\_ SAAEIRDAFDLYDQDKNGLISASELHQVLNR 41.446 39.778 104

AT1G18540.1 AT1G18540.1, AT1G74050.1, AT1G74060.1 \_GVGK(Ubi)YSR\_ TAKVNRNPDLIRGVGKYSRSQMYHKRGLWAI;TPKVNRNPDLIRGVGKYSRSQMYHKRGLWAI 89.369 67.598 22

AT1G18680.1 AT1G18680.1 \_SNVK(Ubi)SNGEERPR\_ VPPPSPPSSPSRSNVKSNGEERPRFFDGKAK 75.088 74.846 33

AT1G74560.1 AT1G74560.1, AT1G18800.1, AT1G74560.2, AT1G74560.3 \_K(Ubi)PVYDK(ac)R\_ SDEVLEVEQKYNVIRKPVYDKRNEVIQSIPG 77.732 52.956 64

AT1G74560.1 AT1G74560.1, AT1G18800.1, AT1G74560.2, AT1G74560.3 \_K(ac)PVYDK(Ubi)R\_ EVEQKYNVIRKPVYDKRNEVIQSIPGFWMTA 93.429 73.438 69

AT1G19220.1 AT1G19220.1, AT5G20730.3, AT5G20730.2, AT5G20730.1 \_TYTK(ac)VQK(Ubi)R\_ WPNQTQRMRTYTKVQKRGSVGRSIDVTRYSG 51.346 46.247 965

AT1G19860.1 AT1G19860.1 \_NLNNGNINTSDM(ox)QNAK(Ubi)R\_ NLNNGNINTSDMQNAKRMRFDRD\_\_\_\_\_\_\_\_ 73.296 68.77 406

AT1G19870.1 AT1G19870.1 \_DVVSAK(Ubi)K(ac)R\_ PRSSPDLQERDVVSAKKRHSLPGVTNGKQVS 79.474 54.698 758

AT1G19870.1 AT1G19870.1 \_DVVSAK(ac)K(Ubi)R\_ RSSPDLQERDVVSAKKRHSLPGVTNGKQVSP 60.436 39.916 759

AT1G19920.1 AT1G19920.1 \_SVEIYK(Ubi)HNK(ac)EER\_ PQGDIIGSLRSVEIYKHNKEERIARTWGTTS 34.96 26.836 186

AT1G19990.1 AT1G19990.1 \_K(Ubi)VYDLPGQK(Ubi)R\_ KKPEKEEEVKKKRERKVYDLPGQKREQPDER 98.048 91.144 113

AT1G20110.1 AT1G20110.1 \_AVPK(Ubi)ADVQEDSTGGVQK(ac)FR\_ SSVSSNSAKIVRAVPKADVQEDSTGGVQKFR 48.288 32.444 302

AT1G20110.1 AT1G20110.1 \_AVPK(ac)ADVQEDSTGGVQK(Ubi)FR\_ VPKADVQEDSTGGVQKFRVKLLAETYGQTTT 105.9 84.231 315

AT1G20110.1 AT1G20110.1 \_DSSVSSNSAK(Ubi)IVR\_ FSSSGRDSSVSSNSAKIVRAVPKADVQEDST 165.35 165.35 295

AT1G20110.1 AT1G20110.1 \_K(Ubi)LQEEM(ox)ER\_ TGRNVSLQSHEDLARKLQEEMERNRKSSSGL 109.71 104.82 540

AT1G20110.1 AT1G20110.1 \_SDLGSDLYGK(Ubi)R\_ GYNRSRSDLGSDLYGKRSDSGEYPAFEDSYG 114.89 94.763 227

AT1G20110.1 AT1G20110.1 \_SDSGEYPAFEDSYGDGVYAYQGGK(Ubi)VEPYGSR\_ FEDSYGDGVYAYQGGKVEPYGSRGTAPKSSN 31.252 31.175 252

AT1G20140.1 AT1G20140.1 \_GK(Ubi)TPEQM(ox)R\_ LLDLTCKAVADQMRGKTPEQMRAHFNIKNDY 44.349 40.856 131

AT1G20220.1 AT1G20220.1 \_VEK(Ubi)PK(ac)ADTPIAENEIR\_ \_\_\_\_\_\_\_MDKYQRVEKPKADTPIAENEIRIT 58.246 53.897 9

AT1G20693.2 AT1G20693.2, AT1G20693.3, AT1G20693.1 \_(ac)M(ox)K(Ubi)GAK(Ubi)SK(Ubi)TETR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_MKGAKSKTETRSSKLSV 65.179 62.099 2

AT1G20696.3 AT1G20696.3, AT1G20696.1, AT1G20696.2 \_(ac)M(ox)K(Ubi)GAK(ac)SK(Ubi)AETR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_MKGAKSKAETRSTKLSV 54.343 52.903 2

AT1G20696.3 AT1G20696.3, AT1G20696.1, AT1G20696.2 \_(ac)M(ox)K(ac)GAK(Ubi)SK(ac)AETR\_ \_\_\_\_\_\_\_\_\_\_\_MKGAKSKAETRSTKLSVTKK 72.705 65.801 5

AT1G20696.3 AT1G20696.3, AT1G20696.1, AT1G20696.2 \_(ac)M(ox)K(ac)GAK(ac)SK(Ubi)AETR\_ \_\_\_\_\_\_\_\_\_MKGAKSKAETRSTKLSVTKKPA 66.004 62.427 7

AT1G20760.1 AT1G20760.1 \_DVTGAEK(Ubi)FSR\_ RFDSINSSRDVTGAEKFSRFDSINSSKDFGG 123.79 121 951

AT1G20760.1 AT1G20760.1 \_LVTVAQSK(Ubi)R\_ QNFYNSLRLVTVAQSKRDLTPEIVNAALNTP 62.463 38.433 78

AT1G20970.1 AT1G20970.1 \_AVLK(Ubi)AQK(ac)EAEER\_ RKKKREEKAKARAVLKAQKEAEEREKEREKK 42.031 36.316 1235

AT1G20970.1 AT1G20970.1 \_AVLK(ac)AQK(Ubi)EAEER\_ KREEKAKARAVLKAQKEAEEREKEREKKLRK 118.87 85.277 1238

AT1G20970.1 AT1G20970.1 \_VK(Ubi)SAASVDDIDSR\_ KRQEIEALQSMISRVKSAASVDDIDSRVRNM 67.234 38.952 869

AT1G21750.2 AT1G21750.2, AT1G21750.1 \_NGGK(Ubi)AVQEYNGPR\_ EVQGFPTIKIFRNGGKAVQEYNGPREAEGIV 106.32 79.174 118

AT1G21770.1 AT1G21770.1 \_LVHSEDDSK(Ubi)NLK(ac)SSI\_ RNPTWQRLVHSEDDSKNLKSSI\_\_\_\_\_\_\_\_\_ 40.477 38.855 105

AT1G21770.1 AT1G21770.1 \_LVHSEDDSK(ac)NLK(Ubi)SSI\_ TWQRLVHSEDDSKNLKSSI\_\_\_\_\_\_\_\_\_\_\_\_ 50.806 50.806 108

AT1G22140.2 AT1G22140.2, AT1G22140.1 \_QK(Ubi)DAELLAK(ac)QAEAAR\_ QISISKDQFLAWKRQKDAELLAKQAEAARKR 72.898 68.92 28

AT1G22610.1 AT1G22610.1 \_VK(Ubi)IAGAVVPLSESESGVQR\_ DDRRDNQPGKFLGRVKIAGAVVPLSESESGV 39.905 38.981 89

AT4G09800.1 AT4G09800.1, AT1G34030.1, AT1G22780.1 \_GQHTK(Ubi)TTGR\_ GLRHYWGLRVRGQHTKTTGRRGKTVGVSKKR 57.532 55.488 137

AT1G22840.1 AT1G22840.1 \_ADLIAYLK(Ubi)ESTAPK(Ubi)\_ GLKKPQDRADLIAYLKESTAPK\_\_\_\_\_\_\_\_\_ 91.076 68.585 108

AT1G22840.1 AT1G22840.1 \_(ac)ASFDEAPPGNAK(Ubi)AGEK(Ubi)IFR\_ \_\_\_MASFDEAPPGNAKAGEKIFRTKCAQCHT 93.371 93.125 13

AT1G22920.2 AT1G22920.2, AT1G22920.1 \_K(Ubi)EDEPQLAK(ac)ITR\_ NSRYGGIAPAGHQRRKEDEPQLAKITRDSAK 36.292 35.103 301

AT1G22920.2 AT1G22920.2, AT1G22920.1 \_K(ac)EDEPQLAK(Ubi)ITR\_ PAGHQRRKEDEPQLAKITRDSAKITVEQVHG 78.814 69.364 309

AT1G22930.2 AT1G22930.2, AT1G22930.1 \_VAAEK(ac)K(Ubi)R\_ RVRASINQKRVAAEKKRLGLLEAEKKKARAR 68.915 13.239 93

AT1G23100.1 AT1G23100.1 \_VLVEK(ac)ILPPSK(Ubi)TVSGILLPEK(ac)SSQLNSGR\_ PTLNRVLVEKILPPSKTVSGILLPEKSSQLN 72.687 72.5 22

AT1G23290.1 AT1G23290.1 \_(ac)ATALK(Ubi)K(Ubi)NR\_ \_\_\_\_\_\_\_\_\_\_MATALKKNRKKRGHVSAGHGR 147.19 84.639 6

AT1G23310.2 AT1G23310.2, AT1G23310.1, AT1G70580.4, AT1G70580.3, AT1G70580.2, AT1G70580.1 \_ESK(Ubi)GILESLR\_ PKPGDISYDQFARESKGILESLRRRARLMTD 32.999 27.274 357

AT1G23310.2 AT1G23310.2, AT1G23310.1, AT1G70580.4, AT1G70580.3, AT1G70580.2, AT1G70580.1 \_K(Ubi)EVAEFIQR\_ GLGAYSDSRGLPGVRKEVAEFIQRRDGYPSD 59.067 15.26 114

AT1G23860.3 AT1G23860.3, AT1G23860.4, AT1G23860.2, AT1G23860.1 \_VELSHK(Ubi)DK(ac)GGR\_ SALDRKNGWRVELSHKDKGGRGGGGGRRGGI 64.121 57.423 71

AT1G23860.3 AT1G23860.3, AT1G23860.4, AT1G23860.2, AT1G23860.1 \_VELSHK(ac)DK(Ubi)GGR\_ LDRKNGWRVELSHKDKGGRGGGGGRRGGIED 32.254 32.254 73

AT1G24050.1 AT1G24050.1 \_AK(Ubi)EALAIR\_ LDSDNFSVDLNGLRAKEALAIRQAEADAERM 91.318 63.1 101

AT1G24050.1 AT1G24050.1 \_VK(ac)K(Ubi)VLELER\_ DCVFGGTDAANNRVKKVLELERRRLQLFGT\_ 62.466 43.842 174

AT1G24120.1 AT1G24120.1 \_NSTDQEIK(Ubi)SAYR\_ YEVLGVLRNSTDQEIKSAYRKLALKYHPDKT 46.069 42.352 37

AT1G24160.2 AT1G24160.2, AT1G24160.1 \_SEEVLQEDEK(Ubi)EETEVR\_ VHVQERSEEVLQEDEKEETEVREEVRDDISL 59.728 56.672 225

AT1G24300.2 AT1G24300.2, AT1G24300.1 \_ETGEVK(Ubi)TTAASDR\_ ERRIDNVSSRETGEVKTTAASDRWNDVNSRA 105.03 100.51 128

AT1G24300.2 AT1G24300.2, AT1G24300.1 \_K(ac)QK(Ubi)PDPSLGR\_ FRYPRGKLLDMYRKQKPDPSLGRIPTEMDEV 56.404 51.888 286

AT1G24300.2 AT1G24300.2, AT1G24300.1 \_K(Ubi)SESEFYATPPHTEDR\_ FSVYNNPSAQDNFQRKSESEFYATPPHTEDR 130.47 128 598

AT1G24310.1 AT1G24310.1 \_IIEGLEGK(Ubi)GFR\_ RRMLRVMRIIEGLEGKGFRLPLTKGEAELSE 88.596 62.479 267

AT1G24310.1 AT1G24310.1 \_IK(Ubi)TTQSNVK(Ubi)M(ox)LQR\_ LKLQDEVLVSDRDRIKTTQSNVKMLQRHLQA 57.434 40.661 219

AT1G24310.1 AT1G24310.1 \_QK(Ubi)EQSLQR\_ HLQASTFPSIERLRQKEQSLQRRMLRVMRII 66.692 39.438 246

AT1G24310.1 AT1G24310.1 \_QVK(Ubi)GPGAELSR\_ EAELSEKLTAITRQVKGPGAELSRRVQSLQT 59.198 44.519 292

AT1G24490.2 AT1G24490.2, AT1G24490.1 \_LLK(Ubi)EQEAK(ac)R\_ VTPECPKPGERFRLLKEQEAKRRREKEERQK 89.047 82.611 367

AT1G24490.2 AT1G24490.2, AT1G24490.1 \_LLK(ac)EQEAK(Ubi)R\_ PKPGERFRLLKEQEAKRRREKEERQKAEAAL 111.61 79.192 372

AT1G24764.1 AT1G24764.1 \_ELGEANAEIK(Ubi)ALR\_ VRDKDRELGEANAEIKALRLSERQREKAVEE 120.57 90.806 102

AT1G24764.1 AT1G24764.1 \_EVAAMEK(Ubi)EVAAMR\_ EVEAKKMRREVAAMEKEVAAMRVDKDQDNRA;EVEAKKMRREVAAMEKEVAAMRVEKDQDARA 109 10.055 576

AT1G24764.1 AT1G24764.1 \_LK(Ubi)VLEETLR\_ AKSEAQLKEKFQLRLKVLEETLRGTSSSATR 58.699 44.89 386

AT1G24764.1 AT1G24764.1 \_QK(ac)VAEVEK(Ubi)LTQTVR\_ KILDRMHRQKVAEVEKLTQTVRELEEAVLAG 38.995 36.521 264

AT1G24764.1 AT1G24764.1 \_SEIGK(Ubi)LQEDNR\_ APLEAELKLARSEIGKLQEDNRALDRLTKSK 50.354 47.704 191

AT1G26110.2 AT1G26110.2, AT1G26110.1 \_(ac)AADNTGSK(Ubi)SSSAADSYVGSLISLTSK(ac)SEIR\_ \_\_\_\_\_\_\_MAADNTGSKSSSAADSYVGSLISL 39.302 38.906 9

AT1G26110.2 AT1G26110.2, AT1G26110.1 \_K(ac)K(ac)DGPQVPPSDK(Ubi)VYEYILFR\_ TEGRKKDGPQVPPSDKVYEYILFRGTDIKDL 59.975 57.308 71

AT1G26110.2 AT1G26110.2, AT1G26110.1 \_K(Ubi)LDTETFGEFSR\_ DRESQNSRPRFSEQRKLDTETFGEFSRFRGG 153.81 151.69 538

AT1G26630.2 AT1G26630.2, AT1G26630.1 \_(ac)SDDEHHFEASESGASK(Ubi)TYPQSAGNIR\_ SDDEHHFEASESGASKTYPQSAGNIRKGGHI 223.97 223.26 17

AT1G26670.1 AT1G26670.1 \_VSSADAK(Ubi)PSSR\_ NQLKKEFKRVSSADAKPSSREELMESGMADL 115.29 96.155 98

AT1G26880.2 AT1G26880.2, AT1G26880.1, AT1G69620.1, AT3G28900.1 \_ASGPK(ac)CPVTGK(Ubi)R\_ TTKKRASGPKCPVTGKRIQGIPHLRPSEYKR 110.8 109.36 49

AT1G26880.2 AT1G26880.2, AT1G26880.1, AT1G69620.1, AT3G28900.1 \_IVK(ac)TPGGK(ac)LVYQTTK(ac)K(Ubi)R\_ IVKTPGGKLVYQTTKKRASGPKCPVTGKRIQ 137.45 115.4 37

AT1G26910.1 AT1G26910.1 \_ADYTK(Ubi)LR\_ SRKWGFTKFNRADYTKLRQEKRIVPDGVNAK 85.265 48.564 183

AT1G27090.1 AT1G27090.1 \_(ac)AATASSEASEGPVM(ox)GLINK(Ubi)R\_ ASSEASEGPVMGLINKRLRALRKKYNRITQM 31.883 30.32 20

AT1G27090.1 AT1G27090.1 \_PVDSSLSHK(Ubi)NALER\_ WSLMVSRPVDSSLSHKNALERCVEHAKLWLA 75.764 71.902 195

AT1G27400.1 AT1G27400.1 \_K(ac)LPLNK(Ubi)AK(ac)R\_ NTRETAHAIRKLPLNKAKRYLEDVIAHKQAI 105.52 43.057 43

AT1G27400.1 AT1G27400.1 \_K(ac)LPLNK(ac)AK(Ubi)R\_ RETAHAIRKLPLNKAKRYLEDVIAHKQAIPF 73.233 55.76 45

AT1G27435.1 AT1G27435.1 \_K(Ubi)ANAK(Ubi)TR\_ SGGLLWKRIKLTPTRKANAKTRLRRVWQNEA 98.523 37.735 37

AT5G42820.2 AT5G42820.2, AT5G42820.1, AT1G27650.1 \_(ac)AEHLASIFGTEK(Ubi)DR\_ \_\_\_MAEHLASIFGTEKDRVNCPFYFKIGACR 63.185 59.867 13

AT1G28060.1 AT1G28060.1 \_SHEGSK(Ubi)EK(ac)ESR\_ RDREKHHHERSHEGSKEKESRSKRKDREEEN 51.286 47.272 93

AT1G28060.1 AT1G28060.1 \_SHEGSK(ac)EK(Ubi)ESR\_ REKHHHERSHEGSKEKESRSKRKDREEENGA 51.286 47.272 95

AT1G28400.1 AT1G28400.1 \_ETPYK(Ubi)GYSHNLER\_ NSNAYGTELERETPYKGYSHNLERQGMSDTR 96.464 91.742 231

AT1G28420.1 AT1G28420.1 \_AELSEK(Ubi)LDLSDR\_ EEKYPSEATRAELSEKLDLSDRQLQMWFCHR 48.948 23.621 75

AT1G29200.3 AT1G29200.3, AT1G29200.1, AT1G29200.2 \_K(Ubi)MVEEGQK(ac)LR\_ DSETIKWKIFEDRVRKMVEEGQKLRTRPYGR 36.684 30.39 391

AT1G29250.1 AT1G29250.1 \_(ac)MEEITEGVNNM(ox)NLAVDTQK(Ubi)K(Ubi)NR\_ ITEGVNNMNLAVDTQKKNRIQVSNTKKPLFF 74.776 74.599 19

AT2G34250.2 AT2G34250.2, AT2G34250.1, AT1G29310.1 \_ESNLQK(Ubi)ELNR\_ EQQMVMPGHRESNLQKELNRYIPTAAAFGGV 66.056 52.247 412

AT1G29320.1 AT1G29320.1 \_K(Ubi)K(ac)IDDQTER\_ CSPEDNEISALHLFRKKIDDQTERSCTLLTC 58.699 24.823 114

AT1G29320.1 AT1G29320.1 \_K(ac)K(Ubi)IDDQTER\_ SPEDNEISALHLFRKKIDDQTERSCTLLTCT 58.699 24.823 115

AT1G29370.1 AT1G29370.1, AT1G29350.1 \_GDQYLK(Ubi)DR\_ NGPADFQSDRGDQYLKDRLENIHIAESGPSE 106.42 77.262 275

AT1G29370.1 AT1G29370.1, AT1G29350.1 \_K(Ubi)GIQDIPSGSR\_ \_\_\_\_MSSSKVGGGARKGIQDIPSGSRKIVQS 110.08 75.385 12

AT1G29370.1 AT1G29370.1, AT1G29350.1 \_SM(ox)AEVVK(Ubi)MGR\_ AWFGAPGQRSMAEVVKMGRPQNKTTKQNVNM 101.66 71.272 198

AT1G29370.1 AT1G29370.1, AT1G29350.1 \_(ac)SSSK(Ubi)VGGGAR\_ \_\_\_\_\_\_\_\_\_\_\_MSSSKVGGGARKGIQDIPSG 59.067 22.511 5

AT1G29530.1 AT1G29530.1, AT4G18070.4, AT4G18070.3, AT4G18070.1 \_(ac)PSGAK(Ubi)K(ac)R\_ \_\_\_\_\_\_\_\_\_\_MPSGAKKRKALKKKKQQEAIG 79.469 71.989 6

AT1G29850.1 AT1G29850.1, AT1G29850.3, AT1G29850.2 \_AAQMGQIVEK(Ubi)VSEER\_ EDVILRAAQMGQIVEKVSEERLITLLEQINS 119.46 114.08 95

AT1G29850.1 AT1G29850.1, AT1G29850.3, AT1G29850.2 \_IALVK(Ubi)PEK(ac)AR\_ LSSQARERIARIALVKPEKARGVEDVILRAA 86.344 85.439 72

AT1G29850.1 AT1G29850.1, AT1G29850.3, AT1G29850.2 \_IALVK(ac)PEK(Ubi)AR\_ QARERIARIALVKPEKARGVEDVILRAAQMG 42.336 40.583 75

AT1G29850.1 AT1G29850.1, AT1G29850.3, AT1G29850.2 \_QGM(ox)GK(Ubi)QGNQQNPEQEK(ac)QQEDAK(ac)R\_ RQRRMQELMARQGMGKQGNQQNPEQEKQQED 42.384 41.514 25

AT1G29850.1 AT1G29850.1, AT1G29850.3, AT1G29850.2 \_QGM(ox)GK(ac)QGNQQNPEQEK(Ubi)QQEDAK(Ubi)R\_ QGMGKQGNQQNPEQEKQQEDAKREADERRQM 68.42 67.802 36

AT1G29880.1 AT1G29880.1 \_K(Ubi)AVVNTLER\_ ISSSGNGSLNREAFRKAVVNTLERRLFYIPS 59.908 42.395 118

AT1G29880.1 AT1G29880.1 \_QSLSEK(Ubi)SSSVEAQGNAVR\_ PMDATEQSLRQSLSEKSSSVEAQGNAVRALK 47.904 46.341 54

AT1G29965.1 AT1G29965.1, AT1G29970.2 \_ALPTEK(Ubi)DEQPK(ac)IYR\_ RLHQYQVVGRALPTEKDEQPKIYRMKLWATN 106.32 104.39 20

AT1G29965.1 AT1G29965.1, AT1G29970.2 \_ALPTEK(ac)DEQPK(Ubi)IYR\_ QVVGRALPTEKDEQPKIYRMKLWATNEVLAK 60.55 58.48 25

AT1G29990.1 AT1G29990.1 \_ETIM(ox)K(Ubi)LQQR\_ QDMEEKQNNKRETIMKLQQRLQTIQAGKAKA 109.71 94.57 114

AT1G29990.1 AT1G29990.1 \_IEYISAELK(Ubi)R\_ NANVRKRIEYISAELKRLDAILQDMEEKQNN 121.9 88.81 92

AT1G29990.1 AT1G29990.1 \_LDAILQDM(ox)EEK(Ubi)QNNK(Ubi)R\_ AELKRLDAILQDMEEKQNNKRETIMKLQQRL 171.81 165.85 104

AT1G29990.1 AT1G29990.1 \_LQTIQAGK(Ubi)AK(Ubi)A\_ TIMKLQQRLQTIQAGKAKA\_\_\_\_\_\_\_\_\_\_\_\_ 108.35 91.729 126

AT1G30070.1 AT1G30070.1, AT1G30070.2 \_IVITM(ox)VK(Ubi)SSR\_ CKVLVKPKRIVITMVKSSRGNWLDIHHKEDK 33.89 28.55 154

AT1G30070.1 AT1G30070.1, AT1G30070.2 \_QLQNIAK(Ubi)R\_ VGLDLEELRQLQNIAKRPRVLNLINSEISNL 85.212 52.213 20

AT1G30070.1 AT1G30070.1, AT1G30070.2 \_SGK(Ubi)AADPLK(Ubi)GL\_ MKKTIAKAWTDARSGKAADPLKGL\_\_\_\_\_\_\_ 56.205 55.07 214

AT1G30230.1 AT1G30230.1, AT1G30230.2 \_(ac)AAFPNLNSDAGLK(ac)K(Ubi)LDEHLLTR\_ \_\_MAAFPNLNSDAGLKKLDEHLLTRSYITGY 56.882 56.438 14

AT1G30480.1 AT1G30480.1 \_K(ac)ATEAEM(ox)K(Ubi)R\_ EYKREKKRKATEAEMKREMDKRRQEDEERDK 41.704 39.86 127

AT1G30680.1 AT1G30680.1 \_VPTPVDTEVEADK(Ubi)R\_ IPRVPTPVDTEVEADKRVVLSRLVTLRRKLA 34.432 33.114 102

AT1G30880.1 AT1G30880.1 \_EDAK(ac)SAAIEAALAAPK(Ubi)LPVR\_ EDAKSAAIEAALAAPKLPVRQAPVSPFMEVA 105.96 105.61 46

AT1G30880.1 AT1G30880.1 \_EIVEK(Ubi)ESFTLTR\_ KRVKRLRAIRREIVEKESFTLTREDAKSAAI 40.475 29.55 23

AT1G31220.1 AT1G31220.1 \_VIANDTPEELAK(Ubi)R\_ SAVRVIANDTPEELAKRVLHEEHKLYVEVVG 55.261 42.993 250

AT1G31280.1 AT1G31280.1 \_K(Ubi)PQVPSDSASPSTSTTVVSEPVR\_ AGSVGGVAGRGAWGRKPQVPSDSASPSTSTT 32.146 31.838 118

AT2G35635.1 AT2G35635.1, AT1G31340.1, AT3G52590.1, AT2G36170.1, AT4G05050.4, AT1G23410.1, AT4G05050.3, AT4G05050.2, AT4G05050.1, AT4G02890.2, AT4G02890.1, AT1G55060.1, AT4G05320.5, AT4G02890.4, AT4G02890.3, AT5G03240.3, AT5G03240.2, AT5G03240.1, AT1G65350.1, AT5G37640.1, AT4G05320.6, AT4G05320.3, AT4G05320.1, AT5G20620.1, AT4G05320.4, AT4G05320.2, AT3G09790.1, AT3G62250.1, AT2G47110.2, AT2G47110.1 \_LIFAGK(Ubi)QLEDGR\_ KEGIPPDQQRLIFAGKQLEDGRTLADYNIQK 166.04 150.49 48

AT2G35635.1 AT2G35635.1, AT1G31340.1, AT3G52590.1, AT2G36170.1, AT4G05050.4, AT1G23410.1, AT4G05050.3, AT4G05050.2, AT4G05050.1, AT4G02890.2, AT4G02890.1, AT1G55060.1, AT4G05320.5, AT4G02890.4, AT4G02890.3, AT5G03240.3, AT5G03240.2, AT5G03240.1, AT1G65350.1, AT5G37640.1, AT4G05320.6, AT4G05320.3, AT4G05320.1, AT5G20620.1, AT4G05320.4, AT4G05320.2, AT3G09790.1, AT3G62250.1, AT2G47110.2, AT2G47110.1 \_VEEK(Ubi)EGIPPVQQR\_ EPTDTIDRIKERVEEKEGIPPVQQRLIYAGK 145 136.66 109

AT1G31730.1 AT1G31730.1 \_ESSEIK(Ubi)LR\_ PISTSLVSERESSEIKLRLDGVKQKWGRPSY 105.14 58.054 715

AT1G31730.1 AT1G31730.1 \_TYQPQTSK(Ubi)GPNTK(ac)EALEK(ac)DALVR\_ DSSKGNSRTYQPQTSKGPNTKEALEKDALVR 31.36 30.839 904

AT1G31812.1 AT1G31812.1 \_PGM(ox)FSMK(Ubi)ER\_ KFGPVDTSRPGMFSMKERAKWDAWKAVEGKS 70.552 64.771 52

AT1G31817.1 AT1G31817.1 \_K(Ubi)M(ox)TNYTADATAENIGR\_ CKATSGSLPDLKGGRKMTNYTADATAENIGR 108.63 107.81 233

AT1G31817.1 AT1G31817.1 \_SGGK(Ubi)SSDLDFVR\_ TQSSSLLKENSRSGGKSSDLDFVREVIEDEG 97.463 94.422 159

AT1G31860.1 AT1G31860.1 \_FSQSGIEEK(Ubi)QNR\_ LEVLRKRFSQSGIEEKQNRTK\_\_\_\_\_\_\_\_\_\_ 39.73 37.718 276

AT1G32130.1 AT1G32130.1 \_AK(Ubi)QVSQDQR\_ RPQSKIDPDEIIARAKQVSQDQRRVKMNKKL 68.657 62.876 460

AT1G32130.1 AT1G32130.1 \_GGGSTDYDDK(Ubi)VGR\_ EFMGGRGGGSTDYDDKVGRKRKKEKERSSSG 98.592 97.902 112

AT1G32130.1 AT1G32130.1 \_K(Ubi)TGLTSGQSSR\_ MESRDGDFDLEIRERKTGLTSGQSSRGDRQM 47.712 28.054 416

AT1G32130.1 AT1G32130.1 \_LVK(Ubi)K(Ubi)SSSER\_ VYDNDKVAKPRKRLVKKSSSERVTIDVPELI 76.228 45.664 71

AT1G32130.1 AT1G32130.1 \_PQSK(Ubi)IDPDEIIAR\_ RPEATPLDFLIRPQSKIDPDEIIARAKQVSQ 74.475 72.001 449

AT1G32330.1 AT1G32330.1, AT3G02990.1, AT5G16820.2, AT5G16820.1 \_DK(Ubi)NVLM(ox)QELVR\_ GKFGLEEEVERLKRDKNVLMQELVRLRQQQQ 34.96 33.771 172

AT1G32330.1 AT1G32330.1, AT3G02990.1, AT5G16820.2, AT5G16820.1 \_ISDTSK(Ubi)K(ac)R\_ QNQQNESNRRISDTSKKRRFKRDGIVRNNDS 122.52 40.23 246

AT1G32360.1 AT1G32360.1 \_ASSAVTQK(Ubi)PGIR\_ HTGVALQRASSAVTQKPGIRTHQKWKGPAKI 73.435 46.724 357

AT1G32400.3 AT1G32400.3, AT1G32400.2, AT1G32400.1 \_FQQMPAQPNEEK(Ubi)GR\_ ESHRFQQMPAQPNEEKGRCTIM\_\_\_\_\_\_\_\_\_ 99.941 98.144 274

AT1G32490.2 AT1G32490.2, AT1G32490.1 \_EELEQHLK(Ubi)DR\_ RVRDQKEREELEQHLKDRDTARTRKLTEQTL 32.329 24.719 183

AT1G32580.1 AT1G32580.1 \_K(Ubi)IIELTTQR\_ FVNGEIVQRPPERQRKIIELTTQRTNDKPKY 77.662 40.318 200

AT1G32580.1 AT1G32580.1 \_SGGSYSPLK(Ubi)SGSNFSDR\_ IRTRMDRSGGSYSPLKSGSNFSDRAPTEMAP;IRTRMDRSGGSYSPLKSGSNFSDRPPTEMAP 58.98 57.666 74

AT1G32580.1 AT1G32580.1 \_TNDK(Ubi)PK(ac)YHDK(ac)TR\_ RQRKIIELTTQRTNDKPKYHDKTRYVRRREN 39.629 38.833 212

AT1G32730.1 AT1G32730.1 \_FTK(Ubi)LK(ac)EYR\_ LTIKDAQALNEWRFTKLKEYRDRNIEVENEA 61.78 51.022 137

AT1G32730.1 AT1G32730.1 \_LDLGSSSDDQDDIK(Ubi)R\_ KRLDLGSSSDDQDDIKRRVKRKKWEEKGSAL 103.79 91.299 240

AT1G32730.1 AT1G32730.1 \_TESFK(Ubi)K(ac)R\_ LKLRLRSNSARTESFKKRIAETVKAGLVKLK 104.21 59.456 210

AT1G33050.3 AT1G33050.3, AT1G33050.2, AT1G33050.4, AT1G33050.1 \_NEFQPSK(Ubi)R\_ KTVSMLDSRNEFQPSKRLDPLAPVFVPSSAK 102.51 97.823 277

AT1G33140.1 AT1G33140.1, AT1G33120.1 \_K(Ubi)VEMLDGVTIVR\_ KSIEIRNFLGEKKVRKVEMLDGVTIVRSEKV 142.38 132.03 128

AT1G33140.1 AT1G33140.1, AT1G33120.1 \_NFLGEK(ac)K(Ubi)VR\_ DGNNKSIEIRNFLGEKKVRKVEMLDGVKIVR;GGDGKSIEIRNFLGEKKVRKVEMLDGVTIVR 45.368 11.493 124

AT1G33140.1 AT1G33140.1, AT1G33120.1 \_SEK(ac)VK(Ubi)DEIVLDGNDIELVSR\_ VEMLDGVTIVRSEKVKDEIVLDGNDIELVSR 66.889 65.699 144

AT1G33520.1 AT1G33520.1 \_QK(ac)VK(Ubi)DDSIGGDAVEER\_ KPDNISYGLNLRQKVKDDSIGGDAVEERKVS 52.862 48.381 110

AT1G33680.1 AT1G33680.1 \_GGETIK(Ubi)NM(ox)QTK(Ubi)SR\_ SDKVGVIIGRGGETIKNMQTKSRARIQLIPQ 87.083 84.842 343

AT1G33680.1 AT1G33680.1 \_IDVPSSK(ac)VGTLIGK(Ubi)GGEM(ox)VR\_ RRIDVPSSKVGTLIGKGGEMVRYLQVNSGAK 56.708 55.199 249

AT1G33680.1 AT1G33680.1 \_IQLIPQNEGDASK(Ubi)ER\_ RARIQLIPQNEGDASKERTVRISGDKRQIDI 113.4 108.34 365

AT1G33980.1 AT1G33980.1, AT1G33980.2 \_AGK(ac)DYHTSGTISEK(Ubi)QER\_ TRAGKDYHTSGTISEKQERRTRNKDRPDRVM 60.489 53.357 371

AT1G33980.1 AT1G33980.1, AT1G33980.2 \_K(ac)EEVVIGEGK(Ubi)TSR\_ VGGRNRKEEVVIGEGKTSRRGSGGGPSSHEK 134.88 86.317 456

AT1G33980.1 AT1G33980.1, AT1G33980.2 \_K(Ubi)TTADVSSSK(ac)PDYR\_ KKKYVEKESSKNVPRKTTADVSSSKPDYRQS 48.405 43.5 220

AT1G33980.1 AT1G33980.1, AT1G33980.2 \_K(ac)TTADVSSSK(Ubi)PDYR\_ SKNVPRKTTADVSSSKPDYRQSNSSGKELPG 78.69 75.372 229

AT1G33980.1 AT1G33980.1, AT1G33980.2 \_RDGSEDQPLSSAGNNGEVK(Ubi)DR\_ SEDQPLSSAGNNGEVKDRMFSQRSGEVVNSS 131.33 130.1 409

AT1G33980.1 AT1G33980.1, AT1G33980.2 \_VEPSEAENYK(Ubi)R\_ VQSEQRVEPSEAENYKRPSRPANTRAGKDYH 110.39 97.202 348

AT1G33980.1 AT1G33980.1, AT1G33980.2 \_VVSANK(Ubi)PSPR\_ DIRRGGRRTRVVSANKPSPRPSKRNSEKKKY 83.862 81.708 193

AT1G34360.1 AT1G34360.1 \_AEAIRPDIK(Ubi)EIR\_ ERAKAKRAEAIRPDIKEIRFTPKIEAKDLKF 104.24 101.49 167

AT1G34360.1 AT1G34360.1 \_AK(Ubi)ELQCDLVEVQR\_ EGHCVVSLREALRRAKELQCDLVEVQRDAKP 59.248 55.03 116

AT1G34360.1 AT1G34360.1 \_K(ac)K(Ubi)EAEVDSDGPR\_ IFQNLRFLATSAQTRKKEAEVDSDGPRLNEK 71.976 69.311 74

AT1G34360.1 AT1G34360.1 \_LNEK(Ubi)ITGDYVR\_ KKEAEVDSDGPRLNEKITGDYVRLVSEEGHC 108.35 102.4 89

AT1G34570.1 AT1G34570.1, AT1G34550.1 \_EK(Ubi)LIDEQETR\_ GVSSALAFLPVEFREKLIDEQETREKFQKLH 50.108 42.742 119

AT1G35220.1 AT1G35220.1 \_SIDENAPLSTTK(Ubi)SDSDEADSR\_ AATRSIDENAPLSTTKSDSDEADSREVILPG 31.917 28.949 949

AT1G35670.1 AT1G35670.1 \_(ac)M(ox)ETK(Ubi)PNPR\_ \_\_\_\_\_\_\_\_\_\_\_\_METKPNPRRPSNTVLPYQT 58.981 45.172 4

AT1G35720.1 AT1G35720.1 \_(ac)ATLK(Ubi)VSDSVPAPSDDAEQLR\_ \_\_\_\_\_\_\_\_\_\_\_MATLKVSDSVPAPSDDAEQL 74.776 74.776 5

AT1G35720.1 AT1G35720.1 \_DALLANEATK(Ubi)R\_ LEPGERDALLANEATKRWTSSNQVLMEVACT 171.92 108.11 97

AT1G35720.1 AT1G35720.1 \_NSIPLEK(ac)AITK(Ubi)DTR\_ EYQRRNSIPLEKAITKDTRGDYEKMLVALLG 44.925 44.439 298

AT1G35720.1 AT1G35720.1 \_SAINK(Ubi)TGTDEGALTR\_ RPELYFVDVLRSAINKTGTDEGALTRIVTTR 102.65 100.18 257

AT1G35780.1 AT1G35780.1 \_K(ac)FTDLSGNNVFK(Ubi)SDVSSPSSATAER\_ IADRKFTDLSGNNVFKSDVSSPSSATAERLL 188.69 187.96 230

AT1G35780.1 AT1G35780.1 \_K(Ubi)PPGGESSIALV\_ ADAKAQSRDYFGGVRKPPGGESSIALV\_\_\_\_ 94.767 93.778 275

AT1G35780.1 AT1G35780.1 \_(ac)MEK(Ubi)NTPVR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MEKNTPVRKPHMSTADLL 103.83 92.24 3

AT1G36990.1 AT1G36990.1 \_LEDLAIK(Ubi)QSR\_ PQGSVKTQRLEDLAIKQSRQLIPVVPSAPKG 89.827 57.956 300

AT1G36990.1 AT1G36990.1 \_(ac)M(ox)DK(Ubi)GEHSLAPEWLR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MDKGEHSLAPEWLRSSGH 31.319 29.016 3

AT1G36990.1 AT1G36990.1 \_SK(Ubi)SDVDSIHSPFLDR\_ SASLQYNSRNRNSRSKSDVDSIHSPFLDRSS 38.337 35.95 53

AT1G36990.1 AT1G36990.1 \_TGFDK(ac)DFPSLGAEEK(Ubi)QNGQDVVR\_ RTGFDKDFPSLGAEEKQNGQDVVRVSSPGIS 126.04 119.24 196

AT1G42480.1 AT1G42480.1, AT1G42480.2 \_EGK(Ubi)VIDYR\_ LDMRNRLNSKGQREGKVIDYRISDLRVVDLL 81.95 46.513 63

AT1G42480.1 AT1G42480.1, AT1G42480.2 \_LLEETEDELGEVIK(ac)NGSLK(Ubi)AGEVR\_ ETEDELGEVIKNGSLKAGEVRKVLCQTLSNH 104.67 100.77 147

AT1G42480.1 AT1G42480.1, AT1G42480.2 \_LNSK(Ubi)GQR\_ EKPRNHLDMRNRLNSKGQREGKVIDYRISDL 107.67 34.35 57

AT1G42480.1 AT1G42480.1, AT1G42480.2 \_M(ox)QDYTLQK(Ubi)VEPK(ac)NR\_ LLDGLCDRMQDYTLQKVEPKNRQWVKVGNFD 191.52 184.74 92

AT1G42480.1 AT1G42480.1, AT1G42480.2 \_M(ox)QDYTLQK(ac)VEPK(Ubi)NR\_ LCDRMQDYTLQKVEPKNRQWVKVGNFDNLTN 115.56 113.12 96

AT1G42550.1 AT1G42550.1 \_AEDLTVSK(Ubi)PR\_ ADEVSTARAEDLTVSKPRARRLSLSPWRSRP 63.624 48.48 71

AT1G43170.4 AT1G43170.4, AT1G43170.9, AT1G43170.8, AT1G43170.7, AT1G43170.6, AT1G43170.5, AT1G43170.3, AT1G43170.2, AT1G43170.1 \_TELNK(Ubi)K(ac)IYR\_ ARAGQNGYHHRTELNKKIYRLGKVGTEAHTA 74.464 69.57 200

AT1G43170.4 AT1G43170.4, AT1G43170.9, AT1G43170.8, AT1G43170.7, AT1G43170.6, AT1G43170.5, AT1G43170.3, AT1G43170.2, AT1G43170.1 \_TELNK(ac)K(Ubi)IYR\_ RAGQNGYHHRTELNKKIYRLGKVGTEAHTAM 62.463 57.569 201

AT1G43670.1 AT1G43670.1 \_ALDLVPEK(Ubi)IHER\_ QAFTGKKRALDLVPEKIHERSPIFLGSYDDV 48.568 45.096 312

AT1G43700.1 AT1G43700.1 \_GTSELNTENK(Ubi)HLK(ac)M(ox)R\_ VTMLQRGTSELNTENKHLKMRLQALEQQAEL 73.834 71.973 255

AT1G43700.1 AT1G43700.1 \_GTSELNTENK(ac)HLK(Ubi)MR\_ LQRGTSELNTENKHLKMRLQALEQQAELRDA 82.651 80.177 258

AT1G43700.1 AT1G43700.1 \_LAELALLDPK(Ubi)R\_ GMGGDRLAELALLDPKRAKRILANRQSAARS 76.332 74.892 196

AT5G43010.1 AT5G43010.1, AT1G45000.1 \_K(Ubi)IEIPLPNEQSR\_ DVLDPALLRPGRLDRKIEIPLPNEQSRMDIL 39.006 39.006 304

AT5G43010.1 AT5G43010.1, AT1G45000.1 \_SK(ac)VDK(ac)EK(Ubi)LTSGTR\_ GPRYVVGCRSKVDKEKLTSGTRVVLDMTTLT 39.746 35.024 97

AT1G45249.2 AT1G45249.2, AT1G45249.1, AT1G45249.3 \_K(ac)SGTVEK(Ubi)VVER\_ MFNGGVRGRKSGTVEKVVERRQRRMIKNRES 120.03 88.965 334

AT2G45030.1 AT2G45030.1, AT1G45332.1 \_FQK(Ubi)EDPTFR\_ KDSGGQFSKALNRFQKEDPTFRVGLDPESGQ 31.494 27.153 487

AT1G46408.1 AT1G46408.1 \_DLK(ac)ELEK(Ubi)QR\_ MDSMSTMLRDLKELEKQRDHQTQTLIHQPCS 54.982 37.316 121

AT1G47128.1 AT1G47128.1, AT5G43060.1 \_FEIFK(Ubi)DNLR\_ SQNSLVEKDRRFEIFKDNLRFVDEHNEKNLS 77.662 42.97 77

AT1G47200.1 AT1G47200.1, AT5G43070.1 \_LIETLSTESILSK(Ubi)R\_ LNRLIETLSTESILSKRYGTLKSDDATTVAK 172.57 156.22 87

AT1G47200.1 AT1G47200.1, AT5G43070.1 \_M(ox)LESVK(Ubi)AR\_ ELYSKEISKRMLESVKARSNASVGNGSVEDA 81.296 78.617 142

AT1G47490.1 AT1G47490.1, AT1G47500.1 \_NPANK(Ubi)QPR\_ GKQTVRLSWGRNPANKQPRDKYGNQWVDPYY 123.69 121.29 380

AT1G47500.1 AT1G47500.1 \_EIVSLK(Ubi)VIR\_ NSAFTSAEEREIVSLKVIRNKHNGSSEGYGF 66.27 56.266 135

AT1G47765.1 AT1G47765.1 \_FELK(Ubi)EIADDQAR\_ LFFDPVKKTFRRFELKEIADDQARVNNGDPY 33.87 22.924 350

AT1G48030.2 AT1G48030.2, AT1G48030.1 \_TPFTSGLDLEK(Ubi)IGVETDK(ac)AGR\_ VSAGRTPFTSGLDLEKIGVETDKAGRILVND 31.503 28.535 325

AT1G48240.1 AT1G48240.1 \_LDK(Ubi)IK(ac)DSSR\_ RDHFRALANGFQRLDKIKDSSRQSKQLEELA 49.3 33.163 34

AT1G48300.1 AT1G48300.1 \_VVK(Ubi)ETDAVMTDSVR\_ KCMGKCRDGPNVRVVKETDAVMTDSVRTPSK 99.927 92.562 237

AT1G48470.1 AT1G48470.1, AT3G17820.1, AT5G37600.1, AT1G66200.1, AT1G66200.3 \_DTEK(ac)EGK(Ubi)GYFEDR\_ RGASVRVGRDTEKEGKGYFEDRRPSSNMDPY 75.102 60.002 326

AT1G48580.1 AT1G48580.1 \_K(Ubi)VISESEFGR\_ TLKDPTGTIDASVHRKVISESEFGRDIRVGA 48.284 27.507 205

AT1G48610.2 AT1G48610.2, AT1G48610.1 \_(ac)AK(Ubi)TALTPPASGSEVPR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MAKTALTPPASGSEVPRS 131.72 119.19 3

AT1G48610.2 AT1G48610.2, AT1G48610.1 \_K(Ubi)PTVEVAAQPVR\_ VPAETVVAPAKRRGRKPTVEVAAQPVRRTRK 117.93 102.39 148

AT1G48610.2 AT1G48610.2, AT1G48610.1 \_K(ac)STSVAPVAANVGDLK(Ubi)K(Ubi)R\_ KSTSVAPVAANVGDLKKRTALLVSELSPLSF 47.088 46.743 178

AT1G48610.2 AT1G48610.2, AT1G48610.1 \_SGTPGDASGNK(Ubi)PQTDATGVSATDTASQK(Ubi)R\_ SEVPRSGTPGDASGNKPQTDATGVSATDTAS 59.893 57.911 28

AT1G48620.1 AT1G48620.1 \_K(Ubi)DGTSPTVK(ac)PAASVSGGVETVK(ac)R\_ LQPQQPVKRPPGRPRKDGTSPTVKPAASVSG 67.827 66.306 249

AT1G48620.1 AT1G48620.1 \_K(Ubi)NAVSVGASGR\_ MRSFARTGKPVGRPRKNAVSVGASGRQDGDY 63.473 37.031 378

AT1G48620.1 AT1G48620.1 \_SDFIVNENQPLPDPVLASSTPQTIK(Ubi)R\_ PLPDPVLASSTPQTIKRGRGRPPKAKPDVVQ 62.032 61.529 186

AT1G48620.1 AT1G48620.1 \_VDAGGASSVAPPPPPPTNVESGGEEVAVK(ac)K(Ubi)R\_ PPTNVESGGEEVAVKKRGRGRPPKIGGVIRK 79.512 79.102 343

AT1G48760.3 AT1G48760.3, AT1G48760.2, AT1G48760.1 \_PVVVK(Ubi)LDDGDESR\_ PKRKPNQSKPRPVVVKLDDGDESRITPQAKT 50.088 49.004 760

AT1G48760.3 AT1G48760.3, AT1G48760.2, AT1G48760.1 \_YEGNPNSGQQEK(Ubi)EESSR\_ EKDRYEGNPNSGQQEKEESSRIENHQNSEKK 83.758 83.612 817

AT1G48920.1 AT1G48920.1 \_ADVENFFK(Ubi)EAGEVVDVR\_ NLSFNIERADVENFFKEAGEVVDVRFSTNRD 102.08 100.68 318

AT1G48920.1 AT1G48920.1 \_PSFTPQGK(Ubi)K(ac)TTFGDE\_ GSDRGRGRPSFTPQGKKTTFGDE\_\_\_\_\_\_\_\_ 92.265 91.634 550

AT1G48950.1 AT1G48950.1 \_SSDLEEFLK(Ubi)R\_ SAIEYMRSSDLEEFLKRPIAPACSDTAAESS 51.445 46.929 225

AT1G48970.1 AT1G48970.1 \_AAK(ac)AAAK(Ubi)GEGSR\_ RRAIQEAQRAAKAAAKGEGSRRADESGRANP 50.897 48.625 230

AT1G49110.1 AT1G49110.1 \_(ac)K(Ubi)TK(ac)AGIEAVVEVQR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_MKTKAGIEAVVEVQRSE 41.621 13.683 2

AT1G49110.1 AT1G49110.1 \_(ac)K(ac)TK(Ubi)AGIEAVVEVQR\_ \_\_\_\_\_\_\_\_\_\_\_\_MKTKAGIEAVVEVQRSEKL 41.621 13.683 4

AT1G49170.1 AT1G49170.1 \_QVSLGSGSK(Ubi)SR\_ VLGVKRRQVSLGSGSKSRDKVVIVEDMTQQS 50.354 33.133 99

AT1G49245.1 AT1G49245.1 \_EFELEK(Ubi)EIK(Ubi)R\_ \_MATTTSSDREFELEKEIKRQEVSLDELSSL 115.57 112.93 15

AT1G49590.1 AT1G49590.1 \_AVK(ac)GAASSVDLGNNK(Ubi)R\_ RAVKGAASSVDLGNNKRKRQDEKPKKVSAEE 56.339 36.103 198

AT1G49600.1 AT1G49600.1 \_QSAEEAIGNLNGTVIGK(Ubi)NTVR\_ SAEEAIGNLNGTVIGKNTVRLSWGRSPNKQW 41.256 40.847 389

AT1G49760.2 AT1G49760.2, AT1G49760.1 \_DGEGK(Ubi)SK(ac)GFGFVNFENSDDAAR\_ FGVTTSCVIMRDGEGKSKGFGFVNFENSDDA 70.174 69.927 262

AT1G49950.3 AT1G49950.3, AT1G49950.2, AT1G49950.1 \_K(ac)GLGVFGGK(Ubi)QR\_ PLSSHRRKGLGVFGGKQRTSSLPSPKTDIDE 62.466 61.215 203

AT1G50300.1 AT1G50300.1 \_GGGYK(Ubi)ELDEQELEETK(ac)R\_ GQNEGGVRGGRGGGYKELDEQELEETKRRRR 136.63 134.83 247

AT1G50300.1 AT1G50300.1 \_VK(Ubi)TNQADTRPAVAAGR\_ EMYDEFGNLKKKYRVKTNQADTRPAVAAGRA 94.487 93.663 285

AT1G50380.1 AT1G50380.1 \_IK(Ubi)EDDISAPLR\_ KQFENQLFAEIRGRIKEDDISAPLRKGPYYY 51.286 46.946 75

AT1G50510.1 AT1G50510.1 \_VIDANM(ox)K(Ubi)LNR\_ VNSPEDCARVIDANMKLNRQAGILFAIPIPK 46.001 37.591 243

AT1G50700.1 AT1G50700.1, AT3G20410.1, AT1G61950.1 \_EGGEASDK(Ubi)PIDSAVLSR\_ VLKHPWLREGGEASDKPIDSAVLSRMKQFRA 39.91 39.086 340

AT1G50790.1 AT1G50790.1 \_NNDLGEGDVDNDTTEK(Ubi)R\_ NNDLGEGDVDNDTTEKRSQKLNVLALSIEER 93.424 86.292 769

AT1G50900.1 AT1G50900.1 \_DLILGYSTQK(Ubi)A\_ NSEEIRDLILGYSTQKA\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 88.155 83.816 174

AT1G50920.1 AT1G50920.1 \_LK(Ubi)K(ac)TVAQNR\_ EIRKKKAILIKNHRLKKTVAQNRSTVPRKFD 85.533 43.881 513

AT1G50920.1 AT1G50920.1 \_LK(ac)K(Ubi)TVAQNR\_ IRKKKAILIKNHRLKKTVAQNRSTVPRKFDK 51.445 51.445 514

AT1G50920.1 AT1G50920.1 \_SEDAGNDAM(ox)DVDDEQQSNK(Ubi)K(ac)QR\_ AGNDAMDVDDEQQSNKKQRVRSKSRAMSISR 36.454 34.165 586

AT1G51060.1 AT1G51060.1 \_FLK(Ubi)K(ac)GK(ac)YAER\_ KAGLQFPVGRIARFLKKGKYAERVGAGAPVY 56.205 52.191 37

AT1G51060.1 AT1G51060.1 \_FLK(ac)K(Ubi)GK(ac)YAER\_ AGLQFPVGRIARFLKKGKYAERVGAGAPVYL 39.73 37.205 38

AT1G51060.1 AT1G51060.1 \_FLK(ac)K(ac)GK(Ubi)YAER\_ LQFPVGRIARFLKKGKYAERVGAGAPVYLAA 125.97 117.84 40

AT1G51060.1 AT1G51060.1 \_GK(Ubi)TLGSGSAK(ac)K(ac)ATTR\_ \_\_\_\_\_\_\_\_\_\_MAGRGKTLGSGSAKKATTRSS 117.53 115.9 6

AT1G51060.1 AT1G51060.1 \_GK(ac)TLGSGSAK(Ubi)K(ac)ATTR\_ \_\_MAGRGKTLGSGSAKKATTRSSKAGLQFPV 127.83 126.64 14

AT1G51060.1 AT1G51060.1 \_GK(ac)TLGSGSAK(ac)K(Ubi)ATTR\_ \_MAGRGKTLGSGSAKKATTRSSKAGLQFPVG 97.904 97.375 15

AT1G51130.1 AT1G51130.1 \_EADDEPEK(Ubi)LR\_ SEATGGKREADDEPEKLRSVKKEKQRKTEAD 90.827 87.487 24

AT1G51140.1 AT1G51140.1 \_TQSGGLDQYK(Ubi)TK(ac)DEDSASR\_ LTALARTQSGGLDQYKTKDEDSASRRPPLAH 88.176 86.441 266

AT1G51510.1 AT1G51510.1 \_GFREEK(Ubi)DSDR\_ GESAKKTKGRGFREEKDSDRQRRLSSRDFES 138.22 94.911 64

AT1G51510.1 AT1G51510.1 \_LK(ac)SAIAGANGESAK(Ubi)K(ac)TK(ac)GR\_ PRLKSAIAGANGESAKKTKGRGFREEKDSDR 97.271 97.271 53

AT1G51630.1 AT1G51630.1 \_DIAIVK(Ubi)VPTR\_ RKLPSHVSLRDIAIVKVPTRVAEDYIKEHID 62.466 35.577 176

AT1G51650.1 AT1G51650.1 \_NCLK(ac)EPHK(Ubi)AEALTR\_ NICANIVRNCLKEPHKAEALTREKVHFSLSK 69.331 67.595 37

AT1G51710.2 AT1G51710.2, AT1G51710.1, AT3G21280.1 \_K(ac)K(Ubi)LEAPR\_ LVLDIFDLCSEDLRKKLEAPRQKLREEEGKK 64.265 36.961 307

AT1G52300.1 AT1G52300.1, AT3G16080.1 \_EGTEAK(Ubi)PR\_ VPRRFKTGFREGTEAKPRNKGVASSA\_\_\_\_\_;VPRRFKTGFREGTEAKPRSKASASSA\_\_\_\_\_ 105.14 68.579 85

AT1G52300.1 AT1G52300.1, AT3G16080.1 \_NK(Ubi)GVASSA\_ FKTGFREGTEAKPRNKGVASSA\_\_\_\_\_\_\_\_\_ 67.981 64.369 89

AT1G52300.1 AT1G52300.1, AT3G16080.1 \_(Ubi)TK(Ubi)GTGSFGK(Ubi)R\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MTKGTGSFGKRRNKSHTL 117.52 104.94 3

AT1G52380.1 AT1G52380.1 \_DNPGLDDDDDSAELESGTFK(Ubi)K(ac)ASDEVLASR\_ LDDDDDSAELESGTFKKASDEVLASRRIVRV 218.16 218.1 42

AT1G52380.1 AT1G52380.1 \_GALK(Ubi)QLSR\_ DSENVQQPSKKRGALKQLSRDNPGLDDDDDS 103.55 30.298 18

AT1G52380.1 AT1G52380.1 \_(ac)GDSENVQQPSK(Ubi)K(Ubi)R\_ \_\_\_\_MGDSENVQQPSKKRGALKQLSRDNPGL 136.24 132.12 12

AT1G52380.1 AT1G52380.1 \_GK(ac)GELK(ac)VNVSSNDGK(Ubi)AR\_ RGKGELKVNVSSNDGKARLVMRAKGNYRLIL 61.87 60.08 340

AT1G52580.1 AT1G52580.1 \_K(Ubi)LGALER\_ IKENMLLGPSIPTLRKLGALERRLVEEGERW 100.74 0 92

AT1G52730.2 AT1G52730.2, AT1G52730.1 \_LDAPPTEVDK(Ubi)SPGSIR\_ VFDMNRLDAPPTEVDKSPGSIRTLTWLHSDQ 47.548 45.925 143

AT1G52780.1 AT1G52780.1 \_DESAPK(Ubi)ISYDR\_ PMFESIGEHRDESAPKISYDRINDVKKKCKS 43.897 42.144 49

AT1G53240.1 AT1G53240.1 \_SEVVGYM(ox)GDDNLAK(Ubi)ALEGADLVIIPAGVPR\_ TRSEVVGYMGDDNLAKALEGADLVIIPAGVP 48.18 48.073 93

AT1G53645.1 AT1G53645.1 \_APTVK(Ubi)DGTPK(ac)PQLSAEEAGR\_ QQQRVQPQQKRAPTVKDGTPKPQLSAEEAGR 102.07 100.5 260

AT1G53645.1 AT1G53645.1 \_APTVK(ac)DGTPK(Ubi)PQLSAEEAGR\_ QPQQKRAPTVKDGTPKPQLSAEEAGRRARSE 124.2 123.18 265

AT1G53645.1 AT1G53645.1 \_DDK(Ubi)K(ac)EEEGEQEAM(ox)R\_ RGRGRGRGGDGWRDDKKEEEGEQEAMRIFAG 161.04 153.33 321

AT1G53645.1 AT1G53645.1 \_DDK(ac)K(Ubi)EEEGEQEAM(ox)R\_ GRGRGRGGDGWRDDKKEEEGEQEAMRIFAGD 113.4 107.57 322

AT1G53645.1 AT1G53645.1 \_IATTLPASAPDSVK(Ubi)R\_ DRIATTLPASAPDSVKRFADRAALTLKSNPG 111.66 108.8 486

AT1G53645.1 AT1G53645.1 \_VTAK(ac)K(Ubi)QNEELDR\_ EIVDHYSGPDRVTAKKQNEELDRIATTLPAS 167.89 156.52 465

AT1G53750.1 AT1G53750.1 \_DIEDEIRDEK(Ubi)NPR\_ \_\_\_MVRDIEDEIRDEKNPRPLDEDDIALLKT 80.96 71.423 13

AT1G54060.1 AT1G54060.1 \_LK(ac)VDK(Ubi)SGGGGSGVGDVAR\_ IQPLSFHMPKRLKVDKSGGGGSGVGDVARAI 48.907 47.172 286到这。。。。

AT1G54060.1 AT1G54060.1 \_QTK(ac)GNQIVQQQQEK(Ubi)R\_ KRQTKGNQIVQQQQEKRGSDSMRWHFRKRSA 49.595 49.016 228

AT1G54220.2 AT1G54220.2, AT1G54220.1 \_K(Ubi)GLSTIGEEVR\_ TENGLYVPVVKDADRKGLSTIGEEVRLLAQK 43.897 29.662 423

AT1G54220.2 AT1G54220.2, AT1G54220.1 \_K(Ubi)LAEDNNVPLSDIEGTGPEGR\_ TPPTGDRVFASPLARKLAEDNNVPLSDIEGT 97.69 96.42 255

AT3G13920.3 AT3G13920.3, AT3G13920.4, AT1G54270.2, AT3G13920.1, AT1G54270.1, AT3G13920.2, AT1G72730.1 \_ELAQQIEK(Ubi)VMR\_ ALVLAPTRELAQQIEKVMRALGDYLGVKAQA;ALVLAPTRELAQQIEKVMRALGDYLGVKVHA 111.86 104.24 127

AT1G54460.1 AT1G54460.1 \_LK(Ubi)EEQEAVTK(ac)QLR\_ QKALEAEKRENEKRLKEEQEAVTKQLRKNMA 112.42 107.05 202

AT1G54460.1 AT1G54460.1 \_LKEEQEAVTK(Ubi)QLR\_ RENEKRLKEEQEAVTKQLRKNMAYKANPVPS 115.12 80.687 210

AT1G54460.1 AT1G54460.1 \_TPNSSSK(Ubi)DQMR\_ EVKTNSVPRTPNSSSKDQMRKSKKGTPKSEE 185.25 176.84 300

AT1G54690.1 AT1G54690.1, AT4G27230.2, AT4G27230.1, AT5G54640.1 \_FLK(Ubi)AGK(ac)YAER\_ KAGLQFPVGRIARFLKAGKYAERVGAGAPVY 53.211 39.402 43

AT1G54690.1 AT1G54690.1, AT4G27230.2, AT4G27230.1, AT5G54640.1 \_FLK(ac)AGK(Ubi)YAER\_ LQFPVGRIARFLKAGKYAERVGAGAPVYLAA;LQFPVGRIARFLKAGKYAERVGAGAPVYLSA 74.611 43.014 46

AT1G54690.1 AT1G54690.1, AT4G27230.2, AT4G27230.1, AT5G54640.1 \_(ac)SSGAGSGTTK(Ubi)GGR\_ \_\_\_\_\_MSSGAGSGTTKGGRGKPKATKSVSRS 98.942 96.898 11

AT1G54770.1 AT1G54770.1, AT5G30495.2, AT5G30495.1 \_DLQLLK(Ubi)LR\_ APTMTPELKRDLQLLKLRTVMDPALHYKKSV;APTMTPELKRDLQLLKLRTVMDPAVHYKKSV 73.26 31.812 98

AT1G55080.1 AT1G55080.1 \_K(Ubi)SIEEIVTMEH\_ EQLLQQRRDLIVEYRKSIEEIVTMEH\_\_\_\_\_ 108.35 107.1 234

AT1G55160.2 AT1G55160.2, AT1G55160.1, AT1G55160.3 \_EPIPEK(Ubi)QQR\_ VAEPVVIKAREPIPEKQQRELFKWMLEEKRK 63.816 62.063 91

AT1G55170.1 AT1G55170.1 \_AEVK(Ubi)DLQK(ac)ELM(ox)HAR\_ LQSDNKQIPGMRAEVKDLQKELMHARDAIEY 33.842 32.772 175

AT1G55170.1 AT1G55170.1 \_AEVK(ac)DLQK(Ubi)ELM(ox)HAR\_ NKQIPGMRAEVKDLQKELMHARDAIEYEKKE 33.787 30.761 179

AT1G55170.1 AT1G55170.1 \_AM(ox)ESYK(Ubi)K(ac)EASQLR\_ KRHKLEGDVRAMESYKKEASQLRGEVQKLDE 30.484 29.496 126

AT1G55170.1 AT1G55170.1 \_AM(ox)ESYK(ac)K(Ubi)EASQLR\_ RHKLEGDVRAMESYKKEASQLRGEVQKLDEI 81.904 79.692 127

AT1G55170.1 AT1G55170.1 \_ELVAAK(Ubi)EELHR\_ LADDRMVLERELVAAKEELHRMNLMISDLRA 77.662 76.223 84

AT1G55170.1 AT1G55170.1 \_GEVQK(Ubi)LDEIK(ac)R\_ ESYKKEASQLRGEVQKLDEIKRELSGNVQLL 105.65 81.973 138

AT1G55170.1 AT1G55170.1 \_GEVQK(ac)LDEIK(Ubi)R\_ EASQLRGEVQKLDEIKRELSGNVQLLRKDLA 49.448 40.166 143

AT1G55340.1 AT1G55340.1, AT1G55340.2 \_(ac)M(ox)EEVK(Ubi)GQR\_ \_\_\_\_\_\_\_\_\_\_\_MEEVKGQRGSGTTEADFVLQ 32.32 27.426 5

AT1G55480.1 AT1G55480.1 \_IGPLLM(ox)QM(ox)EK(Ubi)R\_ YTIRQRIGPLLMQMEKRNGKAEDTGELTEKE 46.352 40.457 169

AT1G55480.1 AT1G55480.1 \_NGK(ac)AEDTGELTEK(Ubi)EIIR\_ EKRNGKAEDTGELTEKEIIRAERNAGYISSR 132.64 130.85 183

AT1G55500.1 AT1G55500.1, AT1G55500.3, AT1G55500.2 \_SVSGSGVASSYSK(Ubi)ANNNVPATR\_ VQRSVSGSGVASSYSKANNNVPATRNQNSSS 58.093 54.759 200

AT1G55540.1 AT1G55540.1, AT1G55540.2 \_QSSAM(ox)K(Ubi)NSDPETAR\_ ASINQQSRQRQSSAMKNSDPETARRRRESLD 44.925 41.607 988

AT1G55805.1 AT1G55805.1 \_EELDTGLHALSIVSK(Ubi)TPSESPSK(Ubi)D\_ REELDTGLHALSIVSKTPSESPSKD\_\_\_\_\_\_ 53.444 53.261 151

AT1G55805.1 AT1G55805.1 \_SVAMSSVEK(Ubi)TGSDSGAIENR\_ STGTGSRSVAMSSVEKTGSDSGAIENRASRM 149.53 126.7 57

AT1G55820.1 AT1G55820.1 \_EK(ac)K(Ubi)K(ac)EPIVPVTQPSGR\_ LFLDTFHEVRSKREKKKEPIVPVTQPSGRGG 53.21 51.16 71

AT1G56070.1 AT1G56070.1 \_IM(ox)DYK(Ubi)HNIR\_ MVKFTADELRRIMDYKHNIRNMSVIAHVDHG 34.387 31.199 16

AT1G56070.1 AT1G56070.1 \_TVM(ox)SK(Ubi)SPNK(ac)HNR\_ FRETVCDRSTRTVMSKSPNKHNRLYMEARPM 33.589 27.112 579

AT1G56070.1 AT1G56070.1 \_VIYASQITAK(Ubi)PR\_ IPTARRVIYASQITAKPRLLEPVYMVEIQAP 74.611 71.293 722

AT1G56070.1 AT1G56070.1 \_(ac)VK(Ubi)FTADELR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MVKFTADELRRIMDYKHN 77.662 64.262 3

AT1G56080.1 AT1G56080.1 \_DSLAITAK(ac)K(Ubi)LGR\_ NMKLTQERDSLAITAKKLGRDYAKLEAFKRQ 47.712 46.724 105

AT1G56080.1 AT1G56080.1 \_DYAK(ac)LEAFK(Ubi)R\_ TAKKLGRDYAKLEAFKRQLMQSLNDDNPSQT 59.418 46.41 118

AT1G56080.1 AT1G56080.1 \_GK(Ubi)DENSNGSYSNNEGLSEAR\_ PSQTETADVRMVPRGKDENSNGSYSNNEGLS 68.168 67.683 145

AT1G56080.1 AT1G56080.1 \_IDGK(Ubi)EFFR\_ PRSHSVSARHPRIDGKEFFRQARSRLSYEQF 82.279 61.758 248

AT1G56080.1 AT1G56080.1 \_QK(Ubi)LLEK(ac)DR\_ SRVSNLESQVSGLRQKLLEKDRLVHELEDRV 55.908 28.962 54

AT1G56110.1 AT1G56110.1 \_LEFYDK(Ubi)GVAPR\_ EKLREQVEERLEFYDKGVAPRKNVDVMKEVI 73.499 69.156 413

AT1G56220.1 AT1G56220.1, AT1G56220.3 \_STSDAFEK(Ubi)AAGGSETGPR\_ EPFRFRRRSTSDAFEKAAGGSETGPRSSPPT 94.281 92.895 119

AT1G56290.1 AT1G56290.1 \_ESSSNIPEK(Ubi)DNR\_ SKKSRKRESSSNIPEKDNRVKRIMTQQERCL 73.881 67.404 456

AT1G56300.1 AT1G56300.1 \_FQQIQEAYSVLNDENK(Ubi)R\_ FQQIQEAYSVLNDENKRSMYDVGLYDPHEDD 48.907 47.499 74

AT1G56460.1 AT1G56460.1, AT1G56460.2 \_DSK(Ubi)ANTNPIR\_ DTASKSDSCNDTRDSKANTNPIRKSNRISKR 141.71 138.13 192

AT1G56460.1 AT1G56460.1, AT1G56460.2 \_GAEEGQSEVK(Ubi)TEM(ox)TVTTR\_ SARTRRGAEEGQSEVKTEMTVTTRRRSGHSG 109.87 107.69 326

AT1G56460.1 AT1G56460.1, AT1G56460.2 \_GTPLDTASK(Ubi)SDSCNDTR\_ ERSTKLRGTPLDTASKSDSCNDTRDSKANTN 75.682 75.481 181

AT1G56460.1 AT1G56460.1, AT1G56460.2 \_K(ac)ENGLEVDQQLK(Ubi)K(ac)AEAAQR\_ PRKRKENGLEVDQQLKKAEAAQRRKLQVEKA 38.377 35.733 370

AT1G56460.1 AT1G56460.1, AT1G56460.2 \_K(ac)ENGLEVDQQLK(ac)K(Ubi)AEAAQR\_ RKRKENGLEVDQQLKKAEAAQRRKLQVEKAA 39.905 37.261 371

AT1G56460.1 AT1G56460.1, AT1G56460.2 \_K(Ubi)ILGQDSSR\_ QVEKAARESEAEAIRKILGQDSSRKKKEDKI 57.347 27.181 396

AT1G56460.1 AT1G56460.1, AT1G56460.2 \_K(ac)LQVEK(Ubi)AAR\_ LKKAEAAQRRKLQVEKAARESEAEAIRKILG 134.25 52.951 384

AT1G57860.1 AT1G57860.1, AT1G57660.1, AT1G09690.1, AT1G09590.1 \_AVGVEVNK(Ubi)QIGNR\_ RIWNVTKRAVGVEVNKQIGNRIIRKRIHVRV 185.25 128.84 78

AT1G57860.1 AT1G57860.1, AT1G57660.1, AT1G09690.1, AT1G09590.1 \_CAEEFK(Ubi)LR\_ VRVEHVQQSRCAEEFKLRKKQNDVLKADAKA 69.825 66.124 106

AT1G57860.1 AT1G57860.1, AT1G57660.1, AT1G09690.1, AT1G09590.1 \_GETISTK(Ubi)R\_ VLKADAKARGETISTKRQPKGPKPGFMVEGM 116.73 105.01 129

AT1G57860.1 AT1G57860.1, AT1G57660.1, AT1G09690.1, AT1G09590.1 \_K(ac)K(ac)QNDVLK(Ubi)ADAK(ac)AR\_ CAEEFKLRKKQNDVLKADAKARGETISTKRQ 91.969 90.953 116

AT1G57860.1 AT1G57860.1, AT1G57660.1, AT1G09690.1, AT1G09590.1 \_K(ac)K(ac)QNDVLK(ac)ADAK(Ubi)AR\_ FKLRKKQNDVLKADAKARGETISTKRQPKGP 92.38 89.519 120

AT1G58100.2 AT1G58100.2, AT1G58100.1 \_STPPEDSTLATTSSTATATTTK(Ubi)R\_ STLATTSSTATATTTKRSTKDRHTKVDGRGR 101.89 101.27 57

AT1G58100.2 AT1G58100.2, AT1G58100.1 \_SVDLSK(Ubi)ENDDR\_ GENFSRKRYRSVDLSKENDDRKQNENKSLKE 161.99 147.31 192

AT1G58110.2 AT1G58110.2, AT1G58110.1 \_AK(Ubi)QQFAQR\_ NPSPVTYEADNTKRAKQQFAQRSRVRKLQYI 100.19 94.407 239

AT1G58110.2 AT1G58110.2, AT1G58110.1 \_ALYQQQQQTQK(Ubi)PSASR\_ IGRLRALYQQQQQTQKPSASRGRATSKDLDS 37.177 34.014 332

AT1G58110.2 AT1G58110.2, AT1G58110.1 \_(ac)ASSK(Ubi)GSQSVR\_ \_\_\_\_\_\_\_\_\_\_\_MASSKGSQSVRNLMYPGKHA 43.68 38.786 5

AT1G58280.4 AT1G58280.4, AT1G58280.3, AT1G58280.1, AT1G58280.2 \_SNITK(Ubi)YR\_ EHLGVHPCDRRSNITKYRELFPAIDFSLIET 90.37 29.688 176

AT1G59540.2 AT1G59540.2, AT1G59540.1 \_LK(Ubi)TQLEEEK(ac)R\_ LSNQMLKYELECERLKTQLEEEKRKQKEQEN 39.625 29.271 293

AT1G59610.1 AT1G59610.1, AT1G10290.1 \_IESLIQEDQNVK(Ubi)R\_ GNERIESLIQEDQNVKRRRDRYQKQSSLLSK 170.79 162.54 802

AT1G59610.1 AT1G59610.1, AT1G10290.1 \_K(Ubi)PVDPEEELR\_ MRQSLSEGSLDKMVRKPVDPEEELRWMSQEV 47.302 42.408 729

AT1G59660.1 AT1G59660.1 \_VIPYAPTTDTASGTESK(Ubi)SER\_ IPYAPTTDTASGTESKSERLQSISAMPAHKG 101.61 97.742 355

AT1G59900.1 AT1G59900.1 \_AAK(Ubi)SPSYYKR\_ ENNHYGMGTAEWRAAKSPSYYKRGDYVPGLK 30.392 29.141 238

AT1G60650.2 AT1G60650.2, AT1G60650.1 \_FDSGDK(Ubi)YEPR\_ DGGRYSYRDRFDSGDKYEPRDHYPFERYAPP 66.19 64.437 201

AT1G61040.1 AT1G61040.1 \_AAAK(Ubi)DDALNELR\_ RGVRSSARSADRAAAKDDALNELRAKRMKQQ 80.96 61.673 179

AT1G61100.2 AT1G61100.2, AT1G61100.1 \_K(Ubi)VSLDK(ac)GSSR\_ RQKRIAERSAMTASRKVSLDKGSSRAPLVRE 45.433 43.68 789

AT1G61150.6 AT1G61150.6, AT1G61150.4, AT1G61150.2 \_(ac)ATSK(Ubi)K(Ubi)M(ox)ITR\_ \_\_\_\_\_\_\_\_\_\_\_MATSKKMITREEWEKKLNAV 64.82 59.506 5

AT1G61410.1 AT1G61410.1, AT3G23100.2, AT3G23100.1 \_LSEEVVNK(Ubi)TR\_ \_\_MEANIRLSEEVVNKTRSFEKMKSEAERCL 63.624 54.62 14

AT1G61690.1 AT1G61690.1 \_AGK(Ubi)QAEALDALR\_ IKAEKVKAVTFKRAGKQAEALDALRRAKLYE 120.55 116.04 1147

AT1G61690.1 AT1G61690.1 \_DTSLK(Ubi)PPPR\_ SETVDTTRAERDTSLKPPPRSRLAIQKELLA 63.216 61.629 485

AT1G61690.1 AT1G61690.1 \_EK(ac)ENSPSSSAPK(Ubi)AM(ox)SGR\_ PPAREKENSPSSSAPKAMSGRDRFKLQQESL 52.862 52.581 1009

AT1G61690.1 AT1G61690.1 \_ELLDLK(Ubi)R\_ AAKSKGQIQRELLDLKRKALAFKRQGKTGDA 124.37 37.507 763

AT1G61690.1 AT1G61690.1 \_ELLGLK(Ubi)R\_ PRRTKAEIQRELLGLKRKALTLRRQGNVDEA 106.76 29.914 641

AT1G61690.1 AT1G61690.1 \_FK(ac)LQQESLSHK(Ubi)R\_ SGRDRFKLQQESLSHKRQAMKLRREGKMQEA 39.006 36.346 1027

AT1G61690.1 AT1G61690.1 \_IAAK(ac)SK(Ubi)GQIQR\_ FGSVQSSGPRIAAKSKGQIQRELLDLKRKAL 68.536 44.281 752

AT1G61690.1 AT1G61690.1 \_K(ac)ALTLK(Ubi)R\_ DKSQVIALKRKALTLKREGKLAEAKDELKKA 75.213 33.337 302

AT1G61690.1 AT1G61690.1 \_K(Ubi)QAVEAK(ac)NK(ac)YR\_ SNKGMELDASPEELRKQAVEAKNKYRILKGE 57.164 51.269 157

AT1G61690.1 AT1G61690.1 \_K(ac)QAVEAK(Ubi)NK(ac)YR\_ LDASPEELRKQAVEAKNKYRILKGEGKSDEA 69.261 65.043 163

AT1G61690.1 AT1G61690.1 \_K(ac)QAVEAK(ac)NK(Ubi)YR\_ ASPEELRKQAVEAKNKYRILKGEGKSDEALK 66.267 61.721 165

AT1G61690.1 AT1G61690.1 \_LQEGENPSPEK(Ubi)LGR\_ LLERRLQEGENPSPEKLGRDDMVSTTEDPPA 107.35 104.59 981

AT1G61690.1 AT1G61690.1 \_PGK(Ubi)TAEAQGAYEVR\_ GPSSEKSDPLNSRPGKTAEAQGAYEVRVTKP 39.629 38.439 611

AT1G61690.1 AT1G61690.1 \_QGGK(Ubi)GNDDLAADLR\_ TKESSKSQKPLRQGGKGNDDLAADLRELGWS 74.789 68.312 236

AT1G61690.1 AT1G61690.1 \_SQIHAEK(Ubi)GNAETM(ox)SGFR\_ LLTGEHSERSQIHAEKGNAETMSGFRSGNNH 51.524 49.906 889

AT1G61690.1 AT1G61690.1 \_TVK(Ubi)NEDDVLSEILGSDVDVSSSSESVSSTDR\_ YKNRAAKGGSSKRTVKNEDDVLSEILGSDVD 74.876 74.769 103

AT1G61730.1 AT1G61730.1 \_PASEAAATTSTK(Ubi)R\_ GTKRPASEAAATTSTKRVKKDEESVKKPGGF 106.26 103.7 140

AT1G62690.1 AT1G62690.1 \_EM(ox)SSVK(ac)K(Ubi)R\_ VTDCQEDREREMSSVKKRCLSSHNLTSEVET 51.066 30.366 99

AT1G62740.1 AT1G62740.1 \_EK(Ubi)GNDFFK(ac)EQK(ac)YPDAVR\_ QQEYYDPNIGDEEREKGNDFFKEQKYPDAVR 90.385 88.876 388

AT1G62740.1 AT1G62740.1 \_HYTEAIK(Ubi)R\_ EQKYPDAVRHYTEAIKRNPKDPRAYSNRAAC 83.206 78.312 410

AT1G62740.1 AT1G62740.1 \_K(Ubi)EPEVEK(Ubi)K(Ubi)R\_ DDMEIGEEEMAVPSRKEPEVEKKRKPEPEPE 73.499 61.079 213

AT1G62740.1 AT1G62740.1 \_NPETLK(Ubi)R\_ TYQKALTEHRNPETLKRLNEAERAKKELEQQ 117.16 58.179 359

AT1G62740.1 AT1G62740.1 \_SDYK(ac)M(ox)VAK(Ubi)ALTR\_ VERGRELRSDYKMVAKALTRKGTALGKMAKV 55.724 52.537 319

AT1G62850.3 AT1G62850.3, AT1G62850.2 \_EK(Ubi)ILLTEK(ac)NR\_ FNVKNAYWLSDRIREKILLTEKNRINKDGEL 102.52 83.392 145

AT1G62850.3 AT1G62850.3, AT1G62850.2 \_EK(ac)ILLTEK(Ubi)NR\_ YWLSDRIREKILLTEKNRINKDGELVISSTK 32.329 27.784 151

AT1G63250.1 AT1G63250.1 \_LVSATCDSM(ox)GK(Ubi)NR\_ IDVRRLVSATCDSMGKNRVFGSSRRGFSSMS 40.475 40.135 163

AT1G63250.1 AT1G63250.1 \_M(ox)HEK(ac)K(Ubi)AR\_ FPGGLNKWQWKRMHEKKAREKENKLLDQEKQ 36.395 17.301 48

AT1G64330.1 AT1G64330.1 \_LQGQK(Ubi)NETEAELER\_ DHESTLEEVNRLQGQKNETEAELEREKQEKP 53.3 51.231 239

AT1G64490.1 AT1G64490.1 \_DPYK(Ubi)IIVR\_ EASSELNLDLSRDPYKIIVREAVDSFIEKAI 71.379 60.215 58

AT1G64750.2 AT1G64750.2, AT1G64750.1, AT1G64750.3 \_K(Ubi)ELENGTDK(Ubi)K\_ WDDDDVNDDFSRQLRKELENGTDKK\_\_\_\_\_\_ 113.22 105.86 65

AT1G64750.2 AT1G64750.2, AT1G64750.1, AT1G64750.3 \_KELENGTDK(Ubi)K(Ubi)\_ DFSRQLRKELENGTDKK\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 113.22 105.86 73

AT1G64750.2 AT1G64750.2, AT1G64750.1, AT1G64750.3 \_K(ac)ELENGTDK(ac)K(Ubi)\_ FSRQLRKELENGTDKK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 136.96 66.9 74

AT1G64880.1 AT1G64880.1 \_ELIAEVEK(Ubi)EK(ac)QR\_ SEADRVVRELIAEVEKEKQREREERQRQGLD 76.073 58.407 89

AT1G65010.1 AT1G65010.1 \_SPPTVNSK(Ubi)PTPDR\_ NTRLSLDRSPPTVNSKPTPDRRPSRIPTPEK 39.006 18.881 57

AT1G65220.1 AT1G65220.1, AT5G36230.1 \_(ac)SSK(Ubi)EKPTLGGTR\_ \_\_\_\_\_\_\_\_\_\_\_\_MSSKEKPTLGGTRIKTRKR 40.475 40.475 4

AT1G65260.1 AT1G65260.1 \_AQLALAK(Ubi)GDEDLAR\_ QSSDDWYKRAQLALAKGDEDLAREALKRRKS 57.288 46.427 152

AT1G65290.1 AT1G65290.1 \_GSFLDK(Ubi)SEVTDR\_ LLRRFSEEVRGSFLDKSEVTDRVLSVVKNFQ 155.66 126.12 47

AT1G65660.1 AT1G65660.1 \_EDPLPDADPNDK(Ubi)FYLGDNQYR\_ RSMREDPLPDADPNDKFYLGDNQYRNSGQAL 33.707 33.428 278

AT1G65660.1 AT1G65660.1 \_K(Ubi)QIELEEAR\_ MATASVAFKSREDHRKQIELEEARKAGLAPA 85.355 43.65 16

AT1G65660.1 AT1G65660.1 \_QM(ox)DFAK(Ubi)VEK(Ubi)R\_ VDEAKVDESRQMDFAKVEKRVRTTGGGSTGT 46.844 41.342 219

AT1G65660.1 AT1G65660.1 \_VIDLYEAK(Ubi)EDAR\_ YDPSTYHRVIDLYEAKEDARKKYLKEQQLKK 90.793 82.478 163

AT1G66240.1 AT1G66240.1 \_VAM(ox)TCEGCVGAVK(Ubi)R\_ VLRVAMTCEGCVGAVKRVLGKMEGVESFDVD 78.964 77.976 51

AT1G66260.2 AT1G66260.2, AT1G66260.1 \_K(Ubi)YNNVLLDGR\_ EVVYMRRSDAIQAMRKYNNVLLDGRPMKLEI 104.82 102.05 166

AT1G66400.1 AT1G66400.1 \_DLK(Ubi)EAFDLYDLDR\_ QISDQSSNNSAIRDLKEAFDLYDLDRNGRIS 62.287 61.299 92

AT1G66480.1 AT1G66480.1 \_EK(Ubi)QVSFAGEGGR\_ DGRRELGSGEIKAREKQVSFAGEGGRELPVL 62.088 38.97 204

AT1G66530.1 AT1G66530.1 \_(ac)ATIVASK(Ubi)EFTGNPR\_ \_\_\_\_\_\_\_\_MATIVASKEFTGNPRRQLAKLFD 106.32 97.526 8

AT1G66580.1 AT1G66580.1 \_AEYTK(Ubi)LR\_ SRKWGFTKFNRAEYTKLRAMKRIVPDGVNAK 104.45 78.064 183

AT1G67230.1 AT1G67230.1 \_AVDAK(Ubi)LAEVSR\_ EKSLEVEAKLRAVDAKLAEVSRKSSDVERKA 35.677 30.214 182

AT1G67230.1 AT1G67230.1 \_EADEATLSK(Ubi)QR\_ FSYIAEREADEATLSKQREDLREWERKLQEG 44.612 39.514 227

AT1G67230.1 AT1G67230.1 \_EFELEM(ox)EQK(Ubi)R\_ KLDSTQREFELEMEQKRKSIDDSLKSKVAEV 117.7 90.912 363

AT1G67230.1 AT1G67230.1 \_SM(ox)LSK(Ubi)K(Ubi)AESER\_ ASFAETMEYERSMLSKKAESERSQLLHDIEM 36.447 33.948 598

AT1G67325.1 AT1G67325.1, AT1G67325.2 \_FYPDEK(Ubi)SQK(ac)R\_ SAAAMMPRPRFYPDEKSQKRDSTRDNDWTCP 73.499 71.746 186

AT1G67325.1 AT1G67325.1, AT1G67325.2 \_FYPDEK(ac)SQK(Ubi)R\_ AMMPRPRFYPDEKSQKRDSTRDNDWTCPNCG 63.624 59.451 189

AT1G67430.2 AT1G67430.2, AT1G67430.1 \_K(ac)LPLIK(ac)AK(Ubi)R\_ RETAHAIRKLPLIKAKRYLEDVIAHKQAIPF 60.398 33.956 45

AT1G67430.2 AT1G67430.2, AT1G67430.1 \_(ac)VK(Ubi)YSQEPDNQTK(ac)SCK(ac)AR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MVKYSQEPDNQTKSCKAR 114.56 113.15 3

AT1G67430.2 AT1G67430.2, AT1G67430.1 \_(ac)VK(ac)YSQEPDNQTK(Ubi)SCK(ac)AR\_ \_\_\_MVKYSQEPDNQTKSCKARGSDLRVHFKN 84.653 84.308 13

AT1G67430.2 AT1G67430.2, AT1G67430.1 \_(ac)VK(ac)YSQEPDNQTK(ac)SCK(Ubi)AR\_ MVKYSQEPDNQTKSCKARGSDLRVHFKNTRE 87.429 84.19 16

AT1G67890.2 AT1G67890.2, AT1G67890.1 \_ELEESQEDLK(Ubi)R\_ LLKKIRELEESQEDLKREMSKLKVSAEIKRR 107.06 104.41 26

AT1G68060.1 AT1G68060.1 \_DK(Ubi)LAISDR\_ EERRFLQGEMQQLRDKLAISDRAAKSEAQLK 103.19 42.715 355

AT1G68060.1 AT1G68060.1 \_ELSEANAEIK(Ubi)ALR\_ VRDKDRELSEANAEIKALRLSERQREKACEE 67.997 15.421 94

AT1G68060.1 AT1G68060.1 \_SSNTK(Ubi)PSSNTAQILAAR\_ VDKDQDNRAKRSSNTKPSSNTAQILAARAAG 55.097 54.198 598

AT1G68310.2 AT1G68310.2 \_DIK(Ubi)DPEHPNTLEDLR\_ EPIDQLEIFDHIRDIKDPEHPNTLEDLRVVT 72.315 68.938 48

AT1G68310.2 AT1G68310.2 \_VAPGSHATEDALNK(ac)QLNDK(Ubi)ER\_ GSHATEDALNKQLNDKERVAAALENPNLVEM 77.631 74.662 133

AT1G68360.1 AT1G68360.1 \_(ac)M(ox)EELDFSSK(Ubi)TTTSR\_ \_\_\_\_\_\_\_MEELDFSSKTTTSRLKLFGFSVDG 88.561 86.564 9

AT1G68660.2 AT1G68660.2, AT1G68660.1 \_VILHNDNFNK(Ubi)R\_ IAPPYRVILHNDNFNKREYVVQVLMKADAEQ 54.259 52.952 93

AT1G68680.1 AT1G68680.1 \_(ac)ASSSDPSK(Ubi)PVM(ox)ER\_ \_\_\_\_\_\_\_MASSSDPSKPVMERKKKGAPIKFL 32.295 31.105 9

AT1G68720.1 AT1G68720.1 \_AESNQLK(Ubi)R\_ INPETEEQRAESNQLKRRDSRRSSGGSGAKG 63.565 27.17 770

AT1G68730.1 AT1G68730.1 \_ETSK(Ubi)DLGTDHV\_ DNLGLIVEYDFRETSKDLGTDHV\_\_\_\_\_\_\_\_ 66.056 64.545 163

AT1G68790.1 AT1G68790.1 \_LPDVEDGDK(Ubi)R\_ FVLSDLRLPDVEDGDKRFGKQKLKAEEALNI 33.057 29.384 748

AT1G69010.1 AT1G69010.1 \_ELIPNSEQK(Ubi)R\_ ERFQILRELIPNSEQKRDTASFLLEVIDYVQ 105.98 104.98 78

AT1G69010.1 AT1G69010.1 \_TGK(ac)GNQEEEDYGEEDFNSK(Ubi)R\_ GNQEEEDYGEEDFNSKREGPSSNTTVHSNRD 119.38 118.38 21

AT1G69060.1 AT1G69060.1 \_QLQIQADEAQK(Ubi)QR\_ ESRQRQLQIQADEAQKQRKRRKLENMRKLEM 76.326 70.685 500

AT1G69070.1 AT1G69070.1 \_TK(ac)TPEEIAQK(Ubi)ER\_ ARPSERTKTPEEIAQKEREKLEALEEERKKR 53.3 46.98 282

AT1G69210.1 AT1G69210.1 \_LDDAGAEK(Ubi)VIPEDLALEVSSPGAER\_ FSREFKKRLDDAGAEKVIPEDLALEVSSPGA 56.416 52.339 197

AT1G69410.1 AT1G69410.1 \_(ac)SDDEHHFESSDAGASK(Ubi)TYPQQAGNIR\_ SDDEHHFESSDAGASKTYPQQAGNIRKGGHI 167.61 167.51 17

AT1G69510.3 AT1G69510.3, AT1G69510.2, AT1G69510.1 \_PK(Ubi)LQPTPQQQPR\_ QKGQKPKGPLEALRPKLQPTPQQQPRARRMA 75.474 72.156 79

AT1G70060.1 AT1G70060.1 \_SLLK(Ubi)DSKEEVR\_ LKTENMDVDHERSLLKDSKEEVRRIDKKNDF 45.433 25.774 225

AT1G70190.2 AT1G70190.2, AT1G70190.1 \_K(Ubi)LPTDYDPATFDPTEHR\_ PAKIEDEEEEEFDQRKLPTDYDPATFDPTEH 47.732 46.903 48

AT1G70660.1 AT1G70660.1, AT1G70660.2 \_(ac)GSEEEK(Ubi)VVVPR\_ \_\_\_\_\_\_\_\_\_MGSEEEKVVVPRNFRLLEELER 45.433 41.092 7

AT1G70660.1 AT1G70660.1, AT1G70660.2 \_K(Ubi)LAQPLEGNEEGR\_ LLIQLKKEMMSSQNRKLAQPLEGNEEGRTDP 70.563 66.594 134

AT1G70980.1 AT1G70980.1 \_YDVIK(Ubi)QR\_ ELIGGSQREERYDVIKQRIEEMGLPMEPYEW 81.297 57.324 509

AT1G71080.1 AT1G71080.1 \_SK(Ubi)SVSSGSGSGGQSSSGSSSR\_ SSSGSSSGSDSDGRSKSVSSGSGSGGQSSSG 56.882 56.193 293

AT1G71800.1 AT1G71800.1 \_SQVK(Ubi)VENAPFQR\_ QPGPSSVNPPPRSQVKVENAPFQRQQVVPAS 72.29 65.387 306

AT1G71800.1 AT1G71800.1 \_VDFAENDK(Ubi)GTDK(ac)TR\_ EINGRQLRVDFAENDKGTDKTRDQSQGGPGL 114.64 112.34 89

AT1G71860.2 AT1G71860.2, AT1G71860.3, AT1G71860.1 \_YSDVVPFDK(Ubi)NR\_ VNVEKNRYSDVVPFDKNRIVLNPCKDSSAKG 37.968 33.624 101

AT1G72010.1 AT1G72010.1 \_EDYFK(ac)EPSSAAEPSESSQK(Ubi)ASQFQEQELAQGR\_ RNPNTLVKPYREDYFKEPSSAAEPSESSQKA 46.15 45.471 221

AT1G72370.2 AT1G72370.2, AT1G72370.1 \_(ac)ATNGSASSAQLSQK(Ubi)EADVR\_ \_MATNGSASSAQLSQKEADVRMMCAAEVHLG 101.92 97.306 15

AT1G72410.1 AT1G72410.1, AT1G72410.2 \_VESSK(Ubi)TVTETR\_ KVGDEEASRDRVESSKTVTETRLVSGVEATS 80.69 47.602 396

AT1G72650.1 AT1G72650.1, AT1G72650.2 \_DSVEK(Ubi)SASR\_ PSQLSSEVVNRDSVEKSASRPVQNEFATSDE 67.897 32.452 473

AT1G72650.1 AT1G72650.1, AT1G72650.2 \_LSEK(Ubi)SEVR\_ NDKSVIPSKDQRLSEKSEVRSISVSSGKRVT 111.95 55.031 388

AT1G72690.1 AT1G72690.1 \_SEEK(Ubi)TVK(ac)SPNVFER\_ \_\_\_\_\_\_MADQNRSEEKTVKSPNVFERVKEEI 58.079 52.867 10

AT1G72690.1 AT1G72690.1 \_SEEK(ac)TVK(Ubi)SPNVFER\_ \_\_\_MADQNRSEEKTVKSPNVFERVKEEIEAM 55.755 44.38 13

AT1G72710.1 AT1G72710.1 \_EAAVLGTDSEPSNPQIVEAGSGSNSK(Ubi)IPVSR\_ PSNPQIVEAGSGSNSKIPVSRNSPIVSSEIN 96.123 95.684 422

AT1G72740.2 AT1G72740.2, AT1G72740.1 \_NLSVPPGTQSLTNK(Ubi)AR\_ WRNLSVPPGTQSLTNKARPAKVKEEGDTPAA 30.575 24.168 68

AT1G72740.2 AT1G72740.2, AT1G72740.1 \_PAK(ac)VK(Ubi)EEGDTPAADANDAVTIPR\_ PGTQSLTNKARPAKVKEEGDTPAADANDAVT 60.133 59.263 75

AT1G73230.1 AT1G73230.1 \_K(ac)K(ac)K(ac)AVHK(Ubi)TTTTDDK(ac)R\_ TGGKGTVRRKKKAVHKTTTTDDKRLQSTLKR 185.02 151.15 30

AT1G73230.1 AT1G73230.1 \_K(ac)K(ac)K(ac)AVHK(ac)TTTTDDK(Ubi)R\_ RRKKKAVHKTTTTDDKRLQSTLKRVGVNSIP 42.818 42.239 37

AT1G73350.2 AT1G73350.2, AT1G73350.1 \_M(ox)VAK(Ubi)M(ox)QEVAGER\_ GKIDDEDVTFQRMVAKMQEVAGERGGYLHGR 84.365 80.192 38

AT1G73350.2 AT1G73350.2, AT1G73350.1 \_VEPK(ac)PK(Ubi)SGIR\_ SPASIPLPLRVEPKPKSGIRQQDLLRKVVEV 54.259 28.142 114

AT1G73440.1 AT1G73440.1, AT4G00140.1 \_IAENK(Ubi)AR\_ ISKYEKQRLSRIAENKARLDALGISKAAKAL 124.89 64.127 48

AT1G73530.1 AT1G73530.1 \_VIFVEEAK(Ubi)TR\_ HGKFLDGRVIFVEEAKTRSDMSRAKPRRDFP 49.3 40.89 154

AT1G73770.2 AT1G73770.2, AT1G73770.1 \_TEEVLSK(Ubi)EELK(ac)K(ac)R\_ ESDSSRGFRTEEVLSKEELKKRIQSFLDDGN 130.2 121.86 66

AT1G73770.2 AT1G73770.2, AT1G73770.1 \_TEEVLSK(ac)EELK(Ubi)K(ac)R\_ SRGFRTEEVLSKEELKKRIQSFLDDGNEDAI 76.759 74.317 70

AT1G73770.2 AT1G73770.2, AT1G73770.1 \_TEEVLSK(ac)EELK(ac)K(Ubi)R\_ RGFRTEEVLSKEELKKRIQSFLDDGNEDAIP 31.071 28.768 71

AT1G74050.1 AT1G74050.1 \_TAK(Ubi)PTK(ac)LR\_ PAEDVKKPLPNRRTAKPTKLRASITPGTVLI 56.432 3.9496 81

AT1G74060.1 AT1G74060.1 \_TAK(Ubi)PAK(ac)LR\_ PAEDVKKPLPNRRTAKPAKLRASITPGTVLI 69.825 62.604 81

AT1G74690.1 AT1G74690.1 \_EGNAK(Ubi)TTPAER\_ NKKEKPLLSSREGNAKTTPAERKR\_\_\_\_\_\_\_ 64.64 62.486 579

AT1G74920.2 AT1G74920.2, AT1G74920.1 \_AIAAK(Ubi)VNER\_ APGAVRAKYLRAIAAKVNERKTDLAKLEALD 115.71 44.264 79

AT1G75310.1 AT1G75310.1 \_LAEALDADVK(Ubi)R\_ QTERNRLAEALDADVKRWSSGKENNLRALIS 50.786 39.937 1359

AT1G75340.2 AT1G75340.2, AT1G75340.1 \_AVAYEEAK(Ubi)R\_ DISYEELRAVAYEEAKRGIPLQSIVERERNL 76.064 50.505 179

AT1G75340.2 AT1G75340.2, AT1G75340.1 \_VM(ox)QDDFK(Ubi)NER\_ CTDPAACKRVMQDDFKNERPMWKLTCYGHWK 47.302 43.129 140

AT1G75350.1 AT1G75350.1 \_SALM(ox)VDADQVEK(Ubi)FR\_ LGNRSALMVDADQVEKFRKRFAGLSEIMEIP 62.287 52.751 108

AT1G75510.1 AT1G75510.1 \_GSNQGTYELKPEYK(ac)K(Ubi)SAEDDTGGQ\_ KRGSNQGTYELKPEYKKSAEDDTGGQ\_\_\_\_\_ 36.504 36.504 251

AT1G75510.1 AT1G75510.1 \_K(Ubi)PPPVK(ac)QTEVK(ac)R\_ PGMLGLVSSNSKEKRKPPPVKQTEVKRTRRD 31.881 28.685 175

AT1G75510.1 AT1G75510.1 \_K(ac)PPPVK(Ubi)QTEVK(ac)R\_ LVSSNSKEKRKPPPVKQTEVKRTRRDRGELE 114.87 100.44 180

AT1G75510.1 AT1G75510.1 \_K(ac)PPPVK(ac)QTEVK(Ubi)R\_ SKEKRKPPPVKQTEVKRTRRDRGELEAIMFK 131.69 110.04 185

AT1G75510.1 AT1G75510.1 \_(ac)MEDIHNLDIEK(Ubi)SDR\_ \_\_\_\_\_MEDIHNLDIEKSDRSIWLMKCPVVVD 115.8 113.73 11

AT1G75510.1 AT1G75510.1 \_TSK(Ubi)AM(ox)VK(Ubi)NR\_ ETIEEYARLCRERTSKAMVKNRQIQVIDNDR 71.451 56.771 137

AT1G75560.2 AT1G75560.2, AT1G75560.1 \_HCPK(Ubi)GDSNYSDR\_ CNICSISGHVARHCPKGDSNYSDRGSRVRDG 83.204 81.191 193

AT1G75600.1 AT1G75600.1 \_EIAQDYK(Ubi)TDLR\_ KLPFQRLVREIAQDYKTDLRFQSHAVLALQE 36.417 32.076 80

AT1G75980.1 AT1G75980.1 \_LIK(Ubi)QPELLNSTADR\_ CCVKGSLLEVNERLIKQPELLNSTADREGYI 83.692 62.025 179

AT1G76010.1 AT1G76010.1 \_VVK(ac)PK(Ubi)ADTPIDANEIR\_ \_\_\_\_\_MDKYQRVVKPKADTPIDANEIRITSQ 53.565 41.072 11

AT1G76180.2 AT1G76180.2, AT1G76180.1 \_(ac)AEEIK(Ubi)NVPEQEVPK(Ubi)VATEESSAEVTDR\_ \_\_\_\_\_\_\_\_\_\_MAEEIKNVPEQEVPKVATEES 123.35 122.94 6

AT1G76380.3 AT1G76380.3, AT1G76380.1, AT1G76380.2, AT1G20670.1 \_PSLLDLQK(Ubi)R\_ MKRKKKGRPSLLDLQKRALKQQQLLQRRNPN 63.076 43.469 26

AT1G76680.1 AT1G76680.1, AT1G76680.2 \_EDGNEAVSK(Ubi)GR\_ SAGGFTREDGNEAVSKGRTDLVAYGRWFLAN 52.247 50.919 317

AT1G76720.1 AT1G76720.1, AT1G76810.1, AT1G76820.1 \_K(ac)EK(ac)EK(Ubi)EK(ac)LLR\_ DAQAEEAKRKRKEKEKEKLLRKKLEGKLLTA;EAQAEEAKRKRKEKEKEKLLRKKLEGKLLTA 67.385 44.807 410

AT1G76720.1 AT1G76720.1, AT1G76810.1, AT1G76820.1 \_RQEELEAQAEEAK(Ubi)R\_ ERRRQEELEAQAEEAKRKRKEKEKEKLLRKK 135.02 128.54 402

AT1G76760.1 AT1G76760.1 \_IEDSLK(Ubi)VKP\_ ALTAKQLIQRIEDSLKVKP\_\_\_\_\_\_\_\_\_\_\_\_ 68.657 68.657 169

AT1G76760.1 AT1G76760.1 \_IEDSLK(ac)VK(Ubi)P\_ TAKQLIQRIEDSLKVKP\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 74.533 54.747 171

AT1G76820.1 AT1G76820.1 \_RQEELDAQAEEAK(Ubi)R\_ ERRRQEELDAQAEEAKRKRKEKEKEKLLRKK 46.069 40.354 348

AT1G76850.1 AT1G76850.1 \_DLTYQK(Ubi)PPSSSAR\_ QMALKEQAKRDLTYQKPPSSSARKPVANLVQ 45.28 38.122 30

AT1G76880.1 AT1G76880.1 \_K(ac)FLEAVEK(Ubi)R\_ DKQEELQRKFLEAVEKREHERLVREESWRVQ 45.368 40.852 282

AT1G76940.1 AT1G76940.1, AT1G76940.2 \_LVTK(Ubi)DSK(ac)HR\_ IFRPFVGYREVRLVTKDSKHRNGDPIVLCFV 52.579 47.265 170

AT1G76940.1 AT1G76940.1, AT1G76940.2 \_LVTK(ac)DSK(Ubi)HR\_ PFVGYREVRLVTKDSKHRNGDPIVLCFVDFT 67.334 62.44 173

AT1G76940.1 AT1G76940.1, AT1G76940.2 \_MDENESDSK(Ubi)FLR\_ SALQGYRMDENESDSKFLRLQFSRKPGSRPG 62.088 61.264 213

AT1G77030.1 AT1G77030.1 \_SEIK(Ubi)DLDQVR\_ RRQGSVPNAHVRSEIKDLDQVRKERQQKANK 94.309 83.384 743

AT1G77120.1 AT1G77120.1 \_IIGVDFNSK(Ubi)R\_ RIAGASRIIGVDFNSKRFDQAKEFGVTECVN 132.88 127.78 230

AT1G77180.2 AT1G77180.2, AT1G77180.1, AT1G77180.3 \_ALAQK(Ubi)AR\_ KDKERKEQELRALAQKARSERTGAAMSMPVS 106.76 41.985 341

AT1G77180.2 AT1G77180.2, AT1G77180.1, AT1G77180.3 \_FK(Ubi)PDK(Ubi)AFTGASER\_ NADEQLDKIKNTERFKPDKAFTGASERVGSK 49.298 33.912 526

AT1G77180.2 AT1G77180.2, AT1G77180.1, AT1G77180.3 \_QSGDSQYIK(ac)YK(ac)PSQQSSAFNSGAK(Ubi)ER\_ KYKPSQQSSAFNSGAKERIIRMVEMPVDPLD 78.752 77.348 205

AT1G77510.1 AT1G77510.1 \_NGGK(Ubi)SVQDYNGPR\_ KIQGFPTLKILRNGGKSVQDYNGPREAEGIV 81.565 77.703 117

AT1G77750.1 AT1G77750.1 \_DLTGK(Ubi)ELIDLR\_ CHLGITNKLARDLTGKELIDLREEVGQHQHG 122.39 62.235 80

AT1G77930.2 AT1G77930.2, AT1G77930.1 \_ELFNSTLK(Ubi)R\_ EKEKKASRELFNSTLKRHTLVLKKRDLMRKK 82.287 69.671 225

AT1G77930.2 AT1G77930.2, AT1G77930.1 \_NAEEEQIK(Ubi)VAYR\_ YDTLELDRNAEEEQIKVAYRRLAKFYHPDVY 184.31 123.08 93

AT1G77940.1 AT1G77940.1 \_(ac)VTEK(ac)K(Ubi)TK(ac)K(ac)SHEGINSR\_ \_\_\_\_\_\_\_\_\_\_MVTEKKTKKSHEGINSRLALV 90.385 90.191 6

AT1G78150.2 AT1G78150.2, AT1G78150.1, AT1G78150.3 \_K(Ubi)PPGGETSIALV\_ ADGKVEARDYLGGVRKPPGGETSIALV\_\_\_\_ 66.267 66.033 263

AT1G78300.1 AT1G78300.1, AT3G02520.1, AT4G09000.1, AT1G35160.1, AT1G35160.2, AT4G09000.2 \_IISSIEQK(Ubi)EESR\_ GARRASWRIISSIEQKEESRGNDDHVTAIRE 116.24 99.026 72

AT1G78370.1 AT1G78370.1, AT1G78340.1, AT1G78380.1 \_EK(Ubi)GVEFEYR\_ WPSMFGMRARVALREKGVEFEYREEDFSNKS 57.532 52.433 26

AT1G78610.1 AT1G78610.1 \_SAATTGEQQK(Ubi)DEGFEFR\_ AVDSDRSAATTGEQQKDEGFEFRRGEDPPTK 70.783 68.48 72

AT1G78650.1 AT1G78650.1 \_QPSATDNCLK(Ubi)GNR\_ AEELFRQPSATDNCLKGNRFCGVSNSCVKRN 47.712 46.629 134

AT1G78770.1 AT1G78770.1 \_REEEIEK(Ubi)IR\_ \_\_\_\_\_\_\_\_MREEEIEKIRGVVRDCVSKHLYS 55.064 0 8

AT1G79150.1 AT1G79150.1 \_VM(ox)TVEDK(Ubi)YEEER\_ AINKQCGGRVMTVEDKYEEERSKRKTLQEEK 57.792 56.848 67

AT1G79160.1 AT1G79160.1 \_LLSGYK(Ubi)DDR\_ MAADVSSLVRLLSGYKDDRAVVKDSAGAKSS 58.699 48.327 20

AT1G79200.1 AT1G79200.1 \_SSK(ac)EK(Ubi)K(Ubi)R\_ \_\_\_\_\_\_MVSERSSKEKKRSRARSEDSSSSDY 86.833 8.9103 10

AT1G79280.1 AT1G79280.1, AT1G79280.3, AT1G79280.2 \_TTTDAVVEQSVK(Ubi)ER\_ AGKRTTTDAVVEQSVKEREEKEKRIQILDKY 32.523 30.408 1493

AT1G79340.1 AT1G79340.1 \_SK(Ubi)VEGAIESR\_ EESSSRFGFRKFLRSKVEGAIESRGFHIGGN 61.344 52.34 182

AT1G79390.1 AT1G79390.1 \_LAEYLGELK(Ubi)QK(ac)QDTNDR\_ GKVNQERLAEYLGELKQKQDTNDRYVAALRG 50.831 46.61 85

AT1G79470.1 AT1G79470.1 \_DGETVNVVTK(Ubi)DDIQR\_ FVVLERDGETVNVVTKDDIQRVKGYPKSGPG 130.72 111.89 212

AT1G79550.2 AT1G79550.2, AT1G79550.1 \_PK(ac)GVTPK(Ubi)YSLK(ac)PLVPR\_ VVLCSHLGRPKGVTPKYSLKPLVPRLSELLG 52.172 51.843 74

AT1G79730.1 AT1G79730.1 \_VGASSSK(Ubi)M(ox)R\_ KDSGVYSSRVGASSSKMRRLEDEGGLGRSWK 47.187 39.967 554

AT1G79830.3 AT1G79830.3, AT1G79830.2, AT1G79830.1, AT1G79830.4 \_ADIVDLK(Ubi)EMYR\_ RDEELEELRADIVDLKEMYREQVNMLVNKIQ 67.385 48.253 941

AT1G79830.3 AT1G79830.3, AT1G79830.2, AT1G79830.1, AT1G79830.4 \_AEQGQLSK(Ubi)SLEK(ac)ER\_ EAQLSCLRAEQGQLSKSLEKERQRAAENRQE 55.755 53.452 699

AT1G79830.3 AT1G79830.3, AT1G79830.2, AT1G79830.1, AT1G79830.4 \_AEQGQLSK(ac)SLEK(Ubi)ER\_ SCLRAEQGQLSKSLEKERQRAAENRQEYLAA 81.656 78.996 703

AT1G79830.3 AT1G79830.3, AT1G79830.2, AT1G79830.1, AT1G79830.4 \_K(Ubi)SNEAEVESLR\_ HENEQLKSVTEDLKRKSNEAEVESLREEYHQ 56.205 41.97 390

AT1G79830.3 AT1G79830.3, AT1G79830.2, AT1G79830.1, AT1G79830.4 \_LQEAESK(Ubi)AATAEER\_ AVERTLNSRLQEAESKAATAEERERSVNERL 125.67 118.31 658

AT1G79830.3 AT1G79830.3, AT1G79830.2, AT1G79830.1, AT1G79830.4 \_QEYLAAK(Ubi)EEADTLEGR\_ ERQRAAENRQEYLAAKEEADTLEGRANQLEV 174.87 173.51 719

AT1G79830.3 AT1G79830.3, AT1G79830.2, AT1G79830.1, AT1G79830.4 \_QK(Ubi)EGELASYM(ox)TR\_ MKSITPSAYEATLRQKEGELASYMTRLASME 46.378 45.188 860

AT1G79830.3 AT1G79830.3, AT1G79830.2, AT1G79830.1, AT1G79830.4 \_QTLSK(Ubi)K(ac)EQQAVYR\_ SMLVQALEELRQTLSKKEQQAVYREDMFRGE 36.944 32.727 579

AT1G79930.2 AT1G79930.2, AT1G79930.1, AT1G79920.2, AT1G79920.1 \_K(Ubi)NAVESYVYDM(ox)R\_ EMALQDRVMEETKDRKNAVESYVYDMRNKLS 85.45 83.986 623

AT1G80000.2 AT1G80000.2, AT1G80000.1 \_SNNNLAQK(Ubi)DVQAGM(ox)GR\_ SPPFYPSRSNNNLAQKDVQAGMGRLHINENP 67.415 66.862 316

AT1G80040.1 AT1G80040.1, AT1G80040.3, AT1G80040.2 \_EVLQSSGTDDAK(Ubi)VR\_ LLVREVLQSSGTDDAKVRAARVLEALEKMLS 73.927 69.205 134

AT1G80230.1 AT1G80230.1 \_VEDVM(ox)PIATGHEK(Ubi)EELQAELEGR\_ KKRVEDVMPIATGHEKEELQAELEGRKLDDI 134.66 134.51 79

AT1G80350.1 AT1G80350.1 \_AFK(Ubi)EAPTGR\_ ETEVVKQLDAERRAFKEAPTGRRAASPPINT 73.885 62.96 82

AT1G80410.1 AT1G80410.1, AT1G80410.2 \_LEEANK(Ubi)LYR\_ EVSLLSKVGRLEEANKLYRVLLSMNPDNYRY 74.92 26.496 244

AT1G80620.1 AT1G80620.1 \_FDAK(Ubi)PQNSLSGNQDIR\_ TQSQDGKRQFVRFDAKPQNSLSGNQDIRRNL 138.05 135.98 81

AT1G80620.1 AT1G80620.1 \_SSLK(Ubi)QTQSQDGK(ac)R\_ DYKISSYFSGIRSSLKQTQSQDGKRQFVRFD 90.412 89.222 64

AT1G80620.1 AT1G80620.1 \_SSLK(ac)QTQSQDGK(Ubi)R\_ SGIRSSLKQTQSQDGKRQFVRFDAKPQNSLS 83.087 82.298 72

AT1G80670.1 AT1G80670.1 \_(ac)ATFGAPATANSNPNK(Ubi)SYEVTPSPADSISSLSFSPR\_ MATFGAPATANSNPNKSYEVTPSPADSISSL 52.276 52.13 16

AT1G80670.1 AT1G80670.1 \_IQSPLK(Ubi)YQTR\_ LQNPQTEFKRIQSPLKYQTRCVTAFPDQQGF 45.653 44.189 197

AT1G80750.1 AT1G80750.1 \_AK(Ubi)EVDM(ox)IR\_ SDIKRPEDFVHEFRAKEVDMIRMKQRVKRPK 49.715 43.794 62

AT1G80750.1 AT1G80750.1 \_K(ac)K(Ubi)QVFSEGGDTGNR\_ GPLKLNKPVADVLHRKKQVFSEGGDTGNRED 39.629 36.433 222

AT1G80810.1 AT1G80810.1, AT1G80810.2 \_LNK(Ubi)QVEK(ac)TR\_ SSRTLMKKDCGKRLNKQVEKTREGKNLRSLK 65.535 34.972 622

AT1G80890.1 AT1G80890.1 \_(ac)GNESK(Ubi)SNLGGGGIR\_ \_\_\_\_\_\_\_\_\_\_MGNESKSNLGGGGIRAKMEHY 102.52 101.08 6

AT1G80930.1 AT1G80930.1 \_GSEGLLK(Ubi)R\_ RRGKEKNDRGSEGLLKRDRRERDLTDGHENG 52.937 18.764 240

AT2G01140.1 AT2G01140.1 \_GILAIDESNATCGK(Ubi)R\_ GRGILAIDESNATCGKRLASIGLDNTEDNRQ 45.614 40.073 74

AT2G01140.1 AT2G01140.1 \_SAEYYK(Ubi)QGAR\_ CQGLDGLASRSAEYYKQGARFAKWRTVVSVP 101.65 99.492 171

AT2G01190.1 AT2G01190.1 \_TISASNSTK(Ubi)PSR\_ MIEEYDRTISASNSTKPSRLRLFLFTSKPEA 56.205 54.324 170

AT2G01750.1 AT2G01750.1, AT2G01750.2 \_EGGGGGGSK(Ubi)GLTR\_ TMSSSFREGGGGGGSKGLTRRRSMKPSFDAD 56.569 54.816 47

AT2G01750.1 AT2G01750.1, AT2G01750.2 \_ELSESQAEIK(Ubi)ALR\_ VRDKDRELSESQAEIKALRLSERQREKAVEE 234.49 214.81 101

AT2G01750.1 AT2G01750.1, AT2G01750.2 \_EVAAM(ox)EK(Ubi)EVSAM(ox)R\_ EVEAKKMRREVAAMEKEVSAMRVDNKGSDSR 89.231 72.881 581

AT2G01750.1 AT2G01750.1, AT2G01750.2 \_HEIVK(Ubi)LQDDNR\_ APLEAELKLARHEIVKLQDDNRALDRLTKSK 125.23 124.13 198

AT2G01750.1 AT2G01750.1, AT2G01750.2 \_HSTNSK(Ubi)GASTTAQLLSGR\_ NKGSDSRTRRHSTNSKGASTTAQLLSGRGSG 57.616 54.182 605

AT2G01750.1 AT2G01750.1, AT2G01750.2 \_K(Ubi)AANDK(ac)DQSLR\_ GVLHDLLQKEVITLRKAANDKDQSLRDKDEA 94.122 87.644 535

AT2G01750.1 AT2G01750.1, AT2G01750.2 \_K(ac)AANDK(Ubi)DQSLR\_ LLQKEVITLRKAANDKDQSLRDKDEAIEMLA 124.12 110.94 540

AT2G01750.1 AT2G01750.1, AT2G01750.2 \_QK(ac)VAEVEK(Ubi)FTQTVR\_ RILDKLHRQKVAEVEKFTQTVRELEEAVLAG 91.812 87.054 271

AT2G02050.1 AT2G02050.1 \_EEEALAK(Ubi)QNK(ac)LQGNAAVPLIPK(ac)TANA\_ RMLAMKKIREEEALAKQNKLQGNAAVPLIPK 33.614 33.056 84

AT2G02050.1 AT2G02050.1 \_EEEALAK(ac)QNK(ac)LQGNAAVPLIPK(Ubi)TANA\_ KQNKLQGNAAVPLIPKTANA\_\_\_\_\_\_\_\_\_\_\_ 36.716 34.824 99

AT2G02160.1 AT2G02160.1 \_DSFAAPLPFSEILK(Ubi)R\_ SRDSFAAPLPFSEILKRKKAAASGGSRNNNK 98.943 98.541 534

AT2G02160.1 AT2G02160.1 \_EESK(Ubi)PEPSLGK(ac)R\_ EDERKSAPKSSREESKPEPSLGKRKSFEEDH 74.392 71.35 498

AT2G02160.1 AT2G02160.1 \_EESK(ac)PEPSLGK(Ubi)R\_ PKSSREESKPEPSLGKRKSFEEDHHSHKRSR 107.17 105.51 505

AT2G02160.1 AT2G02160.1 \_GNSEYDPDFSAIADGDK(Ubi)EALR\_ NSEYDPDFSAIADGDKEALREQRFDSYDRRE 230.71 227.07 313

AT2G02160.1 AT2G02160.1 \_K(ac)K(Ubi)AAASGGSR\_ DSFAAPLPFSEILKRKKAAASGGSRNNNKDE 87.568 77.281 536

AT2G02160.1 AT2G02160.1 \_K(Ubi)SAPK(Ubi)SSR\_ FGAPWARRREMEDERKSAPKSSREESKPEPS 83.998 47.238 487

AT2G02560.2 AT2G02560.2, AT2G02560.1 \_NAK(Ubi)SEITR\_ KATVEVVKNLSNRNAKSEITRTNIQMIGALC 78.516 60.531 222

AT2G02570.3 AT2G02570.3, AT2G02570.4, AT2G02570.2, AT2G02570.1 \_EK(ac)HLHLK(Ubi)SGNAEGTDE\_ KGLTDFQKREKHLHLKSGNAEGTDE\_\_\_\_\_\_ 55.011 54.432 279

AT2G02570.3 AT2G02570.3, AT2G02570.4, AT2G02570.2, AT2G02570.1 \_LAQATK(ac)NALK(Ubi)R\_ IVEAERLAQATKNALKRKIEKAASSDYQTKT 91.549 84.863 173

AT2G02790.1 AT2G02790.1 \_TAERDDK(Ubi)AEEELK(ac)TAER\_ DKPEQDELRTAERDDKAEEELKTAERDDSAE 130.56 125.3 443

AT2G02790.1 AT2G02790.1 \_DDK(Ubi)AEEELK(Ubi)TAER\_ ELRTAERDDKAEEELKTAERDDSAEEKIQEP 74.296 68.923 449

AT2G02790.1 AT2G02790.1 \_DDSAEEK(Ubi)IQEPDAQISSENGNVASENTK(Ubi)PSDR\_ EEELKTAERDDSAEEKIQEPDAQISSENGNV 71.299 71.107 460

AT2G02790.1 AT2G02790.1 \_LLIASAK(Ubi)GSM(ox)NSDR\_ STMSPRAHRLLIASAKGSMNSDRSFSSSKDI 48.527 44.731 571

AT2G02790.1 AT2G02790.1 \_STADNEK(Ubi)PK(Ubi)R\_ TTANSSTSRSTADNEKPKRTVRKASTLGKEL 136.02 133.78 305

AT2G03430.1 AT2G03430.1 \_(ac)M(ox)EIATDTAK(Ubi)QM(ox)R\_ \_\_\_\_\_\_\_MEIATDTAKQMRDEELFKAAEWGD 33.192 33.192 9

AT2G03510.1 AT2G03510.1 \_QK(Ubi)SLADADYYR\_ RREADIENQMYLDRQKSLADADYYRVLREAE 49.448 45.275 279

AT2G03640.1 AT2G03640.1, AT2G03640.2, AT2G03640.4, AT2G03640.3 \_K(Ubi)APSPIR\_ VKRKPVEKPVAAPERKAPSPIRKQASAESIK 94.407 69.409 254

AT2G03640.1 AT2G03640.1, AT2G03640.2, AT2G03640.4, AT2G03640.3 \_K(Ubi)DGIQVR\_ IEQLYETFKSFGAIRKDGIQVRSYPEKKNCI 82.671 36.301 303

AT2G03640.1 AT2G03640.1, AT2G03640.2, AT2G03640.4, AT2G03640.3 \_K(Ubi)PVEK(ac)PVAAPER\_ QSAGTLQVKASPVKRKPVEKPVAAPERKAPS 85.837 84.648 242

AT2G03640.1 AT2G03640.1, AT2G03640.2, AT2G03640.4, AT2G03640.3 \_K(ac)PVEK(Ubi)PVAAPER\_ TLQVKASPVKRKPVEKPVAAPERKAPSPIRK 78.814 74.952 246

AT2G03640.1 AT2G03640.1, AT2G03640.2, AT2G03640.4, AT2G03640.3 \_NNSGYK(Ubi)NEDGFRR\_ NQNGNRVSTRNNSGYKNEDGFRRDGYKPRGS 39.006 38.017 373

AT2G03680.2 AT2G03680.2, AT2G03680.1 \_GNSCGGGQSSLDYLFGGDAPAPK(Ubi)PVPAPR\_ QSSLDYLFGGDAPAPKPVPAPRPAPTESNNG 177.35 177.33 26

AT2G03800.1 AT2G03800.1 \_SIVK(Ubi)EDDLDLR\_ SNKQTRVIQHDRSIVKEDDLDLRWEEATGEV 48.568 42.382 56

AT2G03870.2 AT2G03870.2, AT2G03870.1 \_DHDDPLK(Ubi)TTDQTR\_ LDEAVEFVRDHDDPLKTTDQTRRLGLIVCRG 118.76 117.69 59

AT2G04030.2 AT2G04030.2, AT2G04030.1 \_ELVSNASDALDK(Ubi)LR\_ VFLRELVSNASDALDKLRFLSVTEPSLLGDG 70.373 68.375 117

AT2G04340.1 AT2G04340.1 \_K(Ubi)IK(ac)NAPQGQGTVR\_ LMMIDDSKSQEMIERKIKNAPQGQGTVRMID 84.169 81.411 96

AT2G04340.1 AT2G04340.1 \_K(ac)IK(Ubi)NAPQGQGTVR\_ MIDDSKSQEMIERKIKNAPQGQGTVRMIDRE 66.004 62.427 98

AT2G04350.2 AT2G04350.2, AT2G04350.1 \_EFIDK(Ubi)EFITASDGR\_ KYSKDRLLGTREFIDKEFITASDGRKFEKLH 38.376 37.551 108

AT3G10610.1 AT3G10610.1, AT2G05220.2, AT2G05220.1, AT5G04800.4, AT5G04800.3, AT5G04800.2, AT5G04800.1, AT2G04390.1 \_GISLK(Ubi)LQEEER\_ LMKRIQKGPVRGISLKLQEEERERRMDFVPD 119.39 104.94 72

AT3G10610.1 AT3G10610.1, AT2G05220.2, AT2G05220.1, AT5G04800.4, AT5G04800.3, AT5G04800.2, AT5G04800.1, AT2G04390.1 \_IQK(Ubi)GPVR\_ NKIAGFSTHLMKRIQKGPVRGISLKLQEEER 93.593 22.234 63

AT3G10610.1 AT3G10610.1, AT2G05220.2, AT2G05220.1, AT5G04800.4, AT5G04800.3, AT5G04800.2, AT5G04800.1, AT2G04390.1 \_QVIEK(Ubi)YYSR\_ VRTKTVKKSSRQVIEKYYSRMTLDFHTNKKI 61.593 47.312 19

AT3G10610.1 AT3G10610.1, AT2G05220.2, AT2G05220.1, AT5G04800.4, AT5G04800.3, AT5G04800.2, AT5G04800.1, AT2G04390.1 \_TK(Ubi)TVK(ac)K(ac)SSR\_ \_\_\_\_\_\_\_\_\_MGRVRTKTVKKSSRQVIEKYYS 99.752 79.545 7

AT2G04520.1 AT2G04520.1 \_CEAM(ox)CIDGTK(Ubi)R\_ MLGNGRCEAMCIDGTKRLCHIRGKMHKKVWI 30.205 29.156 56

AT2G04520.1 AT2G04520.1 \_DYQDDK(Ubi)ADVILK(Ubi)YM(ox)SDEAR\_ AGDIVLVGLRDYQDDKADVILKYMSDEARLL 82.01 81.1 88

AT2G04520.1 AT2G04520.1 \_ELIFK(Ubi)EDGQEYAQVLR\_ RGKNEADDEKRELIFKEDGQEYAQVLRMLGN 72.898 71.101 29

AT2G04520.1 AT2G04520.1 \_GK(Ubi)NEADDEK(Ubi)R\_ MPKNKGKGGKNRKRGKNEADDEKRELIFKED 196.88 172.04 16

AT2G04520.1 AT2G04520.1 \_GKNEADDEK(Ubi)R\_ GGKNRKRGKNEADDEKRELIFKEDGQEYAQV 196.88 172.04 23

AT2G04520.1 AT2G04520.1 \_LLK(Ubi)AYGELPENTR\_ ADVILKYMSDEARLLKAYGELPENTRLNEGI 98.582 85.411 104

AT2G04520.1 AT2G04520.1 \_(ac)PK(Ubi)NK(ac)GK(ac)GGK(ac)NR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MPKNKGKGGKNRKRGKNE 42.031 38.453 3

AT2G04520.1 AT2G04520.1 \_(ac)PK(ac)NK(ac)GK(ac)GGK(Ubi)NR\_ \_\_\_\_\_\_MPKNKGKGGKNRKRGKNEADDEKRE 75.819 72.74 10

AT2G04550.3 AT2G04550.3, AT2G04550.1 \_SELLK(Ubi)TQGISR\_ LYLGSYDNASRSELLKTQGISRVLNTVPMCQ 120.77 107.18 73

AT5G51940.1 AT5G51940.1, AT2G04630.1 \_K(Ubi)TSK(ac)FM(ox)TK(ac)YER\_ EAEDKVETEPVQRPRKTSKFMTKYERARILG 45.28 34.927 60

AT5G51940.1 AT5G51940.1, AT2G04630.1 \_K(ac)TSK(Ubi)FM(ox)TK(ac)YER\_ DKVETEPVQRPRKTSKFMTKYERARILGTRA 55.261 47.217 63

AT5G51940.1 AT5G51940.1, AT2G04630.1 \_K(ac)TSK(ac)FM(ox)TK(Ubi)YER\_ TEPVQRPRKTSKFMTKYERARILGTRALQIS 107.17 87.889 67

AT2G04700.1 AT2G04700.1 \_K(Ubi)FSEQYAR\_ RAKTEPSEKSVEIMRKFSEQYARRSGTYFCV 159.58 147.35 46

AT2G04880.2 AT2G04880.2, AT2G04880.1 \_EK(Ubi)VM(ox)EDGYNWR\_ SLQSGSEGNSPFIREKVMEDGYNWRKYGQKL 67.385 66.195 108

AT2G04880.2 AT2G04880.2, AT2G04880.1 \_K(ac)K(Ubi)GGNIELSPVER\_ DNTHKDYNSPTAKRRKKGGNIELSPVERSTN 151.7 143.66 252

AT2G04880.2 AT2G04880.2, AT2G04880.1 \_SDVFTAVSK(ac)EK(Ubi)TSGSSVQTLR\_ NQDKRSDVFTAVSKEKTSGSSVQTLRQTEPP 117.38 114.96 192

AT2G05120.2 AT2G05120.2, AT2G05120.1 \_(ac)M(ox)FSPLTK(Ubi)R\_ \_\_\_\_\_\_\_\_\_MFSPLTKRAKQSSRNEKTPRNR 49.715 44.401 7

AT2G05710.1 AT2G05710.1 \_K(Ubi)DFNSYGSR\_ DSPAAKFLMERGVDRKDFNSYGSRRGNDEIM 78.342 71.739 800

AT2G05920.1 AT2G05920.1 \_VEK(Ubi)GAVVR\_ GKIVVCDRGVNARVEKGAVVRDAGGLGMIMA 102.51 32.515 407

AT2G06530.1 AT2G06530.1 \_M(ox)LDK(Ubi)SIR\_ KTPAELLRENKRMLDKSIREIERERQGLQTQ 79.469 7.3302 25

AT2G06530.1 AT2G06530.1 \_(ac)MNSIFGK(Ubi)R\_ \_\_\_\_\_\_\_\_MMNSIFGKRKTPAELLRENKRML 83.948 81.268 8

AT2G06990.1 AT2G06990.1 \_(ac)SAQMEEPETLGK(Ubi)R\_ \_\_\_MSAQMEEPETLGKRKESESSKLRSDETP 64.104 43.979 13

AT2G07340.1 AT2G07340.1 \_AFLTLEELRPLPEETNTYK(Ubi)SIGR\_ TLEELRPLPEETNTYKSIGRTFVLEPKTVLE 53.625 49.658 59

ATMG00980.1 ATMG00980.1, AT2G07675.1 \_GVK(Ubi)DLM(ox)GIPGR\_ VKDSPGVKSHCIRGVKDLMGIPGRRRGRSKY 36.32 30.319 102

AT2G07690.2 AT2G07690.2, AT2G07690.1 \_LSK(Ubi)DAAENLQR\_ RYIQYCRARCHPRLSKDAAENLQRKYVTIRM 49.448 41.316 569

ATMG01190.1 ATMG01190.1, AT2G07698.1 \_TGSIVDVPAGK(Ubi)AMLGR\_ DLVKRTGSIVDVPAGKAMLGRVVDAMGVPID 52.527 51.665 103

ATMG01190.1 ATMG01190.1, AT2G07698.1 \_VEVK(Ubi)APGILER\_ GKGALSDHEQRRVEVKAPGILERKSVHEPMQ 43.604 34.497 134

ATMG01190.1 ATMG01190.1, AT2G07698.1 \_VVDAM(ox)GVPIDGK(Ubi)GALSDHEQR\_ MLGRVVDAMGVPIDGKGALSDHEQRRVEVKA 38.377 37.413 120

ATMG01090.1 ATMG01090.1, AT2G07777.1, ATMG00040.1 \_GVTLGDPEDVK(Ubi)R\_ LLHQRGVTLGDPEDVKRALQLALHDDWEHAI 36.417 28.885 203

AT2G11910.2 AT2G11910.2, AT2G11910.1 \_QPPSK(Ubi)K(ac)R\_ DDDEEDDDDVRQPPSKKRK\_\_\_\_\_\_\_\_\_\_\_\_ 84.568 45.605 165

AT2G14880.1 AT2G14880.1 \_AVTSATESSEPTATNK(Ubi)R\_ AVTSATESSEPTATNKRVPRGIMKPRPVSPE 87.429 83.679 59

AT2G14880.1 AT2G14880.1 \_EILCDEK(ac)LK(ac)K(Ubi)IFEGR\_ DPQNKREILCDEKLKKIFEGRDRVGFLEIAK 34.928 32.215 119

AT2G15270.1 AT2G15270.1 \_LK(Ubi)M(ox)AEFTIR\_ QDRLTRMDIDYNKRLKMAEFTIRREEKQKAA 42.336 38.163 108

AT2G15270.1 AT2G15270.1 \_MDIDYNK(Ubi)R\_ RREQDRLTRMDIDYNKRLKMAEFTIRREEKQ 101.54 70.12 105

AT2G15430.1 AT2G15430.1 \_GQELK(Ubi)LR\_ HKGIIIVKLRRGQELKLRAIARKGIGKDHAK 81.297 41.194 164

AT2G15490.2 AT2G15490.2, AT2G15490.3, AT2G15490.1, AT2G15480.1, AT2G15480.2 \_EVIGGEK(Ubi)AEER\_ RAQVEKAVREVIGGEKAEERRLRAKELGEMA 63.624 50.616 230

AT2G15620.1 AT2G15620.1 \_ALK(Ubi)VTEEVER\_ QFCGQAIIETKLRALKVTEEVERLVSVPRPI 49.3 44.406 483

AT2G15620.1 AT2G15620.1 \_GEEGK(Ubi)PVEGADVYVGGR\_ ADIGFMGCLTRGEEGKPVEGADVYVGGRIGS 123.08 118.55 530

AT2G15760.1 AT2G15760.1 \_GLEIEDSDDQK(Ubi)DR\_ SPRSRGLEIEDSDDQKDRGRDRSPGSSSSRY 66.989 66.001 128

AT2G15790.1 AT2G15790.1 \_DNEEK(Ubi)K(ac)QYR\_ YAAVMKKIAFRDNEEKKQYRKMFV\_\_\_\_\_\_\_ 42.336 40.583 353

AT2G15890.2 AT2G15890.2, AT2G15890.1 \_AYFELK(Ubi)DLER\_ EGDDSYSCWRAYFELKDLEREKPKVEVENLI 82.417 78.243 94

AT2G16365.2 AT2G16365.2, AT2G16365.4, AT2G16365.3, AT2G16365.1 \_K(Ubi)NESSAETNTLEM(ox)DR\_ QSLESSKDTQEDGPRKNESSAETNTLEMDRL 142.55 141.86 209

AT2G16365.2 AT2G16365.2, AT2G16365.4, AT2G16365.3, AT2G16365.1 \_LQSLESSK(Ubi)DTQEDGPR\_ SHNRGGVRLQSLESSKDTQEDGPRKNESSAE 106.38 104.41 200

AT2G16485.1 AT2G16485.1 \_EVQPSLGSEK(Ubi)PR\_ TSAREREVQPSLGSEKPRSVSIPETPARSSR 111.94 87.471 1258

AT2G16485.1 AT2G16485.1 \_QSGGQQNNFK(Ubi)GQR\_ GYGWNRQSGGQQNNFKGQRVCKFFRENGHCR 113.42 107.14 1748

AT4G34740.1 AT4G34740.1, AT2G16570.1 \_EAGAK(Ubi)EVHM(ox)R\_ TTSSKIVRLLREAGAKEVHMRIASPPIIASC 34.773 33.576 454

AT4G34740.1 AT4G34740.1, AT2G16570.1 \_GTTSSK(Ubi)IVR\_ VVVVDDSIVRGTTSSKIVRLLREAGAKEVHM 63.816 63.816 443

AT2G16600.2 AT2G16600.2, AT2G16600.1 \_(ac)ATNPK(ac)VYFDM(ox)TVGGK(Ubi)SAGR\_ MATNPKVYFDMTVGGKSAGRIVMELYADTTP 81.016 79.381 16

AT2G16600.2 AT2G16600.2, AT2G16600.1 \_DIEK(Ubi)VGSDSGR\_ FGQVVEGLNVVRDIEKVGSDSGRTSKPVVIA 90.614 65.776 130

AT2G16600.2 AT2G16600.2, AT2G16600.1 \_TSK(Ubi)PVVIADCGQIS\_ VRDIEKVGSDSGRTSKPVVIADCGQIS\_\_\_\_ 83.633 82.809 140

AT2G16640.1 AT2G16640.1 \_ISDEQVVK(Ubi)NELVR\_ DKKLAEDRISDEQVVKNELVRSDEVRDDNED 70.889 48.351 30

AT2G16640.1 AT2G16640.1 \_VDGIQTEQEVEEGEGTTENQFEK(Ubi)R\_ QEVEEGEGTTENQFEKRTEEEVVEGEGTSKN 31.599 30.891 251

AT2G16710.2 AT2G16710.2, AT2G16710.1, AT2G16710.3 \_K(Ubi)QVLTLTDEAASR\_ QILAAAAARVGPALRKQVLTLTDEAASRVHH 66.004 63.562 20

AT2G16860.1 AT2G16860.1 \_EEK(Ubi)DIDSINDR\_ QKRQEFSRRRKFREEKDIDSINDRNEHFNKK 48.568 46.815 259

AT2G16860.1 AT2G16860.1 \_FEK(ac)QNTGLAK(Ubi)VHEQTR\_ AEAKARFEKQNTGLAKVHEQTREPLDDKRIE 95.662 94.446 45

AT2G16860.1 AT2G16860.1 \_LK(Ubi)M(ox)NEAR\_ TQLTGRQKKLFELRLKMNEARKSNQTDVGSE 63.565 33.38 96

AT2G16860.1 AT2G16860.1 \_NEHFNK(Ubi)K(ac)IER\_ EKDIDSINDRNEHFNKKIERAFGKYTLEIKN 126.12 115.66 273

AT2G16860.1 AT2G16860.1 \_NEHFNK(ac)K(Ubi)IER\_ KDIDSINDRNEHFNKKIERAFGKYTLEIKNN 46.73 42.934 274

AT5G15220.1 AT5G15220.1, AT2G16930.3, AT2G16930.2, AT2G16930.1 \_FEK(ac)SK(Ubi)ITGR\_ TLFALKEGRVRFEKSKITGRKWIHVDPTGGH 91.549 68.23 118

AT2G17260.1 AT2G17260.1 \_ILM(ox)NDAK(Ubi)R\_ SFLGGSKLRILMNDAKRSGFLSIMGALQFME 50.127 43.231 107

AT2G17410.2 AT2G17410.2, AT2G17410.1 \_EK(Ubi)QIGTTPGLLK(ac)R\_ PAIKDKNLVLHQKREKQIGTTPGLLKRKRAA 43.03 42.206 654

AT2G17410.2 AT2G17410.2, AT2G17410.1 \_QDNSSALVLNDANNESAPVK(Ubi)R\_ SALVLNDANNESAPVKRVPGPYVASSNIKSE 157.85 155.36 434

AT4G35460.1 AT4G35460.1, AT2G17420.1 \_ASK(Ubi)IMQQR\_ SKVYIIHRRDAFRASKIMQQRALSNPKIDVI 89.355 78.597 240

AT2G17560.3 AT2G17560.3, AT2G17560.2, AT2G17560.1 \_K(ac)EFNLANPNNK(Ubi)SVATVGK(ac)AAGAR\_ LEDFRKEFNLANPNNKSVATVGKAAGARWKA 103.84 101.42 61

AT2G17560.3 AT2G17560.3, AT2G17560.2, AT2G17560.1 \_K(ac)EFNLANPNNK(ac)SVATVGK(Ubi)AAGAR\_ FNLANPNNKSVATVGKAAGARWKAMTDEDKA 151.42 150.95 68

AT2G17560.3 AT2G17560.3, AT2G17560.2, AT2G17560.1 \_(ac)MK(Ubi)GGESK(Ubi)AEATSTDQR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_MKGGESKAEATSTDQRL 89.232 87.982 2

AT2G17720.1 AT2G17720.1 \_GHDEVVEVIEK(Ubi)R\_ TFLRRGHDEVVEVIEKRISDFTFIPVENGEG 60.301 44.715 151

AT2G18020.1 AT2G18020.1 \_DAPPGQK(Ubi)VGLIAAR\_ IGHASTVRRDAPPGQKVGLIAARRTGRLRGQ 94.023 90.943 234

AT2G18020.1 AT2G18020.1 \_GQAAASAAK(Ubi)AD\_ RRTGRLRGQAAASAAKAD\_\_\_\_\_\_\_\_\_\_\_\_\_ 55.258 49.223 256

AT2G18020.1 AT2G18020.1 \_K(Ubi)GPAK(ac)FR\_ RKGAGSVFKSHTHHRKGPAKFRSLDFGERNG 60.76 48.567 24

AT2G18020.1 AT2G18020.1 \_K(ac)GPAK(Ubi)FR\_ GSVFKSHTHHRKGPAKFRSLDFGERNGYLKG 97.602 72.97 28

AT2G18040.1 AT2G18040.1 \_EAAVEQLK(Ubi)SIR\_ KIILTTTREAAVEQLKSIREDIVSGKANFEE 91.313 87.14 46

AT2G18040.1 AT2G18040.1 \_EDIVSGK(Ubi)ANFEEVATR\_ AVEQLKSIREDIVSGKANFEEVATRVSDCSS 169.92 164.03 56

AT4G36580.1 AT4G36580.1, AT2G18330.1 \_AHEAK(Ubi)LTEEQNR\_ RVKAMAEAEGRAHEAKLTEEQNRRLLMERIN 53.557 52.014 232

AT4G36580.1 AT4G36580.1, AT2G18330.1 \_VK(Ubi)AM(ox)AEAEGR\_ TEKERAELERETIRVKAMAEAEGRAHEAKLT;TEREKAEIERETIRVKAMAEAEGRARESKLS 51.286 49.619 235

AT2G18570.1 AT2G18570.1 \_K(Ubi)IM(ox)AEEDEEGQKIR\_ SERVIGREEVASLVRKIMAEEDEEGQKIRAK 37.613 35.991 422

AT2G18600.1 AT2G18600.1 \_GASTVK(ac)K(Ubi)QSAGELR\_ EESQSNNGRGASTVKKQSAGELRLHKDISEL 39.629 36.969 28

AT4G30190.1 AT4G30190.1, AT2G18960.1, AT4G30190.2, AT3G42640.1 \_ELSEIAEQAK(Ubi)R\_ EKGSYRELSEIAEQAKRRAEIARLRELHTLK 188.99 160.03 911

AT2G19190.1 AT2G19190.1 \_FK(ac)K(Ubi)K(Ubi)QQR\_ IVVLLTALALFRRFKKKQQRGTLGERNGPLK 32.47 27.53 543

AT2G19270.1 AT2G19270.1 \_K(Ubi)QM(ox)ESASASHDSSVR\_ DDEDDEEEEKARKKRKQMESASASHDSSVRS 110.6 109.77 122

AT2G19480.3 AT2G19480.3, AT2G19480.2, AT2G19480.1 \_EIQNQYDEM(ox)EAK(Ubi)FFEER\_ EFLREIQNQYDEMEAKFFEERAALEAKYQKL 57.525 51.089 71

AT2G19480.3 AT2G19480.3, AT2G19480.2, AT2G19480.1 \_(Ubi)SNDK(Ubi)DSMNMSDLSTALNEEDR\_ \_\_\_\_\_\_\_\_\_\_\_MSNDKDSMNMSDLSTALNEE 139.44 137.34 5

AT2G19720.1 AT2G19720.1 \_QDVK(Ubi)ANEIGQYTER\_ GRVNDCKALTYRQDVKANEIGQYTERTLPTR 42.317 39.456 81

AT2G19730.3 AT2G19730.3, AT2G19730.2, AT2G19730.1, AT4G29410.2, AT4G29410.1 \_LSAISK(Ubi)GLR\_ PDLKKAALARLSAISKGLRVAKSGAKQRNRQ 179.37 123.84 127

AT2G19730.3 AT2G19730.3, AT2G19730.2, AT2G19730.1, AT4G29410.2, AT4G29410.1 \_VAK(Ubi)SGAK(ac)QR\_ ALARLSAISKGLRVAKSGAKQRNRQA\_\_\_\_\_ 155.06 71.275 133

AT2G19730.3 AT2G19730.3, AT2G19730.2, AT2G19730.1, AT4G29410.2, AT4G29410.1 \_VAK(Ubi)SGAK(Ubi)QR\_ LSAISKGLRVAKSGAKQRNRQA\_\_\_\_\_\_\_\_\_ 155.06 71.275 137

AT2G19740.1 AT2G19740.1, AT4G26230.1 \_K(Ubi)EEVVTR\_ \_\_\_\_\_\_\_\_MEKGKGRKEEVVTREYTINLHRR;\_\_\_\_\_\_\_\_MSEKKGRKEEVVTREYTINLHRR 128.12 50.008 8

AT2G19740.1 AT2G19740.1, AT4G26230.1 \_(ac)M(ox)EK(Ubi)GK(ac)GR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MEKGKGRKEEVVTREYTI 83.753 52.449 3

AT2G19740.1 AT2G19740.1, AT4G26230.1 \_(ac)M(ox)EK(ac)GK(Ubi)GR\_ \_\_\_\_\_\_\_\_\_\_\_MEKGKGRKEEVVTREYTINL 46.994 39.345 5

AT5G56670.1 AT5G56670.1, AT4G29390.1, AT2G19750.1 \_(ac)GK(Ubi)VHGSLAR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MGKVHGSLARAGKVRGQT 101.38 76.543 3

AT5G56670.1 AT5G56670.1, AT4G29390.1, AT2G19750.1 \_GQTPK(ac)VAK(Ubi)QDK(ac)K(ac)K(ac)K(ac)PR\_ LARAGKVRGQTPKVAKQDKKKKPRGRAHKRL 58.712 58.204 23

AT5G56670.1 AT5G56670.1, AT4G29390.1, AT2G19750.1 \_GQTPK(ac)VAK(ac)QDK(Ubi)K(ac)K(ac)K(ac)PR\_ AGKVRGQTPKVAKQDKKKKPRGRAHKRLQHN 44.391 44.123 26

AT5G56670.1 AT5G56670.1, AT4G29390.1, AT2G19750.1 \_GQTPK(ac)VAK(ac)QDK(ac)K(Ubi)K(ac)K(ac)PR\_ GKVRGQTPKVAKQDKKKKPRGRAHKRLQHNR 59.502 56.701 27

AT5G56670.1 AT5G56670.1, AT4G29390.1, AT2G19750.1 \_GQTPK(ac)VAK(ac)QDK(ac)K(ac)K(Ubi)K(ac)PR\_ KVRGQTPKVAKQDKKKKPRGRAHKRLQHNRR 57.525 57.039 28

AT5G56670.1 AT5G56670.1, AT4G29390.1, AT2G19750.1 \_GQTPK(ac)VAK(ac)QDK(ac)K(ac)K(ac)K(Ubi)PR\_ VRGQTPKVAKQDKKKKPRGRAHKRLQHNRRF 107.98 106.83 29

AT2G19830.1 AT2G19830.1 \_APAQK(Ubi)QPTAEEDELAALQAEM(ox)AL\_ IHVPQGNKPARAPAQKQPTAEEDELAALQAE 91.166 90.871 195

AT2G19830.1 AT2G19830.1 \_IHDQM(ox)IM(ox)LEGAK(Ubi)ATTETVDALR\_ FQLRIHDQMIMLEGAKATTETVDALRSGASA;FQLRIHDQMIMLEGAKATTETVDALRTGASA 69.765 69.103 67

AT2G19940.2 AT2G19940.2, AT2G19940.1 \_EDIK(ac)K(Ubi)AR\_ EVVYGLTEILREDIKKARLVANPGCYPTTIQ 64.567 11.851 196

AT2G20060.1 AT2G20060.1 \_DAVNK(Ubi)IVER\_ ILLHDTLLMSRDAVNKIVERMHTPINR\_\_\_\_ 57.347 47.46 289

AT4G29040.1 AT4G29040.1, AT2G20140.1 \_LK(ac)PQEEK(Ubi)AEEDR\_ EEFVANQERLKPQEEKAEEDRSKVDDLRGTP 41.996 39.464 94

AT4G28750.1 AT4G28750.1, AT2G20260.1 \_GSK(ac)VK(Ubi)ILR\_ KPKPPPIGPKRGSKVKILRRESYWFKNVGSV 51.346 44.126 88

AT2G20280.1 AT2G20280.1 \_K(Ubi)GEK(ac)IDIYSDTR\_ KGFKCKFSHDLNIQRKGEKIDIYSDTRDEDG 75.589 61.157 119

AT2G20280.1 AT2G20280.1 \_K(ac)GEK(Ubi)IDIYSDTR\_ KCKFSHDLNIQRKGEKIDIYSDTRDEDGDMD 106.54 95.093 122

AT2G20330.1 AT2G20330.1 \_TK(Ubi)ETVLTSSEDGSLR\_ GHICGLTCGEWHPRTKETVLTSSEDGSLRIW 35.473 34.813 291

AT2G20420.1 AT2G20420.1 \_LEGTNVEQGK(Ubi)R\_ VPVVVRLEGTNVEQGKRILKESGMKLITADD 126.19 108.06 392

AT2G20450.1 AT2G20450.1, AT4G27090.1 \_K(ac)LIVQK(Ubi)R\_ NKWEKSSWGRKLIVQKRRAALNDFDRFKIML;NKWEKSSWGRKLIVQKRRANLNDFDRFKIML 79.116 23.44 97

AT2G20450.1 AT2G20450.1, AT4G27090.1 \_QELAK(Ubi)LK(ac)R\_ LAKIKRAGIVRQELAKLKREIAA\_\_\_\_\_\_\_\_ 88.819 82.516 127

AT2G20450.1 AT2G20450.1, AT4G27090.1 \_QELAK(ac)LK(Ubi)R\_ KIKRAGIVRQELAKLKREIAA\_\_\_\_\_\_\_\_\_\_ 52.482 42.827 129

AT2G20490.2 AT2G20490.2, AT2G20490.1 \_FSPDDK(Ubi)YSK(Ubi)QR\_ LATESAHPARFSPDDKYSKQRVLLKKRFGLL 141.08 132.67 39

AT2G20560.1 AT2G20560.1, AT3G08910.1, AT4G28480.2, AT4G28480.1 \_(ac)GVDYYK(Ubi)VLQVDR\_ \_\_\_\_\_\_\_\_\_MGVDYYKVLQVDRNAKDDDLKK;\_\_\_\_\_\_\_\_\_MGVDYYKVLQVDRSANDDDLKK;\_\_\_\_\_\_\_\_\_MGVDYYKVLQVDRSASDDDLKK 103.97 100.9 7

AT2G20560.1 AT2G20560.1, AT3G08910.1, AT4G28480.2, AT4G28480.1 \_SASDDDLK(Ubi)K(Ubi)AYR\_ YKVLQVDRSASDDDLKKAYRKLAMKWHPDKN 50.354 47.157 21

AT2G20760.1 AT2G20760.1 \_DK(Ubi)TIETNK(Ubi)TDNR\_ TEAEDFKKAFYEKRDKTIETNKTDNREKEKL 177.42 139.18 153

AT2G20760.1 AT2G20760.1 \_DK(ac)TIETNK(Ubi)TDNR\_ KKAFYEKRDKTIETNKTDNREKEKLYWANQE 240.18 210.38 159

AT2G20760.1 AT2G20760.1 \_EVPNIEK(Ubi)K(Ubi)R\_ KAIAELIPREVPNIEKKRGKKDPDKKPSVNV 95.502 79.872 201

AT2G20760.1 AT2G20760.1 \_GK(ac)K(Ubi)DPDK(ac)K(ac)PSVNVIQGPK(ac)PGK(ac)PTDLGR\_ ELIPREVPNIEKKRGKKDPDKKPSVNVIQGP 107.75 107.23 205

AT2G20760.1 AT2G20760.1 \_LNTIHLEEK(ac)EK(ac)K(ac)EK(Ubi)EM(ox)R\_ RRLNTIHLEEKEKKEKEMRNQIITEAEDFKK 43.794 42.862 130

AT2G20760.1 AT2G20760.1 \_NQIITEAEDFK(ac)K(ac)AFYEK(Ubi)R\_ QIITEAEDFKKAFYEKRDKTIETNKTDNREK 82.01 77.01 150

AT2G20940.1 AT2G20940.1 \_K(Ubi)ILK(Ubi)TGQ\_ TMALTPPIARFLRQRKILKTGQ\_\_\_\_\_\_\_\_\_ 50.703 20.518 123

AT2G21130.1 AT2G21130.1 \_ALCTGEK(Ubi)GVGR\_ TPKTAENFRALCTGEKGVGRSGKPLHFKGSS 106.62 89.145 45

AT2G21150.1 AT2G21150.1 \_K(Ubi)IK(ac)GSSR\_ QEEEELQLEKRNKKRKIKGSSRLSFAEDFEN 57.177 10.096 115

AT2G21150.1 AT2G21150.1 \_TIADATIEK(Ubi)DESHAGK(ac)VVER\_ DVHEDVRTIADATIEKDESHAGKVVERHWYE 81.807 80.809 294

AT2G21150.1 AT2G21150.1 \_TIADATIEK(ac)DESHAGK(Ubi)VVER\_ TIADATIEKDESHAGKVVERHWYEKNKHIFP 94.632 78.617 301

AT2G21230.1 AT2G21230.1 \_DALSEK(Ubi)LNEEVQR\_ QAMEQQAQLRDALSEKLNEEVQRLKLVIGEP 156.14 124.26 453

AT2G21230.1 AT2G21230.1 \_DSM(ox)GLTNQNSELK(Ubi)FR\_ LQRDSMGLTNQNSELKFRLQAMEQQAQLRDA 76.759 69.809 434

AT2G21290.1 AT2G21290.1 \_IK(Ubi)DK(ac)LELPR\_ YGNSRGKKQKMIERIKDKLELPRSTPWPLPF 37.556 23.321 80

AT2G21290.1 AT2G21290.1 \_IK(ac)DK(Ubi)LELPR\_ NSRGKKQKMIERIKDKLELPRSTPWPLPFKL 45.368 36.668 82

AT2G21350.1 AT2G21350.1 \_SSALELSAK(ac)EK(Ubi)R\_ RENRRSSALELSAKEKRKLASYAHHLGDKLK 46.88 40.984 124

AT2G21440.1 AT2G21440.1 \_AIELK(Ubi)NGSTVGGR\_ VKFALQEDVNRAIELKNGSTVGGRRITVKQA 39.73 36.014 81

AT2G21440.1 AT2G21440.1 \_EAK(Ubi)QQQFQQR\_ EFAVDNVQKLKIREAKQQQFQQREKHNESDQ 70.028 66.166 820

AT2G21440.1 AT2G21440.1 \_K(ac)K(Ubi)VEK(ac)PIER\_ KVSPPEKKLEKPVERKKVEKPIERKQVEKPV 63.624 39.948 150

AT2G21440.1 AT2G21440.1 \_K(ac)K(ac)VEK(Ubi)PIER\_ PEKKLEKPVERKKVEKPIERKQVEKPVERKK 54.259 46.894 154

AT2G21440.1 AT2G21440.1 \_K(ac)QVEK(Ubi)PVER\_ ERKKVEKPIERKQVEKPVERKKAEKPIELKQ 58.699 53.804 163

AT2G21440.1 AT2G21440.1 \_NLPFDVTK(Ubi)EEVK(ac)QR\_ FERTLFIRNLPFDVTKEEVKQRFTVFGEVES 47.037 37.468 574

AT2G21530.1 AT2G21530.1 \_VFK(ac)LQDSEESIEK(Ubi)PTTE\_ IFRVFKLQDSEESIEKPTTE\_\_\_\_\_\_\_\_\_\_\_ 183.36 181.43 205

AT2G21580.2 AT2G21580.2, AT2G21580.1 \_ELM(ox)AK(Ubi)GLIR\_ INGSLARRAIRELMAKGLIRMVSAHSSQQIY 80.165 42.438 86

AT2G21640.1 AT2G21640.1 \_(ac)ASQTNQTVVDTK(ac)K(Ubi)IETENPPK(ac)PQVPASSCR\_ \_\_\_MASQTNQTVVDTKKIETENPPKPQVPAS 38.925 38.568 13

AT2G21660.1 AT2G21660.1, AT2G21660.2 \_ALETAFAQYGDVIDSK(Ubi)IINDR\_ ALETAFAQYGDVIDSKIINDRETGRSRGFGF 203.81 175.48 38

AT2G21660.1 AT2G21660.1, AT2G21660.2 \_GFGFVTFK(ac)DEK(Ubi)AM(ox)K(ac)DAIEGM(ox)NGQDLDGR\_ DRETGRSRGFGFVTFKDEKAMKDAIEGMNGQ 52.249 51.866 57

AT2G21870.2 AT2G21870.2, AT2G21870.1 \_AYLLK(Ubi)LQEIR\_ DTETQDIPDARAYLLKLQEIRTRRGLTDELG 79.148 22.744 123

AT2G21870.2 AT2G21870.2, AT2G21870.1 \_IK(Ubi)HDIDTETQDIPDAR\_ TIRQKADMFSESQRIKHDIDTETQDIPDARA 174.68 170.43 104

AT2G21870.2 AT2G21870.2, AT2G21870.1 \_QK(Ubi)ADMFSESQR\_ AAVKQYANVMKTIRQKADMFSESQRIKHDID 72.29 69.172 93

AT2G22090.1 AT2G22090.1, AT2G22090.2 \_GQSLPSTYPDSDAGGK(Ubi)R\_ GQSLPSTYPDSDAGGKRGTGKDSDAGGSSFH 41.088 40.534 322

AT2G22270.1 AT2G22270.1 \_LFGGATQSEVK(ac)GNK(Ubi)NTEESAPR\_ RRLFGGATQSEVKGNKNTEESAPRSSRASVK 56.882 56.626 219

AT2G22360.1 AT2G22360.1, AT4G39960.1 \_ISLK(Ubi)VPAGVDSGSR\_ CSGDGRVRKTKRISLKVPAGVDSGSRLRVRG 71.279 69.812 298

AT2G22360.1 AT2G22360.1, AT4G39960.1 \_VQVEIPK(Ubi)R\_ NMRGDQLVRVQVEIPKRLSKEEKKLIEELAD 114.28 50.465 415

AT2G22720.3 AT2G22720.3, AT2G22720.2, AT2G22720.1 \_ELK(Ubi)LLEEEER\_ RRSARIAREEDERELKLLEEEERRERLKKNR 55.314 51.141 550

AT2G22720.3 AT2G22720.3, AT2G22720.2, AT2G22720.1 \_K(ac)VETLK(Ubi)DTR\_ RPKVVNEVRRKVETLKDTRDYSFLFSDDAEL 79.659 66.651 150

AT2G22720.3 AT2G22720.3, AT2G22720.2, AT2G22720.1 \_PK(Ubi)QSSGINGR\_ FPNSEARSAQLSSRPKQSSGINGRTAHSPHR 57.532 57.532 194

AT2G22720.3 AT2G22720.3, AT2G22720.2, AT2G22720.1 \_PK(Ubi)VVNEVR\_ TNGSGSKNVSQEKRPKVVNEVRRKVETLKDT 119.75 94.125 137

AT2G22720.3 AT2G22720.3, AT2G22720.2, AT2G22720.1 \_SAPAK(Ubi)VPVDHR\_ GQLNSRSDSRRSAPAKVPVDHRKQMSSSNGV 59.198 51.333 372

AT2G22720.3 AT2G22720.3, AT2G22720.2, AT2G22720.1 \_YDDDDINM(ox)EAGFEDIQK(Ubi)EER\_ DDDDINMEAGFEDIQKEERRSARIAREEDER 68.639 67.798 532

AT2G23090.1 AT2G23090.1 \_(ac)GGGNAQK(Ubi)SAMAR\_ \_\_\_\_\_\_\_\_MGGGNAQKSAMARAKNLEKAKAA 105.2 104.41 8

AT2G23350.1 AT2G23350.1 \_NVNQPSSQGSEGNK(Ubi)SGSPSDLLASLSINDHL\_ LRNVNQPSSQGSEGNKSGSPSDLLASLSIND 61.538 61.443 645

AT2G23820.1 AT2G23820.1, AT2G23820.2 \_AK(Ubi)EIAELWR\_ ALEHMCKLLGGGERAKEIAELWREYEENSSP 59.908 54.594 183

AT2G23820.1 AT2G23820.1, AT2G23820.2 \_DVK(Ubi)DPESIADHMYR\_ RLKTTPRAGWIKRDVKDPESIADHMYRMGLM 73.834 73.256 103

AT2G24060.1 AT2G24060.1 \_FQTEIGELATEESK(Ubi)NFR\_ RRFQTEIGELATEESKNFRDRNMFIILVPNK 144.97 138.2 237

AT2G24060.1 AT2G24060.1 \_LIDGQQNM(ox)LGLVSK(Ubi)DEAVR\_ VRLIDGQQNMLGLVSKDEAVRMADDAELDLV 59.252 49.778 115

AT2G24090.1 AT2G24090.1 \_LSK(Ubi)M(ox)TEVNR\_ HLLAKKNNKRKLRLSKMTEVNRSDYDNVIGA 45.368 45.368 119

AT2G24310.1 AT2G24310.1 \_NSGEK(Ubi)LNER\_ PFKEIIEALLRNSGEKLNERDDKVSYVEILK 47.302 29.166 299

AT2G24500.1 AT2G24500.1 \_K(Ubi)IAGVPGVTEALFEAR\_ KFHYKSEWHRYNLKRKIAGVPGVTEALFEAR 55.011 51.033 35

AT2G25970.1 AT2G25970.1 \_(ac)ADESQYSSDTYSNK(Ubi)R\_ \_MADESQYSSDTYSNKRKYEEPTAPPPSTRR 72.898 72.074 15

AT2G25970.1 AT2G25970.1 \_K(Ubi)YEEPTAPPPSTR\_ ADESQYSSDTYSNKRKYEEPTAPPPSTRRPT 146.96 140.05 17

AT2G25970.1 AT2G25970.1 \_LLNSADAK(Ubi)R\_ KAQEIAARLLNSADAKRPRVDNGASYDYGDN 128.36 59.446 88

AT2G26280.1 AT2G26280.1 \_LLASSSSVGK(Ubi)AVLDR\_ STLDTRLLASSSSVGKAVLDRTESSASHHSD 68.044 64.726 58

AT2G26460.1 AT2G26460.1 \_EEK(ac)LEESDNPK(Ubi)YR\_ TARRREEKLEESDNPKYRDRAKERRENQNPD 101.53 90.157 27

AT2G26570.1 AT2G26570.1 \_SLEK(Ubi)LEEVNR\_ SRIEEAKETEMRSLEKLEEVNRDMDARKKAL 55.353 29.879 682

AT2G27030.2 AT2G27030.2, AT5G21274.1, AT3G56800.1, AT3G43810.1, AT2G41110.1, AT2G27030.1, AT2G41110.2, AT2G27030.3, AT5G37780.1, AT1G66410.1, AT1G66410.2, AT5G37780.2, AT5G37780.3 \_K(Ubi)M(ox)K(Ubi)DTDSEEELK(ac)EAFR\_ NGTIDFPEFLNLMARKMKDTDSEEELKEAFR 183.31 182.74 40

AT2G27030.2 AT2G27030.2, AT5G21274.1, AT3G56800.1, AT3G43810.1, AT2G41110.1, AT2G27030.1, AT2G41110.2, AT2G27030.3, AT5G37780.1, AT1G66410.1, AT1G66410.2, AT5G37780.2, AT5G37780.3 \_K(ac)M(ox)K(ac)DTDSEEELK(Ubi)EAFR\_ LMARKMKDTDSEEELKEAFRVFDKDQNGFIS 126.63 125.01 51

AT2G27030.2 AT2G27030.2, AT5G21274.1, AT3G56800.1, AT3G43810.1, AT2G41110.1, AT2G27030.1, AT2G41110.2, AT2G27030.3, AT5G37780.1, AT1G66410.1, AT1G66410.2, AT5G37780.2, AT5G37780.3 \_VFDK(Ubi)DQNGFISAAELR\_ TDSEEELKEAFRVFDKDQNGFISAAELRHVM 223.97 176.94 59

AT2G27285.1 AT2G27285.1 \_REDAIAAAK(Ubi)ER\_ AINDQKRREDAIAAAKERFLARKKAKIEEYV 90.05 66.731 305

AT2G27285.1 AT2G27285.1 \_EK(Ubi)EHEIVYER\_ PRYIQNLMKQAERREKEHEIVYERKLAKERE 54.259 26.778 110

AT2G27285.1 AT2G27285.1 \_EVEAK(Ubi)EAEK(Ubi)LEEQR\_ NIGKNVAFGAREVEAKEAEKLEEQRKAEKLE 35.037 33.175 195

AT2G27285.1 AT2G27285.1 \_K(ac)AEK(Ubi)LEELR\_ EQRKAEKLEEQRKAEKLEELRKEVTRVEKKR 107.21 32.829 217

AT2G27285.1 AT2G27285.1 \_K(Ubi)AEK(ac)LEEQR\_ REVEAKEAEKLEEQRKAEKLEEQRKAEKLEE 81.017 7.5171 205

AT2G27285.1 AT2G27285.1 \_K(ac)AEK(Ubi)LEEQR\_ EAKEAEKLEEQRKAEKLEEQRKAEKLEELRK 48.284 46.773 208

AT2G27285.1 AT2G27285.1 \_K(ac)SPEK(Ubi)EVSPDSGEFGSSR\_ RKEVTRVEKKRKSPEKEVSPDSGEFGSSRSK 34.649 34.163 237

AT2G27285.1 AT2G27285.1 \_YIQNLM(ox)K(Ubi)QAER\_ QDREERKPRYIQNLMKQAERREKEHEIVYER 58.172 56.733 103

AT2G27470.1 AT2G27470.1 \_K(ac)QEEPSTQK(Ubi)GAR\_ PKETKKRKQEEPSTQKGARKSKIDEETKRND 117.79 110.43 146

AT2G27580.2 AT2G27580.2, AT2G27580.1 \_AAAEPEEADGPPQDPK(Ubi)R\_ AAAEPEEADGPPQDPKRCLTCRRRVGITGFR 83.37 81.817 102

AT2G27600.1 AT2G27600.1 \_TDFEK(Ubi)VLAR\_ AEKIIPPPITRTDFEKVLARQRPTVSKSDLD 62.463 45.232 407

AT2G27730.1 AT2G27730.1 \_QGPGEQAAGSASEAK(Ubi)VAGATASASAESGPK(Ubi)VSEDK(ac)NR\_ RQGPGEQAAGSASEAKVAGATASASAESGPK 107.73 107.71 60

AT2G27810.3 AT2G27810.3, AT2G27810.2, AT2G27810.1 \_AK(Ubi)QQETQPDLEAGQTR\_ ATDSSSGQLSLPVRAKQQETQPDLEAGQTRL 75.376 73.641 60

AT2G27960.1 AT2G27960.1 \_(ac)GQIQYSEK(Ubi)YFDDTFEYR\_ \_\_\_\_\_\_\_MGQIQYSEKYFDDTFEYRHVVLPP 104.88 104.54 9

AT2G27960.1 AT2G27960.1 \_RPLNYQQQQENQAQNM(ox)LVK(Ubi)\_ NYQQQQENQAQNMLVK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 57.525 56.625 87

AT2G27970.1 AT2G27970.1 \_(ac)GQIQYSDK(Ubi)YFDDTFEYR\_ \_\_\_\_\_\_\_MGQIQYSDKYFDDTFEYRHVVLPP 125.45 125.1 9

AT2G27970.1 AT2G27970.1 \_RPLNYQQEHQAQIAK(Ubi)\_ RRPLNYQQEHQAQIAK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 58.079 54.744 83

AT2G28000.1 AT2G28000.1 \_EVASK(Ubi)TNDSAGDGTTTASILAR\_ AMENAGAALIREVASKTNDSAGDGTTTASIL 65.184 64.867 124

AT2G28000.1 AT2G28000.1 \_NVVLDEFGSPK(Ubi)VVNDGVTIAR\_ GPRGRNVVLDEFGSPKVVNDGVTIARAIELP 63.869 63.509 92

AT2G28290.2 AT2G28290.2, AT2G28290.3, AT2G28290.1 \_K(Ubi)QTADVTDVAR\_ QEIRRDTSGTGGSARKQTADVTDVARVMKEI 119.94 93.47 1864

AT2G28290.2 AT2G28290.2, AT2G28290.3, AT2G28290.1 \_LDEMDFSSK(Ubi)ETER\_ TDNPTGRLDEMDFSSKETERSRLGEKSFANT 64.104 63.279 367

AT2G28380.1 AT2G28380.1 \_TAVK(Ubi)PTVEAGETR\_ PVFASAPPVRIRTAVKPTVEAGETRISSVQE 44.426 41.384 361

AT2G28540.2 AT2G28540.2, AT2G28540.1 \_QEEPK(Ubi)DQAFDSYNASNQM(ox)SR\_ EDNQSRFSFARQEEPKDQAFDSYNASNQMSR 43.696 43.607 698

AT3G46440.2 AT3G46440.2, AT3G46440.1, AT5G59290.1, AT2G28760.3, AT2G28760.2, AT2G28760.1, AT5G59290.2 \_GEALTVQK(Ubi)PGTQTR\_ NFIAQALRGEALTVQKPGTQTRSFCYVSDMV 54.898 52.037 232

AT2G28800.4 AT2G28800.4, AT2G28800.1 \_EGALASSTTSK(Ubi)PLPEVGQR\_ EEEAREGALASSTTSKPLPEVGQRRSKRSKR 80.316 79.259 413

AT2G28800.4 AT2G28800.4, AT2G28800.1 \_QLK(ac)EQEK(Ubi)R\_ PDDAGERFRQLKEQEKRSKKNKAVAKDTVEL 120.15 76.347 367

AT2G29140.1 AT2G29140.1, AT2G29190.2, AT2G29190.1 \_GQAEQDVEK(Ubi)VR\_ SGGLDERGQAEQDVEKVRNYMFGLQGGHNEV;TGGLDERGQAEQDVEKVRNYMFGLQDGHNEV 67.385 59.253 342

AT2G29140.1 AT2G29140.1, AT2G29190.2, AT2G29190.1 \_LK(Ubi)GSNNVLGGVGDR\_ PPLMSREDLRVAQRLKGSNNVLGGVGDRRKV 86.497 85.307 136

AT2G29190.2 AT2G29190.2, AT2G29190.1 \_LK(Ubi)GSSNVLGGVGDR\_ PPLMSREDLRVAQRLKGSSNVLGGVGDRRKV 66.387 59.757 135

AT2G29430.1 AT2G29430.1 \_TDPK(Ubi)NADFIIESGATR\_ QCTNGSHEMKFRTDPKNADFIIESGATRLLL 114.01 111.26 67

AT2G29530.2 AT2G29530.2, AT2G29530.1, AT2G29530.3 \_(ac)MASPIPVGVTK(Ubi)EQAFSM(ox)AQTEM(ox)EYR\_ \_\_\_\_\_MASPIPVGVTKEQAFSMAQTEMEYRV 82.885 81.954 11

AT2G29530.2 AT2G29530.2, AT2G29530.1, AT2G29530.3 \_YK(Ubi)EAELNMGENSCIDR\_ KLAQTCFNKCVDKRYKEAELNMGENSCIDRC 139.21 138.63 46

AT2G29540.2 AT2G29540.2, AT2G29540.1, AT2G29540.3 \_K(Ubi)EEAEEEELKR\_ VFDKAVAEYKDEQKRKEEAEEEELKRQRDLF 161.99 131.78 99

AT2G29540.2 AT2G29540.2, AT2G29540.1, AT2G29540.3 \_K(ac)EEAEEEELK(Ubi)R\_ KDEQKRKEEAEEEELKRQRDLFGSMDIENN\_ 161.99 131.78 108

AT2G29560.1 AT2G29560.1 \_K(Ubi)IEDAVNAAVR\_ \_MSVQEYLDKHMLSRKIEDAVNAAVRAKTSD 61.344 33.139 15

AT2G29890.1 AT2G29890.1, AT2G29890.2, AT2G29890.3 \_EAYLTEK(Ubi)EFEER\_ VTDIDATRREAYLTEKEFEERFGMAKSEFYA 62.088 59.008 878

AT2G29890.1 AT2G29890.1, AT2G29890.2, AT2G29890.3 \_VDSQK(Ubi)PVTDIDATRR\_ ESLAYSYEQLRVDSQKPVTDIDATRREAYLT 49.988 20.633 861

AT2G30060.1 AT2G30060.1 \_GAGTVK(ac)FLK(Ubi)HR\_ DKDGSQWKERGAGTVKFLKHRVSGKIRLVMR 79.659 77.906 77

AT2G30280.1 AT2G30280.1 \_(ac)M(ox)DGVGESSTQNEVEEK(Ubi)PVIVR\_ MDGVGESSTQNEVEEKPVIVRVKRKVGQSLL 59.975 59.63 16

AT2G30410.2 AT2G30410.2, AT2G30410.1 \_EAAK(Ubi)TADM(ox)K(ac)DK(ac)GADPYDLK(ac)QQENVLGESR\_ KELHSYEKEVEREAAKTADMKDKGADPYDLK 49.967 49.655 34

AT2G30410.2 AT2G30410.2, AT2G30410.1 \_IVK(Ubi)ELHSYEK(ac)EVER\_ IRNLKIKTSTCKRIVKELHSYEKEVEREAAK 123.76 117.55 19

AT2G30410.2 AT2G30410.2, AT2G30410.1 \_IVK(ac)ELHSYEK(Ubi)EVER\_ TSTCKRIVKELHSYEKEVEREAAKTADMKDK 137.61 130.84 26

AT2G30530.1 AT2G30530.1 \_MEQSIPSATTSGTK(Ubi)EAGQTGR\_ KRMEQSIPSATTSGTKEAGQTGRKSENPSLQ 43.696 43.336 148

AT2G31370.6 AT2G31370.6, AT2G31370.4, AT2G31370.3, AT2G31370.2, AT2G31370.1, AT2G31370.5 \_DTNGLTVENNELK(Ubi)LR\_ LQRDTNGLTVENNELKLRLQTMEQQVHLQDE 148.7 146.08 265

AT2G31370.6 AT2G31370.6, AT2G31370.4, AT2G31370.3, AT2G31370.2, AT2G31370.1, AT2G31370.5 \_M(ox)LDNPPK(Ubi)K(Ubi)IGHR\_ NRMSHDISRMLDNPPKKIGHRRAHSEILTLP 46.844 45.654 54

AT2G31390.1 AT2G31390.1 \_K(Ubi)NGVDDQGINFDTGAR\_ LGDDEFGHMLAGILRKNGVDDQGINFDTGAR 76.82 73.959 78

AT2G31410.1 AT2G31410.1 \_EIK(Ubi)K(Ubi)AYK(Ubi)ER\_ NRKPDLEEMKRQREIKKAYKERVNELKEEIR 33.89 30.848 116

AT2G31410.1 AT2G31410.1 \_ESQEQAAAEAIADEASM(ox)DIDGAPPAAK(Ubi)R\_ ADEASMDIDGAPPAAKRSAVASSENPDKPIA 176.85 176.14 50

AT2G31410.1 AT2G31410.1 \_K(Ubi)K(ac)ENVLR\_ NKVEKRKKKEEREKRKKENVLRTGTKLQKIT 121.09 57.673 148

AT2G31410.1 AT2G31410.1 \_K(ac)K(Ubi)ENVLR\_ KVEKRKKKEEREKRKKENVLRTGTKLQKITN 122.74 73.319 149

AT2G31410.1 AT2G31410.1 \_K(Ubi)PDLEEM(ox)K(Ubi)R\_ QPRTHRSSGRFVKNRKPDLEEMKRQREIKKA 85.355 75.7 103

AT2G31410.1 AT2G31410.1 \_SAVASSENPDK(Ubi)PIALAVER\_ PAAKRSAVASSENPDKPIALAVERPTYDGVI 125.03 117.9 62

AT2G31410.1 AT2G31410.1 \_SNK(Ubi)VEK(Ubi)R\_ YKERVNELKEEIRSNKVEKRKKKEEREKRKK 93.429 34.995 134

AT2G31410.1 AT2G31410.1 \_VNELK(Ubi)EEIR\_ QREIKKAYKERVNELKEEIRSNKVEKRKKKE 137.98 105.65 127

AT5G35530.1 AT5G35530.1, AT2G31610.1 \_(ac)ATQISK(Ubi)K(ac)R\_ \_\_\_\_\_\_\_\_\_MATQISKKRKFVADGVFYAELN 64.711 43.339 7

AT5G35530.1 AT5G35530.1, AT2G31610.1 \_(ac)ATQISK(ac)K(Ubi)R\_ \_\_\_\_\_\_\_\_MATQISKKRKFVADGVFYAELNE 64.711 43.339 8

AT5G35530.1 AT5G35530.1, AT2G31610.1 \_ELTSLVQK(Ubi)R\_ GEKGRRIRELTSLVQKRFKFPQDSVELYAEK 118.5 48.897 75

AT5G35530.1 AT5G35530.1, AT2G31610.1 \_TQNVLGEK(Ubi)GR\_ EIIIRATRTQNVLGEKGRRIRELTSLVQKRF 90.306 73.635 62

AT2G32060.3 AT2G32060.3, AT2G32060.2, AT2G32060.1 \_GLHESAK(Ubi)LIEK(Ubi)R\_ SRAYGGVVRGLHESAKLIEKRNAQLCVLAED 63.091 61.902 53

AT2G32240.1 AT2G32240.1 \_DSEASSLTEK(Ubi)LR\_ EEFTSRDSEASSLTEKLRDLEGKIKSYEEQL 90.614 88.499 828

AT2G32600.1 AT2G32600.1 \_EAK(ac)DAPTK(Ubi)PQPLK(ac)R\_ NLAKRAAREAKDAPTKPQPLKRNVSVRRTVK 40.278 35.519 94

AT2G32600.1 AT2G32600.1 \_VTK(Ubi)QYDPELQQR\_ VRRTVKIGRPGYRVTKQYDPELQQRSLLFQI 147.26 140.13 119

AT2G32850.1 AT2G32850.1, AT2G32850.2 \_YGNSK(Ubi)M(ox)R\_ SMGSGNSTSQRYGNSKMRENQKTAQPAGWAG 77.282 61.843 634

AT2G32930.1 AT2G32930.1, AT2G32930.2 \_SPDK(Ubi)IEDTFR\_ QQQVQNSTGSIRSPDKIEDTFRRMKVNEDNM 54.259 52.748 20

AT2G33150.1 AT2G33150.1 \_GNFK(Ubi)DTYPDDLLAPVLR\_ AAHRTPLCKSKRGNFKDTYPDDLLAPVLRAL 93.226 87.698 71

AT2G33150.1 AT2G33150.1 \_K(ac)VEAQGLLSK(Ubi)DAR\_ ELRNARKVEAQGLLSKDAR\_\_\_\_\_\_\_\_\_\_\_\_ 121.18 113.27 459

AT2G33210.2 AT2G33210.2, AT2G33210.1 \_SM(ox)VEASTSDYDK(ac)EK(Ubi)LQER\_ EQIRSMVEASTSDYDKEKLQERLAKLSGGVA 106.75 105.78 388

AT2G33410.1 AT2G33410.1 \_ALPK(Ubi)DANPGIASGGGR\_ HDLNGKQVEVKRALPKDANPGIASGGGRGSG 118.2 115.16 188

AT2G33410.1 AT2G33410.1 \_VLQDK(Ubi)HHIDNR\_ VAFSDPAVIDRVLQDKHHIDNRDVDVKRAMS 53.237 51.026 67

AT2G33845.1 AT2G33845.1 \_NDQVELM(ox)K(Ubi)PGATVNLR\_ ACILFTARNDQVELMKPGATVNLRNAKIDMF 107.5 105.43 124

AT2G34480.1 AT2G34480.1 \_ALPTEK(ac)DVQPK(Ubi)IYR\_ QVVGRALPTEKDVQPKIYRMKLWATNEVRAK 54.898 52.595 25

AT2G34640.1 AT2G34640.1 \_APQPAGESSSFPSYGK(Ubi)NPGSR\_ APQPAGESSSFPSYGKNPGSRRKKNRKATEE 36.923 35.413 142

AT2G34860.2 AT2G34860.2, AT2G34860.1 \_ELLEK(Ubi)M(ox)YNGR\_ NKGLLRRPGARELLEKMYNGRLLPDS\_\_\_\_\_ 68.657 64.795 176

AT2G35240.1 AT2G35240.1 \_GSDK(Ubi)PK(Ubi)YHDR\_ RQRRMVELTNQRGSDKPKYHDRIRNVRRREN 51.286 45.973 215

AT2G35240.1 AT2G35240.1 \_K(Ubi)K(ac)IYNVSCER\_ VQTLAKIVGSEEEARKKIYNVSCERYFGFGC 50.354 49.87 136

AT2G35530.1 AT2G35530.1, AT1G32150.1 \_K(Ubi)QAECDELAQR\_ RKQSNRESARRSRLRKQAECDELAQRAEVLN 60.255 55.911 326

AT2G35530.1 AT2G35530.1, AT1G32150.1 \_K(ac)VDSYK(Ubi)DST\_ DTNQTGAAERKVDSYKDST\_\_\_\_\_\_\_\_\_\_\_\_ 108.47 108.47 406

AT2G35630.1 AT2G35630.1 \_DGLAQVEK(Ubi)NAAAGR\_ EAFRTYIRDGLAQVEKNAAAGRTPSSLPLST 101.3 84.531 1835

AT3G09700.1 AT3G09700.1, AT2G35795.1 \_ESVAAEK(Ubi)VK(ac)EAHR\_ EAALILGVRESVAAEKVKEAHRRVMVANHPD 40.278 36.96 68

AT2G35880.1 AT2G35880.1 \_FM(ox)SQSSSFPTK(Ubi)GAYTDITR\_ SRSPRFMSQSSSFPTKGAYTDITRKSIDATT 55.453 54.044 102

AT2G35880.1 AT2G35880.1 \_K(Ubi)SGTFSR\_ SVKSKTAKDNKPVKRKSGTFSRSPRFMSQSS 101.6 52.242 82

AT2G35880.1 AT2G35880.1 \_K(Ubi)SSSDATGGEAAPR\_ KIPTTRPKSPKLGRRKSSSDATGGEAAPRVT 65.219 58.089 334

AT2G35900.1 AT2G35900.1 \_GGIPIENHPK(Ubi)VEEHR\_ HPSTRRGGIPIENHPKVEEHRNDETAPTRPH 89.624 81.058 163

AT2G35900.1 AT2G35900.1 \_K(Ubi)CDK(ac)TEEILR\_ SQCKTEEVEPGKFVRKCDKTEEILRHCFGKP 92.611 81.292 56

AT2G35900.1 AT2G35900.1 \_K(ac)CDK(Ubi)TEEILR\_ KTEEVEPGKFVRKCDKTEEILRHCFGKPSEV 36.528 29.149 59

AT2G35900.1 AT2G35900.1 \_NDETAPTRPHSSGEIDLSGLAK(Ubi)DV\_ TRPHSSGEIDLSGLAKDV\_\_\_\_\_\_\_\_\_\_\_\_\_ 69.704 68.772 190

AT2G35900.1 AT2G35900.1 \_SALPNQFEDK(Ubi)NPLNFPGLR\_ DQMVGRSALPNQFEDKNPLNFPGLRRDVDAI 79.676 78.057 103

AT2G36060.3 AT2G36060.3, AT2G36060.1, AT2G36060.2, AT3G52560.1, AT3G52560.2, AT3G52560.4 \_GEK(Ubi)GIGDGTVSYGM(ox)DDGDDIYMR\_ VPRNFRLLEELERGEKGIGDGTVSYGMDDGD 105.51 104.75 26

AT2G36060.3 AT2G36060.3, AT2G36060.1, AT2G36060.2, AT3G52560.1, AT3G52560.2, AT3G52560.4 \_K(Ubi)LVQPPEGTFF\_ ILTQLKKEMAASHNRKLVQPPEGTFF\_\_\_\_\_ 102.52 102.52 134

AT2G36130.1 AT2G36130.1 \_GM(ox)EVIK(Ubi)R\_ KHTIFGRVCRGMEVIKRLGSVQTDNTDRPIH 73.039 48.263 138

AT2G36130.1 AT2G36130.1 \_IVK(Ubi)DFIVQGGDPTGTGR\_ SRRGYYDNVLFHRIVKDFIVQGGDPTGTGRG 101.92 92.123 56

AT2G36130.1 AT2G36130.1 \_LGSVQTDNTDRPIHEVK(Ubi)ILR\_ GSVQTDNTDRPIHEVKILRTKVID\_\_\_\_\_\_\_ 76.301 75.617 156

AT2G36160.1 AT2G36160.1, AT3G11510.1, AT3G52580.1 \_ATGGNK(ac)TK(Ubi)TPGPGAQSALR\_ GITAMHVKLRATGGNKTKTPGPGAQSALRAL 44.238 42.988 103

AT2G36160.1 AT2G36160.1, AT3G11510.1, AT3G52580.1 \_ITGGM(ox)K(Ubi)VK(ac)ADR\_ DLSGRETLVRITGGMKVKADRDESSPYAAML 71.176 52.551 60

AT2G36160.1 AT2G36160.1, AT3G11510.1, AT3G52580.1 \_ITGGM(ox)K(ac)VK(Ubi)ADR\_ SGRETLVRITGGMKVKADRDESSPYAAMLAA 63.091 49.691 62

AT2G36160.1 AT2G36160.1, AT3G11510.1, AT3G52580.1 \_K(ac)TK(Ubi)EPK(ac)VDVVTLGPSVR\_ \_\_\_\_\_\_\_\_\_ 57.366 56.788 7

AT2G36160.1 AT2G36160.1, AT3G11510.1, AT3G52580.1 \_K(ac)TK(ac)EPK(Ubi)VDVVTLGPSVR\_ \_\_\_\_\_\_MSKRKTKEPKV MSKRKTKEPKVDVVTLGPSVRE DVVTLGPSVREGEQ 73.057 72.478 10

AT2G36160.1 AT2G36160.1, AT3G11510.1, AT3G52580.1 \_SGM(ox)K(Ubi)IGR\_ PGAQSALRALARSGMKIGRIEDVTPIPTDST 71.296 53.31 124

AT3G52590.1 AT3G52590.1, AT2G36170.1 \_K(ac)YNQDK(Ubi)M(ox)ICR\_ IEPSLMMLARKYNQDKMICRKCYARLHPRAV 141.88 122.75 93

AT2G36410.2 AT2G36410.2, AT2G36410.1, AT2G36410.3, AT3G52920.2, AT3G52920.1 \_AK(Ubi)EDEIEKR\_ EDEEMARSALSAFRAKEDEIEKRKMEVRERV;EDEEMTRSALSAFRAKEDEIEKRRMEVRERI 94.692 64.949 71

AT2G36410.2 AT2G36410.2, AT2G36410.1, AT2G36410.3, AT3G52920.2, AT3G52920.1 \_AK(Ubi)EDEIEK(Ubi)R\_ RSALSAFRAKEDEIEKRKMEVRERVKAQLGR;RSALSAFRAKEDEIEKRRMEVRERIQAQLGR 63.076 53.42 77

AT2G36410.2 AT2G36410.2, AT2G36410.1, AT2G36410.3, AT3G52920.2, AT3G52920.1 \_EYK(Ubi)EALDTFNEK(ac)NR\_ LKPLGSTVQKKEREYKEALDTFNEKNREKVQ 112.42 109.51 147

AT2G36410.2 AT2G36410.2, AT2G36410.1, AT2G36410.3, AT3G52920.2, AT3G52920.1 \_EYK(ac)EALDTFNEK(Ubi)NR\_ KKEREYKEALDTFNEKNREKVQLITKLMELV 148.52 147.47 156

AT2G36410.2 AT2G36410.2, AT2G36410.1, AT2G36410.3, AT3G52920.2, AT3G52920.1 \_K(Ubi)EVSVVR\_ STIREELESMADPMRKEVSVVRKKIDSVNKE 108.09 49.92 116

AT2G36460.1 AT2G36460.1, AT3G52930.1, AT2G36460.2, AT5G03690.2, AT5G03690.1 \_CK(Ubi)K(ac)YYEAGAR\_ GETTTQGLDGLGDRCKKYYEAGARFAKWRAV 50.353 27.776 131

AT2G36460.1 AT2G36460.1, AT3G52930.1, AT2G36460.2, AT5G03690.2, AT5G03690.1 \_CK(ac)K(Ubi)YYEAGAR\_ ETTTQGLDGLGDRCKKYYEAGARFAKWRAVL 50.353 27.776 132

AT2G36530.1 AT2G36530.1 \_(ac)ATITVVK(Ubi)AR\_ \_\_\_\_\_\_\_\_MATITVVKARQIFDSRGNPTVEV 72.928 42.364 8

AT2G36530.1 AT2G36530.1 \_LAK(Ubi)YNQLLR\_ GQIKTGAPCRSERLAKYNQLLRIEEELGSEA 77.732 71.951 415

AT3G53020.1 AT3G53020.1, AT2G36620.1 \_AEK(Ubi)PEVR\_ IVGATLEVIQKKRAEKPEVRDAAREAALREI 119.29 74.209 100

AT3G53020.1 AT3G53020.1, AT2G36620.1 \_FSGQK(Ubi)IYPGR\_ \_\_MVLKTELCRFSGQKIYPGRGIRFIRSDSQ 90.15 85.634 14

AT3G53020.1 AT3G53020.1, AT2G36620.1 \_K(ac)QHK(ac)K(Ubi)DAAQEAVK(Ubi)R\_ KPSKLAWTAMYRKQHKKDAAQEAVKRRRRAT 66.246 65.583 62

AT3G53020.1 AT3G53020.1, AT2G36620.1 \_K(ac)QHK(ac)K(Ubi)DAAQEAVK(ac)R\_ PSKLAWTAMYRKQHKKDAAQEAVKRRRRATK 75.968 75.279 63

AT3G53020.1 AT3G53020.1, AT2G36620.1 \_K(ac)QHK(ac)K(ac)DAAQEAVK(Ubi)R\_ MYRKQHKKDAAQEAVKRRRRATKKPYSRSIV 58.079 48.388 71

AT3G53020.1 AT3G53020.1, AT2G36620.1 \_(Ubi)VLK(Ubi)TELCR\_ \_\_\_\_\_\_\_\_\_\_\_\_MVLKTELCRFSGQKIYPGR 105.14 91.017 4

AT2G36680.2 AT2G36680.2, AT2G36680.4, AT2G36680.3, AT2G36680.1 \_ENLEK(Ubi)EPQIVELR\_ ELRKETLHLARENLEKEPQIVELRNQNNPYI 31.215 19.297 114

AT2G36740.1 AT2G36740.1 \_DPK(Ubi)TGLPYATR\_ AVCVITGLPAKYRDPKTGLPYATRDAFKAIR 49.934 44.62 284

AT2G36900.2 AT2G36900.2, AT2G36900.1 \_FESSSM(ox)DSPDLASSVK(Ubi)R\_ FESSSMDSPDLASSVKRDITEVRSLCSNMDT 41.088 40.51 51

AT2G36910.1 AT2G36910.1 \_K(Ubi)TEIEPDDPDTTPVPDR\_ KGGQAMRSVFELLDRKTEIEPDDPDTTPVPD 39.338 38.649 1003

AT2G37070.1 AT2G37070.1 \_YSK(Ubi)VSAEEQLG\_ LIVSASPKLTNKRYSKVSAEEQLG\_\_\_\_\_\_\_ 70.942 69.644 522

AT2G37080.1 AT2G37080.1 \_(ac)M(ox)QTPK(Ubi)PR\_ \_\_\_\_\_\_\_\_\_\_\_MQTPKPRPGSLEVPQKKSPA 48.561 37.851 5

AT3G53370.2 AT3G53370.2, AT3G53370.1, AT2G37120.1 \_EK(ac)LK(Ubi)QGVPVPGE\_ KKKPVSKKKLKREKLKQGVPVPGE\_\_\_\_\_\_\_ 48.568 48.568 30

AT2G37130.2 AT2G37130.2, AT2G37130.1 \_GVESEQK(Ubi)SK(ac)R\_ ASLLLETARGVESEQKSKRSFGMRNFKYVKI 52.247 47.906 63

AT3G53430.1 AT3G53430.1, AT2G37190.1 \_SIAK(Ubi)ELSGTVR\_ DVTEIARIMRPRSIAKELSGTVREILGTCVS 107.09 44.622 124

AT2G37250.1 AT2G37250.1 \_ADDTEEVVK(Ubi)AR\_ MSKLVTRADDTEEVVKARLRIYNETSQPLEE 86.014 82.818 228

AT2G37250.1 AT2G37250.1 \_LDDYEEK(Ubi)QSVAA\_ WPRLLEALRLDDYEEKQSVAA\_\_\_\_\_\_\_\_\_\_ 98.156 96.144 279

AT3G11940.2 AT3G11940.2, AT3G11940.1, AT2G37270.2, AT2G37270.1 \_K(Ubi)AQCPIVER\_ FVPHTAGRYSVKRFRKAQCPIVERLTNSLMM 77.662 72.349 66

AT2G37600.2 AT2G37600.2, AT2G37600.1, AT3G53740.4, AT3G53740.3, AT3G53740.2, AT5G02450.1 \_ALK(Ubi)VAK(ac)R\_ RITELLKVGKDKRALKVAKRKLGTHKRAKRK 68.915 47.615 74

AT2G37600.2 AT2G37600.2, AT2G37600.1, AT3G53740.4, AT3G53740.3, AT3G53740.2, AT5G02450.1 \_ALK(ac)VAK(Ubi)R\_ ELLKVGKDKRALKVAKRKLGTHKRAKRKREE 110.63 80.448 77

AT2G37600.2 AT2G37600.2, AT2G37600.1, AT3G53740.4, AT3G53740.3, AT3G53740.2, AT5G02450.1 \_EVAGMAPYEK(Ubi)R\_ IRKLIREVAGMAPYEKRITELLKVGKDKRAL 134.3 111.16 58

AT2G37600.2 AT2G37600.2, AT2G37600.1, AT3G53740.4, AT3G53740.3, AT3G53740.2, AT5G02450.1 \_ITELLK(Ubi)VGK(ac)DKR\_ VAGMAPYEKRITELLKVGKDKRALKVAKRKL;VAGQAPYEKRITELLKVGKDKRALKVAKRKL 106.58 93.786 65

AT2G37600.2 AT2G37600.2, AT2G37600.1, AT3G53740.4, AT3G53740.3, AT3G53740.2, AT5G02450.1 \_ITELLK(ac)VGK(Ubi)DK(ac)R\_ MAPYEKRITELLKVGKDKRALKVAKRKLGTH;QAPYEKRITELLKVGKDKRALKVAKRKLGTH 121.24 115.52 68

AT2G37600.2 AT2G37600.2, AT2G37600.1, AT3G53740.4, AT3G53740.3, AT3G53740.2, AT5G02450.1 \_ITELLK(ac)VGK(ac)DK(Ubi)R\_ PYEKRITELLKVGKDKRALKVAKRKLGTHKR 131.66 125.58 70

AT2G37600.2 AT2G37600.2, AT2G37600.1, AT3G53740.4, AT3G53740.3, AT3G53740.2, AT5G02450.1 \_K(Ubi)GK(Ubi)TSK(ac)R\_ HVVTKREQPPRPNNRKGKTSKRTIFIRNLIK;HVVTRRELAPRPNSRKGKTSKRTIFIRKLIR;HVVTRRELAPRPRSRKGKTSKRTIFIRNLIK 76.679 33.596 33

AT2G37600.2 AT2G37600.2, AT2G37600.1, AT3G53740.4, AT3G53740.3, AT3G53740.2, AT5G02450.1 \_K(ac)GK(Ubi)TSK(Ubi)R\_ VTKREQPPRPNNRKGKTSKRTIFIRNLIKEV;VTRRELAPRPNSRKGKTSKRTIFIRKLIREV;VTRRELAPRPRSRKGKTSKRTIFIRNLIKEV 173.73 88.06 35

AT2G37600.2 AT2G37600.2, AT2G37600.1, AT3G53740.4, AT3G53740.3, AT3G53740.2, AT5G02450.1 \_K(Ubi)LGTHK(ac)R\_ LKVGKDKRALKVAKRKLGTHKRAKRKREEMS 107.9 99.432 79

AT2G37600.2 AT2G37600.2, AT2G37600.1, AT3G53740.4, AT3G53740.3, AT3G53740.2, AT5G02450.1 \_K(ac)LGTHK(Ubi)R\_ DKRALKVAKRKLGTHKRAKRKREEMSSVLRK 124.83 117.61 84

AT2G37600.2 AT2G37600.2, AT2G37600.1, AT3G53740.4, AT3G53740.3, AT3G53740.2, AT5G02450.1 \_K(Ubi)REEM(ox)SSVLR\_ KVAKRKLGTHKRAKRKREEMSSVLRKMRSGG;KVAKRKLGTHKRAKRKREEMSSVLRKMRSLG 65.627 56.926 89

AT2G37600.2 AT2G37600.2, AT2G37600.1, AT3G53740.4, AT3G53740.3, AT3G53740.2, AT5G02450.1 \_SLGGAAAAEK(Ubi)K(ac)M(ox)\_ VLRKMRSLGGAAAAEKKM\_\_\_\_\_\_\_\_\_\_\_\_\_ 115.57 93.253 111

AT2G37600.2 AT2G37600.2, AT2G37600.1, AT3G53740.4, AT3G53740.3, AT3G53740.2, AT5G02450.1 \_SLGGAAAAEK(ac)K(Ubi)M(ox)\_ LRKMRSLGGAAAAEKKM\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 120.59 98.268 112

AT2G37660.1 AT2G37660.1 \_AGGLQDK(Ubi)DGGIR\_ SGIPYTIIRAGGLQDKDGGIRELLVGKDDEL 134.56 91.254 252

AT2G37660.1 AT2G37660.1 \_ELLVGK(Ubi)DDELLETETR\_ GLQDKDGGIRELLVGKDDELLETETRTIARA 102.08 101.4 263

AT2G37660.1 AT2G37660.1 \_K(Ubi)AEQYLADSGIPYTIIR\_ PLNSIGNANILVWKRKAEQYLADSGIPYTII 78.078 76.67 229

AT2G37660.1 AT2G37660.1 \_TK(Ubi)ESK(ac)EK(ac)INGEDEVFIGDIR\_ KERSEQFVARGLVRTKESKEKINGEDEVFIG 48.597 45.759 112

AT2G37660.1 AT2G37660.1 \_TK(ac)ESK(ac)EK(Ubi)INGEDEVFIGDIR\_ SEQFVARGLVRTKESKEKINGEDEVFIGDIR 41.115 40.046 115

AT2G37970.1 AT2G37970.1 \_VVIK(Ubi)EEGGR\_ KAEEAPRPTDERVVIKEEGGRKYGVIKFSGI 88.495 56.175 158

AT2G37990.1 AT2G37990.1 \_LDDK(Ubi)K(Ubi)K(Ubi)R\_ SDEPGVDPFAKRLDDKKKRVGKQEKNRLQNL 103.83 54.118 158

AT2G37990.1 AT2G37990.1 \_VGK(Ubi)QEK(Ubi)NR\_ DPFAKRLDDKKKRVGKQEKNRLQNLKAAEKA 161.79 107.18 164

AT2G37990.1 AT2G37990.1 \_VNDDNDVPIIEAK(Ubi)ESDEPGVDPFAK(Ubi)R\_ YDRVNDDNDVPIIEAKESDEPGVDPFAKRLD 103.85 103.38 141

AT2G38140.1 AT2G38140.1 \_K(ac)TAK(ac)GK(Ubi)R\_ PLVYCGRGDRKTAKGKRFNHSFGNARPRNKS 123.98 39.369 66

AT2G38230.1 AT2G38230.1 \_TK(Ubi)GEAGTGNVVEAVR\_ EALRRIREGAAMIRTKGEAGTGNVVEAVRHV 166.48 160 166

AT2G38250.1 AT2G38250.1 \_GELDQTFM(ox)ETK(Ubi)R\_ LIGIRGELDQTFMETKRNKLLWEVISNKMRD 61.11 55.215 65

AT2G38250.1 AT2G38250.1 \_K(ac)M(ox)EELEK(Ubi)ER\_ AEKEEEWRRKMEELEKERLAMERMWRDREEQ 41.399 28.392 245

AT2G38280.2 AT2G38280.2, AT2G38280.1 \_K(Ubi)EPEQETFVR\_ LHGVQPDPIAADILRKEPEQETFVRLNVPLE 49.3 44.202 223

AT2G38470.1 AT2G38470.1, AT5G07100.2, AT5G07100.1 \_K(ac)YGQK(ac)QVK(Ubi)GSENPR\_ GEDGYNWRKYGQKQVKGSENPRSYYKCTFPN 31.914 29.77 198

AT2G38560.1 AT2G38560.1 \_GDSAK(Ubi)SIK(ac)VER\_ PAPVKVQKLQRGDSAKSIKVERKEPDNKVVT 175.48 165.13 133

AT2G38560.1 AT2G38560.1 \_GDSAK(ac)SIK(Ubi)VER\_ VKVQKLQRGDSAKSIKVERKEPDNKVVTGVK 107.09 87.957 136

AT2G38560.1 AT2G38560.1 \_STGAQK(ac)LK(Ubi)YR\_ LMFEKLGRSTGAQKLKYRSIMFNLRDSNNPD 76.282 74.128 267

AT2G38580.1 AT2G38580.1 \_DM(ox)DTASIK(Ubi)R\_ LIRIDNSRDMDTASIKRNFSEGEIEETVPLS 91.867 67.091 411

AT2G38580.1 AT2G38580.1 \_EENGSYLQK(Ubi)EAGFEENVR\_ ETIKQLREENGSYLQKEAGFEENVRRLETEN 82.877 81.12 101

AT2G38580.1 AT2G38580.1 \_TENEAHK(Ubi)QNEEK(ac)LEER\_ LEERLLHFRTENEAHKQNEEKLEERLVQYKN 113.88 113.4 204

AT2G38580.1 AT2G38580.1 \_YVSGADLAAK(Ubi)K\_ VSFVARYVSGADLAAKK\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 46.352 46.352 481

AT2G38580.1 AT2G38580.1 \_YVSGADLAAK(ac)K(Ubi)\_ SFVARYVSGADLAAKK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 52.247 51.587 482

AT2G38720.1 AT2G38720.1 \_SVTSGGK(Ubi)DYR\_ RRIGNTPGRSVTSGGKDYRGNAVIPLNYVAL 51.445 26.67 568

AT2G38730.1 AT2G38730.1 \_K(Ubi)IENVAIGPNNR\_ VVFGRVLGDGLLVMRKIENVAIGPNNRPKLA 122.33 106.78 175

AT2G38880.3 AT2G38880.3, AT2G38880.5, AT2G38880.2, AT2G38880.1 \_ELEGDNK(Ubi)GSGK(ac)SGDGSNR\_ LKIYLARYRELEGDNKGSGKSGDGSNRDAGG 151.95 138.85 116

AT2G39050.1 AT2G39050.1 \_LNVDAYHGDSK(Ubi)SGGVR\_ VNNTRLNVDAYHGDSKSGGVRDGTTIVLWDW 69.331 69.016 289

AT2G39140.1 AT2G39140.1 \_FYNENFK(Ubi)EQPQR\_ PKLSKAARRFYNENFKEQPQRLSKVLAAAGV 42.083 40.461 156

AT2G39270.1 AT2G39270.1 \_ADDTEEVVK(Ubi)ER\_ ESKLISRADDTEEVVKERLRIYNKMTQPVEE 71.176 60.531 241

AT3G09500.1 AT3G09500.1, AT2G39390.1, AT3G55170.2, AT3G55170.1, AT5G02610.1, AT5G02610.2 \_EAYK(ac)NK(ac)K(Ubi)LLPLDLR\_ SQKQKSALREAYKNKKLLPLDLRPKKTRAIR 68.044 65.9 77

AT3G09500.1 AT3G09500.1, AT2G39390.1, AT3G55170.2, AT3G55170.1, AT5G02610.1, AT5G02610.2 \_EK(Ubi)K(ac)K(ac)EM(ox)YFPIR\_ RRLTKHQASLKTEREKKKEMYFPIRKYAIKV 43.68 38.625 108

AT3G09500.1 AT3G09500.1, AT2G39390.1, AT3G55170.2, AT3G55170.1, AT5G02610.1, AT5G02610.2 \_EK(ac)K(Ubi)K(ac)EM(ox)YFPIR\_ RLTKHQASLKTEREKKKEMYFPIRKYAIKV\_ 38.238 19.824 109

AT3G09500.1 AT3G09500.1, AT2G39390.1, AT3G55170.2, AT3G55170.1, AT5G02610.1, AT5G02610.2 \_EK(ac)K(ac)K(Ubi)EMYFPIR\_ LTKHQASLKTEREKKKEMYFPIRKYAIKV\_\_ 64.121 55.324 110

AT3G09500.1 AT3G09500.1, AT2G39390.1, AT3G55170.2, AT3G55170.1, AT5G02610.1, AT5G02610.2 \_IK(Ubi)VHELR\_ \_\_\_\_\_\_\_\_\_\_\_MARIKVHELRDKSKSDLSTQ;\_\_\_\_\_\_\_\_\_\_\_MARIKVHELRDKSKTDLQNQ;\_\_\_\_\_\_\_\_\_\_\_MARIKVHELREKSKSDLQNQ 83.206 64.766 5

AT3G09500.1 AT3G09500.1, AT2G39390.1, AT3G55170.2, AT3G55170.1, AT5G02610.1, AT5G02610.2 \_LTK(Ubi)HQASLK(ac)TER\_ DLRPKKTRAIRRRLTKHQASLKTEREKKKDM;DLRPKKTRAIRRRLTKHQASLKTEREKKKEM 113.76 111 97

AT3G09500.1 AT3G09500.1, AT2G39390.1, AT3G55170.2, AT3G55170.1, AT5G02610.1, AT5G02610.2 \_LTK(ac)HQASLK(Ubi)TER\_ TRAIRRRLTKHQASLKTEREKKKDMYFPIRK;TRAIRRRLTKHQASLKTEREKKKEMYFPIRK;TRAIRRRLTKHQASLKTEREKKKEMYFPVRK 54.898 51.32 103

AT3G09500.1 AT3G09500.1, AT2G39390.1, AT3G55170.2, AT3G55170.1, AT5G02610.1, AT5G02610.2 \_VAK(Ubi)VTGGAPNK(ac)LSK(ac)IK(ac)VVR\_ QLKEFKAELALLRVAKVTGGAPNKLSKIKVV;QLKELKAELALLRVAKVTGGAPNKLSKIKVV;QLKELKAELASLRVAKVTGGAPNKLSKIKVV 72.359 70.849 35

AT2G39460.2 AT2G39460.2, AT2G39460.1, AT3G55280.3, AT3G55280.2, AT3G55280.1 \_LTPDYDALDVANK(Ubi)IGII\_ YVRLTPDYDALDVANKIGII\_\_\_\_\_\_\_\_\_\_\_ 60.631 60.123 150

AT2G39460.2 AT2G39460.2, AT2G39460.1, AT3G55280.3, AT3G55280.2, AT3G55280.1 \_PDGTK(Ubi)K(ac)AYVR\_ IQTKKVNTLIRPDGTKKAYVRLTPDYDALDV 131.83 103.03 132

AT2G39460.2 AT2G39460.2, AT2G39460.1, AT3G55280.3, AT3G55280.2, AT3G55280.1 \_PDGTK(ac)K(Ubi)AYVR\_ QTKKVNTLIRPDGTKKAYVRLTPDYDALDVA 68.657 59.957 133

AT2G39460.2 AT2G39460.2, AT2G39460.1, AT3G55280.3, AT3G55280.2, AT3G55280.1 \_PK(ac)TLTK(Ubi)PR\_ KIRTKVTFHRPKTLTKPRTGKYPKISATPRN 109.44 65.67 52

AT2G39460.2 AT2G39460.2, AT2G39460.1, AT3G55280.3, AT3G55280.2, AT3G55280.1 \_TGK(Ubi)YPK(ac)ISATPR\_ VTFHRPKTLTKPRTGKYPKISATPRNKLDHY 69.03 57.659 57

AT2G39460.2 AT2G39460.2, AT2G39460.1, AT3G55280.3, AT3G55280.2, AT3G55280.1 \_TGK(ac)YPK(Ubi)ISATPR\_ HRPKTLTKPRTGKYPKISATPRNKLDHYQIL 44.426 33.167 60

AT2G39580.1 AT2G39580.1 \_ELETM(ox)K(Ubi)NVDR\_ GKVNHYEGGRELETMKNVDRSVSSEQLLKIV 33.875 29.702 362

AT2G39580.1 AT2G39580.1 \_HLEPNEPPK(Ubi)K(ac)R\_ IISDDTRHLEPNEPPKKRLKVSGIDTSQPVI 32.159 24.549 267

AT2G39730.2 AT2G39730.2 \_GTFYGK(ac)TEEK(ac)EPSK(Ubi)\_ GRGTFYGKTEEKEPSK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 67.326 66.772 446

AT2G39795.1 AT2G39795.1 \_IEDK(Ubi)PGNQNVTLTR\_ DEEMTPGSFPFRIEDKPGNQNVTLTRDYNGE 76.759 61.597 100

AT2G40060.1 AT2G40060.1 \_QNAIQLEEK(Ubi)EK(ac)R\_ ALREWRRQNAIQLEEKEKREKELLKQIIEEA 73.435 69.573 105

AT2G40060.1 AT2G40060.1 \_QNAIQLEEK(ac)EK(Ubi)R\_ REWRRQNAIQLEEKEKREKELLKQIIEEADQ 168.02 165.15 107

AT2G40070.2 AT2G40070.2, AT2G40070.1 \_LTPTASK(Ubi)PTTSTAR\_ RSTSLSSSRLTPTASKPTTSTARSAGSVTRS 94.09 76.878 215

AT2G40070.2 AT2G40070.2, AT2G40070.1 \_SSTLTANSK(Ubi)SSR\_ PATPTGRSSTLTANSKSSRPSTPTSRATVSS 80.318 74.442 161

AT2G40430.3 AT2G40430.3, AT2G40430.1, AT2G40430.2 \_ANISSEDIEDFFEK(Ubi)TTR\_ WRANISSEDIEDFFEKTTRDALSGGNLSAAP 107.03 106.76 30

AT2G40430.3 AT2G40430.3, AT2G40430.1, AT2G40430.2 \_DALSGGNLSAAPSEDLFHVDK(ac)SHDLPVK(Ubi)R\_ SEDLFHVDKSHDLPVKRKIEKHRERVLRVDS 50.029 47.651 61

AT2G40510.1 AT2G40510.1, AT2G40590.1 \_K(Ubi)EDTPKPGQPGQAPR\_ TNRRVRTPPPRFARRKEDTPKPGQPGQAPRP;TNRRVRTPPPRFTRRKEDTPKPGQPGQAPRP 62.287 62.287 105

AT2G40510.1 AT2G40510.1, AT2G40590.1 \_RK(ac)EDTPK(Ubi)PGQPGQAPR\_ RTPPPRFARRKEDTPKPGQPGQAPRPAGPGA;RTPPPRFTRRKEDTPKPGQPGQAPRPAGPGA 112.17 110.31 110

AT2G40620.1 AT2G40620.1 \_DALNEQLK(Ubi)K(ac)EVER\_ MEQQAKLRDALNEQLKKEVERLKFATGEVSP 55.724 49.288 233

AT2G40620.1 AT2G40620.1 \_DTTGLSSENTELK(Ubi)LR\_ FQRDTTGLSSENTELKLRLQVMEQQAKLRDA 212.17 193.34 212

AT2G40620.1 AT2G40620.1 \_LQVM(ox)EQQAK(Ubi)LR\_ NTELKLRLQVMEQQAKLRDALNEQLKKEVER 76.228 68.618 223

AT2G40630.1 AT2G40630.1 \_GISSGVVSEPASNSVISGEK(Ubi)R\_ GVVSEPASNSVISGEKRNGNGLDEKDELGSK 65.184 63.957 25

AT2G40840.1 AT2G40840.1 \_SVPANVSGEDINK(Ubi)SR\_ SGRSVPANVSGEDINKSRGEVIANGSTKPNP 42.314 40.103 940

AT2G41020.1 AT2G41020.1, AT2G41020.2 \_EAGTSVAGDSK(Ubi)HNTDILR\_ IQGQREAGTSVAGDSKHNTDILRDRADPNAL 90.422 85.604 67

AT2G41020.1 AT2G41020.1, AT2G41020.2 \_EQEIETQK(Ubi)IIQGQR\_ AANTALLREQEIETQKIIQGQREAGTSVAGD 112.42 109.76 50

AT2G41100.4 AT2G41100.4, AT2G41100.1 \_(ac)ADK(Ubi)LTDDQITEYR\_ \_\_\_\_\_\_\_\_\_\_\_\_MADKLTDDQITEYRESFRL 131.35 128.49 4

AT2G41480.1 AT2G41480.1 \_GLEVIDDAK(Ubi)AR\_ LPNLGLRGLEVIDDAKARLEAVCPGVVSCAD 59.198 54.858 120

AT2G41730.1 AT2G41730.1 \_LDSPPAFGDFTK(Ubi)VPSK(ac)TTNHSNTTGESER\_ TSNRLDSPPAFGDFTKVPSKTTNHSNTTGES 54.167 54.103 41

AT2G41730.1 AT2G41730.1 \_LDSPPAFGDFTK(ac)VPSK(Ubi)TTNHSNTTGESER\_ LDSPPAFGDFTKVPSKTTNHSNTTGESERSK 42.057 41.586 45

AT2G41780.2 AT2G41780.2, AT2G41780.1 \_LALAK(Ubi)EATR\_ MENRRKQEDHRLALAKEATRSEMVDRKASGK 120.99 64.073 36

AT2G41780.2 AT2G41780.2, AT2G41780.1 \_LAVK(ac)K(Ubi)ASR\_ DQQLMFNEDHRLAVKKASRSEMVDLEGMGSE 130.75 79.681 72

AT2G41880.1 AT2G41880.1, AT3G57550.1, AT3G57550.2 \_GTETEEQIQK(Ubi)R\_ DRLRARGTETEEQIQKRLRNAEAEIKEGISS 82.417 78.555 280

AT2G42580.1 AT2G42580.1 \_VAENGENPEELK(Ubi)R\_ KAVRVAENGENPEELKRMGNDMYRRGSFSEA 32.933 31.422 224

AT2G42680.1 AT2G42680.1, AT3G58680.1 \_DEK(Ubi)TVNAAR\_ VIRKKPANAAAKRDEKTVNAARRSGADIETV;VIRKRAPNAAAKRDEKTVNAARRSGADIETV 103.55 71.611 30

AT2G42680.1 AT2G42680.1, AT3G58680.1 \_K(Ubi)K(Ubi)PANAAAK(Ubi)R\_ GIGPITQDWEPVVIRKKPANAAAKRDEKTVN 42.348 34.278 18

AT2G42680.1 AT2G42680.1, AT3G58680.1 \_VPTELK(Ubi)K(ac)AIM(ox)QAR\_ DDTENLSHDRVPTELKKAIMQARGEKKLTQS;DDTENLTHERVPTELKKAIMQARTDKKLTQS 42.475 40.54 84

AT2G42680.1 AT2G42680.1, AT3G58680.1 \_VPTELK(ac)K(Ubi)AIM(ox)QAR\_ DTENLSHDRVPTELKKAIMQARGEKKLTQSQ;DTENLTHERVPTELKKAIMQARTDKKLTQSQ 58.32 52.779 85

AT2G42710.1 AT2G42710.1 \_YVK(Ubi)DSPSINPVSYAQR\_ SPESANWTREEIRYVKDSPSINPVSYAQRVA 62.055 59.911 105

AT5G45775.2 AT5G45775.2, AT4G18730.1, AT3G58700.1, AT2G42740.1 \_(ac)ASEK(ac)K(Ubi)LSNPM(ox)R\_ \_\_\_\_\_\_\_\_\_\_MASEKKLSNPMRDIKVQKLVL 55.04 51.462 6

AT2G42790.1 AT2G42790.1 \_GQDIYDSK(Ubi)QVR\_ PDANPALRGQDIYDSKQVRDKQIIRIIGKAP 113.93 110.21 209

AT2G42810.1 AT2G42810.1, AT2G42810.2 \_(ac)M(ox)ETK(Ubi)NENSDVSR\_ \_\_\_\_\_\_\_\_\_\_\_\_METKNENSDVSRAEEFKSQ 52.576 51.886 4

AT2G43030.1 AT2G43030.1 \_VYK(ac)GK(ac)K(Ubi)M(ox)PGR\_ SIGAGTTPGRVYKGKKMPGRMGGTRTKIRKL 37.717 32.823 215

AT2G43090.2 AT2G43090.2, AT2G43090.1 \_K(Ubi)AGM(ox)IPSAAA\_ AGPVIDAGGIFAYARKAGMIPSAAA\_\_\_\_\_\_ 71.614 38.063 213

AT2G43210.2 AT2G43210.2, AT2G43210.1 \_K(Ubi)QGTVINEEDSGVGVSGR\_ NDNTSRVRSSVDRKRKQGTVINEEDSGVGVS 64.705 64.1 265

AT2G43210.2 AT2G43210.2, AT2G43210.1 \_VQAEK(Ubi)EPIRPTAPGTNDNTSR\_ VEHEATETPLRVQAEKEPIRPTAPGTNDNTS 53.359 52.916 239

AT3G59440.1 AT3G59440.1, AT2G43290.1 \_VFQM(ox)FDK(Ubi)NGDGR\_ TESPVDLKRVFQMFDKNGDGRITKEELNDSL 61.235 58.316 61

AT3G59540.1 AT3G59540.1, AT2G43460.1 \_SK(ac)DIVK(ac)FK(Ubi)VR\_ ARSVKIKRSKDIVKFKVRCSRYLYTLCVFDQ 51.286 46.946 35

AT2G43650.1 AT2G43650.1 \_(ac)GK(ac)K(Ubi)GGTLK(ac)R\_ \_\_\_\_\_\_\_\_\_\_\_\_MGKKGGTLKRSSKSTKTRK 54.259 48.946 4

AT2G43650.1 AT2G43650.1 \_ITQDTAK(Ubi)PM(ox)K(ac)IDNAR\_ SPVSDSVDRITQDTAKPMKIDNAREEKKKKG 31.614 29.617 374

AT2G43650.1 AT2G43650.1 \_ITQDTAK(ac)PM(ox)K(Ubi)IDNAR\_ SDSVDRITQDTAKPMKIDNAREEKKKKGEKR 31.614 29.312 377

AT2G43650.1 AT2G43650.1 \_K(ac)NYEK(Ubi)K(ac)VTR\_ RDLKNPRKKYRKNYEKKVTRRKGQVRDIRKQ 85.813 49.228 618

AT2G43650.1 AT2G43650.1 \_K(Ubi)PK(ac)TISGDDDLPQR\_ NVTADKLTKLVSTKRKPKTISGDDDLPQRDD 40.278 40.278 475

AT2G43650.1 AT2G43650.1 \_K(ac)PK(Ubi)TISGDDDLPQR\_ TADKLTKLVSTKRKPKTISGDDDLPQRDDIG 123.29 117.4 477

AT2G43650.1 AT2G43650.1 \_K(Ubi)QTGPYAGEAR\_ EKKVTRRKGQVRDIRKQTGPYAGEARGINPN 34.96 25.853 632

AT2G43650.1 AT2G43650.1 \_VLAGAGVK(Ubi)SSEGDGR\_ RRRKFELRVLAGAGVKSSEGDGRNKNGAFAS 87.519 83.55 509

AT2G43720.1 AT2G43720.1 \_(ac)MDQTAEEK(Ubi)M(ox)VR\_ \_\_\_\_\_\_\_\_MDQTAEEKMVRERIRKKVNEVSS 59.198 55.621 8

AT2G43720.1 AT2G43720.1 \_M(ox)K(ac)K(Ubi)ALSITD\_ VDEAVKTLPNLVSRMKKALSITD\_\_\_\_\_\_\_\_ 45.368 44.385 140

AT2G43810.2 AT2G43810.2, AT2G43810.1 \_(ac)SGVGEK(ac)ASGTTK(Ubi)TPADFLK(ac)SIR\_ \_\_\_MSGVGEKASGTTKTPADFLKSIRGKPVV 67.76 66.692 13

AT2G43970.2 AT2G43970.2, AT2G43970.1 \_GGVGGEQEPDLVSK(Ubi)K(ac)NDR\_ QRGGVGGEQEPDLVSKKNDRRDHSKRESKND 35.133 33.271 157

AT2G44060.2 AT2G44060.2, AT2G44060.1 \_(ac)STSEDK(Ubi)PEIISR\_ \_\_\_\_\_\_\_\_\_MSTSEDKPEIISRVVHQEGDVE 119.39 110.35 7

AT2G44065.2 AT2G44065.2, AT2G44065.1 \_LAEAAAK(Ubi)M\_ ASVKKKKKRLAEAAAKM\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 94.114 92.07 213

AT2G44100.2 AT2G44100.2, AT2G44100.1 \_GEEK(Ubi)APAHLGSSR\_ SLNLNQLWKKFRGEEKAPAHLGSSRDYNVDM 64.104 63.414 60

AT2G44100.2 AT2G44100.2, AT2G44100.1 \_M(ox)K(Ubi)LYAESLAR\_ DNHLHQPAYDTVMRMKLYAESLARFQGGSPY 67.334 65.49 209

AT2G44120.1 AT2G44120.1, AT2G44120.2 \_AEQYAK(ac)EYAEK(Ubi)DNELIR\_ LIFKRAEQYAKEYAEKDNELIRLKREAKLKG 50.178 46.081 58

AT2G44200.1 AT2G44200.1 \_DARPNEK(Ubi)YR\_ DIDDEPKRRDARPNEKYRNRSPKGGVERENL 78.939 76.785 352

AT2G44200.1 AT2G44200.1 \_ENLK(Ubi)SYGQEDK(ac)K(ac)R\_ YRNRSPKGGVERENLKSYGQEDKKRKAEDLD 61.409 59.107 368

AT2G44200.1 AT2G44200.1 \_ENLK(ac)SYGQEDK(Ubi)K(ac)R\_ GGVERENLKSYGQEDKKRKAEDLDSGKPNEY 48.527 46.14 375

AT2G44200.1 AT2G44200.1 \_K(ac)GGSK(Ubi)LSEEER\_ DLDSGKPNEYQNRRRKGGSKLSEEERAARLK 66.267 62.689 396

AT2G44200.1 AT2G44200.1 \_K(ac)SGK(ac)HQK(Ubi)QSSSR\_ KEHKKKHKRKSGKHQKQSSSRQRSDSEEDSG 119.87 76.187 193

AT2G44200.1 AT2G44200.1 \_SDLDDEYK(Ubi)R\_ DKHFERQRSDLDDEYKRRESQDKRRRSDIDD 150.27 137.31 325

AT2G44200.1 AT2G44200.1 \_SPK(Ubi)GGVER\_ RRDARPNEKYRNRSPKGGVERENLKSYGQED 80.688 1.2144 359

AT2G44310.1 AT2G44310.1 \_FAALDLNK(Ubi)DGVLSR\_ FKKSVDERFAALDLNKDGVLSRSELRKAFES 118.52 113.15 36

AT2G44310.1 AT2G44310.1 \_K(Ubi)AFESM(ox)R\_ LDLNKDGVLSRSELRKAFESMRLLESHFGVD 66.073 14.286 47

AT2G44310.1 AT2G44310.1 \_SFVDDEEQFK(ac)K(Ubi)SVDER\_ GSTVRSFVDDEEQFKKSVDERFAALDLNKDG 109.04 107.53 23

AT2G44440.1 AT2G44440.1 \_K(Ubi)ELSLSNEEHR\_ DAISWEKESVITELRKELSLSNEEHRELLGR 81.625 80.435 96

AT2G44610.1 AT2G44610.1 \_QVSIEEAEAK(Ubi)AR\_ DLVDKRQVSIEEAEAKARELNVMFIETSAKA 84.169 18.874 140

AT2G44650.1 AT2G44650.1 \_LEDLPIK(Ubi)SSGGVLLPK(ac)AAVK(ac)FER\_ PQADRVLVRLEDLPIKSSGGVLLPKAAVKFE 78.976 77.979 69

AT2G44650.1 AT2G44650.1 \_YLTGEIISVGSEVGQQVGPGK(Ubi)R\_ IISVGSEVGQQVGPGKRVLFSDVSAYEVDLG 117.37 115.85 106

AT2G44710.1 AT2G44710.1 \_FATVEQAK(Ubi)R\_ SKGSAFLRFATVEQAKRAVKELKSPMINGKK 93.649 58.204 269

AT2G44860.2 AT2G44860.2, AT2G44860.1 \_EAK(Ubi)HIENR\_ MAIKKIAKIRTAREAKHIENRLKPNKQKKLN 182.65 116.38 106

AT2G44920.1 AT2G44920.1, AT2G44920.2 \_GQDLSGK(Ubi)DFSGQTLIR\_ GPYGQGVTRGQDLSGKDFSGQTLIRQDFKTS 137.61 129.27 101

AT2G44920.1 AT2G44920.1, AT2G44920.2 \_QDFK(Ubi)TSILR\_ SGKDFSGQTLIRQDFKTSILRQANFKGAKLL 71.451 61.563 114

AT2G45000.1 AT2G45000.1 \_K(Ubi)SLLDDEAASTR\_ QSMEEEAERIYNDERKSLLDDEAASTRDAMY 71.879 56.334 633

AT2G45380.2 AT2G45380.2, AT2G45380.1 \_SATGAK(Ubi)K(ac)VVR\_ TDQSQTGSSRSATGAKKVVRINIE\_\_\_\_\_\_\_ 66.056 59.751 178

AT2G45440.1 AT2G45440.1 \_SLEVK(Ubi)NR\_ AVVPNFHLPMRSLEVKNRTNTDDIKALRVIT 97.071 47.713 55

AT2G45440.1 AT2G45440.1 \_TNTDDIK(Ubi)ALR\_ MRSLEVKNRTNTDDIKALRVITAIKTPYLPD 33.89 24.783 64

AT2G45520.1 AT2G45520.1 \_ENFPK(Ubi)HEQIR\_ KNKGKTEDTLRENFPKHEQIRFGDVVQAPLK 54.259 50.543 143

AT2G45520.1 AT2G45520.1 \_FGDVVQAPLK(Ubi)LAVVPK(ac)AR\_ KHEQIRFGDVVQAPLKLAVVPKARKSTLSAS 50.188 49.61 158

AT2G45520.1 AT2G45520.1 \_(ac)GGK(Ubi)GK(ac)K(ac)R\_ \_\_\_\_\_\_\_\_\_\_\_\_MGGKGKKRREKNYLAAHGG 77.923 15.208 4

AT2G45520.1 AT2G45520.1 \_(ac)GGK(ac)GK(ac)K(Ubi)R\_ \_\_\_\_\_\_\_\_\_\_MGGKGKKRREKNYLAAHGGPA 43.808 36.588 6

AT2G45520.1 AT2G45520.1 \_K(Ubi)STLSASQER\_ VVQAPLKLAVVPKARKSTLSASQERLRLQAI 70.942 70.942 167

AT2G45520.1 AT2G45520.1 \_SK(Ubi)QDDVPSTLR\_ AHGGPARLPPPPDRSKQDDVPSTLRILMNYT 102.97 80.649 31

AT2G45640.1 AT2G45640.1, AT2G45640.2 \_EK(Ubi)TCPLLLR\_ NQQPPRPKPEPVDREKTCPLLLRVFTKSGGH 56.916 44.647 37

AT2G45640.1 AT2G45640.1, AT2G45640.2 \_ELTDLVK(Ubi)EVSVAAR\_ YTWKDASLRELTDLVKEVSVAARRRNARLSF 146.59 143.27 87

AT2G45640.1 AT2G45640.1, AT2G45640.2 \_PK(Ubi)PEPVDR\_ LPPPPRGVNQQPPRPKPEPVDREKTCPLLLR 73.233 59.642 29

AT2G45710.1 AT2G45710.1, AT3G61111.1, AT3G61110.1 \_(ac)VLQNDIDLLNPPAELEK(Ubi)R\_ LQNDIDLLNPPAELEKRKHKLKRLVQSPNSF 179.46 151.29 18

AT2G45860.1 AT2G45860.1 \_(ac)SK(Ubi)K(ac)NNLAK(ac)R\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MSKKNNLAKRKKQHEYNL 141.1 132.7 3

AT2G45860.1 AT2G45860.1 \_(ac)SK(ac)K(Ubi)NNLAK(ac)R\_ \_\_\_\_\_\_\_\_\_\_\_\_MSKKNNLAKRKKQHEYNLQ 86.882 52.189 4

AT2G45860.1 AT2G45860.1 \_(ac)SK(ac)K(ac)NNLAK(Ubi)R\_ \_\_\_\_\_\_\_MSKKNNLAKRKKQHEYNLQKEKEL 104.22 85.597 9

AT2G45950.1 AT2G45950.1, AT2G45950.2 \_IIEGK(Ubi)NPEEIR\_ LVDLTSRALARIIEGKNPEEIREIFHLPDDL 77.744 41.363 134

AT2G45950.1 AT2G45950.1, AT2G45950.2 \_LK(Ubi)NVEVEEHVDER\_ LYAKKRKELKERERLKNVEVEEHVDERSVDD 57.434 56.638 188

AT2G46020.1 AT2G46020.1, AT2G46020.2 \_M(ox)GM(ox)VGSSSVGK(Ubi)DQDAR\_ QQQARMGMVGSSSVGKDQDARMGMLNMQDLN 50.305 48.002 164

AT2G46280.3 AT2G46280.3, AT2G46280.2, AT2G46280.1 \_IAEDPEEQDAESVLVLHCPDGK(ac)K(Ubi)R\_ EQDAESVLVLHCPDGKKRINRAVWGPLNQTI 117.62 116.91 148

AT2G46540.1 AT2G46540.1 \_(ac)PVM(ox)EK(Ubi)LR\_ \_\_\_\_\_\_\_\_\_\_MPVMEKLRMFVAQEPVVAASC 37.558 31.254 6

AT3G62070.1 AT3G62070.1, AT2G46940.1 \_ISSPGDDPK(Ubi)EVK(ac)AR\_ SPIATWRISSPGDDPKEVKARLKVWAQAVAL 36.029 28.029 205

AT2G47470.1 AT2G47470.1, AT2G47470.3 \_IEEEASTLK(Ubi)GSTTR\_ KKAVLSRIEEEASTLKGSTTRYGKLYLKLAK 141.34 137.28 299

AT2G47470.1 AT2G47470.1, AT2G47470.3 \_VLGK(ac)SISPVK(Ubi)ADELTLK(ac)R\_ TERLGRVLGKSISPVKADELTLKRNILTTFV 33.248 31.883 343

AT3G62870.1 AT3G62870.1, AT2G47610.1 \_VIAK(Ubi)EAAQR\_ SKSQAKTKAKERVIAKEAAQRMN\_\_\_\_\_\_\_\_ 113.62 86.368 249

AT2G48160.1 AT2G48160.1 \_GTSDVVDPQAK(Ubi)VEGEAVPEAGAR\_ PTRKRGTSDVVDPQAKVEGEAVPEAGARNNV 32.956 31.729 370

AT3G01160.1 AT3G01160.1 \_FATGSAPVDK(Ubi)R\_ MFNDKRFATGSAPVDKRGKRRTGGTGKDSLR 85.813 80.919 79

AT3G01160.1 AT3G01160.1 \_FSSAHTDPK(Ubi)FR\_ EMIKDPRFSSAHTDPKFRRMRRRDSKVAIDS 87.184 58.98 44

AT3G01160.1 AT3G01160.1 \_TGGTGK(Ubi)DSLR\_ APVDKRGKRRTGGTGKDSLREFYRIEDEGKQ 54.259 30.17 90

AT5G15090.2 AT5G15090.2, AT5G15090.1, AT3G01280.1 \_(ac)VK(Ubi)GPGLYTEIGK(ac)K(ac)AR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MVKGPGLYTEIGKKARDL 50.305 46.443 3

AT5G15090.2 AT5G15090.2, AT5G15090.1, AT3G01280.1 \_(ac)VK(ac)GPGLYTEIGK(Ubi)K(ac)AR\_ \_\_\_MVKGPGLYTEIGKKARDLLYRDYQGDQK 62.055 59.668 13

AT5G15090.2 AT5G15090.2, AT5G15090.1, AT3G01280.1 \_(ac)VK(ac)GPGLYTEIGK(ac)K(Ubi)AR\_ \_\_MVKGPGLYTEIGKKARDLLYRDYQGDQKF 61.265 58.878 14

AT3G01390.2 AT3G01390.2, AT3G01390.1 \_K(Ubi)LEETSGDSGANVK(ac)R\_ EIAEYKAQTEQDFQRKLEETSGDSGANVKRL 141.06 137.74 60

AT3G01390.2 AT3G01390.2, AT3G01390.1 \_KLEETSGDSGANVK(Ubi)R\_ QRKLEETSGDSGANVKRLEQETDTKIEQLKN 209.53 187.64 73

AT3G01390.2 AT3G01390.2, AT3G01390.1 \_LEQETDTK(Ubi)IEQLK(Ubi)NEASR\_ DSGANVKRLEQETDTKIEQLKNEASRISKDV 33.872 33.512 82

AT3G01610.1 AT3G01610.1 \_VDEK(Ubi)EEK(Ubi)LQR\_ EGSASQRKKQRRVDEKEEKLQRAEQSHLRKR 44.863 21.874 101

AT3G01740.1 AT3G01740.1, AT5G14290.1 \_FVK(Ubi)LDTR\_ KNVETLPYDDLKRFVKLDTRGKIKENNSIKA 104.75 62.272 109

AT3G01740.1 AT3G01740.1, AT5G14290.1 \_GK(ac)IK(Ubi)ENNSIK(ac)AK(ac)N\_ PYDDLKRFVKLDTRGKIKENNSIKAKN\_\_\_\_ 68.277 65.712 115

AT3G01740.1 AT3G01740.1, AT5G14290.1 \_GK(ac)IK(ac)ENNSIK(Ubi)AK(ac)N\_ VKLDTRGKIKENNSIKAKN\_\_\_\_\_\_\_\_\_\_\_\_ 60.196 57.438 123

AT3G01740.1 AT3G01740.1, AT5G14290.1 \_GK(ac)IK(ac)ENNSIK(ac)AK(Ubi)N\_ LDTRGKIKENNSIKAKN\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 56.139 53.381 125

AT3G01740.1 AT3G01740.1, AT5G14290.1 \_K(Ubi)NVETLPYDDLK(Ubi)R\_ WHLLDKRPALSELRRKNVETLPYDDLKRFVK 35.657 34.104 94

AT3G01790.2 AT3G01790.2, AT3G01790.1 \_SLK(ac)DQM(ox)AK(Ubi)DPTEVIR\_ YIGHLKERSLKDQMAKDPTEVIRKAVWRMLP 57.288 50.338 112

AT3G01970.1 AT3G01970.1 \_LTEFHGVDNSAQPTTSSEEK(Ubi)PR\_ HGVDNSAQPTTSSEEKPRSKKKKKEREARYA 85.224 84.292 39

AT3G02080.1 AT3G02080.1, AT5G61170.1, AT5G15520.1 \_IYGGSK(Ubi)R\_ GGLGVGAFRRIYGGSKRNGSRPPHFCKSSGG 121.29 105.14 84

AT3G02090.1 AT3G02090.1, AT3G02090.2 \_IDAVDASTVK(Ubi)R\_ AELFARIDAVDASTVKRVANKYIYDKDIAIS 82.489 72.834 493

AT3G02220.1 AT3G02220.1 \_DIYEVEAEQK(Ubi)LLDETIK(ac)NAR\_ DQILGRDIYEVEAEQKLLDETIKNARERDRR 102.98 102.17 117

AT3G02220.1 AT3G02220.1 \_SDSSK(ac)VGDVFPSTSLEEYANK(Ubi)SGR\_ VGDVFPSTSLEEYANKSGRVSGIIGHGSVPD 66.925 66.699 174

AT3G02360.2 AT3G02360.2, AT3G02360.1 \_TTSK(Ubi)VDETVER\_ AEKGFPISVYNRTTSKVDETVERAKKEGNLP 36.417 0 40

AT3G02400.1 AT3G02400.1 \_LAASDPDPDPIESVQEK(Ubi)PK(ac)R\_ AASDPDPDPIESVQEKPKRTRGSSKQEENEL 76.301 73.805 144

AT5G16070.1 AT5G16070.1, AT3G02530.1 \_VLVDGFEIAK(Ubi)R\_ EGMHPRVLVDGFEIAKRATLQFLDNFKTPVV 60.255 41.161 126

AT3G02730.1 AT3G02730.1 \_PLAK(Ubi)ELGIR\_ VFLKLDCNPDNRPLAKELGIRVVPTFKILKD 63.816 42.444 135

AT3G02820.1 AT3G02820.1 \_GK(Ubi)EVSDLGNLIR\_ VLRYFPKSFKYRGRGKEVSDLGNLIRLYSEW 64.121 59.781 103

AT3G03060.1 AT3G03060.1 \_EVVDYK(Ubi)VAEHQQR\_ DCVLDSMLFREVVDYKVAEHQQRRKLAGVDS 65.043 62.973 612

AT3G03060.1 AT3G03060.1 \_NQELVK(Ubi)M(ox)QEDSAIR\_ QAENEFHRTRNQELVKMQEDSAIRQEQARRA 36.944 31.733 183

AT3G03130.1 AT3G03130.1 \_AQAAASSK(ac)K(Ubi)DESVQR\_ AARSTRRAQAAASSKKDESVQRVYSTRRSVR 68.481 67.656 156

AT3G03270.2 AT3G03270.2, AT3G03270.1 \_TVGVGM(ox)DYSPTSK(Ubi)LALR\_ KARTVGVGMDYSPTSKLALRWAAENLLEDGD 72.433 70.636 18

AT3G03710.1 AT3G03710.1 \_K(Ubi)YVNTSSK(ac)DR\_ QQPAGDSTKDKSSQRKYVNTSSKDRAAAGAS 81.017 35.584 861

AT3G03920.1 AT3G03920.1 \_FLPQPK(Ubi)GQSTGGR\_ DPYKLLPLARFLPQPKGQSTGGRGGAGRGRG 46.069 19.952 148

AT3G04510.1 AT3G04510.1, AT5G28490.1 \_GVSYEK(Ubi)K(ac)R\_ EVRDFQAKARGVSYEKKRKRVNRQKPQTQPP;EVRDFQAKSRGVSYEKKRKRVNNKQITQSQP 38.567 28.196 158

AT3G04610.1 AT3G04610.1 \_IK(Ubi)ILDGPPGTTER\_ GDVIKKIVEETRARIKILDGPPGTTERAVMV 70.889 66.715 221

AT3G04610.1 AT3G04610.1 \_IVDGLDGEASQAPPPSK(Ubi)VSTR\_ VDGLDGEASQAPPPSKVSTRLLVPASQAGSL 49.592 47.731 276

AT3G04630.3 AT3G04630.3, AT3G04630.2, AT3G04630.1 \_EEILK(Ubi)TVSNR\_ SFSDAVSSSSREEILKTVSNRNRHSTGTVQN 63.624 58.526 233

AT3G04710.2 AT3G04710.2, AT3G04710.1, AT3G04710.3 \_LGQAEHALSDAK(Ubi)ACR\_ CWLRLGQAEHALSDAKACRELNPDWPKGCFR 51.771 46.716 385

AT3G04840.1 AT3G04840.1, AT4G34670.1 \_(Ubi)AVGK(Ubi)NK(Ubi)R\_ \_\_\_\_\_\_\_\_\_\_\_MAVGKNKRISKGRKGGKKKA 75.311 48.927 5

AT3G04840.1 AT3G04840.1, AT4G34670.1 \_TQGTK(Ubi)IASEGLK(ac)HR\_ HRNVGKTLVSRTQGTKIASEGLKHRVFEVSL;NRNVGKTLVSRTQGTKIASEGLKHRVFEVSL 46.318 45.33 55

AT3G04840.1 AT3G04840.1, AT4G34670.1 \_TQGTK(ac)IASEGLK(Ubi)HR\_ LVSRTQGTKIASEGLKHRVFEVSLADLQGDE;LVSRTQGTKIASEGLKHRVFEVSLADLQNDE 68.972 67.345 62

AT3G04850.1 AT3G04850.1 \_(ac)M(ox)DTPDK(Ubi)NR\_ \_\_\_\_\_\_\_\_\_\_MDTPDKNRISAVSFCNFEDSP 49.715 43.934 6

AT3G04920.1 AT3G04920.1, AT5G28060.1 \_(ac)AEK(Ubi)AVTIR\_ \_\_\_\_\_\_\_\_\_\_\_\_MAEKAVTIRTRKFMTNRLL 72.607 51.235 4

AT3G04920.1 AT3G04920.1, AT5G28060.1 \_ANVSK(Ubi)AELK(ac)EK(ac)LAR\_ QFVIDVLHPGRANVSKAELKEKLARMYEVKD 98.943 94.595 38

AT3G04920.1 AT3G04920.1, AT5G28060.1 \_ANVSK(ac)AELK(Ubi)EK(ac)LAR\_ DVLHPGRANVSKAELKEKLARMYEVKDPNAI 96.673 92.324 42

AT3G04920.1 AT3G04920.1, AT5G28060.1 \_ANVSK(ac)AELK(ac)EK(Ubi)LAR\_ LHPGRANVSKAELKEKLARMYEVKDPNAIFV 71.98 69.062 44

AT3G04920.1 AT3G04920.1, AT5G28060.1 \_GVK(Ubi)K(ac)TK(ac)AGDAK(ac)K(ac)K\_ QIKERKNRAKKIRGVKKTKAGDAKKK\_\_\_\_\_ 71.98 68.065 123

AT3G04920.1 AT3G04920.1, AT5G28060.1 \_GVK(ac)K(ac)TK(Ubi)AGDAK(ac)K(ac)K\_ ERKNRAKKIRGVKKTKAGDAKKK\_\_\_\_\_\_\_\_ 85.493 84.458 126

AT3G04920.1 AT3G04920.1, AT5G28060.1 \_GVK(ac)K(ac)TK(ac)AGDAK(ac)K(Ubi)K(Ubi)\_ AKKIRGVKKTKAGDAKKK\_\_\_\_\_\_\_\_\_\_\_\_\_ 57.267 56.76 131

AT3G04920.1 AT3G04920.1, AT5G28060.1 \_GVK(ac)K(ac)TK(ac)AGDAK(ac)K(ac)K(Ubi)\_ KIRGVKKTKAGDAKKK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 71.98 65.97 133

AT3G04920.1 AT3G04920.1, AT5G28060.1 \_NGLDTK(Ubi)IEK(ac)SR\_ KFEPKYRLIRNGLDTKIEKSRKQIKERKNRA 80.69 63.025 101

AT3G04920.1 AT3G04920.1, AT5G28060.1 \_NGLDTK(ac)IEK(Ubi)SR\_ PKYRLIRNGLDTKIEKSRKQIKERKNRAKKI 98.105 89.037 104

AT3G04950.1 AT3G04950.1 \_SNLAK(Ubi)SGQISR\_ MMGSTPMDLARSNLAKSGQISRNALCPCGSK 84.352 77.333 206

AT3G05060.1 AT3G05060.1, AT5G27120.1 \_AQLYDYLK(Ubi)SR\_ VLSLSEYRAQLYDYLKSRMNTIAPNLTALVG 31.597 27.424 275

AT3G05060.1 AT3G05060.1, AT5G27120.1 \_NLEGK(Ubi)DLGR\_ ENRAKLEARLRNLEGKDLGRLSGSSKGKPKI 70.056 24.376 400

AT3G05070.1 AT3G05070.1 \_AAQELSETK(Ubi)EDGEDEAVEEDGPAM(ox)K(Ubi)FR\_ EALKALRAAQELSETKEDGEDEAVEEDGPAM 41.047 40.593 32

AT3G05070.1 AT3G05070.1 \_AAQELSETKEDGEDEAVEEDGPAMK(Ubi)FR\_ EDGEDEAVEEDGPAMKFRNYVPQAKELQDGK 104.53 103.93 48

AT3G05070.1 AT3G05070.1 \_(Ubi)ASEDESIEQK(Ubi)AAAR\_ \_\_\_\_\_MASEDESIEQKAAARKEALKALRAAQ 147.52 146.33 11

AT3G05070.1 AT3G05070.1 \_DVQK(Ubi)K(ac)LDK(ac)LER\_ IAPKKPNWDLRRDVQKKLDKLERRTQKAMHK 134.68 132.02 108

AT3G05070.1 AT3G05070.1 \_DVQK(ac)K(Ubi)LDK(ac)LER\_ APKKPNWDLRRDVQKKLDKLERRTQKAMHKL 47.712 45.052 109

AT3G05070.1 AT3G05070.1 \_DVQK(ac)K(ac)LDK(Ubi)LER\_ KPNWDLRRDVQKKLDKLERRTQKAMHKLMEE 67.997 63.648 112

AT3G05070.1 AT3G05070.1 \_K(Ubi)EALK(ac)ALR\_ MASEDESIEQKAAARKEALKALRAAQELSET 97.277 50.82 16

AT3G05070.1 AT3G05070.1 \_K(ac)EALK(Ubi)ALR\_ DESIEQKAAARKEALKALRAAQELSETKEDG 87.639 34.923 20

AT3G05070.1 AT3G05070.1 \_TQK(ac)AM(ox)HK(ac)LM(ox)EEQEK(Ubi)ER\_ RRTQKAMHKLMEEQEKEREMAEADGNTIES\_ 53.565 51.946 130

AT3G05330.1 AT3G05330.1 \_EQNPETVSSNIK(Ubi)AR\_ QKSREQNPETVSSNIKARRKKEKQNRRSESD 39.033 33.318 173

AT3G05420.1 AT3G05420.1, AT3G05420.2 \_EIVM(ox)DNVNPGSK(Ubi)VEGNSER\_ GRVREIVMDNVNPGSKVEGNSERIIATIKSE 74.793 72.446 538

AT3G05420.1 AT3G05420.1, AT3G05420.2 \_NTDLYK(Ubi)ELQSVR\_ RQELGEAELRNTDLYKELQSVRGQLAAEQSR 70.089 68.838 587

AT3G05530.1 AT3G05530.1, AT1G09100.1 \_K(Ubi)IEFPHPTEEAR\_ DILDPALMRSGRLDRKIEFPHPTEEARARIL 30.205 27.009 336

AT3G05560.3 AT3G05560.3, AT3G05560.2, AT3G05560.1, AT5G27770.1 \_VIAANK(Ubi)DR\_ KKHNVRDWLRVIAANKDRNLYELRYFNIAEN 102.51 66.119 103

AT5G27850.1 AT5G27850.1, AT3G05590.1 \_IEK(Ubi)AGGECLTFDQLALR\_ VTALRFTERARARIEKAGGECLTFDQLALRA 35.304 28.173 114

AT5G27850.1 AT5G27850.1, AT3G05590.1 \_VHEIPAMK(Ubi)VTALR\_ GTITDDLRVHEIPAMKVTALRFTERARARIE 66.989 64.675 98

AT3G05750.2 AT3G05750.2, AT3G05750.1 \_GK(Ubi)QDEK(ac)R\_ PQISNGTCNNKCFRGKQDEKRTTLPLKTQER 53.351 37.71 174

AT3G05760.1 AT3G05760.1, AT3G05760.2 \_FEVLK(Ubi)K(ac)R\_ ERSSLEQVQERFEVLKKRKAPGTFTEQDLDE 67.981 61.086 133

AT3G05760.1 AT3G05760.1, AT3G05760.2 \_FEVLK(ac)K(Ubi)R\_ RSSLEQVQERFEVLKKRKAPGTFTEQDLDER 91.626 78.589 134

AT3G05760.1 AT3G05760.1, AT3G05760.2 \_K(Ubi)APGTFTEQDLDER\_ SLEQVQERFEVLKKRKAPGTFTEQDLDERIR 105.14 101.63 136

AT3G05760.1 AT3G05760.1, AT3G05760.2 \_K(ac)K(ac)FDVEEFK(Ubi)ER\_ GVDNTFRKKFDVEEFKERAREREKKESDRSK 58.098 55.313 24

AT3G05760.1 AT3G05760.1, AT3G05760.2 \_K(Ubi)QQEEEEELK(Ubi)R\_ APGTFTEQDLDERIRKQQEEEEELKRQRREK 68.536 65.974 152

AT3G06040.3 AT3G06040.3, AT3G06040.2, AT3G06040.1 \_PQPSSK(Ubi)IMELAER\_ PSVYDPYGPRPQPSSKIMELAERIAALSPEE 68.972 67.508 59

AT3G06200.1 AT3G06200.1 \_K(Ubi)TESQEELLVR\_ VAESELAMVERLIDRKTESQEELLVRVATAR 42.475 35.345 222

AT3G06610.1 AT3G06610.1 \_EADLNAK(Ubi)R\_ AMASIAASREADLNAKRLREKELASVKINPA 133.12 65.135 60

AT3G06610.1 AT3G06610.1 \_EHK(Ubi)GDAVAATR\_ LEIEKNVAERTLREHKGDAVAATRQLLSRYP 118.87 110.98 99

AT3G06610.1 AT3G06610.1 \_(ac)M(ox)EGAEEAGAEIAVDSK(Ubi)DLQQQSK(ac)AFDK(ac)LTDR\_ MEGAEEAGAEIAVDSKDLQQQSKAFDKLTDR 97.352 96.468 16

AT3G06680.3 AT3G06680.3, AT3G06680.2, AT3G06680.1, AT3G06700.3, AT3G06700.2, AT3G06700.1 \_GMDPK(Ubi)FLR\_ KPRRHRHTPTRGMDPKFLRNQRYARKHNVKA;KPRRHRHTPTRGMDPKFLRNQRYARKHNVKS 107.69 92.078 38

AT3G06680.3 AT3G06680.3, AT3G06680.2, AT3G06680.1, AT3G06700.3, AT3G06700.2, AT3G06700.1 \_K(Ubi)HNVK(Ubi)SGENAGVEE\_ RGMDPKFLRNQRYARKHNVKSGENAGVEE\_\_ 109.07 106.21 48

AT3G06700.3 AT3G06700.3, AT3G06700.2, AT3G06700.1 \_K(Ubi)HNVK(Ubi)AGENASAEE\_ RGMDPKFLRNQRYARKHNVKAGENASAEE\_\_ 112.42 111.29 48

AT3G06980.1 AT3G06980.1 \_DK(Ubi)AYDEVYNPR\_ RRFVAKELDTFQGRDKAYDEVYNPRRFTDNE 71.085 66.911 307

AT3G06980.1 AT3G06980.1 \_FVAK(Ubi)ELDTFQGR\_ SSANSRGREDRRFVAKELDTFQGRDKAYDEV 55.261 54.63 297

AT3G07050.1 AT3G07050.1 \_ALEEIEQK(ac)K(Ubi)EAR\_ LEVRRARALEEIEQKKEARKERAKKRKLGLV 124.12 120.8 82

AT3G07090.1 AT3G07090.1 \_ASEAAAM(ox)ATK(Ubi)R\_ AQGTLRASEAAAMATKRVMQKYGHLNVNA\_\_ 67.385 64.706 252

AT3G07110.1 AT3G07110.1, AT3G07110.2 \_M(ox)VVPDALK(Ubi)VLR\_ TPYDKIKRMVVPDALKVLRLQAGHKYCLLGR 48.981 45.794 130

AT3G07170.1 AT3G07170.1 \_DQLSGTM(ox)NQQPK(ac)NSDPPK(Ubi)SK(ac)AEAAR\_ LSGTMNQQPKNSDPPKSKAEAARPSMKSVAT 60.472 59.291 110

AT3G07170.1 AT3G07170.1 \_(ac)M(ox)YADK(Ubi)LEAESGSR\_ \_\_\_\_\_\_\_\_\_\_\_MYADKLEAESGSRKVVKDRI 81.904 79.043 5

AT3G07170.1 AT3G07170.1 \_PSMK(Ubi)SVATETETR\_ SDPPKSKAEAARPSMKSVATETETRKTSSQA 126.32 119.64 121

AT3G07200.2 AT3G07200.2, AT3G07200.1 \_SDQTSVDSVELNK(Ubi)PR\_ RRRSDQTSVDSVELNKPRKSKAVAPPVEEPK 97.273 94.886 109

AT3G07210.1 AT3G07210.1 \_EM(ox)LEK(Ubi)QR\_ GTPQKSLNGRREMLEKQRSFVHGKKMHSQGA 58.981 0 486

AT3G07230.1 AT3G07230.1 \_EQK(Ubi)PK(Ubi)ASDNKPVM(ox)NE\_ SSSDKRKMEDKPREQKPKASDNKPVMNE\_\_\_ 84.508 82.579 34

AT3G07230.1 AT3G07230.1 \_EQK(ac)PK(Ubi)ASDNKPVM(ox)NE\_ SDKRKMEDKPREQKPKASDNKPVMNE\_\_\_\_\_ 108.63 106.96 36

AT3G07230.1 AT3G07230.1 \_EQK(Ubi)PK(ac)ASDNK(Ubi)PVM(ox)NE\_ MEDKPREQKPKASDNKPVMNE\_\_\_\_\_\_\_\_\_\_ 84.508 82.579 41

AT3G07230.1 AT3G07230.1 \_K(Ubi)M(ox)EDK(Ubi)PR\_ FRSFLSQKGSSSDKRKMEDKPREQKPKASDN 125.5 108.11 25

AT3G07230.1 AT3G07230.1 \_KMEDK(Ubi)PR\_ LSQKGSSSDKRKMEDKPREQKPKASDNKPVM 125.5 108.11 29

AT3G07230.1 AT3G07230.1 \_SFLSQK(Ubi)GSSSDK(Ubi)R\_ IYDVNSGLFRSFLSQKGSSSDKRKMEDKPRE 119.39 116.52 17

AT3G07230.1 AT3G07230.1 \_SFLSQK(ac)GSSSDK(Ubi)R\_ GLFRSFLSQKGSSSDKRKMEDKPREQKPKAS 156.81 150.7 23

AT3G07440.1 AT3G07440.1 \_DK(Ubi)AFAPM(ox)NAAPESQESR\_ IRDKFEYDRERRMRDKAFAPMNAAPESQESR 43.81 43.255 201

AT3G07440.1 AT3G07440.1 \_DK(Ubi)FEYDR\_ TTQGDNWEKVSQIRDKFEYDRERRMRDKAFA 85.212 82.532 189

AT3G07440.1 AT3G07440.1 \_SFSDQTK(Ubi)EQGFNR\_ DFNPYRNRRSFSDQTKEQGFNRTTQGDNWEK 134.68 133.7 167

AT3G07480.1 AT3G07480.1 \_TYDEEYVLK(Ubi)R\_ LEKLPPRTYDEEYVLKRSSRSRILNKHSRLG 120.99 112.58 119

AT3G07660.1 AT3G07660.1 \_FTSSNPK(Ubi)SEQTAPEQHIGESK(ac)SHTR\_ PRPSSSEVRFTSSNPKSEQTAPEQHIGESKS 56.681 56.227 237

AT3G07660.1 AT3G07660.1 \_GVGK(Ubi)TAVNDTYGSR\_ HIGESKSHTRSRGVGKTAVNDTYGSRPASSH 104.94 103.32 261

AT3G07660.1 AT3G07660.1 \_K(ac)ENINNK(Ubi)DSAESQWR\_ EVKKKRDKRKENINNKDSAESQWRSGGGGRG 70.41 70.41 75

AT3G07660.1 AT3G07660.1 \_LLLQDPFHEVK(Ubi)K(ac)K(ac)R\_ ETAQRLLLQDPFHEVKKKRDKRKENINNKDS 82.651 80.349 62

AT3G07660.1 AT3G07660.1 \_QSSNLPAGSGQLK(Ubi)AGR\_ DVRQSSNLPAGSGQLKAGRSSVPSNNIDGAP 66.387 66.091 177

AT3G07660.1 AT3G07660.1 \_SSVPSNNIDGAPSSVELSK(Ubi)NR\_ PSNNIDGAPSSVELSKNRVAVGSRVVHTEQK 35.091 32.522 199

AT3G07660.1 AT3G07660.1 \_VVHTEQK(Ubi)AVDSLPLPR\_ KNRVAVGSRVVHTEQKAVDSLPLPRPSSSEV 55.011 54.432 214

AT3G07790.1 AT3G07790.1 \_DAQLK(Ubi)IIER\_ AVKTRDPIQIRDAQLKIIERRGKKANHHVGD 59.908 49.536 96

AT3G07790.1 AT3G07790.1 \_FGK(Ubi)DGTSSETR\_ GAVTPKSVRSISRFGKDGTSSETRSP\_\_\_\_\_ 36.32 34.567 498

AT3G07790.1 AT3G07790.1 \_NFTPLDEFDGK(Ubi)TPR\_ STFLRNFTPLDEFDGKTPRTPGVSGREFHGV 66.246 64.866 136

AT3G08030.2 AT3G08030.2, AT3G08030.1 \_GNLVK(Ubi)NGGFEEGPHR\_ IKELVHPIYTRGNLVKNGGFEEGPHRLVNST 31.914 29.611 155

AT3G08580.2 AT3G08580.2, AT3G08580.1 \_LANDAK(Ubi)AAK(ac)K(ac)GGGGR\_ VYSLDYARTRLANDAKAAKKGGGGRQFDGLV 62.055 60.868 218

AT3G08580.2 AT3G08580.2, AT3G08580.1 \_LANDAK(ac)AAK(Ubi)K(ac)GGGGR\_ LDYARTRLANDAKAAKKGGGGRQFDGLVDVY 62.055 60.868 221

AT3G08580.2 AT3G08580.2, AT3G08580.1 \_LANDAK(ac)AAK(ac)K(Ubi)GGGGR\_ DYARTRLANDAKAAKKGGGGRQFDGLVDVYR 98.943 97.754 222

AT3G08590.2 AT3G08590.2, AT3G08590.1 \_AK(Ubi)GVDAQVASGGGR\_ GFVETLEADLAALRAKGVDAQVASGGGRMYV 91.355 83.599 195

AT3G08670.1 AT3G08670.1 \_TVK(Ubi)TSTTVTDNNNGLGR\_ RRISNVSDITSRRTVKTSTTVTDNNNGLGRS 33.893 31.749 421

AT3G08910.1 AT3G08910.1 \_K(Ubi)AAPIER\_ RFAEDVFSSNVVPPRKAAPIERQLPCSLEDL 91.626 84.059 143

AT3G08910.1 AT3G08910.1 \_LTTEQK(Ubi)SGIK(ac)R\_ IKFTVKFPSRLTTEQKSGIKRMFSSS\_\_\_\_\_ 105.46 82.343 313

AT3G08910.1 AT3G08910.1 \_LTTEQK(ac)SGIK(Ubi)R\_ VKFPSRLTTEQKSGIKRMFSSS\_\_\_\_\_\_\_\_\_ 83.182 66.16 317

AT3G08910.1 AT3G08910.1 \_NAK(Ubi)DDDLK(ac)K(ac)AYR\_ MGVDYYKVLQVDRNAKDDDLKKAYRKLAMKW 106.54 94.123 16

AT3G08910.1 AT3G08910.1 \_NAK(ac)DDDLK(Ubi)K(ac)AYR\_ YKVLQVDRNAKDDDLKKAYRKLAMKWHPDKN 69.03 57.771 21

AT3G09000.1 AT3G09000.1 \_EDIVSGNNNK(Ubi)PQTSSSSVAGLR\_ RLGNCREDIVSGNNNKPQTSSSSVAGLRRPS 52.451 49.212 133

AT3G09070.1 AT3G09070.1 \_EK(Ubi)SDEIVEVR\_ GDFEILNDSGELMREKSDEIVEVREEIEEAV 55.353 49.352 219

AT3G09440.2 AT3G09440.2, AT3G09440.1 \_K(ac)NK(Ubi)K(ac)DISGNPR\_ NRMVNHFVQEFKRKNKKDISGNPRALRRLRT 70.089 66.511 256

AT3G09440.2 AT3G09440.2, AT3G09440.1 \_K(ac)NK(ac)K(Ubi)DISGNPR\_ RMVNHFVQEFKRKNKKDISGNPRALRRLRTA 84.479 80.617 257

AT3G09440.2 AT3G09440.2, AT3G09440.1 \_M(ox)VNHFVQEFK(Ubi)R\_ EDFDNRMVNHFVQEFKRKNKKDISGNPRALR;EDFDNRMVNHFVQEFKRKNKKDITGNPRALR;EDFDNRMVNHFVQEFKRKNKQDITGQPRALR;EDFDNRMVNHFVQEFKRKSKKDITGNPRALR 45.661 42.903 252

AT3G09440.2 AT3G09440.2, AT3G09440.1 \_QATK(Ubi)DAGVIAGLNVM(ox)R\_ VTVPAYFNDSQRQATKDAGVIAGLNVMRIIN 58.723 24.532 163

AT3G09630.2 AT3G09630.2, AT3G09630.1, AT5G02870.2, AT5G02870.1 \_AK(Ubi)M(ox)VNADLAR\_ EKPSEKKKGYVLPRAKMVNADLARIINSDEI;EKPSEKKKGYVLPRAKMVNADLARIINSDEV 85.813 71.694 290

AT3G09630.2 AT3G09630.2, AT3G09630.1, AT5G02870.2, AT5G02870.1 \_IINSDEIQSVVNPIK(Ubi)K(ac)DAK(ac)R\_ RIINSDEIQSVVNPIKKDAKRAVLKKNPLKN 72.568 70 312

AT3G09630.2 AT3G09630.2, AT3G09630.1, AT5G02870.2, AT5G02870.1 \_IINSDEIQSVVNPIK(ac)K(ac)DAK(Ubi)R\_ SDEIQSVVNPIKKDAKRAVLKKNPLKNLNVM 55.453 54.42 316

AT3G09630.2 AT3G09630.2, AT3G09630.1, AT5G02870.2, AT5G02870.1 \_VNVNM(ox)K(Ubi)R\_ TKIWRRWHRRVNVNMKRHAIVSAIAATAVPA 90.986 54.285 126

AT3G09670.2 AT3G09670.2, AT3G09670.1 \_K(Ubi)EAPSTNLVEDPM(ox)LESR\_ VSLDHNLSGELDQVRKEAPSTNLVEDPMLES 43.326 42.822 645

AT5G02960.1 AT5G02960.1, AT3G09680.1 \_K(Ubi)GHAVGDIPGVR\_ YIEENDEVLIAGFGRKGHAVGDIPGVRFKVV 88.021 79.611 107

AT3G09740.1 AT3G09740.1 \_VK(Ubi)GLTTEELAAR\_ SEEVPKLQRLAVKRVKGLTTEELAARNDLVL 96.604 78.414 96

AT3G09840.1 AT3G09840.1 \_ENIEK(Ubi)DIEK(ac)EK(ac)R\_ ICQRACKYAIRENIEKDIEKEKRRSENPEAM 61.11 58.45 709

AT3G09840.1 AT3G09840.1 \_ENIEK(ac)DIEK(ac)EK(Ubi)R\_ KYAIRENIEKDIEKEKRRSENPEAMEEDGVD 32.933 32.108 715

AT3G09840.1 AT3G09840.1 \_GDTILIK(ac)GK(ac)K(Ubi)R\_ KLQLFRGDTILIKGKKRKDTVCIALADETCD;KLQLFRGDTILIKGKKRKDTVCIALADETCE 60.255 36.579 68

AT3G09980.1 AT3G09980.1 \_EK(Ubi)VQLITR\_ EYKEALEAFNEKNREKVQLITRLMELVGESE 85.676 49.281 145

AT3G09980.1 AT3G09980.1 \_EYK(Ubi)EALEAFNEK(ac)NR\_ LKPLGHTVQKKEREYKEALEAFNEKNREKVQ 69.258 67.953 132

AT3G09980.1 AT3G09980.1 \_K(Ubi)EVAM(ox)VR\_ ALIREELEGLADPMRKEVAMVRKKIDSVNKE 66.799 27.153 101

AT3G09980.1 AT3G09980.1 \_LMELVGESEK(Ubi)M(ox)R\_ VQLITRLMELVGESEKMRMKKLEELSKNIDS 108.56 107.12 161

AT3G09980.1 AT3G09980.1 \_(ac)M(ox)K(Ubi)EM(ox)QAIETSQPTTVAPAVHSR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_MKEMQAIETSQPTTVAP 50.752 50.516 2

AT3G10020.2 AT3G10020.2, AT3G10020.1 \_K(Ubi)LM(ox)EK(Ubi)GVQR\_ EVKTRNPETIKSVERKLMEKGVQRMDRHPSD 119.22 76.506 47

AT3G10020.2 AT3G10020.2, AT3G10020.1 \_K(Ubi)SVDK(Ubi)FEVK(ac)TR\_ NTVVLRAEHKNEEGRKSVDKFEVKTRNPETI 46.88 43.561 26

AT3G10020.2 AT3G10020.2, AT3G10020.1 \_K(ac)SVDK(Ubi)FEVK(ac)TR\_ LRAEHKNEEGRKSVDKFEVKTRNPETIKSVE 103.76 92.503 30

AT3G10020.2 AT3G10020.2, AT3G10020.1 \_(ac)M(ox)QAVSVDETK(Ubi)NTVVLR\_ \_\_\_\_\_\_MQAVSVDETKNTVVLRAEHKNEEGR 203.04 188.16 10

AT3G10020.2 AT3G10020.2, AT3G10020.1 \_NPETIK(Ubi)SVER\_ SVDKFEVKTRNPETIKSVERKLMEKGVQRMD 111.27 87.893 42

AT3G10050.1 AT3G10050.1 \_DETSM(ox)TPPPPK(Ubi)LPLPR\_ AVLSRDETSMTPPPPKLPLPRLKVSPNSLQY 52.527 42.727 54

AT3G10070.1 AT3G10070.1 \_K(ac)PLTTDIHK(Ubi)ER\_ DEFKTFRKPLTTDIHKERLAAIKKSVTATEA 56.205 54.09 491

AT5G03850.1 AT5G03850.1, AT3G10090.1, AT5G64140.1 \_NVK(Ubi)GPVR\_ RVKFTDSDRFIMRNVKGPVREGDVLTLLESE;RVKFTDSDRYIMRNVKGPVREGDILTLLESE 99.919 89.782 42

AT5G03850.1 AT5G03850.1, AT3G10090.1, AT5G64140.1 \_VK(Ubi)FTDSDR\_ MGRTGSRGQVTQVRVKFTDSDRFIMRNVKGP;MGRTGSRGQVTQVRVKFTDSDRYIMRNVKGP 97.431 78.758 29

AT3G10220.1 AT3G10220.1 \_GM(ox)VK(Ubi)YVGR\_ GDRCQVEPGEKRGMVKYVGRAESLGPGYWVG 45.081 43.872 177

AT3G10640.1 AT3G10640.1 \_PGPAQEAVK(Ubi)AR\_ EQLKKTRPGPAQEAVKARAMRVLKQKKMYEG 78.342 76.187 62

AT3G10640.1 AT3G10640.1 \_VFGAK(Ubi)K(ac)NTEPPPSIQDASDR\_ \_\_\_\_\_\_\_\_MRRVFGAKKNTEPPPSIQDASDR 49.768 47.413 8

AT3G10640.1 AT3G10640.1 \_VFGAK(ac)K(Ubi)NTEPPPSIQDASDR\_ \_\_\_\_\_\_\_MRRVFGAKKNTEPPPSIQDASDRI 34.174 31.819 9

AT3G10640.1 AT3G10640.1 \_VLK(ac)QK(ac)K(Ubi)M(ox)YEGQR\_ ALEAIKARAMRVLKQKKMYEGQRDMLYNQTF;AQEAVKARAMRVLKQKKMYEGQRDMLYNQTF 46.88 40.984 72

AT3G10650.1 AT3G10650.1 \_EK(Ubi)SPSK(ac)LSPSM(ox)LR\_ SKILQQLDKLVSTREKSPSKLSPSMLRGPAL 34.444 30.504 440

AT3G10650.1 AT3G10650.1 \_EK(ac)SPSK(Ubi)LSPSM(ox)LR\_ QQLDKLVSTREKSPSKLSPSMLRGPALKSLQ 42.317 39.456 444

AT3G10650.1 AT3G10650.1 \_EVLAQSEK(Ubi)TGDAVDGTSK(Ubi)TGSSK(ac)DQDM(ox)R\_ ISRESVSREVLAQSEKTGDAVDGTSKTGSSK 87.091 86.637 502

AT3G10650.1 AT3G10650.1 \_LGSGETPLQSPEQQK(Ubi)QLPER\_ RLGSGETPLQSPEQQKQLPERGVNQETKVGH 77.08 75.766 100

AT3G10650.1 AT3G10650.1 \_SK(Ubi)AADSSTMNEEQR\_ FTRSEVDRLTTLLRSKAADSSTMNEEQRNEV 89.26 87.145 172

AT3G10650.1 AT3G10650.1 \_SQK(Ubi)TPYDRPTTSVR\_ GTGGKFRKPTARRSQKTPYDRPTTSVRNAGL 53.3 52.476 33

AT3G10770.2 AT3G10770.2, AT3G10770.1, AT3G56680.1, AT5G05100.1 \_K(ac)EEYDK(Ubi)AR\_ KNLLRSVEERKEEYDKARARIFNSPSSSDSE;QNLLRSVEERKEEYDKARARIFNSPSSSDSE 63.816 37.432 157

AT3G11100.1 AT3G11100.1 \_M(ox)EVAK(Ubi)ELELQR\_ QQMMIELEKQRMEVAKELELQRMNMLMEMQL 49.448 41.316 216

AT3G11400.1 AT3G11400.1, AT3G11400.2 \_(Ubi)TIDSQQK(Ubi)TSK(Ubi)FR\_ \_\_\_\_\_\_\_\_MTIDSQQKTSKFRWGEMDEDEDL 212.59 209.83 8

AT3G11450.1 AT3G11450.1 \_AAESAQQQK(Ubi)K(ac)TK(ac)ER\_ KEEEEKRAAESAQQQKKTKEREKKLLRKERN 96.673 94.603 353

AT3G11450.1 AT3G11450.1 \_AAESAQQQK(ac)K(ac)TK(Ubi)ER\_ EEKRAAESAQQQKKTKEREKKLLRKERNRLR 54.09 51.43 356

AT3G11450.1 AT3G11450.1 \_K(Ubi)PSASITSPLSTR\_ KPDSAKAFDSFLEKRKPSASITSPLSTREEL 50.088 30.41 531

AT3G11510.1 AT3G11510.1 \_K(Ubi)TK(ac)EPK(ac)VETVTLGPSVR\_ \_\_\_\_\_\_\_\_\_\_\_MSKRKTKEPKVETVTLGPSV 117.65 117.26 5

AT3G11510.1 AT3G11510.1 \_K(ac)TK(ac)EPK(Ubi)VETVTLGPSVR\_ \_\_\_\_\_\_MSKRKTKEPKVETVTLGPSVREGEQ 60.062 59.576 10

AT3G11710.1 AT3G11710.1 \_FADQLK(Ubi)DR\_ LNDPVVQRQRFADQLKDRQSGDDEAMALDET 87.639 75.112 551

AT3G11710.1 AT3G11710.1 \_NPEAYVLK(Ubi)DQESR\_ IWVPGQTRNPEAYVLKDQESRYRQRHLDMIL 66.004 62.924 257

AT3G11710.1 AT3G11710.1 \_VYEIGK(Ubi)QFR\_ KQLIVGGLERVYEIGKQFRNEGIDLTHNPEF 76.064 70.966 356

AT3G11910.2 AT3G11910.2, AT5G06600.2, AT3G11910.1, AT5G06600.1 \_AEEIPEEEK(Ubi)NIGPNDR\_ DQYWTLRAEEIPEEEKNIGPNDRLIHVYHFT 55.011 52.708 986

AT3G11964.1 AT3G11964.1 \_GGGTSLSK(Ubi)K(ac)ER\_ EDVPDFPRGGGTSLSKKEREKLYEEVDAEFD 35.677 28.547 61

AT3G11964.1 AT3G11964.1 \_VEYVK(Ubi)QR\_ EYEKSVGDEERVEYVKQRAMEYANSTLA\_\_\_ 81.297 54.043 1884

AT3G12020.1 AT3G12020.1, AT3G12020.2 \_ELSYEAALGEK(Ubi)EQR\_ MSKERELSYEAALGEKEQREAELERILEETK 37.613 35.139 903

AT3G12020.1 AT3G12020.1, AT3G12020.2 \_LAAELATQK(Ubi)SPIAQR\_ LMNQNERLAAELATQKSPIAQRNKTGTTTNV 51.771 50.408 845

AT3G12050.2 AT3G12050.2, AT3G12050.1 \_FSVK(Ubi)DEGPIGR\_ SDENADEDPEIRFSVKDEGPIGRTLKEAMVK 47.302 45.421 92

AT3G12140.2 AT3G12140.2, AT3G12140.1, AT3G12140.3 \_VNK(Ubi)DDTIQR\_ RVSDDEHRELLSRVNKDDTIQRIRDWRQGGA 90.15 64.105 58

AT3G12290.1 AT3G12290.1 \_K(Ubi)DSQTYVNTK(ac)R\_ HGKVPGLAVVIVGSRKDSQTYVNTKRKACAE 35.677 32.359 51

AT3G12290.1 AT3G12290.1 \_K(ac)DSQTYVNTK(Ubi)R\_ VIVGSRKDSQTYVNTKRKACAEVGIKSFDVG 111.94 105.46 60

AT3G12290.1 AT3G12290.1 \_SGVK(Ubi)IK(ac)GQR\_ CTPKGCLELLARSGVKIKGQRAVVVGRSNIV 76.228 71.532 164

AT3G12290.1 AT3G12290.1 \_SGVK(ac)IK(Ubi)GQR\_ PKGCLELLARSGVKIKGQRAVVVGRSNIVGL 66.056 55.028 166

AT3G12390.1 AT3G12390.1, AT5G13850.1 \_K(ac)AMLK(Ubi)LGM(ox)K(ac)PITGVSR\_ SKQSRSEKKSRKAMLKLGMKPITGVSRVTVK 40.187 39.375 72

AT3G12390.1 AT3G12390.1, AT5G13850.1 \_K(ac)AM(ox)LK(ac)LGMK(Ubi)PITGVSR\_ RSEKKSRKAMLKLGMKPITGVSRVTVKKSKN 34.395 32.092 76

AT3G12490.1 AT3G12490.1, AT3G12490.2 \_EVPGDDPEVK(Ubi)HVAEQAVK(ac)TIQQR\_ HESGWREVPGDDPEVKHVAEQAVKTIQQRSN 93.583 83.506 125

AT3G12490.1 AT3G12490.1, AT3G12490.2 \_FAVDEHNK(ac)K(Ubi)ENALLEFAR\_ GEVESLARFAVDEHNKKENALLEFARVVKAK 50.178 49.692 32

AT3G12640.1 AT3G12640.1 \_EAK(Ubi)PDVSR\_ KRSRTDDSRNEQREAKPDVSRRLLQFAVRDA 48.423 37.259 176

AT3G13200.1 AT3G13200.1 \_DVAAHTTLK(Ubi)PR\_ SQKYSSRDVAAHTTLKPRREGQHTQEELQKI 130.56 126.39 42

AT3G13200.1 AT3G13200.1 \_EGQHTQEELQK(Ubi)INLR\_ LKPRREGQHTQEELQKINLRDELEERERRHF 162.46 158.11 56

AT3G13200.1 AT3G13200.1 \_GEM(ox)K(Ubi)APK(Ubi)R\_ WDDDVVFKNQARGEMKAPKRFINDTIRNDFH 100.02 31.102 206

AT3G13200.1 AT3G13200.1 \_HFSSK(ac)DK(Ubi)SYNDDR\_ DELEERERRHFSSKDKSYNDDRDRRRGSQLL 88.075 87.087 76

AT3G13200.1 AT3G13200.1 \_IFGPSQK(Ubi)YSSR\_ GGNEQGGARIFGPSQKYSSRDVAAHTTLKPR 42.031 41.341 29

AT3G13222.1 AT3G13222.1 \_K(Ubi)K(ac)ENLVPNTQGR\_ LYLDTFHEVRSKRERKKENLVPNTQGRGRTG 92.039 69.546 72

AT3G13222.1 AT3G13222.1 \_K(ac)K(Ubi)ENLVPNTQGR\_ YLDTFHEVRSKRERKKENLVPNTQGRGRTGR 63.181 61.931 73

AT3G13300.2 AT3G13300.2, AT3G13300.1 \_DTEVEVK(Ubi)EISEAR\_ IQDVNNDPRDTEVEVKEISEARSTQNGEIND 89.231 80.634 756

AT3G13300.2 AT3G13300.2, AT3G13300.1 \_IQEETVK(ac)NEK(Ubi)ALR\_ DALWARIQEETVKNEKALRDHAQQIVNATTN 90.412 85.931 955

AT3G13470.1 AT3G13470.1, AT5G56500.2, AT5G56500.1, AT1G55490.2, AT1G55490.1 \_EVELEDPVENIGAK(Ubi)LVR\_ AREVELEDPVENIGAKLVRQAAAKTNDLAGD 123.02 121.22 123

AT3G13470.1 AT3G13470.1, AT5G56500.2, AT5G56500.1, AT1G55490.2, AT1G55490.1 \_NLIEQAEQDYEK(Ubi)EK(ac)LNER\_ VQIRNLIEQAEQDYEKEKLNERIAKLSGGVA 41.513 36.874 412

AT3G13860.1 AT3G13860.1 \_DDTIILHGGGDK(ac)K(Ubi)LIEER\_ VTRDDTIILHGGGDKKLIEERCEELRSANEK 35.023 31.604 370

AT3G13990.2 AT3G13990.2, AT3G13990.1 \_ESVMPSGVEK(Ubi)NR\_ SRTTARESVMPSGVEKNRSYLNRQRGNRGSQ 78.903 78.374 324

AT3G13990.2 AT3G13990.2, AT3G13990.1 \_GGGLGGK(Ubi)PSENVGK(ac)DPSVPSFSGSSIR\_ VGAIKREVRGGGLGGKPSENVGKDPSVPSFS 72.474 71.604 269

AT3G13990.2 AT3G13990.2, AT3G13990.1 \_NPATGSNK(Ubi)EFR\_ AQRNASPRNPATGSNKEFRVVRDNRSNPNVD 202.31 197.33 135

AT3G13990.2 AT3G13990.2, AT3G13990.1 \_SSPVGAIK(Ubi)R\_ HVPSPVSRSSPVGAIKREVRGGGLGGKPSEN 91.069 60.902 258

AT3G14010.4 AT3G14010.4, AT3G14010.3, AT3G14010.2, AT3G14010.1 \_EASQVSSK(Ubi)TK(ac)SESSFGQSASR\_ KAVTEREREASQVSSKTKSESSFGQSASRSS 135.98 135.67 419

AT3G14160.1 AT3G14160.1 \_LGLHQDK(Ubi)DESENSIR\_ VNFYSSTGRLGLHQDKDESENSIRKGLPVVS 75.911 70.37 366

AT3G14600.1 AT3G14600.1 \_ALPTENDEHPK(Ubi)IYR\_ QVVGRALPTENDEHPKIYRMKLWGRNEVCAK 130.1 125.62 25

AT3G14750.1 AT3G14750.1 \_ADIK(Ubi)EFTSGR\_ VDAMRAEIQKIRADIKEFTSGRQELTSQVHL 60.255 51.555 159

AT3G14750.1 AT3G14750.1 \_AEIQK(Ubi)IR\_ EMELREVDAMRAEIQKIRADIKEFTSGRQEL 94.407 10.793 153

AT3G14890.2 AT3G14890.2, AT3G14890.1 \_QAAVDSK(Ubi)IGR\_ NIDRWKNKRQAAVDSKIGRLNSFIERVKVPI 80.706 63.475 578

AT3G14920.1 AT3G14920.1 \_SESDK(Ubi)GLM(ox)R\_ ANVSMAFNEERSESDKGLMRTFKSKLENKQE 47.603 22.827 520

AT3G15040.1 AT3G15040.1 \_HSPVSSPAK(Ubi)QQTPAR\_ HAPPQARHSPVSSPAKQQTPARQLQRSKSGL 58.885 57.897 53

AT5G60860.1 AT5G60860.1, AT3G15060.1 \_AVSTEDAK(Ubi)AFAER\_ KADLRHLRAVSTEDAKAFAERENTFFMETSA 66.989 55.406 142

AT3G15080.1 AT3G15080.1 \_DTGEYQPFLK(Ubi)GK(ac)TR\_ PKKDIRDTGEYQPFLKGKTRKSLKHLASEIL 51.004 50.016 194

AT3G15080.1 AT3G15080.1 \_DTGEYQPFLK(ac)GK(Ubi)TR\_ KDIRDTGEYQPFLKGKTRKSLKHLASEILGA 44.925 43.19 196

AT3G15080.1 AT3G15080.1 \_K(ac)SSNPENPSSILGK(Ubi)R\_ TRKSSNPENPSSILGKRKERPDSEVDVPKIN 57.973 55.063 54

AT3G15190.1 AT3G15190.1 \_VYNK(Ubi)SK(ac)K(ac)SEAR\_ AAKRARQAEKRRVYNKSKKSEARTRMKKVLE 96.745 90.267 105

AT3G15360.1 AT3G15360.1 \_ETLEK(Ubi)TIER\_ KKDSIIGAVPRETLEKTIERFLVE\_\_\_\_\_\_\_ 98.048 45.559 185

AT3G15390.1 AT3G15390.1 \_(ac)SK(Ubi)IASSSNSDPDSR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MSKIASSSNSDPDSRSLQ 79.652 69.298 3

AT3G15750.1 AT3G15750.1 \_EK(Ubi)LIDK(ac)QETR\_ GVSSALAFLPDELREKLIDKQETREKFQKLH 110.08 76.207 110

AT3G15750.1 AT3G15750.1 \_EK(ac)LIDK(Ubi)QETR\_ ALAFLPDELREKLIDKQETREKFQKLHSSVH 88.596 65.478 114

AT3G15750.1 AT3G15750.1 \_VLGNENK(Ubi)QR\_ DEEDYSEARVLGNENKQRRVKFHSAGYRDGI 68.224 42.664 49

AT3G15940.2 AT3G15940.2, AT3G15940.1 \_EQTQEQVAK(Ubi)R\_ VALALEREQTQEQVAKRNQSKIIKNLNGIRK 39.848 20.717 473

AT3G15970.1 AT3G15970.1 \_DNPGLDDDDEDTSALESGTFNTASK(Ubi)EVLASR\_ EDTSALESGTFNTASKEVLASRRIIRVRRTD 128.22 128.16 47

AT3G16060.1 AT3G16060.1 \_VLAENLAAEK(Ubi)ER\_ QPNRSRVLAENLAAEKERMNAVAKIKVVVRK 48.568 43.846 161

AT3G16080.1 AT3G16080.1, AT1G15250.1 \_(ac)GK(Ubi)GTGSFGK(ac)R\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MGKGTGSFGKRRNKSHTL 105.46 51.704 3

AT3G16080.1 AT3G16080.1, AT1G15250.1 \_(ac)GK(ac)GTGSFGK(Ubi)R\_ \_\_\_\_\_\_MGKGTGSFGKRRNKSHTLCVRCGRR 35.496 29.348 10

AT3G16310.1 AT3G16310.1 \_SDFSPESGIADYSASPDAK(Ubi)SDRR\_ SPESGIADYSASPDAKSDRRTPFQSSGKNIV 63.869 63.622 84

AT3G16620.1 AT3G16620.1 \_LYGDEK(Ubi)K(ac)LAEDGR\_ MGDGAEIVTRLYGDEKKLAEDGRISELVGSD 100.11 96.794 16

AT3G16760.1 AT3G16760.1, AT3G16760.2 \_(ac)M(ox)NSNFGK(Ubi)R\_ \_\_\_\_\_\_\_\_\_MNSNFGKRSSGSTNSFDFDLGL 103.74 98.833 7

AT3G16760.1 AT3G16760.1, AT3G16760.2 \_M(ox)VLK(Ubi)IDPGNR\_ MEKYKLGAEDLRMVLKIDPGNRIARSTVHRL 71.03 51.389 455

AT3G16780.1 AT3G16780.1 \_EK(Ubi)TLADQFEAK(Ubi)R\_ LMESIHKMKAEKAREKTLADQFEAKRIKNKA 123.95 114.15 153

AT3G16810.1 AT3G16810.1 \_VQAK(Ubi)ELTEAR\_ EQSTNLSKKERRVQAKELTEARKKKRKPHYN 72.2 35.02 71

AT3G16840.1 AT3G16840.1 \_DIASLK(ac)K(Ubi)K(Ubi)R\_ KGQSAEKRRDIASLKKKRKEEKIGRRDQRRN 40.994 31.482 800

AT3G16940.1 AT3G16940.1 \_EK(ac)ALK(Ubi)AAR\_ EAAARIQGAFREKALKAARSSVIQFANKEEE 59.35 27.589 670

AT3G16950.1 AT3G16950.1, AT3G16950.2 \_QGVADHANNLATK(Ubi)IR\_ YDRQGVADHANNLATKIRNNLTNSMKAIGVD 44.252 41.172 178

AT3G17160.1 AT3G17160.1 \_VAK(Ubi)DHSEQGDVTGDNIR\_ SAGKSEPLSKRKRVAKDHSEQGDVTGDNIRP 193.19 175.63 147

AT3G17160.1 AT3G17160.1 \_VAK(ac)DHSEQGDVTGDNIRPSK(Ubi)R\_ HSEQGDVTGDNIRPSKR\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 115.42 113.72 164

AT3G17240.3 AT3G17240.3, AT3G17240.1 \_TPFTSGLDLEK(Ubi)IGVETDK(ac)GGR\_ VSAGRTPFTSGLDLEKIGVETDKGGRILVNE 102.98 99.533 325

AT3G17240.3 AT3G17240.3, AT3G17240.1 \_TPFTSGLDLEK(ac)IGVETDK(Ubi)GGR\_ FTSGLDLEKIGVETDKGGRILVNERFSTNVS 89.011 84.011 332

AT3G17390.1 AT3G17390.1 \_QAAK(Ubi)SIVASGLAR\_ TKVDRSGAYIVRQAAKSIVASGLARRVIVQV 66.004 57.872 291

AT3G17440.2 AT3G17440.2, AT3G17440.1 \_LDK(Ubi)IK(ac)DSTR\_ RDHFRALANGFQRLDKIKDSTRQSKQLEELT 56.404 35.032 34

AT3G17450.1 AT3G17450.1 \_SAGK(ac)LLEEK(Ubi)R\_ QNTAIFRSAGKLLEEKRKNLYWTPCAIHCTE 48.188 31.838 456

AT3G17465.1 AT3G17465.1 \_DAPGK(ac)VFK(Ubi)GR\_ SGGSTGQRDAPGKVFKGRKMAGRMGADQRTV 41.399 36.505 232

AT3G17465.1 AT3G17465.1 \_IIEAK(Ubi)QGEM(ox)SSR\_ GGSDIIGAQTRIIEAKQGEMSSRSKRTGIIA 76.073 73.511 66

AT3G17609.3 AT3G17609.3, AT3G17609.4, AT3G17609.1, AT3G17609.2 \_K(ac)K(Ubi)VYVSDLESR\_ RLLRNRVSAQQARERKKVYVSDLESRANELQ 66.538 59.095 70

AT3G18035.1 AT3G18035.1 \_LIM(ox)K(ac)PK(Ubi)R\_ PPKIGGVISRLIMKPKRGRGRPVGRPRKIGT 40.103 16.131 352

AT3G18035.1 AT3G18035.1 \_SEILHSSNNDPM(ox)ASGSASQPLK(Ubi)R\_ SNNDPMASGSASQPLKRGRGRPPKPKPESQP 86.357 85.961 178

AT3G18035.1 AT3G18035.1 \_VVDPSSIVSVAPVGGENVAAVAPGM(ox)K(Ubi)R\_ APVGGENVAAVAPGMKRGRGRPPKIGGVISR 66.52 66.231 331

AT3G18130.1 AT3G18130.1 \_(ac)AEGLVLK(Ubi)GIM(ox)R\_ \_\_\_\_\_\_\_\_MAEGLVLKGIMRAHTDIVTAIAT 47.302 39.17 8

AT3G18165.1 AT3G18165.1 \_LAQEQNEEIEK(Ubi)VNR\_ TRMQRLAQEQNEEIEKVNRERKYHQQTTSYE 68.044 65.385 182

AT3G18190.1 AT3G18190.1 \_(ac)AAVAAPM(ox)ASK(Ubi)PR\_ \_\_\_\_\_MAAVAAPMASKPRGSKAESFVDNKRR 43.897 42.229 11

AT3G18190.1 AT3G18190.1 \_GSK(Ubi)AESFVDNK(ac)R\_ MAAVAAPMASKPRGSKAESFVDNKRREDIRF 72.891 69.695 16

AT3G18190.1 AT3G18190.1 \_GSK(ac)AESFVDNK(Ubi)R\_ ASKPRGSKAESFVDNKRREDIRFANINSARA 100.22 96.361 24

AT3G18230.1 AT3G18230.1 \_AVATDTGGIPEPLAAVPGAK(Ubi)LR\_ DTGGIPEPLAAVPGAKLRLMCSFGGHIMPRP 84.581 84.25 63

AT3G18230.1 AT3G18230.1 \_PHDK(Ubi)SLTYSGGETR\_ LMCSFGGHIMPRPHDKSLTYSGGETRIVVVD 41.838 41.306 81

AT3G18240.2 AT3G18240.2, AT3G18240.1 \_NTDLDDPPGK(Ubi)GPILR\_ TDASDRNTDLDDPPGKGPILRWQSRIVFAPG 150.22 116.94 287

AT3G18240.2 AT3G18240.2, AT3G18240.1 \_TSYVK(Ubi)QR\_ GKANKIAEDIRTSYVKQRLRANPAFMQKLQA 97.068 68.961 391

AT3G18240.2 AT3G18240.2, AT3G18240.1 \_YHSGK(Ubi)DELTITSER\_ AKRLRELVGKRYHSGKDELTITSERFEHREE 113.4 110.74 344

AT3G18480.1 AT3G18480.1 \_K(Ubi)LSEVESENR\_ PDPFPALASIAEQDRKLSEVESENRKMKVEL 62.166 25.719 136

AT3G18480.1 AT3G18480.1 \_YVQDYNHDK(Ubi)VVSR\_ KLYGKIRYVQDYNHDKVVSRGSKKYVEDLES 36.32 19.971 570

AT3G18640.1 AT3G18640.1 \_K(Ubi)QPQDNNNNFYR\_ RNGKYCRFSHHVADRKQPQDNNNNFYRQDNN 40.767 39.979 246

AT3G18640.1 AT3G18640.1 \_SEFTGEK(Ubi)ETQR\_ DNSRIRRRRSEFTGEKETQRRDGGDGEGGFH 73.435 53.776 198

AT3G18740.1 AT3G18740.1 \_(ac)VAEK(Ubi)K(ac)AK(ac)K(ac)SHEGINSR\_ \_\_\_\_\_\_\_\_\_\_\_MVAEKKAKKSHEGINSRLAL 69.081 65.546 5

AT3G18740.1 AT3G18740.1 \_(ac)VAEK(ac)K(ac)AK(ac)K(Ubi)SHEGINSR\_ \_\_\_\_\_\_\_MVAEKKAKKSHEGINSRLALVMKS 56.121 55.547 9

AT3G18790.1 AT3G18790.1 \_DDEDGILEK(Ubi)LER\_ ASYYGYRDDEDGILEKLERKSEGGMRKRSVE 61.11 57.532 179

AT3G18790.1 AT3G18790.1 \_DLNDEINK(Ubi)LLR\_ GLGEHRLRDLNDEINKLLRERYHWERRIVEL 117.09 109.73 80

AT3G18790.1 AT3G18790.1 \_ELFEK(Ubi)PPELR\_ FGAAKKLPGVRELFEKPPELRKRKTRYDIYK 56.548 45.893 145

AT3G18790.1 AT3G18790.1 \_NEEK(Ubi)AQSMLNR\_ \_\_\_\_\_\_\_\_\_MARNEEKAQSMLNRFITQKESE 84.479 84.479 7

AT3G19150.2 AT3G19150.2, AT3G19150.1 \_K(Ubi)ETSPVSEGLGETTTEM(ox)ESSSATK(ac)R\_ ETETETSTFITSNFRKETSPVSEGLGETTTE 51.966 51.817 118

AT3G19510.1 AT3G19510.1 \_SSGSGLK(Ubi)QTNVDNGGEISPTVDR\_ KAVSKRVTRSSGSGLKQTNVDNGGEISPTVD 38.669 33.792 18

AT3G19650.1 AT3G19650.1 \_EK(Ubi)K(ac)IAEETGNNTDR\_ DTQGALSRKRPAFREKKIAEETGNNTDRTRT 58.079 57.09 179

AT3G19650.1 AT3G19650.1 \_EK(ac)K(Ubi)IAEETGNNTDR\_ TQGALSRKRPAFREKKIAEETGNNTDRTRTE 40.941 40.117 180

AT3G19650.1 AT3G19650.1 \_TEDGK(Ubi)DTNLNNR\_ EETGNNTDRTRTEDGKDTNLNNRRQNERNWR 72.29 71.302 198

AT3G19650.1 AT3G19650.1 \_VLSK(Ubi)K(Ubi)DLDVR\_ RSRRDGKPEAERVLSKKDLDVRDGTDTEKNS 77.062 68.93 42

AT3G19760.1 AT3G19760.1 \_GVYEYGFEK(Ubi)PSAIQQR\_ IKEDVLRGVYEYGFEKPSAIQQRAVMPILQG 51.03 49.412 57

AT3G19840.1 AT3G19840.1 \_HENYQEEK(Ubi)QR\_ EDISRKQRHENYQEEKQRDYKT\_\_\_\_\_\_\_\_\_ 74.841 71.523 829

AT3G19840.1 AT3G19840.1 \_K(Ubi)TEELSGIDDR\_ VHALPGRQPDISPGRKTEELSGIDDRAGSQL 53.448 49.274 226

AT3G19910.1 AT3G19910.1 \_GLSADTIASLPSK(Ubi)R\_ ESRGLSADTIASLPSKRYKEGDNQNGTNESC 103.83 71.953 273

AT3G20250.1 AT3G20250.1 \_LDSGDQTGK(Ubi)FPSR\_ FLMKRNRLDSGDQTGKFPSRSESAPPSMEGS 31.215 27.637 55

AT3G20550.1 AT3G20550.1 \_GEK(Ubi)EIGR\_ SPSPRTKRLRRARGEKEIGRSREREDDGRER 80.229 25.453 22

AT3G20670.1 AT3G20670.1 \_GK(ac)TLGSGVAK(ac)K(Ubi)STSR\_ \_MAGRGKTLGSGVAKKSTSRSSKAGLQFPVG 58.98 57.833 15

AT3G20780.1 AT3G20780.1 \_VDTQLYDDYETEK(Ubi)AR\_ RERVDTQLYDDYETEKARGKRLAKEARASEI 36.029 29.413 110

AT3G21400.1 AT3G21400.1 \_AVGK(Ubi)IK(ac)EVER\_ \_\_\_\_\_MGQQLRRAVGKIKEVERSSPSRVSID 68.355 30.361 11

AT3G21810.1 AT3G21810.1 \_DYAGGLK(Ubi)VGNR\_ ENRRFDERRDYAGGLKVGNRIEDRAEDGRNK 82.417 74.806 125

AT3G22190.2 AT3G22190.2, AT3G22190.1 \_SHSNPK(Ubi)ER\_ VNSRPGAGPRSHSNPKERSREPNRSSKERLS 135.83 126.87 357

AT3G22230.1 AT3G22230.1, AT2G32220.1, AT4G15000.1 \_FK(ac)TGK(Ubi)NR\_ LKEAKAKLEERFKTGKNRWFFTKLRF\_\_\_\_\_ 89.296 40.199 125

AT3G22310.1 AT3G22310.1 \_IIDLM(ox)K(Ubi)R\_ IDVAVGTPGRIIDLMKRGALNLSEVQFVVLD 68.915 28.812 254

AT3G22310.1 AT3G22310.1 \_SSFGGFGSNDGK(Ubi)R\_ SGGRSSFGGFGSNDGKRSY\_\_\_\_\_\_\_\_\_\_\_\_;SSGRSSFGGFGSNDGKRSY\_\_\_\_\_\_\_\_\_\_\_\_ 110.8 107.76 613

AT3G22330.1 AT3G22330.1 \_AVK(Ubi)IIER\_ GSAILIYSQDQSRAVKIIEREVGSRFTELPS 86.794 12.379 461

AT3G22330.1 AT3G22330.1 \_VIDLM(ox)K(Ubi)R\_ VDVAVGTPGRVIDLMKRGALNLSEVQFVVLD 60.76 43.52 242

AT3G22360.1 AT3G22360.1, AT3G22370.1, AT3G27620.1 \_ELK(Ubi)EAPAPIGYH\_ VNHYASDIHYQGRELKEAPAPIGYH\_\_\_\_\_\_ 58.699 57.327 316

AT3G22380.1 AT3G22380.1, AT3G22380.2 \_HVK(Ubi)YEDDNSSR\_ NVSAIAPKRKKPRHVKYEDDNSSRVTTIKSE 145.28 144.09 389

AT3G22480.2 AT3G22480.2, AT3G22480.1 \_(ac)ASK(Ubi)SGSGGLR\_ \_\_\_\_\_\_\_\_\_\_\_\_MASKSGSGGLREPPNEQAV 55.718 47.231 4

AT3G22480.2 AT3G22480.2, AT3G22480.1 \_EPPNEQAVLNM(ox)YEGK(Ubi)R\_ REPPNEQAVLNMYEGKRSELSQIYSNITDLE 43.592 42.184 26

AT3G22480.2 AT3G22480.2, AT3G22480.1 \_ITK(ac)QEDNK(Ubi)EGGNK(ac)K(ac)EGNAQGVLVGAASSSQ\_ FEAKYKIRITKQEDNKEGGNKKEGNAQGVLV 89.659 89.289 126

AT3G22480.2 AT3G22480.2, AT3G22480.1 \_NK(Ubi)DGLEEVVR\_ VERTIKEVLPAVQRNKDGLEEVVRKLYETLE 122.69 103.56 87

AT3G22480.2 AT3G22480.2, AT3G22480.1 \_TIK(Ubi)EVLPAVQR\_ KCFRMIGGVLVERTIKEVLPAVQRNKDGLEE 48.981 44.64 77

AT3G22520.1 AT3G22520.1 \_K(Ubi)DPNLTAEEIVR\_ SKDAAEIAALATKLRKDPNLTAEEIVRLKLM 53.448 52.008 438

AT3G22520.1 AT3G22520.1 \_YIGTK(ac)EK(Ubi)ER\_ QARRSELKRYIGTKEKERVDLSYGQKMVANS 66.056 55.13 541

AT3G22660.1 AT3G22660.1 \_DSK(Ubi)FGHGGR\_ PTSRMGNKKREFRDSKFGHGGRKGLSKQNTA 79.148 68.96 255

AT3G22660.1 AT3G22660.1 \_EAFGK(Ubi)LNEM(ox)GVNFLR\_ AFYTQALEGTREAFGKLNEMGVNFLRPANYY 39.163 36.861 111

AT3G22660.1 AT3G22660.1 \_GGK(Ubi)ASGNK(Ubi)R\_ TAETTNDFKGGFRGGKASGNKRQKR\_\_\_\_\_\_ 78.939 43.321 284

AT3G22660.1 AT3G22660.1 \_K(ac)GLSK(Ubi)QNTAETTNDFK(ac)GGFR\_ FRDSKFGHGGRKGLSKQNTAETTNDFKGGFR 79.467 74.827 266

AT3G22660.1 AT3G22660.1 \_LLHEK(Ubi)K(ac)QIEESEER\_ SDVHMEKVKSRLLHEKKQIEESEERRKARDN 135.47 134.78 147

AT3G22660.1 AT3G22660.1 \_LLHEK(ac)K(Ubi)QIEESEER\_ DVHMEKVKSRLLHEKKQIEESEERRKARDNK 126.1 123.95 148

AT3G22660.1 AT3G22660.1 \_M(ox)AK(Ubi)EVQSQK(ac)M(ox)K(Ubi)ER\_ ESEERRKARDNKRMAKEVQSQKMKERAKEKK 47.774 45.387 167

AT3G22660.1 AT3G22660.1 \_M(ox)AK(ac)EVQSQK(Ubi)M(ox)K(Ubi)ER\_ KARDNKRMAKEVQSQKMKERAKEKKDNIESV 98.943 94.595 173

AT3G22942.1 AT3G22942.1 \_IQAELK(Ubi)R\_ RVVDTRGKHRIQAELKRLEQEARFLEEELEQ 86.512 21.26 30

AT3G23710.1 AT3G23710.1 \_GSGK(Ubi)GLSADAIEER\_ GGARAQVTVPIRGSGKGLSADAIEERLAGVP 111.64 90.584 108

AT3G23805.1 AT3G23805.1 \_K(Ubi)QYISYETLR\_ EMMPSEISRRVMMMRKQYISYETLRRDMVPC 31.597 23.987 66

AT3G23980.1 AT3G23980.1 \_GLVNQLK(Ubi)DDM(ox)ER\_ MTDTYNQQRGLVNQLKDDMERLYQQIQAQMG 36.32 31.225 412

AT3G23980.1 AT3G23980.1 \_K(Ubi)DSLQPTTR\_ QMDGFIHGSGLTSSRKDSLQPTTRMAGSFDE 66.056 35.492 181

AT3G23990.1 AT3G23990.1 \_SAIELSTSDYDK(Ubi)EK(ac)LQER\_ EQIRSAIELSTSDYDKEKLQERLAKLSGGVA 62.203 58.964 392

AT3G23990.1 AT3G23990.1 \_SAIELSTSDYDK(ac)EK(Ubi)LQER\_ IRSAIELSTSDYDKEKLQERLAKLSGGVAVL 71.592 68.791 394

AT3G24010.1 AT3G24010.1 \_DLDK(Ubi)SLQENQR\_ AHVLQKKYALLRDLDKSLQENQRQNEQRCEK 31.478 25.758 30

AT3G24080.2 AT3G24080.2, AT3G24080.1 \_TYAEEQK(Ubi)ETR\_ EEDEERKVRTYAEEQKETRKAVTDAWKAEGN 115.78 101.97 161

AT3G24100.1 AT3G24100.1 \_TGGK(ac)GK(Ubi)NK(Ubi)DDGLTPEQR\_ ERDRERALARTGGKGKNKDDGLTPEQRRERD 147.06 138.22 23

AT3G24500.1 AT3G24500.1, AT3G24500.2 \_DPK(Ubi)AVNAALR\_ VLHKSKQKSQDLRDPKAVNAALRNGVAVQTV 82.417 67.405 32

AT3G24500.1 AT3G24500.1, AT3G24500.2 \_LEK(ac)K(Ubi)M(ox)SQADLAK(ac)QINER\_ KAEVRLMIQKARLEKKMSQADLAKQINERTQ 45.916 44.339 99

AT3G24800.1 AT3G24800.1 \_EEQVLK(Ubi)EEQER\_ KMYPLAHKKREEQVLKEEQERECFSPQIDLV 66.267 33.937 100

AT3G24870.2 AT3G24870.2, AT3G24870.1, AT3G24880.1 \_SPQSGTSGVNNQAGK(Ubi)QR\_ RSPQSGTSGVNNQAGKQRQRQLQQSARQHPH 84.508 82.363 1560

AT3G24870.2 AT3G24870.2, AT3G24870.1, AT3G24880.1 \_TAIEK(Ubi)AQAELR\_ GGIGVKTSPRRTAIEKAQAELRTYDDKPLLF 90.05 71.426 41

AT3G25070.1 AT3G25070.1 \_TK(Ubi)PEQVDTVR\_ DSQSQAPPHPPSSRTKPEQVDTVRRSREHMR 46.844 35.261 63

AT3G25150.1 AT3G25150.1, AT3G25150.2 \_ATK(Ubi)PVDDAPR\_ GRVRRGGGNDANRATKPVDDAPRVSVAA\_\_\_ 82.417 76.114 476

AT3G25220.1 AT3G25220.1, AT5G48580.1 \_GK(Ubi)LTDGTVFDSSFER\_ LQAHKGDKIKVHYRGKLTDGTVFDSSFERGD 162.29 160.67 62

AT3G25230.1 AT3G25230.1, AT3G25230.2 \_EVK(Ubi)LEQK(ac)R\_ DVKKALEIDPNNREVKLEQKRLKEKMKEFNK 77.732 35.396 520

AT3G25230.1 AT3G25230.1, AT3G25230.2 \_EVK(ac)LEQK(Ubi)R\_ ALEIDPNNREVKLEQKRLKEKMKEFNKKEAK 146.81 73.55 524

AT3G25430.1 AT3G25430.1 \_ELK(Ubi)DLEKEENR\_ FMSSKEDKDLFKRELKDLEKEENRRVRGFRE 34.773 18.423 297

AT3G25440.2 AT3G25440.2, AT3G25440.1 \_DYTNVK(Ubi)VDDNQER\_ LLQAQAETKRDYTNVKVDDNQERSEELKKII 44.511 43.523 261

AT5G39740.2 AT5G39740.2, AT5G39740.1, AT3G25520.1, AT3G25520.2 \_K(Ubi)NK(ac)LIER\_ EHKRYNLKKLTYEERKNKLIERVKALNGAGG;QHKRYNLKKLTYEERKNKLIERVKALNGAGG 101.54 42.561 277

AT5G39740.2 AT5G39740.2, AT5G39740.1, AT3G25520.1, AT3G25520.2 \_K(ac)NK(Ubi)LIER\_ KRYNLKKLTYEERKNKLIERVKALNGAGGDD 131.03 48.606 279

AT5G39740.2 AT5G39740.2, AT5G39740.1, AT3G25520.1, AT3G25520.2 \_LINQDK(ac)NK(ac)YNTPK(Ubi)YR\_ GKTDYRARIRLINQDKNKYNTPKYRFVVRFT 38.995 37.26 41

AT5G39740.2 AT5G39740.2, AT5G39740.1, AT3G25520.1, AT3G25520.2 \_YNLK(Ubi)K(ac)LTYEER\_ KTEKSAPKEHKRYNLKKLTYEERKNKLIERV;KTVKPAPKQHKRYNLKKLTYEERKNKLIERV 107.97 100.91 269

AT5G39740.2 AT5G39740.2, AT5G39740.1, AT3G25520.1, AT3G25520.2 \_YNLK(ac)K(Ubi)LTYEER\_ TEKSAPKEHKRYNLKKLTYEERKNKLIERVK;TVKPAPKQHKRYNLKKLTYEERKNKLIERVK 108.56 94.48 270

AT3G25920.1 AT3G25920.1 \_ADEYFAK(Ubi)K(Ubi)R\_ PSVAKNQARADEYFAKKRAAAAEAATSEPAA 85.744 80.646 260

AT3G26125.1 AT3G26125.1 \_SLEEK(ac)K(Ubi)QDS\_ KHGLKVRITPRSLEEKKQDS\_\_\_\_\_\_\_\_\_\_\_ 40.724 40.724 537

AT3G26400.1 AT3G26400.1 \_ADDVDNWGAGK(Ubi)R\_ GGLSRADDVDNWGAGKRQAPVRSSTFGSSFG 75.819 74.066 230

AT3G26400.1 AT3G26400.1 \_EAAAATATSGK(Ubi)SR\_ FPSLREAAAATATSGKSRKMKKMSLSEFTTG 218.02 212.15 53

AT3G26400.1 AT3G26400.1 \_GK(Ubi)EK(Ubi)DLEILTR\_ GSNNNHNDLPEIIRGKEKDLEILTRELDDKV 98.407 94.829 435

AT3G26400.1 AT3G26400.1 \_K(Ubi)M(ox)DLELEHR\_ KPREVLLEEQGKDWRKMDLELEHRRVDRPET 68.657 54.422 371

AT3G26400.1 AT3G26400.1 \_K(Ubi)VESGGSETPPVVEK(ac)TSK(ac)PNPFGAAR\_ DSGQEERRRLVLEPRKVESGGSETPPVVEKT 68.074 67.389 261

AT3G26400.1 AT3G26400.1 \_K(ac)VESGGSETPPVVEK(Ubi)TSK(ac)PNPFGAAR\_ RKVESGGSETPPVVEKTSKPNPFGAARPRED 72.302 71.641 275

AT3G26400.1 AT3G26400.1 \_SESSGLNNVVK(Ubi)PR\_ AQSNRSESSGLNNVVKPRPKVNPFGDAKPRE 162.93 162.44 344

AT3G26420.1 AT3G26420.1 \_TITVDK(Ubi)AQPHQGGAGR\_ AMNGMDLDGRTITVDKAQPHQGGAGRDNDGD 82.651 79.866 82

AT3G26420.1 AT3G26420.1 \_YGAK(Ubi)DDR\_ SKDDRYSSKDDRYGAKDDRYGAKEDRYGAKD 110.81 87.788 162

AT3G26420.1 AT3G26420.1 \_YGAK(Ubi)EDR\_ SKDDRYGAKDDRYGAKEDRYGAKDDRYSSKD 144.38 112.44 169

AT3G26580.1 AT3G26580.1 \_AK(ac)EFHDTK(Ubi)ELER\_ VEKERKRRAKEFHDTKELERKAEELQYKIDE 41.621 27.875 128

AT3G26580.1 AT3G26580.1 \_ELQK(Ubi)VAQEQAER\_ DSEEKKRMRVKRELQKVAQEQAERRKTAELM 52.071 38.482 162

AT3G26850.2 AT3G26850.2, AT3G26850.1 \_VVDK(Ubi)VSNSM(ox)EGR\_ MSKEAFKTIVKRVVDKVSNSMEGRRIPKSRA 80.69 77.494 223

AT3G26990.1 AT3G26990.1 \_EALQEQELK(Ubi)LEQVR\_ SLISHLREALQEQELKLEQVRNHLQIARFQS 35.037 30.42 254

AT3G27160.1 AT3G27160.1 \_TGVIQECK(Ubi)R\_ RFRREVMRTGVIQECKRRRYFENKQDEKKRR 86.18 76.858 118

AT3G27160.1 AT3G27160.1 \_YFENK(Ubi)QDEK(ac)K(ac)R\_ TGVIQECKRRRYFENKQDEKKRRTRDAAKRN 100.93 99.943 126

AT3G27160.1 AT3G27160.1 \_YFENK(ac)QDEK(Ubi)K(ac)R\_ QECKRRRYFENKQDEKKRRTRDAAKRNKKRR 140.24 139.26 130

AT3G27160.1 AT3G27160.1 \_YFENK(ac)QDEK(ac)K(Ubi)R\_ ECKRRRYFENKQDEKKRRTRDAAKRNKKRRP 72.29 71.302 131

AT3G27280.2 AT3G27280.2, AT3G27280.1 \_AVEAK(Ubi)QVAQQEAER\_ THLSYGAEFSRAVEAKQVAQQEAERSKFVVM 81.632 14.496 191

AT3G27300.3 AT3G27300.3, AT3G27300.2, AT3G27300.1 \_SK(Ubi)ITDEELR\_ FLNPDEVHIFGYARSKITDEELRDKIRGYLV 67.113 42.275 75

AT3G27310.1 AT3G27310.1 \_LLATK(Ubi)K(ac)EDK(ac)SLK(ac)TR\_ FYEFTPADFYRLLATKKEDKSLKTRKIREAE 75.911 64.796 83

AT3G27310.1 AT3G27310.1 \_LLATK(ac)K(ac)EDK(ac)SLK(Ubi)TR\_ TPADFYRLLATKKEDKSLKTRKIREAEEAAR 77.746 65.545 87

AT3G27310.1 AT3G27310.1 \_(ac)MFVDDPSLHTLK(Ubi)R\_ \_\_\_\_MFVDDPSLHTLKRRRLEITDSMEASSS 134.56 133.93 12

AT3G27310.1 AT3G27310.1 \_SK(ac)LTK(Ubi)AVIR\_ KIREAEEAARRSKLTKAVIRVRFPDNHTLEA 108.43 45.356 108

AT3G27340.2 AT3G27340.2, AT3G27340.3, AT3G27340.1 \_SIGGEK(Ubi)VISGR\_ HSPAADGKVRSIGGEKVISGRRYVGIMSAEP 65.842 55.47 69

AT3G27380.2 AT3G27380.2, AT3G27380.1, AT5G40650.1 \_LEAIDDEFK(Ubi)LYR\_ DEYTKERLEAIDDEFKLYRCHTILNCARACP 117.79 95.737 247

AT3G27460.2 AT3G27460.2, AT3G27460.1 \_ETK(Ubi)EVEVLDEEPGDDEEGGGQR\_ DEWFVVKVIHFDRETKEVEVLDEEPGDDEEG 45.363 45.018 161

AT3G27460.2 AT3G27460.2, AT3G27460.1 \_K(Ubi)SDEYLLEFDDDEEDGALPQR\_ TALYKATVISTPRKRKSDEYLLEFDDDEEDG;TALYKATVVSTPRKRKSDEYLLEFDDDEEDG 45.885 45.594 233

AT3G27460.2 AT3G27460.2, AT3G27460.1 \_M(ox)K(Ubi)VDTDVTR\_ QQRRKLGNEQKRKRMKVDTDVTRVSPSMRNQ 47.894 39.669 107

AT3G27530.1 AT3G27530.1 \_DILASK(Ubi)VLGEDR\_ DLIDGHPKNRDILASKVLGEDRQVEPALNSI 67.997 53.988 362

AT3G27550.1 AT3G27550.1 \_TVSASSSK(Ubi)QSR\_ DDDEDENRTVSASSSKQSRFRNNSSRDGINN 96.604 73.963 460

AT3G27700.2 AT3G27700.2, AT3G27700.1 \_K(ac)PTQK(Ubi)AM(ox)R\_ NISNDMMNNTRKPTQKAMRTLFVNYVPHESN 56.916 50.02 435

AT3G27740.1 AT3G27740.1, AT3G27740.2 \_EFIELM(ox)K(Ubi)R\_ PHDSDNAFREFIELMKRSKQSS\_\_\_\_\_\_\_\_\_ 57.047 52.352 424

AT3G27850.1 AT3G27850.1, AT3G27830.1 \_IAVIK(Ubi)AVR\_ VVINEVPSSSRIAVIKAVRALTSLALKEAKE 89.55 51.991 137

AT3G28730.1 AT3G28730.1 \_K(ac)TVAADEGSSK(Ubi)R\_ LPPKRKTVAADEGSSKRKKPKKKKDPNAPKR 78.324 60.658 549

AT3G29075.1 AT3G29075.1 \_K(Ubi)TESEHGSGYGGR\_ PNSGYGGRTEVEYGRKTESEHGSGYGGRIES 106.32 98.944 113

AT3G42860.1 AT3G42860.1 \_VLTAK(Ubi)TGENVGR\_ HQCPCGAGLCRVLTAKTGENVGRQFYRCPVF 125.97 116.78 178

AT3G43190.1 AT3G43190.1, AT5G20830.2, AT5G20830.1 \_TEK(Ubi)GIVR\_ DSEYCDILRVPFRTEKGIVRKWISRFEVWPY;GSQYCDILRVPFRTEKGIVRKWISRFEVWPY 100.19 67.718 373

AT3G43300.2 AT3G43300.2, AT3G43300.1 \_AQK(Ubi)DVDDVNLQR\_ ADGSEGRPSSSGRAQKDVDDVNLQRSQTFGQ 62.338 61.149 1460

AT4G33865.1 AT4G33865.1, AT3G44010.1, AT3G43980.1 \_SNAK(Ubi)EIGFIK(ac)YR\_ KYGLNCCRQCFRSNAKEIGFIKYR\_\_\_\_\_\_\_ 90.412 87.094 48

AT4G33865.1 AT4G33865.1, AT3G44010.1, AT3G43980.1 \_SNAK(ac)EIGFIK(Ubi)YR\_ CRQCFRSNAKEIGFIKYR\_\_\_\_\_\_\_\_\_\_\_\_\_ 97.463 94.422 54

AT3G44200.1 AT3G44200.1 \_K(Ubi)GATPSESPTTR\_ MGKLINVVRDEMEVRKGATPSESPTTRSIIS 80.312 62.838 807

AT3G44340.2 AT3G44340.2, AT3G44340.1 \_VENK(Ubi)ANPPPPTTVDYITR\_ GSSSSPIVYETRVENKANPPPPTTVDYITRD 33.083 31.464 358

AT3G44620.1 AT3G44620.1, AT3G44620.2 \_PIK(Ubi)ASDFR\_ AKRRGIEITSLSRPIKASDFREFDLILAMDD 89.355 76.318 149

AT3G44690.1 AT3G44690.1 \_DDK(Ubi)ASQSITR\_ NLDFSEPYAVVDRDDKASQSITRCLNKEREA 52.247 36.618 426

AT3G44690.1 AT3G44690.1 \_SSAGK(Ubi)QDEEALR\_ SYGVMHPDVSRSSAGKQDEEALRGRRYLFDD 91.961 83.551 986

AT5G62300.2 AT5G62300.2, AT5G62300.1, AT3G45030.1 \_(ac)ATAYQPM(ox)K(ac)PGK(Ubi)AGLEEPLEQIHK(ac)IR\_ \_\_\_\_MATAYQPMKPGKAGLEEPLEQIHKIRI 88.504 87.927 12

AT5G62300.2 AT5G62300.2, AT5G62300.1, AT3G45030.1 \_(ac)ATAYQPM(ox)K(ac)PGK(ac)AGLEEPLEQIHK(Ubi)IR\_ KPGKAGLEEPLEQIHKIRITLSSKNVKNLEK 61.612 61.091 24

AT5G62300.2 AT5G62300.2, AT5G62300.1, AT3G45030.1 \_M(ox)PTK(Ubi)VLK(ac)ITTR\_ KDKRLRVKGPVRMPTKVLKITTRKAPCGEGT 79.492 78.053 64

AT5G62300.2 AT5G62300.2, AT5G62300.1, AT3G45030.1 \_M(ox)PTK(ac)VLK(Ubi)ITTR\_ RLRVKGPVRMPTKVLKITTRKAPCGEGTNTW 81.565 79.033 67

AT3G45190.1 AT3G45190.1 \_NDSSSAIAPGSTDDVK(Ubi)M(ox)PDVR\_ NDSSSAIAPGSTDDVKMPDVRIPNGSSSSEG 92.098 90.535 691

AT3G45190.1 AT3G45190.1 \_SPPVPSLFGK(Ubi)DVEFVGVEPEGTER\_ GEISPRSPPVPSLFGKDVEFVGVEPEGTERA 37.373 34.943 721

AT3G46000.1 AT3G46000.1 \_DK(ac)M(ox)IYASSK(Ubi)DR\_ PDTAKVRDKMIYASSKDRFKRELDGIQVELQ 45.28 41.962 105

AT3G46010.1 AT3G46010.1, AT5G59890.1, AT3G46010.2 \_(ac)ANAASGMAVHDDCK(Ubi)LR\_ \_MANAASGMAVHDDCKLRFLELKAKRTHRFI 53.3 49.764 15

AT3G46010.1 AT3G46010.1, AT5G59890.1, AT3G46010.2 \_FLELK(ac)AK(Ubi)R\_ AVHDDCKLRFLELKAKRTHRFIVYKIEEKQK 52.716 6.2903 24

AT5G59370.2 AT5G59370.2, AT5G59370.1, AT3G46520.1, AT5G09810.1, AT3G12110.1 \_VAPEEHPVLLTEAPLNPK(Ubi)ANR\_ PEEHPVLLTEAPLNPKANREKMTQIMFETFN 94.845 92.542 115

AT3G46560.1 AT3G46560.1 \_K(ac)SLQK(Ubi)QEETCVM(ox)R\_ CFVDCVDSFTRKSLQKQEETCVMRCAEKFLK 72.891 72.292 58

AT3G46940.1 AT3G46940.1 \_(ac)ACVNEPSPK(Ubi)LQK(ac)LDR\_ \_\_\_\_\_\_MACVNEPSPKLQKLDRNGIHGDSSP 55.755 55.065 10

AT3G46940.1 AT3G46940.1 \_GK(Ubi)ALIPTDLSIAVPEGTYAR\_ YDLSSAVDSKVPARGKALIPTDLSIAVPEGT 51.876 50.516 66

AT3G47120.1 AT3G47120.1 \_DAYDM(ox)K(Ubi)EQK(ac)R\_ DREDMGPRSRDAYDMKEQKRSGRYDNAYSRR 46.352 45.162 289

AT3G47120.1 AT3G47120.1 \_DAYDM(ox)K(ac)EQK(Ubi)R\_ DMGPRSRDAYDMKEQKRSGRYDNAYSRRHND 39.625 38.185 292

AT3G47120.1 AT3G47120.1 \_GDGDASYGRPK(Ubi)ER\_ SYRGRGDGDASYGRPKERERVDREDMGPRSR 101.53 99.681 268

AT3G47370.3 AT3G47370.3, AT3G47370.2, AT3G47370.1 \_(ac)AYEPM(ox)K(ac)PTK(ac)AGLEAPLEQIHK(Ubi)IR\_ KPTKAGLEAPLEQIHKIRITLSSKNVKNLEK 52.359 50.592 22

AT3G47590.1 AT3G47590.1 \_VTEK(Ubi)SLM(ox)DR\_ FIDVGDGKSGYRVTEKSLMDRLSTDIHEACL 88.495 45.897 225

AT3G47610.1 AT3G47610.1 \_ILGPPETK(Ubi)NVNR\_ SELESGNRILGPPETKNVNRIKPNPTARLVP 86.911 84.379 316

AT3G47610.1 AT3G47610.1 \_K(Ubi)PETGLNFDR\_ AVGQWLEEALVDLCRKPETGLNFDRDVISGL 62.466 55.493 19

AT3G47610.1 AT3G47610.1 \_K(Ubi)VLLNEDDISELESGNR\_ VKKSKVVMTFDLIGRKVLLNEDDISELESGN 32.858 32.28 292

AT3G47930.2 AT3G47930.2, AT3G47930.1 \_EK(Ubi)DPELFHLAR\_ KLVTPAKGTIELSREKDPELFHLARCGLGGL 32.329 30.89 261

AT3G48050.2 AT3G48050.2, AT3G48050.1 \_DK(Ubi)SSNSDTEDLQR\_ LESEIKNESKTGDRDKSSNSDTEDLQRLVDQ 59.227 57.376 865

AT3G48050.2 AT3G48050.2, AT3G48050.1 \_K(Ubi)SNNVFQGSSSSASPR\_ GSTLKKCSGGSSRHRKSNNVFQGSSSSASPR 110.56 110.56 564

AT3G48050.2 AT3G48050.2, AT3G48050.1 \_LDSSFQQVK(Ubi)LPSTGGR\_ TMNSSHRLDSSFQQVKLPSTGGRRDFDLNDG 50.178 49.354 1338

AT3G48050.2 AT3G48050.2, AT3G48050.1 \_M(ox)DHGSESVK(Ubi)R\_ KGRKRERMDHGSESVKRERSSRVDDSGSGPL 62.463 57.15 239

AT3G48050.2 AT3G48050.2, AT3G48050.1 \_QLSSSASLPLK(Ubi)EDQAR\_ TLVARQLSSSASLPLKEDQARMYQMSGGVLK 58.98 56.32 1581

AT3G48050.2 AT3G48050.2, AT3G48050.1 \_SAPSPGSGGNVSK(Ubi)DGQQR\_ STRSAPSPGSGGNVSKDGQQRNAGAGGVSEV 40.798 39.549 490

AT3G48050.2 AT3G48050.2, AT3G48050.1 \_SHK(ac)NSEIGK(ac)K(Ubi)AR\_ SVNHLRSHKNSEIGKKARSLVDTWKKRVEAE 45.28 42.893 397

AT3G48060.1 AT3G48060.1 \_QLSSSASVPSK(Ubi)EDQAR\_ TLVSRQLSSSASVPSKEDQARMYQMSGGVLK 50.874 44.121 1581

AT3G48060.1 AT3G48060.1 \_VK(Ubi)SSNSDTEDLQR\_ LESEIKNESKTGDRVKSSNSDTEDLQRFVDQ 46.318 43.106 865

AT3G48070.1 AT3G48070.1, AT3G48070.2 \_IGSEK(Ubi)PDQR\_ GDKEEMESNRRIGSEKPDQRDLPRPVENLDE 169.41 71.358 69

AT3G48120.1 AT3G48120.1 \_DK(Ubi)LK(ac)K(ac)K(ac)PEDPR\_ KSTDNKDSEIRSIRDKLKKKPEDPRVPERSY 57.434 54.676 76

AT3G48120.1 AT3G48120.1 \_FSAIEAK(Ubi)R\_ VKRMGQSYRFSAIEAKREEQLKAAHDEAMFG 139.88 114.98 258

AT3G48170.1 AT3G48170.1 \_AIAAK(Ubi)VIER\_ ATGAVRAKYLRAIAAKVIERKSELANLEAID 71.451 32.146 84

AT3G48420.1 AT3G48420.1 \_ISFNDTFK(Ubi)ER\_ DTEKDGHRISFNDTFKERDLNVTWDVDLYGE 69.721 51.584 104

AT3G48440.1 AT3G48440.1 \_(ac)VNSEEIADGFEPK(Ubi)PVSR\_ \_\_MVNSEEIADGFEPKPVSRSYSGDSSHDRS 37.85 35.705 14

AT3G48560.1 AT3G48560.1 \_VTK(ac)K(Ubi)ADLR\_ LLFAAACGIPAARVTKKADLREAIQTMLDTP 81.972 39.781 617

AT3G48670.2 AT3G48670.2, AT3G48670.1 \_K(Ubi)QELLVQNLR\_ GDLKTIAELTEEEARKQELLVQNLRQLVEEK 83.862 76.958 263

AT3G48710.1 AT3G48710.1 \_DILLADSEK(Ubi)ETK(ac)K(ac)R\_ VCPKATRDILLADSEKETKKRKKSTSKNVTS 136.33 131.85 212

AT3G48710.1 AT3G48710.1 \_DILLADSEK(ac)ETK(Ubi)K(ac)R\_ KATRDILLADSEKETKKRKKSTSKNVTSGES 121.99 119.6 215

AT3G48710.1 AT3G48710.1 \_DILLADSEK(ac)ETK(Ubi)K(Ubi)R\_ ATRDILLADSEKETKKRKKSTSKNVTSGESS 36.292 27.727 216

AT3G48710.1 AT3G48710.1 \_K(ac)K(Ubi)STSK(ac)NVTSGESSHVPAK(ac)R\_ DILLADSEKETKKRKKSTSKNVTSGESSHVP 79.489 78.344 219

AT3G48710.1 AT3G48710.1 \_SSGNK(Ubi)PLSITQGR\_ TGRYVIDTPPRSSGNKPLSITQGRGTRLKEI 64.104 62.664 83

AT3G48800.1 AT3G48800.1 \_VGSSAAAK(Ubi)R\_ GSWRVKKRVGSSAAAKRVRSNWVSKVGDGDE 74.92 66.147 138

AT3G48860.1 AT3G48860.1, AT3G48860.2 \_K(ac)QLGGIGGFSTVK(Ubi)R\_ AHRKQLGGIGGFSTVKRTQNVAAKAAAQRLA 47.774 46.785 47

AT3G48860.1 AT3G48860.1, AT3G48860.2 \_LQEAESEAK(Ubi)SLR\_ ATTAAERLQEAESEAKSLRTMTQRMILTQDE 39.006 28.361 327

AT3G48860.1 AT3G48860.1, AT3G48860.2 \_TQNVAAK(Ubi)AAAQR\_ IGGFSTVKRTQNVAAKAAAQRLAKVMALQNK 55.261 51.407 55

AT3G48870.2 AT3G48870.2, AT3G48870.1 \_IGFDLDHDEK(Ubi)DSSYNR\_ EKGGRRIGFDLDHDEKDSSYNRIKSLVTEEL 47.548 42.336 771

AT3G48870.2 AT3G48870.2, AT3G48870.1 \_K(ac)HIEK(Ubi)DPALER\_ CIGATTIDEYRKHIEKDPALERRFQPVKVPE;CIGATTLDEYRKHIEKDPALERRFQPVKVPE 43.68 40.362 410

AT3G48870.2 AT3G48870.2, AT3G48870.1 \_VIGQDEAVK(Ubi)AISR\_ EQTLHTRVIGQDEAVKAISRAIRRARVGLKN 71.879 65.192 608

AT5G23740.1 AT5G23740.1, AT3G48930.1, AT4G30800.1 \_PLSK(Ubi)TVR\_ KEGDHVIIGQCRPLSKTVRFNVLKVIPAGAS;KEGDRVTIGQCRPLSKTVRFNVLKVIPAGSS 116.54 30.456 134

AT3G48990.1 AT3G48990.1 \_VFITDNLPK(Ubi)TASGK(ac)IQR\_ AFKVPKRVFITDNLPKTASGKIQRRIVAQHF 62.203 60.341 495

AT3G49010.3 AT3G49010.3, AT3G49010.2, AT3G49010.1, AT3G49010.4, AT3G49010.5, AT3G48960.1, AT5G23900.1 \_AAEAEK(Ubi)EEK(Ubi)K(Ubi)\_ ARHAGARAKRAAEAEKEEKK\_\_\_\_\_\_\_\_\_\_\_;KRHAGARAKRAAEAEKEEKK\_\_\_\_\_\_\_\_\_\_\_ 166.29 145.45 202

AT3G49010.3 AT3G49010.3, AT3G49010.2, AT3G49010.1, AT3G49010.4, AT3G49010.5, AT3G48960.1, AT5G23900.1 \_AAEAEK(ac)EEK(ac)K(Ubi)\_ GARAKRAAEAEKEEKK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 108.47 96.887 206

AT3G49010.3 AT3G49010.3, AT3G49010.2, AT3G49010.1, AT3G49010.4, AT3G49010.5, AT3G48960.1, AT5G23900.1 \_K(ac)VK(Ubi)AGDSTPEELANATQVQGDYLPIVR\_ YKTKLVIFPRRARKVKAGDSTPEELANATQV 177.12 175.94 133

AT3G49010.3 AT3G49010.3, AT3G49010.2, AT3G49010.1, AT3G49010.4, AT3G49010.5, AT3G48960.1, AT5G23900.1 \_QK(ac)K(ac)AVK(Ubi)IFPR\_ ARKTRRRIARQKKAVKIFPRPTSGPLRPVVH;ARKTRRRVARQKKAVKIFPRPTSGPLRPVVH 101.97 100.53 43

AT3G49080.1 AT3G49080.1 \_AEIELQM(ox)QEDIAK(Ubi)AR\_ SSRAEIELQMQEDIAKARVRQVDETGRAYGT 111.12 105.74 294

AT3G49080.1 AT3G49080.1 \_EK(ac)SSK(Ubi)K(ac)SSR\_ PPLTEIENLRREKSSKKSSRAEIELQMQEDI 52.391 52.391 277

AT3G49080.1 AT3G49080.1 \_PLAETK(Ubi)TLGR\_ MLDHRAALLRPLAETKTLGRWDIKCTVKGGG 72.2 61.892 356

AT3G49100.1 AT3G49100.1 \_GPDVDLSEVTGK(ac)EQM(ox)ETQPAK(ac)K(Ubi)GR\_ LSEVTGKEQMETQPAKKGRGRKQ\_\_\_\_\_\_\_\_ 60.735 60.735 96

AT3G49120.1 AT3G49120.1, AT4G08780.1, AT4G08770.1 \_TEK(Ubi)DAFGNANSAR\_ DASILLDNTTSFRTEKDAFGNANSARGFDVI;DASILLDNTTSFRTEKDAFGNANSARGFPVI 237.21 224.41 95

AT3G49430.2 AT3G49430.2, AT3G49430.3, AT3G49430.1 \_DAEDAIK(Ubi)GR\_ CFVEFEHSRDAEDAIKGRDGYNLDGCRLRVE 74.92 22.438 63

AT3G49430.2 AT3G49430.2, AT3G49430.3, AT3G49430.1 \_K(Ubi)LDDTEFR\_ VVDYTNYDDMKYAIRKLDDTEFRNPWARGFI 85.676 76.318 178

AT3G49490.1 AT3G49490.1 \_FQILK(Ubi)EQETER\_ TENKHREVIDRFQILKEQETERKLKSQKLPD 37.968 32.253 800

AT3G49601.1 AT3G49601.1 \_ESVK(ac)DDEEEYK(Ubi)HGR\_ YRPRRESVKDDEEEYKHGRDRYRGDGRRATG 52.527 40.035 540

AT3G49601.1 AT3G49601.1 \_K(Ubi)EK(ac)QM(ox)EAFR\_ DSKVSNTQTHQVAARKEKQMEAFRAALGLPD 54.259 45.255 126

AT3G49601.1 AT3G49601.1 \_K(ac)K(Ubi)EEAYR\_ VSEPESEDNKQPLRKKEEAYRGGQKQKRDDE 111.17 48.621 358

AT3G49601.1 AT3G49601.1 \_YGTIK(Ubi)EDDDR\_ DRYRGDDAVKRYGTIKEDDDRYRGRAIEEEG 33.875 32.122 503

AT3G49720.2 AT3G49720.2, AT3G49720.1 \_AK(Ubi)VAELSK(ac)FGR\_ DGVVLFAGLPGQQRAKVAELSKFGRPAKMRS 47.712 36.129 201

AT3G49910.1 AT3G49910.1 \_AAADK(ac)EK(Ubi)GTK(ac)FTSEDVM(ox)QNVD\_ LLERKAKGRAAADKEKGTKFTSEDVMQNVD\_ 35.992 35.927 132

AT3G49910.1 AT3G49910.1 \_AAADK(ac)EK(ac)GTK(Ubi)FTSEDVM(ox)QNVD\_ RKAKGRAAADKEKGTKFTSEDVMQNVD\_\_\_\_ 68.639 67.274 135

AT3G49910.1 AT3G49910.1 \_EGK(Ubi)VVQVYR\_ DEVQIVRGTYKGREGKVVQVYRRKWVIHIER 106.42 86.433 68

AT3G49910.1 AT3G49910.1 \_K(Ubi)AHFTASSSER\_ MKYNPRVTSSRRKNRKAHFTASSSERRVIMS 47.712 46.273 16

AT3G49910.1 AT3G49910.1 \_K(Ubi)DDEVQIVR\_ TDLRQKYNVRSMPIRKDDEVQIVRGTYKGRE 137.98 121.31 51

AT3G49990.1 AT3G49990.1 \_AEQTDVK(ac)AEIPK(Ubi)AEPIK(ac)R\_ PGRRAEQTDVKAEIPKAEPIKRKTHGQESKE 69.747 68.387 438

AT3G49990.1 AT3G49990.1 \_DK(Ubi)EEVDTAAHVIR\_ MNPADILKNSDSVRDKEEVDTAAHVIRRTVE 98.942 96.184 322

AT3G49990.1 AT3G49990.1 \_DVK(Ubi)AYDASR\_ YVNPKYEVAQLPRDVKAYDASRVKISGMVNE 73.885 49.047 137

AT3G49990.1 AT3G49990.1 \_YSDAPGGDK(Ubi)IFLR\_ RDTSDPRYSDAPGGDKIFLRVDQNPVNINGF 76.073 60.486 35

AT3G50360.1 AT3G50360.1 \_MAK(Ubi)DLGENFTDAEIR\_ DKNGKISPDDIKRMAKDLGENFTDAEIREMV 146.3 140.75 126

AT3G50370.1 AT3G50370.1 \_AQTSTK(Ubi)IGSR\_ SDENRNGNGRAQTSTKIGSRKYVVSNKSQKQ 72.2 39.871 1355

AT3G50370.1 AT3G50370.1 \_ASIEAAVSPQK(Ubi)QPELSGNSQLPSR\_ LPPARASIEAAVSPQKQPELSGNSQLPSRKM 57.802 56.225 1261

AT3G50370.1 AT3G50370.1 \_ENEIAK(Ubi)SSLTQVR\_ SNVFDKPGQRENEIAKSSLTQVRPVSGGGRE 45.28 38.803 279

AT3G50520.1 AT3G50520.1 \_TDVDIPGGGESLDK(Ubi)LYDR\_ NRTDVDIPGGGESLDKLYDRCTTALQRIGDK 84.375 83.797 139

AT3G50550.2 AT3G50550.2, AT3G50550.1 \_LLK(Ubi)GK(ac)QD\_ EEEEDSLVDKVTRLLKGKQD\_\_\_\_\_\_\_\_\_\_\_ 81.784 43.651 43

AT3G50550.2 AT3G50550.2, AT3G50550.1 \_LLK(ac)GK(Ubi)QD\_ EEDSLVDKVTRLLKGKQD\_\_\_\_\_\_\_\_\_\_\_\_\_ 110.81 61.218 45

AT3G50590.1 AT3G50590.1 \_VQGASALSAK(Ubi)DEM(ox)AR\_ ILRLQRVQGASALSAKDEMARLSRHLASLPL 73.834 67.558 1473

AT3G50670.1 AT3G50670.1 \_DM(ox)K(Ubi)AAYK(ac)QADGQK(ac)IDGR\_ PKGYAFIEYMHTRDMKAAYKQADGQKIDGRR 42.633 41.015 193

AT3G50670.1 AT3G50670.1 \_DM(ox)K(ac)AAYK(Ubi)QADGQK(ac)IDGR\_ AFIEYMHTRDMKAAYKQADGQKIDGRRVLVD 61.942 61.532 197

AT3G50670.1 AT3G50670.1 \_DM(ox)K(ac)AAYK(ac)QADGQK(Ubi)IDGR\_ HTRDMKAAYKQADGQKIDGRRVLVDVERGRT 113.54 113.13 203

AT3G50670.1 AT3G50670.1 \_EFESYGPIK(Ubi)R\_ SESKIKREFESYGPIKRVHLVTDQLTNKPKG 71.451 46.675 165

AT3G50670.1 AT3G50670.1 \_LNYESSESK(Ubi)IK(ac)R\_ KTLFVSRLNYESSESKIKREFESYGPIKRVH 160.38 151.49 153

AT3G50670.1 AT3G50670.1 \_LNYESSESK(ac)IK(Ubi)R\_ LFVSRLNYESSESKIKREFESYGPIKRVHLV 152.47 131.41 155

AT3G50670.1 AT3G50670.1 \_YDK(Ubi)M(ox)EEDDFR\_ EDDQGDTDRYSHRYDKMEEDDFRYEREYKRS 63.624 55.214 402

AT3G50850.1 AT3G50850.1 \_WK(Ubi)K(Ubi)ESIFFKKAR\_ GSSERVFLMAHLKRWKKESIFFKKARRFFDV 32.254 29.393 208

AT3G51010.1 AT3G51010.1 \_AFILSEK(ac)K(Ubi)K(ac)R\_ AKKRIGQRRAFILSEKKKRQALVQEAKRKKR 50.108 47.458 136

AT3G51010.1 AT3G51010.1 \_AFILSEK(ac)K(ac)K(Ubi)R\_ KKRIGQRRAFILSEKKKRQALVQEAKRKKRI 63.624 59.908 137

AT3G51010.1 AT3G51010.1 \_K(Ubi)M(ox)AAVAR\_ VQEAKRKKRIKQVERKMAAVARDRAWAERLI 101.69 72.529 158

AT3G51010.1 AT3G51010.1 \_QALVQEAK(Ubi)R\_ ILSEKKKRQALVQEAKRKKRIKQVERKMAAV 101.65 76.871 147

AT3G51100.2 AT3G51100.2, AT3G51100.1 \_QVPDYVVGQSEAEASK(Ubi)EGR\_ QVPDYVVGQSEAEASKEGRTLADFYYGCLGY 39.387 38.901 75

AT3G51160.1 AT3G51160.1 \_SDSESITAPK(Ubi)ADSTVVEPR\_ ENNGSRSDSESITAPKADSTVVEPRKIALIT 30.295 28.732 19

AT3G51260.2 AT3G51260.2, AT5G66140.1, AT3G51260.1 \_K(Ubi)GNAAVGVR\_ DGHLFQVEYALEAVRKGNAAVGVRGTDTVVL 143.28 109.77 29

AT3G51780.1 AT3G51780.1 \_DDAASSDHK(Ubi)PLQDPDSASAAFAQTIR\_ GMLVQRRDDAASSDHKPLQDPDSASAAFAQT 55.662 54.132 32

AT3G51780.1 AT3G51780.1 \_IQNLQEAVDK(Ubi)LK(ac)AR\_ KAEVRRIQNLQEAVDKLKARCSNPFVDQSKA 119.96 90.026 217

AT3G51880.4 AT3G51880.4, AT3G51880.3, AT3G51880.1, AT3G51880.2 \_K(Ubi)APAEK(Ubi)PTK(Ubi)R\_ KEALKPVDDRKVGKRKAPAEKPTKRETRKEK 59.418 58.728 29

AT3G51890.1 AT3G51890.1 \_NVTIENNK(Ubi)K(ac)LNR\_ KAEFYSKRNVTIENNKKLNREKEKFFLENQE 108.35 106.14 148

AT3G51890.1 AT3G51890.1 \_NVTIENNK(ac)K(Ubi)LNR\_ AEFYSKRNVTIENNKKLNREKEKFFLENQEK 196.38 162.49 149

AT3G52040.1 AT3G52040.1 \_HGK(Ubi)SIQTR\_ KGQQKRKTIAPNRHGKSIQTRKGKRNVKPTK 95.502 69.943 24

AT3G52040.1 AT3G52040.1 \_K(Ubi)TIAPNR\_ \_MTQKSNQFKGQQKRKTIAPNRHGKSIQTRK 117.18 68.118 15

AT3G52040.1 AT3G52040.1 \_(ac)TQK(Ubi)SNQFK(ac)GQQK(ac)R\_ \_\_\_\_\_\_\_\_\_\_\_\_MTQKSNQFKGQQKRKTIAP 136.24 134.1 4

AT3G52040.1 AT3G52040.1 \_(ac)TQK(ac)SNQFK(Ubi)GQQK(ac)R\_ \_\_\_\_\_\_\_MTQKSNQFKGQQKRKTIAPNRHGK 142.38 140.52 9

AT3G52040.1 AT3G52040.1 \_(ac)TQK(ac)SNQFK(ac)GQQK(Ubi)R\_ \_\_\_MTQKSNQFKGQQKRKTIAPNRHGKSIQT 90.412 88.343 13

AT3G52170.2 AT3G52170.2, AT3G52170.1 \_FM(ox)ESDGTK(Ubi)PVNNDDR\_ DEGFEELRFMESDGTKPVNNDDRVNDAGAAM 33.842 31.697 238

AT3G52170.2 AT3G52170.2, AT3G52170.1 \_LDVDNK(Ubi)DEGFEELR\_ SVDTKPQDKRLDVDNKDEGFEELRFMESDGT 79.652 76.455 222

AT3G52220.1 AT3G52220.1 \_LDK(ac)QEFTELVK(Ubi)R\_ PQGNRLDKQEFTELVKRGSTAEDLGAGNADA 94.402 87.569 109

AT3G52220.1 AT3G52220.1 \_LPADTSGVK(Ubi)TVEDGPDDVER\_ EDADSARLPADTSGVKTVEDGPDDVERDQKK 102.21 101.63 166

AT3G52220.1 AT3G52220.1 \_LPADTSGVK(Ubi)TVEDGPDDVERDQK(ac)K(Ubi)DR\_ VKTVEDGPDDVERDQKKDRREERKPAKREKE 102.21 101.63 180

AT3G52220.1 AT3G52220.1 \_PWEDPSTLASSQK(Ubi)EDADSAR\_ APRPWEDPSTLASSQKEDADSARLPADTSGV 103.9 102.76 150

AT3G52220.1 AT3G52220.1 \_VK(Ubi)EQEEQAM(ox)R\_ KGSEMDAMKEEIQRVKEQEEQAMREALGLAP 67.207 61.206 73

AT3G52240.1 AT3G52240.1 \_EPGSSDK(ac)IK(Ubi)ENR\_ SWKGRRREPGSSDKIKENRNRRHHRGFECAY 61.11 59.921 129

AT3G52300.2 AT3G52300.2, AT3G52300.1 \_(ac)SGAGK(Ubi)K(ac)IADVAFK(ac)ASR\_ \_\_\_\_\_\_\_\_\_\_MSGAGKKIADVAFKASRTIDW 107.15 104.13 6

AT3G52300.2 AT3G52300.2, AT3G52300.1 \_(ac)SGAGK(ac)K(Ubi)IADVAFK(Ubi)ASR\_ \_\_\_\_\_\_\_\_\_MSGAGKKIADVAFKASRTIDWD 107.15 104.13 7

AT3G52380.1 AT3G52380.1 \_EK(Ubi)PTVSPPSVEEGETEEASLESNEVLSNVSA\_ VEGRALRLNLASEREKPTVSPPSVEEGETEE 36.231 36.174 300

AT3G52380.1 AT3G52380.1 \_TVK(Ubi)VNFPEVPR\_ AMQMFNSSQIGGRTVKVNFPEVPRGGENEVM 37.144 33.427 188

AT3G52400.1 AT3G52400.1 \_ETITNEYK(Ubi)ETVGR\_ MEKFSRVRETITNEYKETVGRMCFTVTGEYP 33.751 30.89 164

AT3G52860.1 AT3G52860.1 \_(ac)M(ox)DYQQK(Ubi)PPQSSDPSPSPPDRPPGIR\_ \_\_\_\_\_\_\_\_\_\_MDYQQKPPQSSDPSPSPPDRP 64.589 64.012 6

AT3G52920.2 AT3G52920.2, AT3G52920.1 \_LK(Ubi)K(ac)LDELSR\_ TKLMELVGESEKLRLKKLDELSRSIDTESES 72.243 60.512 151

AT3G52960.1 AT3G52960.1 \_DK(Ubi)PVGLGVR\_ GEFTGKLGVELDLRDKPVGLGVRSRRYAILA 80.165 71.207 191

AT3G53040.1 AT3G53040.1 \_EGADIASEK(Ubi)AAGM(ox)R\_ DTAESTREGADIASEKAAGMRDTTGEVRDST 44.511 35.766 90

AT3G53230.1 AT3G53230.1 \_K(ac)SPVAK(Ubi)DVDLR\_ RYQIFKSCLRKSPVAKDVDLRALAKYTQGFS 71.806 66.92 672

AT3G53320.1 AT3G53320.1 \_ASETSK(ac)M(ox)ANGNQK(Ubi)TVSR\_ SSRASETSKMANGNQKTVSREKVPANDNTVQ 45.347 40.867 421

AT3G53320.1 AT3G53320.1 \_SAK(Ubi)TSDVATPGK(ac)SNVLR\_ FVLFEDVRASIQRSAKTSDVATPGKSNVLRA 50.178 48.181 174

AT3G53320.1 AT3G53320.1 \_SAK(ac)TSDVATPGK(Ubi)SNVLR\_ SIQRSAKTSDVATPGKSNVLRATDVAISPTS 39.905 36.879 183

AT3G53320.1 AT3G53320.1 \_VQGPGK(ac)ATK(Ubi)QPVATR\_ SPRNPSRVQGPGKATKQPVATRGLSTSISKP 44.252 44.252 230

AT3G53340.1 AT3G53340.1 \_EM(ox)EGDTK(Ubi)GSGK(Ubi)GGESSAK(Ubi)R\_ LKVYLMRYREMEGDTKGSGKGGESSAKRDGQ 121.44 120.39 124

AT3G53350.1 AT3G53350.1 \_IPLNEIQK(Ubi)K(Ubi)R\_ VADRRSARIPLNEIQKKRTGRIPELESTISQ 43.308 37.032 67

AT3G53350.1 AT3G53350.1 \_K(Ubi)AAETAASILNNDEER\_ EAELKRVKIQCEQWRKAAETAASILNNDEER 140.22 139.39 357

AT3G53350.1 AT3G53350.1 \_SAYEQTEAVK(Ubi)SR\_ STLQIRSAYEQTEAVKSRYSQREAELTEELN 69.03 67.566 260

AT3G53350.1 AT3G53350.1 \_TK(Ubi)DEIEGLR\_ YSQREAELTEELNRTKDEIEGLRKELMEKVK 88.495 57.932 278

AT3G53350.3 AT3G53350.3, AT3G53350.2 \_IPLNEK(ac)K(Ubi)R\_ KVVADRRSARIPLNEKKRTGRIPELESTISQ 47.603 26.231 65

AT3G53520.2 AT3G53520.2, AT3G53520.1, AT3G53520.4 \_ILNEDEGK(Ubi)GL\_ MVSDFRNRILNEDEGKGL\_\_\_\_\_\_\_\_\_\_\_\_\_ 62.463 32.72 431

AT3G53580.1 AT3G53580.1 \_DSSEPK(Ubi)ITQEQAAK(ac)LCDR\_ GNDFILVDNRDSSEPKITQEQAAKLCDRNFG 42.633 37.506 102

AT3G53740.4 AT3G53740.4, AT3G53740.3, AT3G53740.2, AT3G53740.1, AT5G02450.1 \_NLIK(Ubi)EVAGQAPYEK(Ubi)R\_ KGKTSKRTIFIRNLIKEVAGQAPYEKRITEL 121.72 111.81 48

AT3G53740.4 AT3G53740.4, AT3G53740.3, AT3G53740.2, AT3G53740.1, AT5G02450.1 \_SGGGGATEK(Ubi)K(Ubi)K(Ubi)\_ SVLRKMRSGGGGATEKKK\_\_\_\_\_\_\_\_\_\_\_\_\_ 127.17 63.053 110

AT3G53740.4 AT3G53740.4, AT3G53740.3, AT3G53740.2, AT3G53740.1, AT5G02450.1 \_SGGGGATEK(ac)K(ac)K(Ubi)\_ LRKMRSGGGGATEKKK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 185.25 114.17 112

AT3G54110.1 AT3G54110.1 \_LQAEGK(Ubi)LAAGAPR\_ ANPTDLVKVRLQAEGKLAAGAPRRYSGALNA 53.448 51.937 147

AT3G54170.1 AT3G54170.1 \_EQEM(ox)AELK(Ubi)SAVR\_ CIVQYAKREQEMAELKSAVRDLKSQLKPASM 95.417 48.115 149

AT3G54400.1 AT3G54400.1 \_K(Ubi)SSVPIASGR\_ DKARFLYLSSLAGVRKSSVPIASGRAIVQSP 68.536 62.754 71

AT3G54470.1 AT3G54470.1 \_GIIK(Ubi)AENPAETAHEYR\_ TERGSDIIIVGRGIIKAENPAETAHEYRVQG 83.54 75.455 451

AT3G54540.1 AT3G54540.1 \_GQQEK(ac)VK(Ubi)DR\_ QMKAAKRTGNRGQQEKVKDRAKFTAAKEASK 57.59 34.948 440

AT3G54540.1 AT3G54540.1 \_LALQAAESAK(Ubi)R\_ REAKERLALQAAESAKREAMKDDHDAFTVVI 72.2 44.719 128

AT3G54620.1 AT3G54620.1 \_K(Ubi)QEQM(ox)NEFDTQVGQLR\_ RMLSNRESARRSRRRKQEQMNEFDTQVGQLR 150.05 146.01 250

AT3G54620.1 AT3G54620.1 \_LEETVDETEDVVEIQK(Ubi)PQNHR\_ LEETVDETEDVVEIQKPQNHRRLPVDDQGKN 100.97 97.162 96

AT3G54620.1 AT3G54620.1 \_LSDM(ox)NHK(Ubi)YDAAAVDNR\_ AEHSTLINRLSDMNHKYDAAAVDNRILRADI 40.493 40.084 281

AT3G54620.1 AT3G54620.1 \_TK(ac)VK(ac)M(ox)AEETVK(Ubi)R\_ IETLRTKVKMAEETVKRVTGVNPLHWSRPNM 43.03 36.948 311

AT3G54670.2 AT3G54670.2 \_(ac)M(ox)NK(Ubi)LEKR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MNKLEKRMNEIVDRIYKD 37.558 37.558 3

AT3G54760.2 AT3G54760.2, AT3G54760.1 \_K(Ubi)ADVLSEDSPGEGR\_ DDEAGSDVKTNGVKRKADVLSEDSPGEGRKT 73.834 72.846 459

AT3G54760.2 AT3G54760.2, AT3G54760.1 \_K(Ubi)GADAEVAYNSAGR\_ TEVDREKNRARVVFRKGADAEVAYNSAGRFN 57.148 56.16 707

AT3G54760.2 AT3G54760.2, AT3G54760.1 \_NSSASQQVTTEK(Ubi)VSK(ac)K(ac)R\_ LDFRNSSASQQVTTEKVSKKRGRPSNSNVAG 92.264 91.574 564

AT3G55070.2 AT3G55070.2, AT3G55070.1 \_K(Ubi)LEEGSNVENLQAQR\_ SRLTCLVTRLQGLKRKLEEGSNVENLQAQRC 51.009 49.691 107

AT3G55280.3 AT3G55280.3, AT3G55280.2, AT3G55280.1 \_K(ac)PK(ac)YPK(Ubi)ISATPR\_ HRPKTLTVPRKPKYPKISATPRNKLDHYQIL 37.613 34.752 54

AT3G55280.3 AT3G55280.3, AT3G55280.2, AT3G55280.1 \_PK(Ubi)TLTVPR\_ SGQIKIRTKVTFHRPKTLTVPRKPKYPKISA 94.85 63.356 42

AT3G55410.1 AT3G55410.1 \_AK(Ubi)QYYSNDLDR\_ HLEAADSVVVGKTRAKQYYSNDLDRTKNLGI 58.172 50.102 379

AT3G55410.1 AT3G55410.1 \_LIK(Ubi)DQNDHSDLEEGIR\_ HPGFDKQGTRFKRLIKDQNDHSDLEEGIRRL 32.702 28.724 879

AT3G55440.1 AT3G55440.1 \_EAGSTM(ox)DVVAAQTK(Ubi)AIADR\_ EREAGSTMDVVAAQTKAIADRVTNWSNVVIA 79.489 77.753 149

AT3G55520.1 AT3G55520.1 \_LEDLK(Ubi)K(ac)QR\_ SVGSVSEERARLEDLKKQREIAAAAKEDDKK 77.732 44.354 142

AT3G55520.1 AT3G55520.1 \_LEDLK(ac)K(Ubi)QR\_ VGSVSEERARLEDLKKQREIAAAAKEDDKKK 114.28 61.799 143

AT3G55600.1 AT3G55600.1 \_EQLEQLSEEK(Ubi)TPEGLPR\_ YVATLREQLEQLSEEKTPEGLPRVTKAKVNE 77.221 76.704 45

AT3G56070.2 AT3G56070.2, AT3G56070.1 \_VVIEDCGELK(Ubi)NPSS\_ GNPSERVVIEDCGELKNPSS\_\_\_\_\_\_\_\_\_\_\_ 78.814 76.963 172

AT3G56250.1 AT3G56250.1 \_LDLSSSSGK(Ubi)K(ac)TR\_ SAAARIRLDLSSSSGKKTRQASENKKKTLKV 46.88 44.106 156

AT3G56250.1 AT3G56250.1 \_SK(Ubi)DASSSTSAAAR\_ SVYTVRRKASGQKRSKDASSSTSAAARIRLD 81.904 80.652 134

AT3G56290.1 AT3G56290.1 \_K(Ubi)M(ox)TQEQYGALR\_ AELLYEAREATKSGRKMTQEQYGALRRKIGG 124.67 101.66 91

AT3G56290.1 AT3G56290.1 \_SEK(Ubi)DAELLYEAR\_ TQLTDALDFSQVRSEKDAELLYEAREATKSG 50.088 46.77 74

AT3G56340.1 AT3G56340.1 \_K(Ubi)EDTPK(Ubi)PAQPGQAPR\_ TNRRVRTPPPRFARRKEDTPKPAQPGQAPRP 88.282 81.595 105

AT3G56490.1 AT3G56490.1 \_DGLTGLSK(Ubi)AEER\_ ILLIPKVRDGLTGLSKAEERHIDILGRLLYT 198.74 188.56 86

AT3G56490.1 AT3G56490.1 \_DITPQGPVHILLIPK(Ubi)VR\_ RDITPQGPVHILLIPKVRDGLTGLSKAEERH 49.595 49.185 76

AT3G56720.1 AT3G56720.1, AT3G56720.2, AT3G56720.3 \_SDGK(Ubi)CLATEDR\_ EKEVHVKSSRDRSDGKCLATEDRDTHSKKLK 94.767 88.081 226

AT3G56720.1 AT3G56720.1, AT3G56720.2, AT3G56720.3 \_VK(Ubi)SNEK(Ubi)GEDLSSGR\_ DRSSHDKYSNSGHRVKSNEKGEDLSSGRRHS 126.25 125.35 160

AT3G56850.1 AT3G56850.1 \_VASGEVVEK(Ubi)TVER\_ QTPGRKRVASGEVVEKTVERRQKRMIKNRES 84.297 80.719 223

AT3G56860.5 AT3G56860.5, AT3G56860.4, AT3G56860.3, AT3G56860.2, AT3G56860.1 \_NALK(ac)QPQK(Ubi)K(Ubi)IGSR\_ GFILYKSRSGARNALKQPQKKIGSRMTACQL 35.037 32.176 199

AT3G56990.1 AT3G56990.1 \_TPK(Ubi)LYEVK(ac)DER\_ DDGDATRPSKKARTPKLYEVKDERHAAAYHN 40.475 36.898 580

AT3G57320.1 AT3G57320.1 \_ALK(Ubi)DADQK(Ubi)LER\_ NAKHKYRILHLVRALKDADQKLERLSK\_\_\_\_ 110.8 91.124 91

AT3G57440.1 AT3G57440.1 \_M(ox)LLK(Ubi)M(ox)EEVKR\_ LGDSPDTSKALRMLLKMEEVKRFGTGGRLDP 37.344 32.364 220

AT3G57610.1 AT3G57610.1 \_ESELAK(Ubi)SFIGTTK(ac)R\_ DFHQEVDGLRESELAKSFIGTTKRGIGPAYS 60.196 59.208 189

AT3G57810.1 AT3G57810.1, AT3G57810.3, AT3G57810.2 \_SGK(ac)LAPGEK(Ubi)M(ox)QR\_ AHGFCLRSGKLAPGEKMQRELADELRTRVAD 43.761 34.225 157

AT3G57870.1 AT3G57870.1 \_VK(Ubi)LQSK(ac)QYPALV\_ YHLFCQDPVEYKKRVKLQSKQYPALV\_\_\_\_\_ 43.68 43.68 150

AT3G57880.1 AT3G57880.1 \_VVFDLNEVPK(Ubi)R\_ DDLIGRVVFDLNEVPKRVPPDSPLAPQWYRL 60.255 57.175 129

AT3G57890.1 AT3G57890.1, AT3G57890.2 \_SLK(Ubi)EAPLEENR\_ QQRNLKNFEETRRSLKEAPLEENRKRELSSA 37.327 28.133 534

AT3G57910.1 AT3G57910.1 \_K(Ubi)QIEEDEQTLAR\_ KNLNWHERRRLEKERKQIEEDEQTLARIVDT 46.88 43.018 74

AT3G57930.2 AT3G57930.2, AT3G57930.1 \_GSGEEEK(Ubi)IPAFR\_ QNATAREDRGSGEEEKIPAFRKRGRPQKPVK 31.04 27.463 26

AT3G58600.1 AT3G58600.1 \_SSEQQDLDTK(Ubi)R\_ SLSLQRSSEQQDLDTKREEEEEEKKEDLKAK 120.77 103.1 268

AT3G58600.1 AT3G58600.1 \_VEEK(Ubi)IDGR\_ AVIDSSRYFVLRVEEKIDGRVRHAFIGLGFR 127.68 65.021 124

AT3G58620.1 AT3G58620.1 \_DDDVINK(Ubi)PDFR\_ FRDSLSFQRDDDVINKPDFRELDFGSPLRPR 53.237 52.247 32

AT3G58680.1 AT3G58680.1 \_APNAAAK(Ubi)R\_ WEPVVIRKRAPNAAAKRDEKTVNAARRSGAD 147.34 120.54 26

AT3G58680.1 AT3G58680.1 \_K(ac)FNAGSNK(Ubi)AASSGTSLNTK(ac)K(ac)LDDDTENLSHDR\_ GADIETVRKFNAGSNKAASSGTSLNTKKLDD 64.885 64.649 54

AT3G58680.1 AT3G58680.1 \_K(ac)FNAGSNK(ac)AASSGTSLNTK(ac)K(Ubi)LDDDTENLSHDR\_ GSNKAASSGTSLNTKKLDDDTENLSHDRVPT 124.32 123.73 66

AT3G58840.2 AT3G58840.2, AT3G58840.1 \_AAK(ac)GISDYDQGGVK(Ubi)TTELER\_ DRAAKGISDYDQGGVKTTELERKIEDMENKN 108.71 107.3 21

AT3G58840.2 AT3G58840.2, AT3G58840.1 \_EIDDEK(Ubi)K(ac)R\_ KKLRSEEEMREIDDEKKREIEELQKTVIVLN 103.83 88.204 193

AT3G58840.2 AT3G58840.2, AT3G58840.1 \_EM(ox)EEK(Ubi)SK(ac)K(ac)LR\_ LERKIGVLEVREMEEKSKKLRSEEEMREIDD 39.785 32.174 176

AT3G58840.2 AT3G58840.2, AT3G58840.1 \_EM(ox)EEK(ac)SK(Ubi)K(ac)LR\_ RKIGVLEVREMEEKSKKLRSEEEMREIDDEK 46.352 39.875 178

AT3G58840.2 AT3G58840.2, AT3G58840.1 \_K(Ubi)IEDM(ox)ENK(ac)NQELTR\_ SDYDQGGVKTTELERKIEDMENKNQELTREN 91.076 88.215 28

AT3G58840.2 AT3G58840.2, AT3G58840.1 \_K(ac)IEDM(ox)ENK(Ubi)NQELTR\_ VKTTELERKIEDMENKNQELTRENRELKERL 159.22 137.55 35

AT3G59290.1 AT3G59290.1 \_PSGGYGDK(Ubi)YDYEGR\_ KYHNSMHRPSGGYGDKYDYEGRYGDRDEGRS 65.219 65.219 174

AT3G59430.2 AT3G59430.2, AT3G59430.1 \_DSYGNK(Ubi)LDVPR\_ PAIRTWNVKRDSYGNKLDVPREDYVQGAVAR 72.34 68.167 85

AT3G59760.3 AT3G59760.3, AT3G59760.2, AT3G59760.1 \_DPSVVCEAVK(Ubi)R\_ ADGSERDPSVVCEAVKRETGPDGLNIADNVS 44.543 40.202 103

AT3G59760.3 AT3G59760.3, AT3G59760.2, AT3G59760.1 \_EEVEK(Ubi)M(ox)QPEV\_ YLSTPLFQSIREEVEKMQPEV\_\_\_\_\_\_\_\_\_\_ 83.438 80.939 425

AT3G59800.1 AT3G59800.1 \_SLK(Ubi)LSK(ac)GR\_ LMREYRAQLDAERSLKLSKGRNYSSDKSRKD 48.794 2.3684 94

AT3G59820.1 AT3G59820.1 \_LGSK(Ubi)PEENATEEESS\_ RIMVEDIVRLGRLGSKPEENATEEESS\_\_\_\_ 82.651 82.651 744

AT3G59820.1 AT3G59820.1 \_VLEQQDDLCK(Ubi)LSR\_ EQARARVLEQQDDLCKLSRALGVLASASSVC 58.32 55.66 583

AT3G59840.1 AT3G59840.1 \_WEILPADGK(Ubi)DAPQFR\_ DDLEPCRWEILPADGKDAPQFRVVF\_\_\_\_\_\_ 58.885 57.263 88

AT3G59980.1 AT3G59980.1 \_TSSGLVTSK(Ubi)SLR\_ LKEHLMRTSSGLVTSKSLRNANIS\_\_\_\_\_\_\_ 34 33.011 265

AT3G60210.1 AT3G60210.1 \_LEVLPEK(Ubi)SSGGVLLPK(ac)SAVK(ac)FER\_ PQADRVLVRLEVLPEKSSGGVLLPKSAVKFE 68.445 68.156 68

AT3G60210.1 AT3G60210.1 \_LEVLPEK(ac)SSGGVLLPK(ac)SAVK(Ubi)FER\_ PEKSSGGVLLPKSAVKFERYLTGEVVSVGSE 78.758 78.14 81

AT3G60240.2 AT3G60240.2, AT3G60240.3, AT3G60240.4 \_GDPYSEGDSTALK(Ubi)PHSNPPPR\_ DRRGDPYSEGDSTALKPHSNPPPRSQPVSSF 94.45 93.305 401

AT3G60240.2 AT3G60240.2, AT3G60240.3, AT3G60240.4 \_K(ac)YQVGTIADEEQAK(Ubi)QR\_ ERKYQVGTIADEEQAKQRQLKSILNKLTPQN 44.925 43.91 1091

AT3G60240.2 AT3G60240.2, AT3G60240.3, AT3G60240.4 \_SFK(Ubi)K(ac)PGNAQGGGQPR\_ STYPDNSSLSSNRSFKKPGNAQGGGQPRVNL 66.784 60.508 68

AT3G60240.2 AT3G60240.2, AT3G60240.3, AT3G60240.4 \_SFK(ac)K(Ubi)PGNAQGGGQPR\_ TYPDNSSLSSNRSFKKPGNAQGGGQPRVNLP 128.76 126.29 69

AT3G60240.2 AT3G60240.2, AT3G60240.3, AT3G60240.4 \_TASDK(Ubi)LDER\_ PQEKDLKCDNRTASDKLDERSVISDAKHETL 50.353 35.21 724

AT3G60240.2 AT3G60240.2, AT3G60240.3, AT3G60240.4 \_TTSAPPNM(ox)DDQK(Ubi)R\_ VPARTTSAPPNMDDQKRAQMQQSSLRTASNV 46.88 46.091 185

AT3G60380.1 AT3G60380.1 \_GFENELEGSK(Ubi)VR\_ EEDVRRGFENELEGSKVRGRKAEFFSKKERG 46.88 43.163 407

AT3G60380.1 AT3G60380.1 \_KLEDDTVDSDK(Ubi)SR\_ DVVTRKLEDDTVDSDKSRKKDLPGKDKEMKL 43.03 37.315 565

AT4G00100.1 AT4G00100.1, AT3G60770.1 \_DSHGIPQVK(Ubi)SVTGSK(ac)ILR\_ QIGVILRDSHGIPQVKSVTGSKILRILKAHG 65.423 65.077 64

AT4G00100.1 AT4G00100.1, AT3G60770.1 \_GK(Ubi)GISASALPYK(ac)R\_ \_\_\_\_\_\_\_MGRMHSRGKGISASALPYKRSSPS 88.075 87.286 9

AT4G00100.1 AT4G00100.1, AT3G60770.1 \_GK(ac)GISASALPYK(Ubi)R\_ MHSRGKGISASALPYKRSSPSWLKTTSQDVD 119.39 116.73 19

AT4G00100.1 AT4G00100.1, AT3G60770.1 \_K(Ubi)DK(ac)DSK(ac)FR\_ IKKAVAIRKHLERNRKDKDSKFRLILVESRI 130.41 92.863 107

AT3G60810.2 AT3G60810.2, AT3G60810.1 \_K(Ubi)GNFDFDVNR\_ TPGKNSKVEYRSASRKGNFDFDVNRKRIKAL 150.04 150.04 179

AT3G61050.2 AT3G61050.2, AT3G61050.1 \_SGSSTPVNTVPENDGAK(Ubi)QQ\_ GSSTPVNTVPENDGAKQQ\_\_\_\_\_\_\_\_\_\_\_\_\_ 53.255 35.71 508

AT3G61140.1 AT3G61140.1 \_EVVNK(Ubi)IGNR\_ IKKGENTQLFREVVNKIGNRLGEKYGMDLAW 101.72 70.435 92

AT3G61140.1 AT3G61140.1 \_TNLIK(Ubi)ESIR\_ VKLENELSSYRTNLIKESIRMGYNDFGDFYY 68.657 20.234 135

AT3G61260.1 AT3G61260.1, AT5G23750.2, AT5G23750.1 \_AM(ox)IEAK(Ubi)R\_ AIHKEAEERRAMIEAKRGEDVLKAEETAAKY 81.297 20.509 183

AT3G61260.1 AT3G61260.1, AT5G23750.2, AT5G23750.1 \_DVK(Ubi)LADLSK(Ubi)EK(Ubi)R\_ PAPAKPASASLDRDVKLADLSKEKRLSFVRA 76.073 73.047 94

AT3G61260.1 AT3G61260.1, AT5G23750.2, AT5G23750.1 \_GEDVLK(Ubi)AEETAAK(ac)YR\_ ERRAMIEAKRGEDVLKAEETAAKYRATGIVP 92.8 91.003 190

AT3G61260.1 AT3G61260.1, AT5G23750.2, AT5G23750.1 \_GEDVLK(ac)AEETAAK(Ubi)YR\_ AKRGEDVLKAEETAAKYRATGIVPKATCGCF 63.29 60.988 197

AT3G61415.2 AT3G61415.2, AT3G61415.1 \_IIEGK(Ubi)TPEEIR\_ LVDLTSRALARIIEGKTPEEIREIFHLPDDL 79.659 40.354 134

AT3G61670.1 AT3G61670.1 \_(ac)ADSTK(Ubi)VR\_ \_\_\_\_\_\_\_\_\_\_MADSTKVRLVRCPKCENLLSE 91.626 76.957 6

AT3G61670.1 AT3G61670.1 \_SILLGDK(ac)DDLK(Ubi)SQSGR\_ EQGNRSILLGDKDDLKSQSGRQQDSGWDRFR 46.892 42.411 123

AT3G62120.2 AT3G62120.2, AT3G62120.1 \_DNGVK(Ubi)EDIPR\_ LENDQVRTVRRDNGVKEDIPRGSLVEHVKEL 33.89 24.235 416

AT3G62140.1 AT3G62140.1 \_LLNFVSEEQLDESK(Ubi)K(ac)ER\_ IRLLNFVSEEQLDESKKERGERVEDGTFQRD 57.525 56.98 24

AT3G62140.1 AT3G62140.1 \_(ac)VDETEK(Ubi)PIR\_ \_\_\_\_\_\_\_\_\_MVDETEKPIRLLNFVSEEQLDE 110.76 100.75 7

AT3G62330.1 AT3G62330.1 \_DALELEK(ac)K(Ubi)R\_ EELELEYTRDALELEKKRDKEEDEENNKHRE 99.815 44.354 346

AT3G62530.1 AT3G62530.1 \_DVK(Ubi)EHPM(ox)VR\_ SKTAIASLSKILRDVKEHPMVRVEAAKALGF 42.336 40.182 162

AT3G62530.1 AT3G62530.1 \_VEAAK(Ubi)ALGFIADEK(ac)SR\_ LRDVKEHPMVRVEAAKALGFIADEKSREVLQ 72.433 67.529 173

AT3G62550.1 AT3G62550.1 \_(ac)M(ox)EETK(Ubi)ER\_ \_\_\_\_\_\_\_\_\_\_\_MEETKERKIVVAVDESEESM 34.824 28.789 5

AT3G62600.1 AT3G62600.1 \_EIYNK(ac)YGEEGLK(Ubi)QFSANGGR\_ EEKREIYNKYGEEGLKQFSANGGRGGGGGGM 77.08 76.671 96

AT3G62600.1 AT3G62600.1 \_EK(ac)NVIK(Ubi)PAPGK(ac)R\_ YMGGSMKVWREKNVIKPAPGKRKCNCRNEVY 77.185 76.196 165

AT3G62600.1 AT3G62600.1 \_EK(ac)NVIK(ac)PAPGK(Ubi)R\_ MKVWREKNVIKPAPGKRKCNCRNEVYHRQIG 32.295 31.048 170

AT3G62600.1 AT3G62600.1 \_K(ac)FAEINNAYEVLSDEEK(Ubi)R\_ FAEINNAYEVLSDEEKREIYNKYGEEGLKQF 130.56 125.68 83

AT3G62790.1 AT3G62790.1, AT2G47690.1 \_(Ubi)ASGWGITGNK(Ubi)GR\_ \_\_\_\_\_MASGWGITGNKGRCYDFWMDFSECMS 42.976 36.072 11

AT3G62790.1 AT3G62790.1, AT2G47690.1 \_IYK(Ubi)EEQR\_ CLHHSKEFQRRNRIYKEEQRKLRAASRKGEE 77.058 51.499 59

AT3G62790.1 AT3G62790.1, AT2G47690.1 \_K(Ubi)GEETGDGTHTHH\_ RIYKEEQRKLRAASRKGEETGDGTHTHH\_\_\_ 231.32 229.81 71

AT3G62800.3 AT3G62800.3, AT3G62800.2, AT3G62800.1 \_DDK(Ubi)FIAYR\_ EITLPQDAEMLFRDDKFIAYRLVKP\_\_\_\_\_\_ 106.36 75.792 320

AT3G62830.2 AT3G62830.2, AT3G62830.1 \_VFGDQK(ac)EGSSAAATTTK(Ubi)TTSA\_ FGDQKEGSSAAATTTKTTSA\_\_\_\_\_\_\_\_\_\_\_ 49.188 45.949 441

AT3G62940.1 AT3G62940.1, AT3G62940.3, AT3G62940.2 \_EHK(Ubi)TDFLPFFLSETEGDSNSGSAEER\_ YQNLREMAASYMREHKTDFLPFFLSETEGDS 114.01 113.92 212

AT3G62940.1 AT3G62940.1, AT3G62940.3, AT3G62940.2 \_IK(Ubi)EEQSHVK(ac)SDR\_ REKRAKEEADREQRIKEEQSHVKSDRMVENA 50.897 45.356 139

AT3G62940.1 AT3G62940.1, AT3G62940.3, AT3G62940.2 \_IK(ac)EEQSHVK(Ubi)SDR\_ EADREQRIKEEQSHVKSDRMVENAKLEKKLK 96.464 60.941 146

AT3G63460.3 AT3G63460.3, AT3G63460.2, AT3G63460.1 \_(ac)ACIK(Ubi)GVGR\_ \_\_\_\_\_\_\_\_\_\_\_MACIKGVGRSASVALAPDAP 46.426 40.644 5

AT3G63490.1 AT3G63490.1, AT3G63490.2 \_LNIDPK(Ubi)YNDQQLR\_ FVESVEAHFRLNIDPKYNDQQLRATVSLPKG 79.089 71.872 161

AT4G00238.1 AT4G00238.1 \_IK(ac)K(Ubi)EGDNK(ac)K(ac)GHAQR\_ SEGTTSRDMHVKRIKKEGDNKKGHAQRVWSE 38.376 36.073 131

AT4G00390.1 AT4G00390.1 \_AASEAATTSTK(Ubi)R\_ SGAKRAASEAATTSTKRVKKDEESVKKPALF 122.86 122.86 142

AT4G00390.1 AT4G00390.1 \_AK(Ubi)EGK(Ubi)DEPR\_ QFSDKVRSLRKKYRAKEGKDEPRFVKAHDKK 78.342 70.21 222

AT4G00530.1 AT4G00530.1 \_(ac)M(ox)NPQTDK(Ubi)VVR\_ \_\_\_\_\_\_\_\_\_MNPQTDKVVRRTTMVATAVASY 55.314 47.949 7

AT4G00752.1 AT4G00752.1 \_AAIEASK(Ubi)K(ac)DFQEGR\_ NDAEEEMIRAAIEASKKDFQEGRLNTRYSLD 115.91 92.919 201

AT4G00752.1 AT4G00752.1 \_AAIEASK(ac)K(Ubi)DFQEGR\_ DAEEEMIRAAIEASKKDFQEGRLNTRYSLDN 55.011 38.788 202

AT4G00752.1 AT4G00752.1 \_EDM(ox)NQK(Ubi)QPINSSSQHR\_ PGSSSVQDNREDMNQKQPINSSSQHRHDLQN 37.177 35.179 298

AT4G00830.4 AT4G00830.4, AT4G00830.2, AT4G00830.1 \_K(ac)VIEDVGPGVENIELIK(Ubi)DPTNTTR\_ VIEDVGPGVENIELIKDPTNTTRNRGFAFVL 110.03 109.45 230

AT4G00830.4 AT4G00830.4, AT4G00830.2, AT4G00830.1 \_SSALK(Ubi)AVK(Ubi)DTER\_ RDFGFVHYAERSSALKAVKDTERYEVNGQPL 76.728 70.781 346

AT4G00830.4 AT4G00830.4, AT4G00830.2, AT4G00830.1 \_YEVNGQPLEVVLAK(Ubi)PQAER\_ ERYEVNGQPLEVVLAKPQAERKHDPSSYSYG 52.866 51.89 367

AT4G00850.1 AT4G00850.1 \_HGGGDAK(Ubi)TEGK(Ubi)\_ DGQGGSAARHGGGDAKTEGK\_\_\_\_\_\_\_\_\_\_\_ 192.68 186.96 219

AT4G00860.1 AT4G00860.1 \_QNFIVK(Ubi)SRPE\_ PPVVMNPISRQNFIVKSRPE\_\_\_\_\_\_\_\_\_\_\_ 56.404 52.688 76

AT4G01000.1 AT4G01000.1 \_K(ac)AK(Ubi)IGAESEK(ac)K(ac)K(ac)R\_ DLALNESFKNGKRKAKIGAESEKKKRLKIWK 63.727 47.545 194

AT4G01000.1 AT4G01000.1 \_K(ac)AK(ac)IGAESEK(Ubi)K(ac)K(ac)R\_ FKNGKRKAKIGAESEKKKRLKIWKGKRAVED 180.11 167.01 201

AT4G01000.1 AT4G01000.1 \_K(ac)AK(ac)IGAESEK(ac)K(Ubi)K(ac)R\_ KNGKRKAKIGAESEKKKRLKIWKGKRAVEDS 46.318 41.263 202

AT4G01000.1 AT4G01000.1 \_LK(Ubi)TELQSR\_ FNSPADMEVLGMERLKTELQSRGLKCGGTLR 91.867 44.264 375

AT4G01100.1 AT4G01100.1, AT4G01100.2 \_(ac)ASEDVK(Ubi)R\_ \_\_\_\_\_\_\_\_\_MASEDVKRTESAAVSTIVNLAE 73.616 51.379 7

AT4G01120.1 AT4G01120.1 \_SK(ac)LGQLNNESEK(Ubi)LR\_ MSLRSKLGQLNNESEKLRLENEAILDQLKAQ 30.575 25.817 304

AT4G01290.2 AT4G01290.2, AT4G01290.1 \_K(ac)EHQK(Ubi)AFQER\_ RKRRASFELLRKEHQKAFQERQKSNPDLRKN 136.53 125.3 240

AT4G01290.2 AT4G01290.2, AT4G01290.1 \_K(Ubi)TSVDDQASQHLLSLLQR\_ DQDTSVPSVKMTKQRKTSVDDQASQHLLSLL 81.157 79.359 600

AT4G01290.2 AT4G01290.2, AT4G01290.1 \_SSDPK(Ubi)SQDTQLLSATER\_ ASQHLLSLLQRSSDPKSQDTQLLSATERRPP 240.13 237.99 622

AT4G01310.1 AT4G01310.1 \_LK(Ubi)TAYLER\_ TVLVEKSEAEKTQRLKTAYLERIIPALKEEF 72.928 46.544 60

AT4G01660.1 AT4G01660.1 \_NEFSDEVK(Ubi)NSNR\_ IVDSKVLRNEFSDEVKNSNREGEIKVSGVEA 125.54 124.75 120

AT4G01895.1 AT4G01895.1 \_K(Ubi)DNGLDLNLAL\_ EDDDEGEEEVEKVMRKDNGLDLNLAL\_\_\_\_\_ 64.82 63.381 130

AT4G01895.1 AT4G01895.1 \_QYLTQDSGDVASM(ox)PTK(Ubi)R\_ QYLTQDSGDVASMPTKRSDYSIVPVFRAEDF 61.962 57.345 63

AT4G01900.1 AT4G01900.1 \_GEK(ac)AEK(Ubi)M(ox)TGDM(ox)LSPS\_ DVIRVRTGERGEKAEKMTGDMLSPS\_\_\_\_\_\_ 45.207 44.892 187

AT4G01900.1 AT4G01900.1 \_TGEIGDGK(Ubi)IFVLPVSDVIR\_ NTIIEGARTGEIGDGKIFVLPVSDVIRVRTG 142.43 133.15 164

AT4G02110.1 AT4G02110.1 \_EAGVGK(Ubi)NSLQR\_ VDKNTSKRKREAGVGKNSLQRGKKGSSFTAK 96.229 70.756 776

AT4G02110.1 AT4G02110.1 \_TPENSTM(ox)K(Ubi)GALDEVPER\_ VPMEADIRTPENSTMKGALDEVPERSVTDPV 66.022 62.995 571

AT4G02230.1 AT4G02230.1 \_ETK(Ubi)K(ac)IDR\_ RMRVLRRLLKKYRETKKIDRHMYHDMYMKVK 61.679 45.008 113

AT4G02230.1 AT4G02230.1 \_K(Ubi)VWLDPNEGSDISMANSR\_ LQKRLASSVLKCGKRKVWLDPNEGSDISMAN 93.371 93.04 21

AT4G02230.1 AT4G02230.1 \_LAK(ac)GPGGDIPAAAPPAQTAEVPAK(ac)K(ac)SK(ac)K(Ubi)\_ APPAQTAEVPAKKSKK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 56.366 55.484 208

AT4G02400.1 AT4G02400.1 \_EHEDANK(Ubi)K(Ubi)R\_ RGLPSWMVREHEDANKKRKLDLKTRKDYRLR 57.59 56.15 728

AT4G02400.1 AT4G02400.1 \_K(ac)LDLK(Ubi)TR\_ VREHEDANKKRKLDLKTRKDYRLRNVIISEK 57.59 34.27 735

AT4G02450.2 AT4G02450.2, AT4G02450.1 \_SIFCIIEK(Ubi)AEPER\_ SKINIGERSIFCIIEKAEPERWNKLLRVKKP 52.527 51.563 81

AT4G02560.2 AT4G02560.2, AT4G02560.1 \_VAAGGNSK(Ubi)EADVQR\_ MELDELWRVAAGGNSKEADVQRNRNRRERET 78.814 66.394 608

AT4G02590.3 AT4G02590.3, AT4G02590.2, AT4G02590.1 \_ALQELVPTVNK(Ubi)TDR\_ AERIRALQELVPTVNKTDRAAMIDEIVDYVK 47.774 46.785 121

AT4G02720.1 AT4G02720.1 \_EAK(Ubi)VMSDLQR\_ ALAMFNYEEKAKREAKVMSDLQRLVQRHMGE 55.314 50.42 388

AT4G02720.1 AT4G02720.1 \_K(Ubi)ENQVYSAEDK(ac)R\_ MSGSRHQRMNAIRIRKENQVYSAEDKRALAM 36.944 34.285 361

AT4G02720.1 AT4G02720.1 \_K(ac)ENQVYSAEDK(Ubi)R\_ AIRIRKENQVYSAEDKRALAMFNYEEKAKRE 50.088 48.316 371

AT4G03350.1 AT4G03350.1, AT4G02970.1, AT4G03360.1, AT4G03370.1, AT4G02950.1 \_K(Ubi)ELVKM(ox)QER\_ IQVEVNADDNVEELRKELVKMQERGELNLPH 34.803 10.337 213

AT4G03180.1 AT4G03180.1 \_IGVEDLYK(Ubi)QTR\_ RKGKSNKRIGVEDLYKQTREEMERVRKEREA 142.08 104.9 115

AT4G03180.1 AT4G03180.1 \_K(ac)EAK(Ubi)GK(ac)M(ox)LR\_ KKEAKEEAESRRKEAKGKMLRKTRHGQPVMK 43.651 20.273 150

AT4G03250.1 AT4G03250.1 \_EK(ac)LHSTDEPPVAK(Ubi)R\_ MQREKLHSTDEPPVAKRVKHGYIQQVYAPKS 43.761 41.287 454

AT4G03250.1 AT4G03250.1 \_K(Ubi)NLVSSK(ac)DGIR\_ DGEDSTSSDRSSSLRKNLVSSKDGIRDVESS 40.377 32.245 149

AT4G03430.1 AT4G03430.1 \_VEEVDGK(Ubi)IK(ac)AAR\_ PNGWIAAARVEEVDGKIKAARFQIQRGCEEC 43.502 37.607 402

AT4G03620.1 AT4G03620.1 \_IQK(ac)AQQQSSSGK(Ubi)K(ac)ELR\_ LKTRIQKAQQQSSSGKKELRRCYTDLKRSPD 86.488 71.608 128

AT4G04210.1 AT4G04210.1 \_K(Ubi)EEK(Ubi)CPER\_ EPADRRAPVHVNLMRKEEKCPERQKRRVSFQ 109.66 89.143 168

AT4G04210.1 AT4G04210.1 \_K(ac)EEK(Ubi)CPER\_ DRRAPVHVNLMRKEEKCPERQKRRVSFQGVG 133.99 115.32 171

AT4G04210.1 AT4G04210.1 \_K(Ubi)LDDPENASFLESIR\_ VFWSNGFTIDDGPLRKLDDPENASFLESIRK 158.29 124.5 130

AT4G04210.1 AT4G04210.1 \_K(Ubi)SECPK(ac)ELEPADR\_ KLDDPENASFLESIRKSECPKELEPADRRAP 66.246 65.258 145

AT4G04210.1 AT4G04210.1 \_K(ac)SECPK(Ubi)ELEPADR\_ ENASFLESIRKSECPKELEPADRRAPVHVNL 33.842 32.853 150

AT4G04210.1 AT4G04210.1 \_(ac)SSK(ac)DK(ac)K(Ubi)PSK(ac)PSSSR\_ \_\_\_\_\_\_\_\_\_MSSKDKKPSKPSSSRGGIRTLS 64.454 60.333 7

AT4G04614.1 AT4G04614.1 \_GK(Ubi)NYVEEEKR\_ QKEKKKRDLGQASRGKNYVEEEKRQLRESGV 91.701 79.642 155

AT4G04614.1 AT4G04614.1 \_GK(ac)NYVEEEK(Ubi)R\_ DLGQASRGKNYVEEEKRQLRESGVYSGFDS\_ 72.096 45.389 162

AT4G04614.1 AT4G04614.1 \_VEEVK(Ubi)ESYQER\_ WSWTTGKDKQRVEEVKESYQEREATRAAAVT 114.86 108.78 104

AT4G04950.1 AT4G04950.1 \_AQPVSTADALK(Ubi)SR\_ SLQDRAQPVSTADALKSRLEKLTNSHPVMLF 49.149 46.76 154

AT4G05060.1 AT4G05060.1 \_(ac)ALTEDK(Ubi)SDSDGRR\_ \_\_\_\_\_\_\_\_\_MALTEDKSDSDGRRWGKFKLPF 105.65 102.57 7

AT4G05180.1 AT4G05180.1 \_DFSLALK(Ubi)DR\_ GTDNSDQARDFSLALKDRFYIQPLSPTEAAA 67.704 58.347 116

AT4G05390.2 AT4G05390.2, AT4G05390.1 \_K(Ubi)DYPENFR\_ NSDSLLYDEEFAGYRKDYPENFRYDKALSRE 64.711 13.645 258

AT4G05390.2 AT4G05390.2, AT4G05390.1 \_YDK(Ubi)ALSR\_ FAGYRKDYPENFRYDKALSREEKNKKGGKMY 116.73 57.744 268

AT4G05400.2 AT4G05400.2, AT4G05400.1 \_DM(ox)EIQK(ac)K(Ubi)GGAASM(ox)GVTDEPM(ox)R\_ GLISKEKQRDMEIQKKGGAASMGVTDEPMRI 66.536 64.041 121

AT4G05400.2 AT4G05400.2, AT4G05400.1 \_EK(Ubi)LGLISK(ac)EK(ac)QR\_ RYLTPQEIEREAQREKLGLISKEKQRDMEIQ 126.5 112.32 104

AT4G05400.2 AT4G05400.2, AT4G05400.1 \_EK(ac)LGLISK(ac)EK(Ubi)QR\_ EREAQREKLGLISKEKQRDMEIQKKGGAASM 113.76 60.309 112

AT4G05400.2 AT4G05400.2, AT4G05400.1 \_ISDEK(Ubi)QK(ac)LYEQCLNAPCPVR\_ EGEEAVKGKGRISDEKQKLYEQCLNAPCPVR 40.432 39.612 74

AT4G05400.2 AT4G05400.2, AT4G05400.1 \_LAK(Ubi)EYSK(ac)VLM(ox)R\_ LPKYKLTEEDGERLAKEYSKVLMREHRERRA 95.273 91.696 169

AT4G05400.2 AT4G05400.2, AT4G05400.1 \_LAK(ac)EYSK(Ubi)VLM(ox)R\_ KLTEEDGERLAKEYSKVLMREHRERRAAETA 72.34 40.011 173

AT4G05400.2 AT4G05400.2, AT4G05400.1 \_NK(ac)LSIK(ac)K(ac)GGGGGGAPVEGEEAVK(Ubi)GK(ac)GR\_ GGGGGGAPVEGEEAVKGKGRISDEKQKLYEQ 34.78 34.772 65

AT4G05410.1 AT4G05410.1 \_DPFFEEEPK(Ubi)K(ac)R\_ KKGSNERDPFFEEEPKKRRKVSYDDDDIESV 42.976 39.987 33

AT4G21090.3 AT4G21090.3, AT4G21090.2, AT4G21090.1, AT4G05450.1 \_NFAVDGFVPK(Ubi)PH\_ IPSATRNFAVDGFVPKPH\_\_\_\_\_\_\_\_\_\_\_\_\_ 73.632 73.632 195

AT4G05530.1 AT4G05530.1 \_EGIEEK(Ubi)TLLNR\_ SFITGSSEVREGIEEKTLLNRLGTTGDMAAA 43.68 39.818 212

AT4G06598.1 AT4G06598.1 \_GPK(Ubi)ESDYLR\_ RYNNNNGFSNHVRGPKESDYLRSQPVPFYPS 115.78 92.013 135

AT4G08280.1 AT4G08280.1 \_AYQYEIPVLAK(ac)ENSDGK(Ubi)EEVLPR\_ YQYEIPVLAKENSDGKEEVLPRLSPRLSAEL 93.583 92.922 101

AT4G08310.1 AT4G08310.1 \_DK(Ubi)ADNFTFEGVR\_ QILAAMQSRVTYLRDKADNFTFEGVRRLLEE 61.235 55.515 52

AT4G08310.1 AT4G08310.1 \_K(ac)AK(Ubi)QAPEEK(ac)R\_ KSCGMSISPSVYRKAKQAPEEKREEILIKEL 102.4 96.898 370

AT4G08310.1 AT4G08310.1 \_K(ac)AK(ac)QAPEEK(Ubi)R\_ ISPSVYRKAKQAPEEKREEILIKELKELLAK 53.567 51.035 376

AT4G08310.1 AT4G08310.1 \_K(Ubi)LSK(ac)SEGTGK(ac)R\_ EDKEVAVKKKMAEKRKLSKSEGTGKRKREKE 104.59 77.886 288

AT4G08310.1 AT4G08310.1 \_K(ac)LSK(Ubi)SEGTGK(ac)R\_ EVAVKKKMAEKRKLSKSEGTGKRKREKEKPA 125.82 94.532 291

AT4G08390.4 AT4G08390.4, AT4G08390.3, AT4G08390.2, AT4G08390.1 \_M(ox)GLDDK(Ubi)DIVALSGAHTLGR\_ ATHLREVFYRMGLDDKDIVALSGAHTLGRSR 32.121 31.675 253

AT4G08390.4 AT4G08390.4, AT4G08390.3, AT4G08390.2, AT4G08390.1 \_SFNSTTAATK(ac)SSSSDPDQLK(Ubi)NAR\_ TTAATKSSSSDPDQLKNAREDIKELLSTKFC 100.76 100.54 108

AT4G08510.1 AT4G08510.1 \_DEIM(ox)ESVEK(Ubi)VSNVAER\_ SPQAAERDEIMESVEKVSNVAERISRFESAV 36.029 34.031 488

AT4G08580.1 AT4G08580.1 \_IK(ac)EK(Ubi)NLR\_ DDEDALEERRRRIKEKNLRRAQEEAALLPLE 98.997 9.8543 135

AT4G08580.1 AT4G08580.1 \_RLAQTK(Ubi)VENR\_ VARKDDPRLRRLAQTKVENRDEVRADHRRIR 82.287 56.728 83

AT4G08580.1 AT4G08580.1 \_LEAEEEALEELAK(Ubi)R\_ RERLEAEEEALEELAKRKLEQRKIETKQIVV;RERLEAEEEALEELAKRKLEQRKLETKQIVV 121.45 117.23 212

AT4G08780.1 AT4G08780.1, AT4G08770.1 \_MSSLSPLTGK(Ubi)QGEIR\_ VKAIIRMSSLSPLTGKQGEIRLNCRVVNSKS 89.911 76.492 315

AT5G40080.1 AT5G40080.1, AT4G09012.1 \_ASSLDILSPK(Ubi)R\_ SFRRKRASSLDILSPKRAPRDFYKGKNCKPT 52.391 46.671 29

AT4G09060.1 AT4G09060.1, AT4G09060.2 \_IDSDEAETK(Ubi)SR\_ \_\_MRSERIDSDEAETKSRTNLSQEVEEYIKD 50.354 33.142 14

AT4G09150.1 AT4G09150.1, AT4G09150.2 \_DELESK(Ubi)VEER\_ GLEQRVEKERDELESKVEERVLKAEKNRMLL 54.259 49.279 141

AT4G09150.1 AT4G09150.1, AT4G09150.2 \_LAK(Ubi)M(ox)DEAR\_ QKRLSILEKELARLAKMDEARQAAKNGLEQR 47.603 41.568 115

AT4G09180.1 AT4G09180.1 \_QIQELTEEQK(Ubi)R\_ VKVLQRQIQELTEEQKRCTCIPKEEQ\_\_\_\_\_ 74.841 71.645 252

AT4G09320.1 AT4G09320.1 \_K(Ubi)IIGATNPAASEPGTIR\_ VAMIWEGKNVVLTGRKIIGATNPAASEPGTI 69.979 65.362 106

AT4G09520.1 AT4G09520.1 \_(ac)M(ox)EEVQK(Ubi)R\_ \_\_\_\_\_\_\_\_\_\_MEEVQKRVAFILIDGLGDVSI 58.917 7.5714 6

AT4G09980.2 AT4G09980.2, AT4G09980.1 \_M(ox)SLK(Ubi)ASDFESSSR\_ EQDGGDRSEKRRMSLKASDFESSSRSGGSKS 51.726 36.935 36

AT4G10040.1 AT4G10040.1 \_ADLIAYLK(Ubi)EGTA\_ GLKKPQDRADLIAYLKEGTA\_\_\_\_\_\_\_\_\_\_\_ 66.267 40.793 108

AT4G10040.1 AT4G10040.1 \_(ac)ASFDEAPPGNPK(ac)AGEK(Ubi)IFR\_ ASFDEAPPGNPKAGEKIFRTKCAQCHTVEKG 85.203 83.64 17

AT4G10070.1 AT4G10070.1 \_GGETIK(Ubi)NM(ox)QTR\_ NDKVGLIIGRGGETIKNMQTRSGARTQLIPQ 66.267 61.751 295

AT4G10320.1 AT4G10320.1 \_FLVQNAK(Ubi)R\_ FLPWYNAYRFLVQNAKRLETEGGVPFVPTDL 55.676 21.423 700

AT4G10750.1 AT4G10750.1 \_K(ac)DATK(Ubi)AVSYCR\_ QGIMFPMIESRKDATKAVSYCRFPPDGIRGS 41.242 36.026 178

AT4G10760.1 AT4G10760.1 \_LLK(Ubi)ELPESFQGNNESNR\_ KPRIMVLAIDRTRLLKELPESFQGNNESNRV 73.168 70.905 214

AT4G10920.2 AT4G10920.2, AT4G10920.1 \_SVVEK(Ubi)FLDEER\_ LSEKSHKAFVRSVVEKFLDEERAREYENSQV 54.343 50.373 57

AT4G10970.5 AT4G10970.5, AT4G10970.4, AT4G10970.3, AT4G10970.2, AT4G10970.1, AT4G10970.6 \_EK(Ubi)IVQQQANGGGGGQR\_ SQRGFVGKQQQQQREKIVQQQANGGGGGQRQ 70.26 69.435 142

AT4G10970.5 AT4G10970.5, AT4G10970.4, AT4G10970.3, AT4G10970.2, AT4G10970.1, AT4G10970.6 \_FANMK(Ubi)EER\_ QRQWPQTLDSRFANMKEERMRMRRFADNRSN 76.064 70.283 170

AT4G10970.5 AT4G10970.5, AT4G10970.4, AT4G10970.3, AT4G10970.2, AT4G10970.1, AT4G10970.6 \_GFVGK(Ubi)QQQQQR\_ APPAQNRASQRGFVGKQQQQQREKIVQQQAN 93.556 87.12 134

AT4G23900.1 AT4G23900.1, AT4G11010.1, AT4G23895.3 \_K(Ubi)LIGATDPQK(Ubi)SEPGTIR\_ VAMVWEGEGVIRYGRKLIGATDPQKSEPGTI 123.4 121.83 172

AT4G23900.1 AT4G23900.1, AT4G11010.1, AT4G23895.3 \_TFIAIK(Ubi)PDGVQR\_ QEALAAEMERTFIAIKPDGVQRGLISEIITR 81.709 65.09 95

AT4G11150.1 AT4G11150.1, AT1G64200.1, AT3G08560.1 \_DGK(Ubi)IVCENTLDAR\_ GLHCSGGVVLASRDGKIVCENTLDARLDVAF 147.26 127.58 198

AT4G11150.1 AT4G11150.1, AT1G64200.1, AT3G08560.1 \_LK(Ubi)EPSVLLR\_ KQLLKDLIVQCLLRLKEPSVLLRCREEDLGL 80.688 49.267 126

AT4G11150.1 AT4G11150.1, AT1G64200.1, AT3G08560.1 \_M(ox)K(Ubi)LPVIR\_ CENTLDARLDVAFRMKLPVIRKSLFGQVTA\_ 38.792 26.745 216

AT4G11150.1 AT4G11150.1, AT1G64200.1, AT3G08560.1 \_QDYEK(ac)K(Ubi)EK(ac)QADVR\_ LVEAEKKKIRQDYEKKEKQADVRKKIDYSMQ 80.632 74.917 58

AT4G11150.1 AT4G11150.1, AT1G64200.1, AT3G08560.1 \_QDYEK(ac)K(Ubi)EK(Ubi)QADVR\_ EAEKKKIRQDYEKKEKQADVRKKIDYSMQLN 41.621 40.633 60

AT4G11420.1 AT4G11420.1 \_ALTEQLK(Ubi)ER\_ VTKQSVKERALTEQLKERQEMEKKLQKLAKT 176.33 140.67 672

AT4G11420.1 AT4G11420.1 \_EIELEEK(Ubi)SR\_ KAFEKQRQREIELEEKSRREREELLRGTNAP 69.275 23.677 850

AT4G11630.1 AT4G11630.1, AT5G11750.1 \_EIK(Ubi)VVDK(ac)K(ac)K(ac)VR\_ VESMFPLYSPNLREIKVVDKKKVRRAKLYYL 40.475 33.998 200

AT4G11630.1 AT4G11630.1, AT5G11750.1 \_EIK(ac)VVDK(ac)K(Ubi)K(ac)VR\_ PLYSPNLREIKVVDKKKVRRAKLYYLRDKVN 84.169 76.385 205

AT4G11740.1 AT4G11740.1 \_AAIEASK(ac)K(Ubi)EAEGSSNPLLEER\_ NDIEEEMIRAAIEASKKEAEGSSNPLLEERP 40.622 39.262 211

AT4G11740.1 AT4G11740.1 \_DK(Ubi)EM(ox)K(Ubi)SIR\_ QQDDEYVASLQADRDKEMKSIRDAEARQLEE 59.908 53.873 421

AT4G11740.1 AT4G11740.1 \_K(Ubi)LEEEQELER\_ AFLEEEKKKEEEAQRKLEEEQELERQLDAKE 93.096 37.781 457

AT4G11740.1 AT4G11740.1 \_QIPIEVK(Ubi)DSSGPSGR\_ FVSHPREVRQIPIEVKDSSGPSGRSSDAPTI 71.08 69.717 126

AT4G12040.2 AT4G12040.2, AT4G12040.1 \_DAIAK(ac)ANPLVK(Ubi)ADK(ac)VQR\_ KEVGRDAIAKANPLVKADKVQRI\_\_\_\_\_\_\_\_ 32.366 31.297 168

AT4G12400.1 AT4G12400.1, AT4G12400.2 \_CVEQINK(Ubi)ASR\_ QEFLDGVRRCVEQINKASRGDLTPEELKERQ 69.721 66.678 486

AT4G12400.1 AT4G12400.1, AT4G12400.2 \_K(ac)GSALVK(Ubi)M(ox)AR\_ KMIARALTRKGSALVKMARCSKDFEPAIETF 63.624 52.46 317

AT4G12400.1 AT4G12400.1, AT4G12400.2 \_NPNNLNLYMK(ac)DK(Ubi)R\_ MKEIQRNPNNLNLYMKDKRVMKALGVLLNVK 50.897 47.579 172

AT4G12400.1 AT4G12400.1, AT4G12400.2 \_SDFK(Ubi)M(ox)IAR\_ CDKAVERGRELRSDFKMIARALTRKGSALVK 44.349 38.314 302

AT4G12610.1 AT4G12610.1, AT4G12610.2 \_AVLM(ox)EK(ac)K(Ubi)QVTTQDLVSR\_ TGPVTEDEIRAVLMEKKQVTTQDLVSRFKAR 58.98 58.203 350

AT4G12610.1 AT4G12610.1, AT4G12610.2 \_GTPPAK(ac)PSK(ac)GK(Ubi)R\_ SGPPRGTPPAKPSKGKRKLNDGDSKKPSSSV 31.215 30.025 272

AT4G12770.2 AT4G12770.2, AT4G12770.1, AT4G12780.1, AT4G12780.2 \_AAK(ac)ALAEK(Ubi)NER\_ RHQRTQERAAKALAEKNERDLQVQREQAEKD;RHQRTQERAAKALAEKNERDLQVQREQVEKD 84.169 62.797 773

AT4G12770.2 AT4G12770.2, AT4G12770.1, AT4G12780.1, AT4G12780.2 \_AATEAHAK(Ubi)VQR\_ ATREARERAATEAHAKVQRAAVGKATDARER;ATREARERAATEAHAKVQRAAVGKVTDARER 39.625 39.625 569

AT4G12770.2 AT4G12770.2, AT4G12770.1, AT4G12780.1, AT4G12780.2 \_AAVGK(Ubi)VTDAR\_ AATEAHAKVQRAAVGKVTDARERAERAAVQR 87.568 75.837 577

AT4G12770.2 AT4G12770.2, AT4G12770.1, AT4G12780.1, AT4G12780.2 \_DVFSGPPPK(Ubi)YGSSGDSR\_ GDDLLFRDVFSGPPPKYGSSGDSRSPSAPAF 43.794 42.806 79

AT4G12770.2 AT4G12770.2, AT4G12770.1, AT4G12780.1, AT4G12780.2 \_EK(Ubi)AEK(ac)AAAEAR\_ AHAEARERAAAGAREKAEKAAAEARERANAE 41.242 38.162 608

AT4G12780.1 AT4G12780.1, AT4G12780.2 \_AAVGK(Ubi)ATDAR\_ AATEAHAKVQRAAVGKATDARERAERAAVQR 88.24 39.455 579

AT4G12780.1 AT4G12780.1, AT4G12780.2 \_TDPLDDIGK(Ubi)FNSR\_ TPREPSRTDPLDDIGKFNSRKTDHSSVHGGV 70.373 68.746 261

AT4G12780.1 AT4G12780.1, AT4G12780.2 \_TTSETTNQSEK(Ubi)APYR\_ PPSKRTTSETTNQSEKAPYRTAETSSNVEED 41.621 40.633 220

AT4G13170.1 AT4G13170.1 \_LGSQLDVLAPVK(Ubi)Y\_ AEERLGSQLDVLAPVKY\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 50.088 50.088 205

AT4G13170.1 AT4G13170.1 \_TK(Ubi)AEK(ac)VAEER\_ QVMYERKKQLNKLRTKAEKVAEERLGSQLDV 59.198 23.521 185

AT4G13170.1 AT4G13170.1 \_TK(ac)AEK(Ubi)VAEER\_ YERKKQLNKLRTKAEKVAEERLGSQLDVLAP 66.267 59.58 188

AT4G13350.2 AT4G13350.2, AT4G13350.1 \_SLLK(Ubi)LPENK(ac)R\_ VKEDEKNEKIIRSLLKLPENKRCINCNSLGP 52.247 51.257 20

AT4G13350.2 AT4G13350.2, AT4G13350.1 \_VK(Ubi)EDEK(ac)NEK(ac)IIR\_ \_\_\_\_\_\_\_\_\_\_MAGRVKEDEKNEKIIRSLLKL 45.28 42.239 6

AT4G13350.2 AT4G13350.2, AT4G13350.1 \_YTNEK(Ubi)NDDK(ac)SPSETR\_ DFIRHVYVNKRYTNEKNDDKSPSETRSSSGS 58.885 56.582 126

AT4G13560.1 AT4G13560.1 \_DK(Ubi)AADLTQSAR\_ SACDKTADLTQSARDKAADLTQSARDKTADG 42.976 38.082 47

AT4G13615.1 AT4G13615.1 \_AGGK(Ubi)GK(ac)NGDDGLTPEQR\_ QRERDRERAAARAGGKGKNGDDGLTPEQRRE 32.366 30.063 21

AT4G13615.1 AT4G13615.1 \_AGGK(ac)GK(Ubi)NGDDGLTPEQR\_ ERDRERAAARAGGKGKNGDDGLTPEQRRERD 47.68 46.716 23

AT4G13780.1 AT4G13780.1 \_IGTPQPLFK(Ubi)ELENDEVAR\_ ILPPSHRIGTPQPLFKELENDEVARYREKFA 35.133 35.019 569

AT4G13850.3 AT4G13850.3, AT4G13850.2, AT4G13850.1, AT4G13850.4 \_GFGFVNFNDEGAATAAISEM(ox)DGK(Ubi)ELNGR\_ NDEGAATAAISEMDGKELNGRHIRVNPANDR 101.45 101.04 99

AT4G13940.3 AT4G13940.3, AT4G13940.1, AT4G13940.4, AT3G23810.1 \_(ac)ALLVEK(Ubi)TSSGR\_ \_\_\_\_\_\_\_\_\_MALLVEKTSSGREYKVKDMSQA 118.9 115.24 7

AT4G13940.3 AT4G13940.3, AT4G13940.1, AT4G13940.4, AT3G23810.1 \_EYK(Ubi)VK(ac)DM(ox)SQADFGR\_ \_MALLVEKTSSGREYKVKDMSQADFGRLELE 74.789 72.992 15

AT4G13940.3 AT4G13940.3, AT4G13940.1, AT4G13940.4, AT3G23810.1 \_EYK(ac)VK(Ubi)DM(ox)SQADFGR\_ ALLVEKTSSGREYKVKDMSQADFGRLELELA 54.09 51.616 17

AT4G13940.3 AT4G13940.3, AT4G13940.1, AT4G13940.4, AT3G23810.1 \_ITIK(Ubi)PQTDR\_ MLGLETYPGVKRITIKPQTDRWVFPETKAGI 87.149 65.121 327

AT4G13940.3 AT4G13940.3, AT4G13940.1, AT4G13940.4, AT3G23810.1 \_LVGVSEETTTGVK(Ubi)R\_ KERLVGVSEETTTGVKRLYQMQQNGTLLFPA 139.86 135.64 166

AT4G14030.2 AT4G14030.2, AT4G14030.1 \_IYAIDTK(Ubi)ENPR\_ VLPSLISGRIYAIDTKENPRAPSLYKYVDPK 61.344 53.478 127

AT4G14110.1 AT4G14110.1 \_EQK(Ubi)VDSSK(ac)LQR\_ SQMASVKKQAVKREQKVDSSKLQRLTEYVFH 36.417 24.149 179

AT4G14110.1 AT4G14110.1 \_EQK(ac)VDSSK(Ubi)LQR\_ VKKQAVKREQKVDSSKLQRLTEYVFHLEH\_\_ 50.354 42.988 184

AT4G14110.1 AT4G14110.1 \_IPTAIK(Ubi)ER\_ CDSARFLWKRIPTAIKERKPEVVAAWGIGQK 41.876 18.805 70

AT4G14300.1 AT4G14300.1 \_ALPK(Ubi)DANPGGGGR\_ HDLSGKQVEVKRALPKDANPGGGGRSMGGGG 64.827 55.048 188

AT4G14300.1 AT4G14300.1 \_DK(Ubi)LTGRPR\_ FTNYGEVSQAIVMRDKLTGRPRGFGFVIFSD 67.981 65.301 41

AT4G14300.1 AT4G14300.1 \_VLQEK(Ubi)HSIDTR\_ VIFSDPSVLDRVLQEKHSIDTREVDVKRAMS 73.435 71.848 67

AT4G14510.1 AT4G14510.1 \_IEK(Ubi)SSVEER\_ DQFQDKEVEQERRIEKSSVEERFYVEERRGG 88.495 37.05 156

AT4G14540.1 AT4G14540.1 \_EVEGEK(Ubi)TTTAGR\_ PLKVYLQKYREVEGEKTTTAGRQGDKEGGGG 109 82.211 115

AT4G14710.4 AT4G14710.4, AT4G14710.2, AT4G14710.1, AT4G14710.3 \_(ac)GEVVK(Ubi)DGR\_ \_\_\_\_\_\_\_\_\_\_MGEVVKDGREEVIQAWYMDDS 56.258 38.746 6

AT4G14710.4 AT4G14710.4, AT4G14710.2, AT4G14710.1, AT4G14710.3 \_LDADNYETDEDLK(Ubi)K(ac)IR\_ SWRLDADNYETDEDLKKIRESRGYSYMDFCE 123.02 120.88 64

AT4G14716.1 AT4G14716.1 \_(ac)GEAVK(Ubi)DGR\_ \_\_\_\_\_\_\_\_\_\_MGEAVKDGREEVIQAWYMDDS 39.305 32.409 6

AT4G14880.4 AT4G14880.4, AT4G14880.3, AT4G14880.2, AT4G14880.1 \_K(Ubi)EAEAM(ox)TFEA\_ FGERYLSTVLFDATRKEAEAMTFEA\_\_\_\_\_\_ 72.321 66.286 313

AT4G15000.1 AT4G15000.1, AT4G15000.2 \_YAGK(ac)K(ac)AVIIK(Ubi)SFDDGNR\_ ILLQGRYAGKKAVIIKSFDDGNRDRPYGHCL 90.385 81.342 27

AT4G15420.1 AT4G15420.1 \_SAK(Ubi)EK(ac)LER\_ \_\_\_\_\_\_\_MDFELRSAKEKLEREQRERKQRAK 50.353 8.9539 9

AT4G15545.1 AT4G15545.1 \_ENASLSNTVK(Ubi)R\_ KENLIRENASLSNTVKRLQRDVSKLEGFRKT 122.7 115.33 119

AT4G15545.1 AT4G15545.1 \_K(Ubi)AEEIFGGDNR\_ KDLNAHKQTREETLRKAEEIFGGDNRDLYVI 149.41 141.38 312

AT4G15545.1 AT4G15545.1 \_VDGK(Ubi)EFFR\_ ISEPGSQTARTRVDGKEFFRQVRSRLSYEQF 79.474 33.048 274

AT4G15790.1 AT4G15790.1 \_(ac)ADQTSDSTSPVAPLSVSSPTATK(ac)K(Ubi)DNTNPVDSK(ac)LTELNESR\_ TSPVAPLSVSSPTATKKDNTNPVDSKLTELN 97.63 97.368 24

AT4G15790.1 AT4G15790.1 \_EELSGLK(ac)K(Ubi)TLNLEVEQLR\_ DTQVKVYREELSGLKKTLNLEVEQLREEFKD 100.97 100.19 79

AT4G15790.1 AT4G15790.1 \_SEVTEEK(Ubi)VEALSTDDNAK(ac)EAEH\_ DSKEQIDKRSEVTEEKVEALSTDDNAKEAEH 188.44 188.44 132

AT4G15790.1 AT4G15790.1 \_SEVTEEK(ac)VEALSTDDNAK(Ubi)EAEH\_ VTEEKVEALSTDDNAKEAEH\_\_\_\_\_\_\_\_\_\_\_ 174.63 173.87 143

AT4G15802.1 AT4G15802.1 \_AEM(ox)GVEGTPPPASK(Ubi)SGDEPK(Ubi)TPASSS\_ LRAEMGVEGTPPPASKSGDEPKTPASSS\_\_\_ 128.4 126.73 74

AT4G15802.1 AT4G15802.1 \_FQTMSDSIITK(Ubi)IDDM(ox)GGR\_ QMQTRFQTMSDSIITKIDDMGGRINELEQSI 97.095 95.949 41

AT4G15880.1 AT4G15880.1 \_K(ac)YDDAK(Ubi)R\_ CEKDANFFVRKYDDAKRSALEALRFVNKGKD 54.157 33.158 109

AT4G15910.1 AT4G15910.1 \_VM(ox)VGK(Ubi)MEQR\_ AAGLSKGGSTRVMVGKMEQRGLDQEAESAWG 70.056 66.383 55

AT4G16143.2 AT4G16143.2, AT4G16143.1, AT3G06720.2, AT3G06720.1 \_(ac)SLRPNAK(Ubi)TEVR\_ \_\_\_\_\_\_\_\_MSLRPNAKTEVRRNRYKVAVDAE 79.492 79.492 8

AT4G16440.1 AT4G16440.1 \_(ac)SEK(Ubi)FSPTLR\_ \_\_\_\_\_\_\_\_\_\_\_\_MSEKFSPTLRLGDLNDFIA 44.318 29.638 4

AT4G16530.1 AT4G16530.1 \_AGDPDEEK(Ubi)YR\_ SAKDAAARAGDPDEEKYRLGYGVAGKGVKRP 67.334 58.122 714

AT4G16630.1 AT4G16630.1 \_AEDLK(ac)M(ox)K(Ubi)EK(ac)R\_ GGELVSADRAEDLKMKEKRKREREKNLPRKK 45.433 41.855 638

AT4G17390.1 AT4G17390.1, AT4G16720.1 \_GLTSEGK(Ubi)K(Ubi)NR\_ PVHKHRELRGLTSEGKKNRGLRGKGHNNHKN 76.228 30.86 169

AT4G16830.2 AT4G16830.2, AT4G16830.3, AT4G16830.1 \_NEAAPAIGDAAQFPSLGGK(Ubi)\_ APAIGDAAQFPSLGGK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 173.73 173.34 265

AT4G17010.1 AT4G17010.1 \_KIEEAEK(Ubi)LAR\_ NATQQEAIRKIEEAEKLARARGNANVTTDAN 42.21 18.534 126

AT4G17330.1 AT4G17330.1 \_K(ac)EPVK(Ubi)PVR\_ VSEASTKTQERKEPVKPVRSIVPQNSGIGSW 97.635 85.472 1854

AT4G17440.2 AT4G17440.2, AT4G17440.1 \_EEVPVSVK(Ubi)ER\_ SDEISPAREEVPVSVKEREETEEEEAKRTWN 72.2 68.708 69

AT4G17510.1 AT4G17510.1 \_(ac)ATASESSSSK(Ubi)R\_ \_\_\_\_\_MATASESSSSKRWLPLESNPDVMNQY 59.198 57.445 11

AT4G17520.1 AT4G17520.1 \_DGGAAAQAPTPAIGDSAQFPTLGK(Ubi)\_ PTPAIGDSAQFPTLGK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 166.49 166.4 360

AT4G17520.1 AT4G17520.1 \_TAYGNEDK(Ubi)R\_ KNYDRHSRTAYGNEDKRDGAGRANWGTTQDD 122.96 118.07 153

AT4G17720.1 AT4G17720.1 \_K(Ubi)VVDEFAR\_ KAKEKVGMAEEEDKRKVVDEFARVHLSESPK 69.812 41.115 247

AT4G17720.1 AT4G17720.1 \_VHLSESPK(Ubi)AASSTQEAER\_ KVVDEFARVHLSESPKAASSTQEAERESKLS 117.3 117.15 262

AT4G17730.1 AT4G17730.1, AT4G17730.2, AT5G46860.1 \_LVNTLGTPK(Ubi)DTPELR\_ SVSTFHRLVNTLGTPKDTPELREKLHKTRLY 44.925 35.643 58

AT4G17890.2 AT4G17890.2, AT4G17890.1 \_TGK(Ubi)TGGLGAR\_ VPSTFKKPIGAKRTGKTGGLGARKLTTKPKD 67.704 18.607 198

AT4G39925.1 AT4G39925.1, AT4G17950.1 \_QANNSNPTGTVK(Ubi)YEGR\_ \_MLRQANNSNPTGTVKYEGRFEIISLSGSFL 33.872 31.875 15

AT4G18100.1 AT4G18100.1, AT5G46430.2, AT5G46430.1 \_(ac)AVPLLTK(ac)K(Ubi)VVK(ac)K(ac)R\_ \_\_\_\_\_\_\_MAVPLLTKKVVKKRSAKFIRPQSD 71.879 71.3 9

AT4G18100.1 AT4G18100.1, AT5G46430.2, AT5G46430.1 \_(ac)AVPLLTK(ac)K(ac)VVK(ac)K(Ubi)R\_ \_\_\_MAVPLLTKKVVKKRSAKFIRPQSDRRIT 90.412 88.415 13

AT4G18100.1 AT4G18100.1, AT5G46430.2, AT5G46430.1 \_PK(Ubi)GIDSR\_ QSDRRITVKESWRRPKGIDSRVRRKFKGVTL 91.064 35.56 37

AT4G18260.1 AT4G18260.1 \_IAAK(Ubi)DSFAAK(ac)NSGVESR\_ GSDAQYHRAKERIAAKDSFAAKNSGVESRNL 86.005 83.781 365

AT4G18400.1 AT4G18400.1 \_ELLELQK(Ubi)R\_ HVECLALCRELLELQKRKDEPFLDTKATEDL 133.6 65.619 76

AT4G18400.1 AT4G18400.1 \_K(ac)DEPFLDTK(Ubi)ATEDLR\_ LLELQKRKDEPFLDTKATEDLRKETLRSSSK 41.695 41.035 86

AT4G18480.1 AT4G18480.1 \_DTYK(Ubi)TEQDK(ac)LQDQISTAR\_ RARFDSNPKDFRDTYKTEQDKLQDQISTARA 136.26 133.76 320

AT4G18480.1 AT4G18480.1 \_DTYK(ac)TEQDK(Ubi)LQDQISTAR\_ SNPKDFRDTYKTEQDKLQDQISTARANLSSV 68.41 66.848 325

AT4G18480.1 AT4G18480.1 \_FDSNPK(Ubi)DFR\_ RVKIVEERARFDSNPKDFRDTYKTEQDKLQD 110.53 87.214 313

AT4G18480.1 AT4G18480.1 \_GTGK(Ubi)STTVR\_ PKIGGVMIMGDRGTGKSTTVRSLVDLLPEIN 84.054 75.282 125

AT4G18480.1 AT4G18480.1 \_VK(Ubi)IVEER\_ MHAQVGTVRDADLRVKIVEERARFDSNPKDF 52.716 32.196 300

AT4G18700.1 AT4G18700.1 \_LK(Ubi)EEVAR\_ VRGGELFNKVAKGRLKEEVARKYFQQLISAV 84.097 3.8684 121

AT4G18740.3 AT4G18740.3, AT4G18740.2, AT4G18740.1 \_IQSSISK(Ubi)GESR\_ EEIISLLKRIQSSISKGESRGVEEEKNSDES 151.98 107.66 86

AT4G18740.3 AT4G18740.3, AT4G18740.2, AT4G18740.1 \_K(Ubi)SELLELIR\_ EVAKNRGIKGYSKLRKSELLELIRSS\_\_\_\_\_ 66.056 60.957 179

AT4G19150.2 AT4G19150.2, AT4G19150.1 \_ATTK(ac)AGK(Ubi)SPADVAGNAETQNFLEECEEQAR\_ VKYLVKKGASVRATTKAGKSPADVAGNAETQ 38.925 38.835 124

AT4G19210.1 AT4G19210.1 \_DLEK(Ubi)DTTHR\_ PFEAIQIINLPRDLEKDTTHRYGANTFKLHR 85.355 81.014 81

AT4G19210.1 AT4G19210.1 \_INK(Ubi)LESTK(ac)DR\_ ITFRRDPTNFRPRINKLESTKDREQKSAGSY 38.875 26.079 585

AT4G19590.1 AT4G19590.1 \_K(Ubi)LNEVK(ac)PKR\_ LLSDKVKRIAYDQKRKLNEVKPKRSRKQKQP 39.848 4.138 121

AT4G20360.1 AT4G20360.1 \_GIQK(Ubi)ADIQR\_ ALAGDNVGLLLRGIQKADIQRGMVLAKPGSI 72.325 42.582 361

AT5G44320.1 AT5G44320.1, AT4G20980.4, AT4G20980.3, AT4G20980.2, AT4G20980.1 \_DEEVEAK(Ubi)K(Ubi)R\_ NRNQLPQRRDEEVEAKKREAEKDRARRDRLY 95.502 62.239 145

AT4G21020.1 AT4G21020.1 \_ADM(ox)NK(Ubi)GVEDHR\_ VGPEEDAEKARADMNKGVEDHRKKKAEKDQK 69.03 63.932 243

AT4G21105.2 AT4G21105.2, AT4G21105.1 \_EK(Ubi)LLEK(ac)QR\_ \_\_\_\_MLTETPFRPREKLLEKQRLFQSIQRHT 97.431 53.989 12

AT4G21105.2 AT4G21105.2, AT4G21105.1 \_EK(ac)LLEK(Ubi)QR\_ MLTETPFRPREKLLEKQRLFQSIQRHTYLKG 54.982 14.485 16

AT4G21110.1 AT4G21110.1 \_(ac)PK(Ubi)VK(ac)TNR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MPKVKTNRVKYPEGWELI 41.448 28.921 3

AT4G21192.2 AT4G21192.2, AT4G21192.1 \_K(ac)VNFEQSK(ac)K(Ubi)LQER\_ RQEKAVKRKVNFEQSKKLQERLKAIRKEETA 85.909 66.155 63

AT4G21192.2 AT4G21192.2, AT4G21192.1 \_QEK(ac)AVK(Ubi)R\_ LKVKLDRCFRQEKAVKRKVNFEQSKKLQERL 125.25 86.93 54

AT4G21280.1 AT4G21280.1, AT4G21280.2 \_AK(ac)ESAK(Ubi)DIINVK(ac)PLIDR\_ PLPPTEAAARAKESAKDIINVKPLIDRKAWP 54.253 52.984 131

AT4G21280.1 AT4G21280.1, AT4G21280.2 \_DFALALK(Ubi)DR\_ GTDNSDQARDFALALKDRFYLQPLPPTEAAA 96.143 83.98 109

AT4G21450.1 AT4G21450.1, AT4G21450.3 \_SNPALEK(ac)LK(Ubi)R\_ RVIFLDPERSNPALEKLKRQLAEADAAVEAR 44.543 43.883 240

AT4G21580.3 AT4G21580.3, AT4G21580.1 \_DVADPEVK(Ubi)DDEVLIR\_ KPEVLQLRDVADPEVKDDEVLIRVLATALNR 62.357 59.644 26

AT4G21580.3 AT4G21580.3, AT4G21580.1 \_SPENK(Ubi)AVVVR\_ LTVLGAALRPRSPENKAVVVREVEKNVWPAI 99.568 71.364 266

AT4G21610.1 AT4G21610.1 \_(ac)M(ox)EEIQQQTQK(ac)EEQK(Ubi)HR\_ \_\_MEEIQQQTQKEEQKHREEEEEEEEGPPPG 60.489 59.263 14

AT4G21660.1 AT4G21660.1 \_K(Ubi)YLQGK(ac)R\_ YRNTVPVPRHWSQKRKYLQGKRGIEKQPFHL 85.265 10.85 212

AT4G21660.1 AT4G21660.1 \_QAYIEK(ac)EDGK(ac)K(ac)LK(Ubi)QK(ac)QR\_ GIEKIRQAYIEKEDGKKLKQKQRERMQPKMG 68.576 63.7 250

AT4G22000.1 AT4G22000.1 \_AK(ac)LDK(Ubi)YR\_ KTVTGFQHPWRAKLDKYRTELTKGVWGYWEM 111.01 40.095 26

AT4G22000.1 AT4G22000.1 \_K(Ubi)EVLTNGEDWPYDPER\_ WKPLGISARRRAMLRKEVLTNGEDWPYDPER 34.928 34.239 59

AT4G22070.1 AT4G22070.1 \_NSSQDHLLAQESK(Ubi)AEGR\_ EQRNSSQDHLLAQESKAEGRKRQELQIMVPR 42.068 40.819 169

AT4G22140.2 AT4G22140.2, AT4G22140.1 \_PSDAGK(Ubi)PPYVAR\_ VRAGDCVLMRPSDAGKPPYVARVEKIEADAR 30.729 26.874 46

AT4G22140.2 AT4G22140.2, AT4G22140.1 \_VEK(Ubi)IEADAR\_ RPSDAGKPPYVARVEKIEADARNNVKVHCRW 91.658 62.962 55

AT4G22150.1 AT4G22150.1 \_K(Ubi)LDDPENASFLDSIR\_ IFWSNGFTVDDGPLRKLDDPENASFLDSIRK 171.14 170.31 199

AT4G22220.1 AT4G22220.1 \_VK(Ubi)TNGAAAAGETTQA\_ DAIKAAVKDYKEKRVKTNGAAAAGETTQA\_\_ 107.74 106.75 154

AT4G22670.1 AT4G22670.1 \_AEAQAAYDK(Ubi)AK(ac)K(ac)EEQSSSSR\_ RDRLRRRAEAQAAYDKAKKEEQSSSSRPSGG 81.884 81.58 276

AT4G22670.1 AT4G22670.1 \_AEAQAAYDK(ac)AK(Ubi)K(ac)EEQSSSSR\_ RLRRRAEAQAAYDKAKKEEQSSSSRPSGGGF 33.707 33.315 278

AT4G22670.1 AT4G22670.1 \_RAEAQAAYDK(ac)AK(ac)K(Ubi)EEQSSSSR\_ LRRRAEAQAAYDKAKKEEQSSSSRPSGGGFP 99.11 97.884 279

AT4G22670.1 AT4G22670.1 \_DANAALEINPDSAK(Ubi)GYK(Ubi)SR\_ IRDANAALEINPDSAKGYKSRGMARAMLGEW 181.32 180.17 192

AT4G22670.1 AT4G22670.1 \_DYLESLGAK(Ubi)IPTGVHEEDK(ac)DTK(ac)PR\_ PSLSFFRDYLESLGAKIPTGVHEEDKDTKPR 162.71 162.05 41

AT4G23040.1 AT4G23040.1 \_K(Ubi)VEEEQELER\_ EAIEEAKRKEEEARRKVEEEQELERQLVSKE 84.507 80.334 418

AT4G23330.2 AT4G23330.2, AT4G23330.1 \_LQENALDAATK(Ubi)GNR\_ EAAGRLQENALDAATKGNRYINSCLRLNEEI 47.037 40.762 101

AT4G23620.1 AT4G23620.1, AT4G23620.2 \_AEIGSDEVIEK(Ubi)VR\_ DVEVRAEIGSDEVIEKVRALPRAIHLHSGTD 46.069 33.438 135

AT4G23620.1 AT4G23620.1, AT4G23620.2 \_PDPK(Ubi)HAETILAVPR\_ ETQLTYLPGFPRPDPKHAETILAVPRSVSGK 44.511 39.607 49

AT4G23620.1 AT4G23620.1, AT4G23620.2 \_SVSGK(Ubi)SISAK(ac)ER\_ KHAETILAVPRSVSGKSISAKERKAGRVPSI 64.104 56.537 64

AT4G23620.1 AT4G23620.1, AT4G23620.2 \_SVSGK(ac)SISAK(Ubi)ER\_ ILAVPRSVSGKSISAKERKAGRVPSIIFEQE 67.997 44.879 69

AT4G23620.1 AT4G23620.1, AT4G23620.2 \_VPSIIFEQEDGQHGGNK(Ubi)R\_ PSIIFEQEDGQHGGNKRLISVQTNQIRKLVN 105.17 104.03 92

AT4G23630.1 AT4G23630.1 \_(ac)AEEHK(Ubi)HDESVIAPEPAVEVVER\_ \_\_\_\_\_\_\_\_\_\_MAEEHKHDESVIAPEPAVEVV 53.96 53.09 6

AT4G23650.1 AT4G23650.1 \_EDGEASDK(Ubi)PLDNAVLSR\_ VLNHPWIREDGEASDKPLDNAVLSRMKQFRA 95.197 92.81 345

AT4G23650.1 AT4G23650.1 \_LVHK(Ubi)DDIEDVR\_ QQVACKSIPTRRLVHKDDIEDVRREVQIMHH 77.062 55.513 117

AT4G23710.1 AT4G23710.1 \_K(Ubi)LEATSGDSGANVK(Ubi)R\_ EVAEHKTSTEQGFQRKLEATSGDSGANVKRL 124.16 122.37 56

AT4G23800.2 AT4G23800.2, AT4G23800.1 \_K(Ubi)KEEELETR\_ DKTEELLKEKDEILRKKEEELETRDAEQEKL 60.398 32.917 78

AT4G23800.2 AT4G23800.2, AT4G23800.1 \_K(ac)K(Ubi)EEELETR\_ KTEELLKEKDEILRKKEEELETRDAEQEKLK 60.398 32.917 79

AT4G23885.1 AT4G23885.1 \_(ac)NVVHGLK(Ubi)R\_ \_\_\_\_\_\_\_\_MNVVHGLKRIPRIKFPQRHINPS 106.42 101.53 8

AT4G23890.1 AT4G23890.1 \_NIEDEQETSK(Ubi)AENNETER\_ EKELQRNIEDEQETSKAENNETERESDDSNL 74.732 74.158 87

AT4G23910.2 AT4G23910.2, AT4G23910.1 \_K(Ubi)ASTAAPLDFR\_ RFQGIQFPVTTNIARKASTAAPLDFRGRAFN 30.004 22.117 99

AT4G24270.1 AT4G24270.1, AT4G24270.2 \_K(Ubi)FFGDDGGVDSIR\_ FISNLSVKAQEEDIRKFFGDDGGVDSIRILH 50.088 48.648 669

AT4G24280.1 AT4G24280.1 \_DNK(Ubi)SLGSFR\_ EINVLQGEREFVRDNKSLGSFRLDGIPPAPR 101.82 0 523

AT4G24280.1 AT4G24280.1 \_FAKDDK(Ubi)EK(ac)R\_ VDQMVQEAERFAKDDKEKRDAIDTKNQADSV 104.22 94.566 598

AT4G24280.1 AT4G24280.1 \_K(Ubi)LVDDASR\_ GKQFAAEEISAQVLRKLVDDASRFLNDKVTK;NKQFAAEEISAQVLRKLVDDASRFLNDKVTK 117.81 44.551 198

AT4G24280.1 AT4G24280.1 \_K(Ubi)M(ox)NEVDEESK(Ubi)QVSYR\_ NPENTFFSVKRFIGRKMNEVDEESKQVSYRV 57.288 55.291 152

AT4G24280.1 AT4G24280.1 \_LVGQIAK(Ubi)R\_ VAYTKSGDRLVGQIAKRQAVVNPENTFFSVK;VAYTKSKDRLVGQIAKRQAVVNPENTFFSVK 89.296 44.901 131

AT4G24280.1 AT4G24280.1 \_QAVVNPENTFFSVK(Ubi)R\_ KRQAVVNPENTFFSVKRFIGRKMNEVDEESK;KRQAVVNPENTFFSVKRFIGRRMNEVAEESK 55.66 55.66 146

AT4G24370.1 AT4G24370.1 \_M(ox)QPK(ac)SK(Ubi)DVVEETPEDLM(ox)LR\_ QQQQQKQRPRMQPKSKDVVEETPEDLMLRFA 54.103 53.758 74

AT4G24500.2 AT4G24500.2, AT4G24500.3, AT4G24500.1 \_(ac)M(ox)EDSEK(Ubi)R\_ \_\_\_\_\_\_\_\_\_\_MEDSEKRKQMLKAMRMEAAAQ 38.962 32.272 6

AT4G24680.1 AT4G24680.1 \_AK(Ubi)ALAK(ac)LEELNR\_ QRQKEEEERARDQRAKALAKLEELNRRSQIY 69.345 67.852 714

AT4G24680.1 AT4G24680.1 \_AK(ac)ALAK(Ubi)LEELNR\_ EEEERARDQRAKALAKLEELNRRSQIYEEGS 74.987 69.272 718

AT4G24680.1 AT4G24680.1 \_EQSK(Ubi)ESSQTEGPR\_ VGSHTYDGERSREQSKESSQTEGPRYREKGQ 42.785 38.923 1384

AT4G24680.1 AT4G24680.1 \_FGEDNAK(Ubi)R\_ VLLKHQDGRFGEDNAKREEFLGNRLPNAEKI 144.38 123.85 470

AT4G24680.1 AT4G24680.1 \_GSGAPTK(Ubi)ALEDGQFVTSNQPIR\_ REHASWHQRGSGAPTKALEDGQFVTSNQPIR 83.871 82.873 1114

AT4G24680.1 AT4G24680.1 \_STNK(Ubi)EVQVEQNPNSM(ox)FQK(ac)NTGQGR\_ TSADTQAQLQNRSTNKEVQVEQNPNSMFQKN 50.271 50.271 1304

AT4G24680.1 AT4G24680.1 \_TLNSGNSANK(Ubi)VSAR\_ QESQPRTLNSGNSANKVSARNHRTGHASDSK 164.7 161.92 566

AT4G24680.1 AT4G24680.1 \_VAVGK(Ubi)ETK(ac)SGDESIETAR\_ AEETATMNTTRVAVGKETKSGDESIETARAR 125.73 117.81 894

AT4G24680.1 AT4G24680.1 \_VAVGK(ac)ETK(Ubi)SGDESIETAR\_ TATMNTTRVAVGKETKSGDESIETARARAAE 133.93 126.02 897

AT4G24770.1 AT4G24770.1 \_LEQLFSEHGK(Ubi)VVEAR\_ DVDNGRLEQLFSEHGKVVEARVVYDRETGRS 71.08 66.463 269

AT4G25100.4 AT4G25100.4, AT4G25100.5, AT4G25100.3, AT4G25100.2, AT4G25100.1 \_LEAAK(Ubi)AASA\_ NLVSWEAVSARLEAAKAASA\_\_\_\_\_\_\_\_\_\_\_ 90.15 26.585 182

AT4G25130.1 AT4G25130.1 \_QSAEK(Ubi)GCKDPIR\_ YLAKGGRMGLRQSAEKGCKDPIRCYG\_\_\_\_\_ 36.417 34.978 248

AT4G25180.1 AT4G25180.1 \_LPIAPTSNTEAEEDEENIK(Ubi)ASR\_ APTSNTEAEEDEENIKASRQFDRRIVGRRPK 167.51 166.45 41

AT4G25180.1 AT4G25180.1 \_(ac)M(ox)DSGEQK(Ubi)SK(ac)R\_ \_\_\_\_\_\_\_\_\_MDSGEQKSKRRFQPNPPRPSRR 37.968 36.779 7

AT4G25280.1 AT4G25280.1 \_IDDNITTM(ox)K(Ubi)K(Ubi)R\_ LNRNQGRIDDNITTMKKRLKIFNALNRPVID 66.663 58.253 179

AT4G25340.2 AT4G25340.2, AT4G25340.1 \_ADPGK(Ubi)TVSVR\_ ELSMGKPNGKRADPGKTVSVRYIGKLQKNGK 91.658 79.083 390

AT4G25580.1 AT4G25580.1 \_GIVTQSEEVEK(Ubi)R\_ APPKRGIVTQSEEVEKRLGGFKDPSSEAATK 56.205 46.405 529

AT4G25580.1 AT4G25580.1 \_SDEFDLGK(Ubi)DLPTR\_ LGKESPERSDEFDLGKDLPTRTQGIQNPQGF 43.761 42.899 352

AT4G25630.1 AT4G25630.1, AT5G52470.2, AT5G52470.1 \_DLVNMAK(ac)K(Ubi)R\_ EFSHRSGRDLVNMAKKRTNVIPIIEDARHPA 77.732 59.913 190

AT4G25630.1 AT4G25630.1, AT5G52470.2, AT5G52470.1 \_ISVQNEDGTK(Ubi)TEYR\_ VYNEKRISVQNEDGTKTEYRVWNPFRSKLAA 81.632 73.507 126

AT4G25730.1 AT4G25730.1 \_PAK(ac)K(ac)VAEAK(Ubi)AR\_ FKEINARPAKKVAEAKARKKRAAQKRLEKVR 81.92 80.48 706

AT4G25740.2 AT4G25740.2, AT4G25740.1 \_GGDEK(Ubi)GGAPADFQPSFQGGGGR\_ KPGGRPFGGPRGGDEKGGAPADFQPSFQGGG 86.748 85.013 111

AT4G25880.2 AT4G25880.2, AT4G25880.3, AT4G25880.1 \_K(Ubi)VSVPNR\_ PIRISGSNERWSNSRKVSVPNRSGSAPPNME 53.554 30.535 21

AT4G26110.2 AT4G26110.2, AT4G26110.1 \_DIQSQHDELEAK(Ubi)FR\_ DALRDIQSQHDELEAKFREERAILEAKYQTL 68.044 67.492 71

AT4G26110.2 AT4G26110.2, AT4G26110.1 \_(ac)SNDK(ac)DSFNVSDLTAALK(Ubi)DEDR\_ NDKDSFNVSDLTAALKDEDRAGLVNALKNKL 44.848 44.503 18

AT4G26130.1 AT4G26130.1 \_EEEETVEAVEK(Ubi)R\_ RHIGREEEETVEAVEKRRPETMRVERTTSIG 61.11 56.206 231

AT4G26230.1 AT4G26230.1 \_K(Ubi)FAEK(ac)EM(ox)GTK(ac)DVR\_ CTFKKKAPKAIKEIRKFAEKEMGTKDVRVDV 60.55 54.073 42

AT4G26230.1 AT4G26230.1 \_K(ac)FAEK(Ubi)EM(ox)GTK(ac)DVR\_ KKAPKAIKEIRKFAEKEMGTKDVRVDVKLNK 148.57 139.78 46

AT4G26230.1 AT4G26230.1 \_K(ac)FAEK(ac)EM(ox)GTK(Ubi)DVR\_ AIKEIRKFAEKEMGTKDVRVDVKLNKQIWSK 105.14 97.422 51

AT4G26310.1 AT4G26310.1, AT4G26310.2 \_VVEAEHK(Ubi)QQGR\_ IERTGRTFRVVEAEHKQQGRGGASIQVELRD 94.767 94.41 99

AT4G26450.1 AT4G26450.1 \_DNSEK(Ubi)ESGLELPNLHR\_ RSNSFPSSILRDNSEKESGLELPNLHRSHSV 31.614 26.997 424

AT4G26450.1 AT4G26450.1 \_K(Ubi)QAGEFQSSR\_ PQTVLSSKWQNGNFRKQAGEFQSSRSQEEAR 34.692 33.253 117

AT4G26450.1 AT4G26450.1 \_M(ox)DVSAPAAEK(Ubi)R\_ SQEEARMDVSAPAAEKRRYIDGYSSAGSRNS 52.391 47.41 142

AT4G26450.1 AT4G26450.1 \_PGEGSDLEEGSK(Ubi)R\_ GEKRPGEGSDLEEGSKRQRDWVAVSEANERF 53.034 49.954 458

AT4G26600.1 AT4G26600.1 \_ENAK(Ubi)ETPK(ac)HR\_ AQAREEKRKTMRENAKETPKHRG\_\_\_\_\_\_\_\_ 72.2 69.959 664

AT4G26630.2 AT4G26630.2, AT4G26630.1 \_EK(Ubi)NK(ac)TEEVK(Ubi)K(ac)DAEPR\_ KKRGKGTSSGGKVREKNKTEEVKKDAEPRTP 127.83 122.2 299

AT4G26630.2 AT4G26630.2, AT4G26630.1 \_EK(ac)NK(Ubi)TEEVK(ac)K(Ubi)DAEPR\_ RGKGTSSGGKVREKNKTEEVKKDAEPRTPFS 68.481 68.015 301

AT4G26630.2 AT4G26630.2, AT4G26630.1 \_GK(Ubi)GTSSGGK(Ubi)VR\_ KEDEKEESKGSKKRGKGTSSGGKVREKNKTE 59.198 18.702 288

AT4G26630.2 AT4G26630.2, AT4G26630.1 \_LSAGK(Ubi)K(Ubi)ESAGR\_ EETTKKKRGSRLSAGKKESAGRARNKKAVVA 47.712 30.047 594

AT4G26630.2 AT4G26630.2, AT4G26630.1 \_LVALIDK(Ubi)DSSK(ac)EFR\_ VRERKSVERLVALIDKDSSKEFRVEKGRGAY 43.761 37.354 335

AT4G26630.2 AT4G26630.2, AT4G26630.1 \_LVALIDK(ac)DSSK(Ubi)EFR\_ KSVERLVALIDKDSSKEFRVEKGRGAYLKDI 79.875 71.078 339

AT4G26630.2 AT4G26630.2, AT4G26630.1 \_TPK(ac)K(ac)TSPTAGSSSSK(Ubi)R\_ RTPKKTSPTAGSSSSKRSAKSQKKSEEATKV 80.738 80.307 496

AT4G26640.2 AT4G26640.2, AT4G26640.1 \_K(ac)YGQK(Ubi)VVR\_ VDILDDGYRWRKYGQKVVRGNPNPRSYYKCT 60.118 42.299 392

AT4G26780.1 AT4G26780.1 \_VIRPAEVGVTQGGENQEEK(Ubi)K(Ubi)ESDA\_ PAEVGVTQGGENQEEKKESDA\_\_\_\_\_\_\_\_\_\_ 172.77 172.77 322

AT4G26840.1 AT4G26840.1, AT5G55160.1, AT5G55160.2 \_STQLK(ac)K(Ubi)LM(ox)NAYCDR\_ GNEVFFRIKRSTQLKKLMNAYCDRQSVDMNS 70.889 68.502 42

AT4G26870.1 AT4G26870.1 \_AAK(ac)LEK(Ubi)LLR\_ KISKKESKKRAAKLEKLLRKQEREEATSSSL 51.445 41.79 28

AT4G26910.3 AT4G26910.3, AT4G26910.2, AT4G26910.1 \_VK(Ubi)DVVEDPQR\_ RLIDGREAVYFLRRVKDVVEDPQRLLLDI\_\_ 64.64 51.632 352

AT4G26965.2 AT4G26965.2, AT4G26965.1 \_AK(ac)EHEPEIVSAEPPEPK(Ubi)TTEPSGSGSSFR\_ KEHEPEIVSAEPPEPKTTEPSGSGSSFRPGT 43.501 43.091 127

AT4G26970.1 AT4G26970.1 \_VVEK(Ubi)YLDR\_ PWVKTSLAPGSRVVEKYLDRSGLRESLTKQG 77.732 66.568 581

AT4G27090.1 AT4G27090.1 \_QELAK(ac)LK(ac)K(Ubi)EITA\_ IKKAGVVRQELAKLKKEITA\_\_\_\_\_\_\_\_\_\_\_ 64.224 62.906 130

AT4G27130.1 AT4G27130.1 \_(ac)SELDSQVPTAFDPFADANAEDSGAGTK(Ubi)EYVHIR\_ DPFADANAEDSGAGTKEYVHIRVQQRNGRKS 34.512 34.376 28

AT4G27230.2 AT4G27230.2, AT4G27230.1 \_GK(ac)QLGSGAAK(ac)K(Ubi)STSR\_ \_\_MAGRGKQLGSGAAKKSTSRSSKAGLQFPV 37.77 36.735 14

AT4G27320.1 AT4G27320.1 \_EAIVTVK(Ubi)SR\_ PPGNVGATREAIVTVKSRRDDDDDDDEDHEA 108.43 101.06 229

AT4G27380.1 AT4G27380.1 \_TLSAK(Ubi)K(ac)LYE\_ KATKDKTKTLRTLSAKKLYE\_\_\_\_\_\_\_\_\_\_\_ 80.24 80.24 152

AT4G27380.1 AT4G27380.1 \_TLSAK(ac)K(Ubi)LYE\_ ATKDKTKTLRTLSAKKLYE\_\_\_\_\_\_\_\_\_\_\_\_ 71.524 69.37 153

AT4G27500.1 AT4G27500.1 \_DK(Ubi)AYSNIHDLR\_ TVLENELKTVSEKRDKAYSNIHDLRRQRDET 63.091 58.918 295

AT4G27500.1 AT4G27500.1 \_DK(Ubi)VIANAAM(ox)R\_ KQILKEIRLLEGTRDKVIANAAMRAKIKESM 70.942 62.455 219

AT4G27900.2 AT4G27900.2, AT4G27900.1 \_FAK(ac)TEEM(ox)QK(Ubi)\_ QPRIRGRFAKTEEMQK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 51.445 47.745 261

AT5G57815.1 AT5G57815.1, AT4G28060.1 \_(Ubi)MEDEIELK(Ubi)TAPADFR\_ \_\_\_\_\_\_\_\_MEDEIELKTAPADFRFPTTNQTR 162.79 158.31 8

AT4G28230.1 AT4G28230.1 \_DIDAEIEEVEK(Ubi)EIGR\_ RSKKRDIDAEIEEVEKEIGRLSTKLESLRLE 38.376 38.376 105

AT4G28230.1 AT4G28230.1 \_YSQM(ox)GK(Ubi)TQTGEK(ac)DVR\_ LKPGRVVASRYSQMGKTQTGEKDVRKRSLPE 79.652 77.916 291

AT4G28300.2 AT4G28300.2, AT4G28300.1 \_SELTHAHEDADVK(Ubi)LR\_ EMRSELTHAHEDADVKLRSLDKHLQEVHRSV 71.98 66.265 80

AT4G28440.1 AT4G28440.1 \_(ac)ATTGTAAVATGTSTVK(Ubi)R\_ ATTGTAAVATGTSTVKRKPVFVKVEQLKPGT 177.58 176.71 17

AT4G28440.1 AT4G28440.1 \_IDM(ox)FK(Ubi)GTM(ox)R\_ PGATVILRNSRIDMFKGTMRLGVDKWGRIEA 45.598 37.198 110

AT4G28480.2 AT4G28480.2, AT4G28480.1 \_SANDDDLK(Ubi)K(Ubi)AYR\_ YKVLQVDRSANDDDLKKAYRKLAMKWHPDKN 56.205 53.892 21

AT4G28660.1 AT4G28660.1, AT4G28660.2 \_SPK(Ubi)EWDR\_ GKPEGIVAKHIMRSPKEWDRFMRFMERYSDQ 43.808 36.913 159

AT4G28660.1 AT4G28660.1, AT4G28660.2 \_YSDQNGLQFVK(Ubi)K(Ubi)Q\_ RFMERYSDQNGLQFVKKQ\_\_\_\_\_\_\_\_\_\_\_\_\_ 79.089 78.226 181

AT4G28990.1 AT4G28990.1, AT4G28990.2 \_NNISK(Ubi)VQPR\_ EPPHGRDGMSRNNISKVQPREGDWYCLDPLC 54.982 46.572 150

AT4G29060.1 AT4G29060.1 \_IATIGENIK(ac)VK(Ubi)R\_ KDLVKQRIATIGENIKVKRFVRYTLGEGLEK 42.083 36.988 702

AT4G29060.1 AT4G29060.1 \_K(Ubi)NEEIAAFLDK(ac)R\_ GVVHTATNPFMLAFRKNEEIAAFLDKREEEA 36.519 31.602 347

AT4G29060.1 AT4G29060.1 \_LVEADIESK(Ubi)R\_ GQEVKVRLVEADIESKRISLTMRENDDPPKR 113.44 79.57 198

AT4G29160.2 AT4G29160.2, AT4G29160.3, AT4G29160.1 \_QPARPVPQK(Ubi)R\_ VPVPAGRQPARPVPQKRTAEEEELAALQAEM 72.243 68.07 175

AT4G29430.1 AT4G29430.1 \_AK(Ubi)EIEK(ac)YTER\_ VNDCKALTYRQDVRAKEIEKYTERTLPTRQW 41.242 39.433 83

AT4G29430.1 AT4G29430.1 \_AK(ac)EIEK(Ubi)YTER\_ KALTYRQDVRAKEIEKYTERTLPTRQWGYVV 108.35 104.77 87

AT4G29440.2 AT4G29440.2, AT4G29440.1 \_NELYTQK(Ubi)ASNSDK(ac)R\_ QTASSSSIRNELYTQKASNSDKRPSSIPPDS 58.885 56.582 713

AT4G30160.1 AT4G30160.1, AT4G30160.2 \_LK(Ubi)TTSTDPVSDIDVTR\_ VEDEEDLPAHPYDRLKTTSTDPVSDIDVTRR 39.338 38.76 921

AT4G30480.2 AT4G30480.2 \_RLEPLAAEK(Ubi)R\_ QARKGIRRLEPLAAEKREKMKEEAITKLKEM 50.354 48.914 230

AT4G30690.2 AT4G30690.2, AT4G30690.1 \_LIDDQQNM(ox)IGLVSK(Ubi)EEAVR\_ VRLIDDQQNMIGLVSKEEAVRRAEDAELDLV 47.68 46.319 111

AT4G30935.1 AT4G30935.1 \_DEEK(Ubi)SLGADM(ox)EDLHDETVR\_ VEPEKDGLSQFRDEEKSLGADMEDLHDETVR 35.133 34.788 36

AT4G30935.1 AT4G30935.1 \_ETLGK(Ubi)DQVQGVR\_ DMEDLHDETVRETLGKDQVQGVRENSSVEPN 98.156 89.152 56

AT4G30935.1 AT4G30935.1 \_K(Ubi)TSFSPR\_ VEIVNKGLHTHEPPRKTSFSPREIRVTTAIR 87.323 71.169 228

AT4G31420.1 AT4G31420.1, AT4G31420.2 \_K(Ubi)VAGVPGVTEALFEAR\_ NLHYKSDWHRYNLKRKVAGVPGVTEALFEAR 30.072 29.351 35

AT4G31490.1 AT4G31490.1, AT4G31480.2, AT4G31480.1 \_ATGEFTK(Ubi)DENDANK(ac)LNR\_ DQVQDDLKRATGEFTKDENDANKLNRILQLT 41.088 36.607 706

AT4G31490.1 AT4G31490.1, AT4G31480.2, AT4G31480.1 \_EIIETNPK(Ubi)LR\_ LDVVVFVREIIETNPKLRVSIITRLLDTFYQ 59.908 42.242 428

AT4G31700.1 AT4G31700.1, AT4G31700.2 \_K(ac)FTNK(ac)K(ac)GK(ac)EVSK(ac)APK(Ubi)IQR\_ RKFTNKKGKEVSKAPKIQRLVTPLTLQRKRA 50.87 50.525 117

AT4G31700.1 AT4G31700.1, AT4G31700.2 \_K(Ubi)LFNLK(ac)K(ac)EDDVR\_ EKPRMRGPKRASKIRKLFNLKKEDDVRTYVN 169.04 142.51 83

AT4G31700.1 AT4G31700.1, AT4G31700.2 \_K(ac)LFNLK(Ubi)K(Ubi)EDDVR\_ RGPKRASKIRKLFNLKKEDDVRTYVNTYRRK 114.7 85.802 88

AT4G31700.1 AT4G31700.1, AT4G31700.2 \_LSSAAAK(Ubi)PSVTA\_ ESLAKKRSRLSSAAAKPSVTA\_\_\_\_\_\_\_\_\_\_ 159.44 135.35 183

AT4G31700.1 AT4G31700.1, AT4G31700.2 \_SESLAK(Ubi)K(Ubi)R\_ SRLKEQRDRRSESLAKKRSRLSSAAAKPSVT;SRLKEQRDRRSESLAKKRSRLSSAPAKPVAA 101.28 32.086 172

AT4G31700.2 AT4G31700.2 \_(ac)K(Ubi)QGVLTPGR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_MKQGVLTPGRVRLLLHR 107.21 56.239 2

AT4G31790.2 AT4G31790.2, AT4G31790.1 \_GGK(Ubi)K(ac)QYEPPR\_ IRVKEPTFESLCRGGKKQYEPPRYMSVNTAI 34.692 22.645 185

AT4G31880.2 AT4G31880.2, AT4G31880.1 \_SLGQGK(Ubi)ASGESLVGSR\_ SPNSNTKRKRSLGQGKASGESLVGSRIKVWW 136.36 135.21 601

AT4G32330.2 AT4G32330.2, AT4G32330.3, AT4G32330.1 \_ADK(Ubi)SIEVSEAVAVEH\_ SHETVSPRMNEDRADKSIEVSEAVAVEH\_\_\_ 41.621 40.633 424

AT4G32330.2 AT4G32330.2, AT4G32330.3, AT4G32330.1 \_K(ac)K(Ubi)TASGADSEETQTPR\_ KKIPPTRPKSPKLGRKKTASGADSEETQTPR 131.18 113.17 294

AT4G32470.1 AT4G32470.1, AT4G32470.2 \_M(ox)HM(ox)K(Ubi)AISTR\_ AFIDPKKNFLARMHMKAISTRLRRYGLRYDD 35.652 34.057 22

AT4G32520.2 AT4G32520.2, AT4G32520.1 \_TIITK(Ubi)EK(ac)DR\_ YGLGEVDPEVRTIITKEKDRQFRSLELIASE 44.318 22.325 96

AT4G32520.2 AT4G32520.2, AT4G32520.1 \_VK(ac)SLK(Ubi)ER\_ VTSPEFPLKERVKSLKERVETFTSRFPIPGV 69.598 19.883 514

AT4G32551.1 AT4G32551.1, AT4G32551.2 \_GNEQVLK(Ubi)NQSGR\_ DGSISNSFRGNEQVLKNQSGRKRKQPVSSSG 117.93 92.484 519

AT4G32610.1 AT4G32610.1, AT2G25670.2, AT2G25670.1 \_QLSK(ac)K(Ubi)ER\_ EVRAPPKEAERQLSKKERKKKELAELEALLA 68.383 31.622 164

AT4G32620.1 AT4G32620.1, AT4G32620.2 \_VGK(ac)EAK(Ubi)SSGDASGR\_ KRKSSASNRRVGKEAKSSGDASGRISKVSRE 44.252 36.641 237

AT4G32720.2 AT4G32720.2, AT4G32720.1 \_EDVESFFSQYGK(Ubi)VNSVR\_ DVKREDVESFFSQYGKVNSVRMPRHVAESRI 86.367 85.793 141

AT4G32720.2 AT4G32720.2, AT4G32720.1 \_FDEPEASQK(Ubi)AR\_ SETGYLRFDEPEASQKARAAAVLANEGGLAV 147.19 144.95 353

AT4G32720.2 AT4G32720.2, AT4G32720.1 \_TVAASPFSYDVK(Ubi)R\_ LNARTVAASPFSYDVKREDVESFFSQYGKVN 88.101 66.326 128

AT4G32930.1 AT4G32930.1, AT4G32930.2 \_EGNVTM(ox)IPGK(Ubi)GR\_ CKFCGREGNVTMIPGKGRPLTLEDSEAGEHA 73.082 70.72 86

AT4G33060.1 AT4G33060.1 \_NASESK(Ubi)EVLSVR\_ LKAEASDKERNASESKEVLSVREALNAKKEA 52.576 38.83 254

AT4G33090.1 AT4G33090.1 \_ETDLSQEK(Ubi)TR\_ ESLLRVYRETDLSQEKTRILGSLASCPDPTI 53.567 49.598 741

AT4G33090.1 AT4G33090.1 \_TLK(Ubi)QSIER\_ EFFATRSKPSMARTLKQSIERVHINANWVES 73.233 50.162 847

AT4G33100.1 AT4G33100.1 \_(ac)GLLK(ac)K(Ubi)K(ac)DSTSAR\_ \_\_\_\_\_\_\_\_\_\_MGLLKKKDSTSARSSTSPCAD 74.987 68.51 6

AT4G33100.1 AT4G33100.1 \_(ac)GLLK(ac)K(ac)K(Ubi)DSTSAR\_ \_\_\_\_\_\_\_\_\_MGLLKKKDSTSARSSTSPCADL 94.122 87.435 7

AT4G33100.1 AT4G33100.1 \_ILEVDGELNPTK(ac)QATDSK(Ubi)ESSS\_ EVDGELNPTKQATDSKESSS\_\_\_\_\_\_\_\_\_\_\_ 68.458 68.25 88

AT4G33910.1 AT4G33910.1 \_K(Ubi)GETAENTK(Ubi)GTR\_ ERAKVNLKPSALALRKGETAENTKGTRTSSG 77.776 76.336 119

AT4G36910.1 AT4G36910.1, AT4G34120.1 \_AALQIK(Ubi)R\_ GIITRGNVVRAALQIKRSGDRNA\_\_\_\_\_\_\_\_ 99.919 59.234 229

AT4G34490.1 AT4G34490.1 \_(ac)M(ox)EEDLIK(Ubi)R\_ \_\_\_\_\_\_\_\_\_MEEDLIKRLEAAVTRLEGISSN 41.876 36.935 7

AT4G34555.1 AT4G34555.1 \_ELM(ox)AK(Ubi)GTIR\_ INGSLARRAIRELMAKGTIRMVSAHSSQQIY 42.718 32.346 87

AT4G34620.1 AT4G34620.1 \_VVVADEK(Ubi)SR\_ GCKHRPFYRVVVADEKSRRDGKQIEVLGFYD 68.657 49.563 26

AT4G35000.1 AT4G35000.1 \_(ac)AAPIVDAEYLK(Ubi)EITK(Ubi)AR\_ \_\_\_\_MAAPIVDAEYLKEITKARRELRSLIAN 52.862 52.376 12

AT4G35490.1 AT4G35490.1 \_(ac)AAAAK(Ubi)EILR\_ \_\_\_\_\_\_\_\_\_\_MAAAAKEILRRPVAATIRLTV 82.287 65.616 6

AT4G35570.1 AT4G35570.1 \_K(Ubi)EFNLANPDNK(ac)SVGNVGR\_ KKPPSPFFVFLDDFRKEFNLANPDNKSVGNV 48.907 48.421 50

AT4G35570.1 AT4G35570.1 \_K(ac)EFNLANPDNK(Ubi)SVGNVGR\_ LDDFRKEFNLANPDNKSVGNVGRAAGKKWKT 56.121 55.655 60

AT4G35570.1 AT4G35570.1 \_(Ubi)M(ox)K(Ubi)DNQTEVESR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_MKDNQTEVESRSTDDRL 63.091 52.145 2

AT4G35890.1 AT4G35890.1 \_GQNQK(Ubi)NGFASQNHGGTENPSQR\_ TELPSHNPSPRGQNQKNGFASQNHGGTENPS 39.659 39.38 243

AT4G35980.1 AT4G35980.1 \_LDK(Ubi)TDSFR\_ DPLGESSSSGTARLDKTDSFRAL\_\_\_\_\_\_\_\_ 93.649 3.9509 80

AT4G36020.1 AT4G36020.1 \_DCTQK(Ubi)SVGNGDQR\_ YTCGDVGHVARDCTQKSVGNGDQRGAVKGGN 143.76 142 182

AT4G36020.1 AT4G36020.1 \_DCTQK(Ubi)VAAGNVR\_ YTCGDVGHFARDCTQKVAAGNVRSGGGGSGT 171.32 163.19 216

AT4G36105.1 AT4G36105.1, AT4G36105.2 \_K(ac)ELK(Ubi)VLLDR\_ KMSHDCSEEDARKELKVLLDRVKSAATSLSY 56.548 22.672 28

AT4G36130.1 AT4G36130.1 \_DAPPGK(ac)K(Ubi)VGLIAAR\_ HIGHASTVRRDAPPGKKVGLIAARRTGRLRG 50.897 47.7 233

AT4G36130.1 AT4G36130.1 \_GQAAALASK(Ubi)AD\_ RRTGRLRGQAAALASKAD\_\_\_\_\_\_\_\_\_\_\_\_\_ 54.023 44.227 256

AT4G36520.1 AT4G36520.1 \_IAETLDTEVK(Ubi)R\_ QAERIRIAETLDTEVKRWSSGKEGNIRALLS 126.19 72.956 1333

AT4G36690.2 AT4G36690.2, AT4G36690.4, AT4G36690.3, AT4G36690.1 \_DGEIEDQLDSK(Ubi)PK(ac)R\_ ENGGRDGEIEDQLDSKPKRESRDHERETSRS 35.657 34.833 36

AT4G36730.2 AT4G36730.2, AT4G36730.1 \_K(Ubi)QAECEQLQQR\_ RKQSNRESARRSRLRKQAECEQLQQRVESLS 130.56 129.12 241

AT4G36730.2 AT4G36730.2, AT4G36730.1 \_VLGAEAVANLEQNAAGSK(Ubi)DGEGTN\_ GAEAVANLEQNAAGSKDGEGTN\_\_\_\_\_\_\_\_\_ 87.802 87.802 307

AT4G36800.2 AT4G36800.2, AT4G36800.1 \_GGASVK(ac)K(Ubi)QSAGELR\_ REQAQNATRGGASVKKQSAGELRLHKDISEL 47.774 43.433 27

AT4G36930.1 AT4G36930.1 \_AAEVHNLSEK(Ubi)R\_ SSKRCRAAEVHNLSEKRRRSRINEKMKALQS 44.847 40.507 207

AT4G37090.2 AT4G37090.2, AT4G37090.1 \_K(Ubi)LMAEQVTLR\_ RENKNRVSREKKERRKLMAEQVTLRKSRKIE 94.692 83.767 47

AT4G37090.2 AT4G37090.2, AT4G37090.1 \_SSSVIK(Ubi)NSGQALR\_ LKMRRAQVPRSSSVIKNSGQALRLATGAALA 147.26 140.83 162

AT4G37120.1 AT4G37120.1 \_EDPLPDADPNEK(Ubi)FYLGDNQYR\_ RSMREDPLPDADPNEKFYLGDNQYRNSGQAL 74.776 73.743 278

AT4G37120.1 AT4G37120.1 \_GK(ac)K(Ubi)IYQAEQYR\_ KIEPEPKKIWYDRGKKIYQAEQYRKGACINC 111.86 108.66 84

AT4G37120.1 AT4G37120.1 \_K(Ubi)K(Ubi)LELEEAR\_ MATASVAFKSREDHRKKLELEEARKAGLAPA 128.27 104.9 16

AT4G37120.1 AT4G37120.1 \_K(Ubi)YNVNYTNDVTSEEM(ox)EAYR\_ KEDLSRREEKDERKRKYNVNYTNDVTSEEME 107.72 104.58 503

AT4G37120.1 AT4G37120.1 \_YDAK(Ubi)EEAR\_ YDTSTYRHVVDRYDAKEEARKKYLKEQQLKK 107.57 87.054 163

AT4G37300.1 AT4G37300.1 \_ADFDSLAPK(Ubi)R\_ KNANQIRADFDSLAPKRPTKPTRSEPGFPGS 58.699 53.804 35

AT4G37300.1 AT4G37300.1 \_SDEISDPEQQIK(Ubi)NANQIR\_ KPSRSDEISDPEQQIKNANQIRADFDSLAPK 184.48 181.91 20

AT4G37300.1 AT4G37300.1 \_(ac)STM(ox)K(Ubi)PSR\_ \_\_\_\_\_\_\_\_\_\_\_MSTMKPSRSDEISDPEQQIK 82.241 57.422 5

AT4G37370.1 AT4G37370.1 \_YYGDGVEDDPEAK(Ubi)R\_ GKRYYGDGVEDDPEAKRVRQLIADVVACAGA 43.03 42.341 206

AT4G37440.1 AT4G37440.1 \_EIITK(Ubi)EESNPK(ac)R\_ RPVRKRTPRNREIITKEESNPKRRRVSREKP 78.324 75.565 425

AT4G37660.1 AT4G37660.1 \_IADDLLK(Ubi)LNR\_ EARTKKLERIADDLLKLNRIELYDYSLLFSH 160.53 131.57 51

AT4G37870.1 AT4G37870.1 \_EVDYSDK(Ubi)SVTENTR\_ NVVFDEHTREVDYSDKSVTENTRAAYPIEFI 67.136 64.476 448

AT4G37910.1 AT4G37910.1 \_NSADTTIYSVEK(Ubi)SLSEYR\_ IDLRNSADTTIYSVEKSLSEYREKIPAEIAS 73.138 72.651 592

AT4G37910.1 AT4G37910.1 \_QATK(ac)DAGK(Ubi)IAGLDVQR\_ AYFNDAQRQATKDAGKIAGLDVQRIINEPTA 71.545 69.071 209

AT4G37910.1 AT4G37910.1 \_SDNIDLTK(Ubi)DNLALQR\_ YLVNEFKRSDNIDLTKDNLALQRLREAAEKA 68.044 62.33 298

AT4G38630.1 AT4G38630.1 \_TEEEESSSK(Ubi)K(Ubi)GEDEK(ac)K(Ubi)\_ LPDESKRTEEEESSSKKGEDEKK\_\_\_\_\_\_\_\_ 151.8 147.27 379

AT4G38630.1 AT4G38630.1 \_TEEEESSSK(ac)K(Ubi)GEDEK(Ubi)K(Ubi)\_ RTEEEESSSKKGEDEKK\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 58.079 58.079 385

AT4G38710.1 AT4G38710.1, AT4G38710.2 \_SK(Ubi)LGGGFR\_ PTGPRERSAEELDRSKLGGGFRSYGGGRYGD 89.296 41.553 110

AT4G38740.1 AT4G38740.1 \_IVMELYTDK(Ubi)TPR\_ DGQPAGRIVMELYTDKTPRTAENFRALCTGE 149.23 141.93 28

AT4G38890.1 AT4G38890.1 \_SVK(Ubi)QNDAADVR\_ IKKEFLCPPPPSRSVKQNDAADVRAPQSGLV 80.69 53.209 63

AT4G38930.1 AT4G38930.1, AT4G38930.2 \_STK(ac)ETTK(Ubi)VGAGK(ac)DR\_ NRGKLVFGSNVERSTKETTKVGAGKDRKQEE 40.278 27.486 276

AT4G39100.2 AT4G39100.2, AT4G39100.1 \_(ac)PK(Ubi)QK(ac)APR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MPKQKAPRKQLKSYKLKH 46.426 39.206 3

AT4G39200.2 AT4G39200.2, AT4G39200.1 \_ELM(ox)AK(Ubi)GVIR\_ INGSLARRAIRELMAKGVIRMVAAHSSQQIY 87.476 43.668 86

AT4G39260.1 AT4G39260.1, AT4G39260.3, AT4G39260.2 \_DAIEEMNGK(Ubi)ELDGR\_ KDEKAMRDAIEEMNGKELDGRVITVNEAQSR 163.99 162.8 70

AT4G39260.1 AT4G39260.1, AT4G39260.3, AT4G39260.2 \_GFGFVTFK(Ubi)DEK(ac)AMR\_ DRESGRSRGFGFVTFKDEKAMRDAIEEMNGK 50.088 49.398 55

AT4G39260.1 AT4G39260.1, AT4G39260.3, AT4G39260.2 \_GFGFVTFK(ac)DEK(Ubi)AM(ox)R\_ SGRSRGFGFVTFKDEKAMRDAIEEMNGKELD 110.92 105.21 58

AT4G39260.1 AT4G39260.1, AT4G39260.3, AT4G39260.2 \_TFSQFGDVIDSK(Ubi)IINDR\_ DLQRTFSQFGDVIDSKIINDRESGRSRGFGF 248.18 244.2 36

AT4G39680.2 AT4G39680.2, AT4G39680.1 \_K(Ubi)LPANDQEAVGNNEPAK(ac)R\_ SPENKSHPLVASDKRKLPANDQEAVGNNEPA 36.637 36.059 380

AT4G39680.2 AT4G39680.2, AT4G39680.1 \_VVPPSPK(Ubi)EPTNSLR\_ VSEDGPKERVVPPSPKEPTNSLRIDRFLRPF 86.944 83.626 453

AT4G39756.1 AT4G39756.1 \_DIK(Ubi)GLATLNR\_ SCSWYDTKHKEWRDIKGLATLNRRRRSSILE 34.692 12.051 292

AT4G39860.2 AT4G39860.2, AT4G39860.1 \_EMSGNNIFADGK(Ubi)SESR\_ AKLREMSGNNIFADGKSESRDYFGGVRKPPG 120.63 120.58 275

AT4G39880.1 AT4G39880.1 \_DLFPVK(Ubi)YIEEDR\_ TLRSPLSISRDLFPVKYIEEDRKSKVKGSSF 49.448 48.46 102

AT5G01300.1 AT5G01300.1 \_LVSPTIDNDGK(Ubi)LPR\_ SEELRLVSPTIDNDGKLPRKYTMAGQGVKKD 97.69 92.219 18

AT5G01380.1 AT5G01380.1 \_EELDQTFM(ox)ETK(Ubi)R\_ LLAIREELDQTFMETKRNKLLWEVVAAKMAD 36.417 33.556 75

AT5G01390.4 AT5G01390.4, AT5G01390.1, AT5G01390.3, AT5G01390.2 \_(ac)GVDFYK(Ubi)VLEVDR\_ \_\_\_\_\_\_\_\_\_MGVDFYKVLEVDRSANDDELKK 76.073 48.743 7

AT5G01390.4 AT5G01390.4, AT5G01390.1, AT5G01390.3, AT5G01390.2 \_K(Ubi)SAPIER\_ FRAATTGGEASIPSRKSAPIERQLPCSLEDL 75.213 61.437 156

AT5G01390.4 AT5G01390.4, AT5G01390.1, AT5G01390.3, AT5G01390.2 \_SANDDELK(Ubi)K(ac)AYR\_ YKVLEVDRSANDDELKKAYRKLAMKWHPDKN 55.261 49.888 21

AT5G01390.4 AT5G01390.4, AT5G01390.1, AT5G01390.3, AT5G01390.2 \_SANDDELK(ac)K(Ubi)AYR\_ KVLEVDRSANDDELKKAYRKLAMKWHPDKNP 55.261 49.888 22

AT5G01410.1 AT5G01410.1 \_TK(Ubi)GEAGTGNIIEAVR\_ EALRRIREGAAMIRTKGEAGTGNIIEAVRHV 77.506 47.569 165

AT5G02240.1 AT5G02240.1 \_AGGLLDK(Ubi)EGGVR\_ SGTPYTIIRAGGLLDKEGGVRELLVGKDDEL 117.79 86.903 180

AT5G02240.1 AT5G02240.1 \_ELLVGK(Ubi)DDELLQTDTK(Ubi)TVPR\_ GLLDKEGGVRELLVGKDDELLQTDTKTVPRA 200.99 165.32 191

AT5G02240.1 AT5G02240.1 \_K(Ubi)AEQYLADSGTPYTIIR\_ PLNKLGNGNILVWKRKAEQYLADSGTPYTII 178 175.18 157

AT5G02450.1 AT5G02450.1 \_SGGAGASEK(Ubi)K(Ubi)K(Ubi)\_ SVLRKMRSGGAGASEKKK\_\_\_\_\_\_\_\_\_\_\_\_\_ 102.4 16.588 106

AT5G02490.1 AT5G02490.1, AT1G56410.1, AT5G02500.2, AT5G02500.1 \_LIGDAAK(ac)NQVAM(ox)NPVNTVFDAK(Ubi)R\_ KNQVAMNPVNTVFDAKRLIGRRFSDASVQSD;KNQVAMNPVNTVFDAKRLIGRRFSDSSVQSD 51.431 48.845 74

AT5G02500.2 AT5G02500.2, AT5G02500.1 \_DAK(ac)M(ox)DK(Ubi)STVHDVVLVGGSTR\_ CMEPVEKCLRDAKMDKSTVHDVVLVGGSTRI 48.616 48.551 334

AT5G02500.2 AT5G02500.2, AT5G02500.1 \_K(Ubi)SK(ac)K(ac)DITGNPR\_ FDNRMVNHFVQEFKRKSKKDITGNPRALRRL 74.987 71.125 254

AT5G02500.2 AT5G02500.2, AT5G02500.1 \_K(ac)SK(Ubi)K(ac)DITGNPR\_ NRMVNHFVQEFKRKSKKDITGNPRALRRLRT 80.318 79.129 256

AT5G02500.2 AT5G02500.2, AT5G02500.1 \_K(ac)SK(ac)K(Ubi)DITGNPR\_ RMVNHFVQEFKRKSKKDITGNPRALRRLRTS 47.712 46.465 257

AT5G02530.2 AT5G02530.2, AT5G02530.1 \_GDALAAVK(Ubi)R\_ AEVVFSRRGDALAAVKRYNNVQLDGKLMKIE 96.668 66.593 166

AT5G02530.2 AT5G02530.2, AT5G02530.1 \_(ac)SGGLDM(ox)SLDDIIK(Ubi)SNR\_ \_\_MSGGLDMSLDDIIKSNRKPTGSRGRGGIG 64.565 63.901 14

AT5G02610.1 AT5G02610.1, AT5G02610.2 \_EK(Ubi)K(ac)K(ac)EM(ox)YFPVR\_ RRLTKHQASLKTEREKKKEMYFPVRKYAIKV 41.242 40.052 108

AT5G02610.1 AT5G02610.1, AT5G02610.2 \_EK(ac)K(Ubi)K(ac)EM(ox)YFPVR\_ RLTKHQASLKTEREKKKEMYFPVRKYAIKV\_ 41.242 40.052 109

AT5G02610.1 AT5G02610.1, AT5G02610.2 \_EK(ac)K(ac)K(Ubi)EM(ox)YFPVR\_ LTKHQASLKTEREKKKEMYFPVRKYAIKV\_\_ 37.18 34.1 110

AT5G02770.1 AT5G02770.1 \_FGK(Ubi)ETK(Ubi)VDSAEENK(Ubi)R\_ TEEEAKKKARLARFGKETKVDSAEENKRKAR 190.11 171.28 166

AT5G02770.1 AT5G02770.1 \_FGTVAAAVVNGSEGTK(ac)K(ac)AEELK(Ubi)R\_ AVVNGSEGTKKAEELKRKARADRFGVPSATS 105.51 100.04 131

AT5G02870.2 AT5G02870.2, AT5G02870.1 \_IINSDEVQSVVNPIK(Ubi)DGSK(ac)R\_ RIINSDEVQSVVNPIKDGSKRAVLKKNPLKN 116.94 115.83 313

AT5G02870.2 AT5G02870.2, AT5G02870.1 \_IINSDEVQSVVNPIK(ac)DGSK(Ubi)R\_ SDEVQSVVNPIKDGSKRAVLKKNPLKNLNVM 125.23 122.25 317

AT5G03040.3 AT5G03040.3, AT5G03040.2, AT5G03040.1 \_DDESLAGSPALPSYM(ox)VPTK(Ubi)SAR\_ SLAGSPALPSYMVPTKSARARLKPQSPLGGT 48.053 48.017 396

AT5G03340.1 AT5G03340.1 \_ENIEK(Ubi)DIENER\_ ICQRACKYAIRENIEKDIENERRRSQNPEAM 47.302 44.441 708

AT5G03620.1 AT5G03620.1 \_EEGVVSVFK(Ubi)NTQR\_ EAEKLSREEGVVSVFKNTQRQLHTTRSWDFL 115.57 101.11 106

AT5G03660.1 AT5G03660.1 \_K(Ubi)EVTMVR\_ AMIREELEGFADPMRKEVTMVRKKIDSLDKE 122.74 85.096 95

AT5G04280.1 AT5G04280.1 \_DSGYSIAGK(Ubi)GSFGGGGGGGGR\_ HGSRGGRDSGYSIAGKGSFGGGGGGGGRVGE 90.718 88.331 110

AT5G04280.1 AT5G04280.1 \_YPPGSYDK(Ubi)AR\_ RYSRGSDRYPPGSYDKARSFERDIAPSAGSD 103.66 99.94 245

AT5G04280.1 AT5G04280.1 \_VGEDECFK(Ubi)CGR\_ GGGGGGGRVGEDECFKCGRVGHWARDCPSAG 79.659 70.623 130

AT5G04420.3 AT5G04420.3, AT5G04420.2, AT5G04420.1 \_ALESSIAETQVENAK(Ubi)LR\_ RALESSIAETQVENAKLREKIDEVNSSHTEL 52.862 44.312 425

AT5G04420.3 AT5G04420.3, AT5G04420.2, AT5G04420.1 \_IDTIK(ac)EEK(Ubi)R\_ PERDIRNRIDTIKEEKRALESSIAETQVENA 77.662 51.545 409

AT5G04430.1 AT5G04430.1, AT5G04430.2 \_(ac)M(ox)ESTESYAAGSPEELAK(Ubi)R\_ ESTESYAAGSPEELAKRSPEPHDSSEADSAE 84.653 84.075 17

AT5G04600.1 AT5G04600.1 \_IEAAGIEYECPELVGNTQPVPK(Ubi)R\_ EYECPELVGNTQPVPKRIKFSEED\_\_\_\_\_\_\_ 74.214 73.587 214

AT5G04600.1 AT5G04600.1 \_K(Ubi)APVTTPPLQNK(ac)ATVLYIGR\_ KPSADFLPLEGGPARKAPVTTPPLQNKATVL 56.708 56.522 47

AT5G04740.1 AT5G04740.1 \_K(Ubi)VEDPDLLEQIR\_ IKQTKFSITKRDTGRKVEDPDLLEQIRLTII 60.157 53.471 161

AT5G04760.1 AT5G04760.1 \_IADQLHK(Ubi)SAGEVR\_ EGSPNRWERIADQLHKSAGEVREHYEVLVHD 32.295 26.019 38

AT5G04840.1 AT5G04840.1 \_K(Ubi)LQYIAELER\_ IPNAKRNPGQRSRVRKLQYIAELERTVGMLQ 33.875 0 189

AT5G04850.1 AT5G04850.1, AT5G04850.2 \_GDSVEEK(Ubi)VK(Ubi)R\_ DASDRINKRGDSVEEKVKRLDAELCKYKDQI 75.652 64.9 34

AT5G04850.1 AT5G04850.1, AT5G04850.2 \_IFGAK(ac)NNK(Ubi)EPPPSIQDASDR\_ \_\_\_\_\_MKRIFGAKNNKEPPPSIQDASDRINK 63.302 61.894 11

AT5G04870.1 AT5G04870.1 \_K(Ubi)AAELTR\_ ELFDRIIQRGHYTERKAAELTRTIVGVVEAC 82.241 31.609 250

AT5G05100.1 AT5G05100.1 \_GAGGSGSGSGVEK(Ubi)NLLR\_ PNRGAGGSGSGSGVEKNLLRSVEERKEEYDK 39.91 36.714 142

AT5G05100.1 AT5G05100.1 \_ILATK(Ubi)TVESR\_ EGGGVDGSGNRILATKTVESRYPYVCLSEIP 87.568 43.798 91

AT5G05210.2 AT5G05210.2, AT5G05210.1 \_EK(Ubi)K(ac)LLRPGFEGR\_ DRIEQNKMRKIAKREKKLLRPGFEGRKEGFI 50.897 45.356 358

AT5G05210.2 AT5G05210.2, AT5G05210.1 \_EQK(ac)LEQEK(Ubi)SGTELPDDDSKK(ac)ETDNNR\_ KKKHADLREQKLEQEKSGTELPDDDSKKETD 43.696 43.039 117

AT5G05210.2 AT5G05210.2, AT5G05210.1 \_IEQNK(Ubi)M(ox)R\_ QQKRSGNIADRIEQNKMRKIAKREKKLLRPG 70.912 41.763 349

AT5G05210.2 AT5G05210.2, AT5G05210.1 \_K(Ubi)EGFINEGGN\_ AKREKKLLRPGFEGRKEGFINEGGN\_\_\_\_\_\_ 147.91 145.86 369

AT5G05210.2 AT5G05210.2, AT5G05210.1 \_K(Ubi)IDELK(ac)GGR\_ DRSVTYEELRERLHRKIDELKGGRGGSDRPR 90.05 30.143 168

AT5G05210.2 AT5G05210.2, AT5G05210.1 \_K(ac)IDELK(Ubi)GGR\_ YEELRERLHRKIDELKGGRGGSDRPRSNERR 130.98 57.318 173

AT5G05230.1 AT5G05230.1 \_VGEQDPK(Ubi)TR\_ QDADPLRFRVGEQDPKTREFAAFIGDHRYFA 74.841 50.065 34

AT5G05710.1 AT5G05710.1 \_SVTDSEIVDYDNK(Ubi)H\_ NSRSVTDSEIVDYDNKH\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 35.657 33.354 143

AT5G06110.2 AT5G06110.2, AT5G06110.1 \_AAEAAQLHK(Ubi)R\_ KEEEAKRAAEAAQLHKRAKEREKKLLRKERS 96.342 92.42 353

AT5G06110.2 AT5G06110.2, AT5G06110.1 \_K(Ubi)PAASINSPLSTR\_ KPDSAKAFDSFLENRKPAASINSPLSTREEL 35.118 33.928 542

AT5G06110.2 AT5G06110.2, AT5G06110.1 \_QQEEAAAAAIEEEK(Ubi)R\_ KRQQEEAAAAAIEEEKRRKEEEAKRAAEAAQ 113.53 111.22 335

AT5G06360.1 AT5G06360.1 \_K(Ubi)ADENVQEGAVPAYLLDR\_ MKKTLKMHEESSSRRKADENVQEGAVPAYLL 114.55 103.23 76

AT5G06460.1 AT5G06460.1 \_LEDVNSK(Ubi)LLR\_ INEGLGDARLEDVNSKLLRHLAFGSRAVLNP 73.499 51.472 404

AT5G07310.1 AT5G07310.1 \_(ac)ANSGNYGK(Ubi)R\_ \_\_\_\_\_\_\_MANSGNYGKRPFRGDESDEKKEAD 80.455 79.764 9

AT5G07350.1 AT5G07350.1, AT5G07350.2, AT5G61780.1 \_SPK(Ubi)M(ox)GNPR\_ PAAERRVCLSSIRSPKMGNPRREEKPAPYAR;PMAERRVCLSSIRSPKMGNPRREEKPAPYAR 107.57 85.337 420

AT5G07470.1 AT5G07470.1 \_FGQGQSTAK(Ubi)GCNDPIR\_ YLSKGGRFGQGQSTAKGCNDPIRCYG\_\_\_\_\_ 117 116.31 192

AT5G07470.1 AT5G07470.1 \_SGIYFYTPEQEK(Ubi)LAR\_ TQYRSGIYFYTPEQEKLARESLERHQQQMER 38.376 36.447 140

AT5G07880.1 AT5G07880.1 \_GEK(Ubi)ILGR\_ HQKTVDLDHHLSRGEKILGRLGGVFSRTWKP 50.632 1.8761 119

AT5G07980.1 AT5G07980.1 \_QIDPSLTADLK(Ubi)SYR\_ VGNQRQIDPSLTADLKSYRTQQPVDPERGQS 40.278 34.383 56

AT5G08100.2 AT5G08100.2, AT5G08100.1 \_LK(ac)QAK(Ubi)EFNR\_ SHFITPENIARLKQAKEFNRVQLDYTVPSPK 113.93 107.49 76

AT5G08180.2 AT5G08180.2, AT5G08180.1 \_GVK(ac)EVVK(Ubi)SIR\_ AAGKKCLKRGVKEVVKSIRRGQKGLCVIAGN 85.813 65.025 60

AT5G08280.1 AT5G08280.1 \_TDDDK(Ubi)M(ox)ATYLASLNHEETR\_ VAQGAIGIACRTDDDKMATYLASLNHEETRL 81.157 80.9 285

AT5G08300.1 AT5G08300.1 \_VK(ac)HALNSQSK(Ubi)TR\_ QHDMVRVKHALNSQSKTRLIGPNCPGIIKPG 53.448 52.008 166

AT5G08420.1 AT5G08420.1 \_(ac)AEVEEIAHEEQNIEK(Ubi)R\_ MAEVEEIAHEEQNIEKREKKKGKHEKPKPWD 119.46 116.02 16

AT5G08450.3 AT5G08450.3, AT5G08450.2, AT5G08450.1 \_EIQGPK(Ubi)GDR\_ GREIYGETKREIQGPKGDRDVKFERSVDDFS 49.418 48.059 186

AT5G08450.3 AT5G08450.3, AT5G08450.2, AT5G08450.1 \_EIQGPK(Ubi)SDR\_ GREMYGETKREIQGPKSDRDAKFERPGDDFS 73.233 36.676 229

AT5G08450.3 AT5G08450.3, AT5G08450.2, AT5G08450.1 \_ETVGENK(Ubi)VDAK(Ubi)NEDR\_ VEGSHLEGRETVGENKVDAKNEDRFKEKDKK 85.493 76.927 344

AT5G08450.3 AT5G08450.3, AT5G08450.2, AT5G08450.1 \_SVDDFSGK(Ubi)GNTGSYTR\_ DRDVKFERSVDDFSGKGNTGSYTRNDGREMY 115.8 109.18 203

AT5G08520.1 AT5G08520.1 \_LNSM(ox)NK(Ubi)DR\_ ASHAQKYFIRLNSMNKDRRRSSIHDITSVGN 49.418 18.132 172

AT5G08535.2 AT5G08535.2, AT5G08535.1 \_GVGAK(Ubi)QPAK(ac)R\_ PLQAEPKHNKRGVGAKQPAKRKVAQPQAKDE 70.028 59.271 60

AT5G08610.1 AT5G08610.1 \_GK(Ubi)FTSDEDNADPEVVR\_ LSDWVSDLRTSSLRGKFTSDEDNADPEVVRR 124.29 120.06 107

AT5G08610.1 AT5G08610.1 \_SDK(Ubi)NVDSGSSFR\_ DRNVDSGSSFRGRSDKNVDSGSSFRGRNDRN 33.589 30.83 218

AT5G08610.1 AT5G08610.1 \_TSGEPADSFGNK(Ubi)R\_ NRRRTSGEPADSFGNKRLGDREGSRNGRVQG 148.78 130.58 176

AT5G08610.1 AT5G08610.1 \_VQGK(Ubi)SSESSFR\_ RLGDREGSRNGRVQGKSSESSFRGRSDRNVD 64.224 63.234 192

AT5G08690.1 AT5G08690.1, AT5G08670.1, AT5G08680.1 \_K(Ubi)VLNTGAPITVPVGR\_ RTIAMDGTEGLVRGRKVLNTGAPITVPVGRA 73.834 58.672 149

AT5G09250.1 AT5G09250.1 \_NHAEDIEK(Ubi)ALSDLS\_ VDQWNTLRNHAEDIEKALSDLS\_\_\_\_\_\_\_\_\_ 113.25 111.93 101

AT5G09380.1 AT5G09380.1 \_(ac)MEQK(Ubi)PPVR\_ \_\_\_\_\_\_\_\_\_\_\_\_MEQKPPVRKMKFAPKAPPK 84.568 81.888 4

AT5G09380.1 AT5G09380.1 \_VPK(Ubi)PEVK(ac)PEVVEDNSNSAQASELLR\_ RKMKFAPKAPPKRVPKPEVKPEVVEDNSNSA 104.53 104.38 23

AT5G09380.1 AT5G09380.1 \_VPK(ac)PEVK(Ubi)PEVVEDNSNSAQASELLR\_ FAPKAPPKRVPKPEVKPEVVEDNSNSAQASE 109.23 105.69 27

AT5G09390.1 AT5G09390.1, AT5G09390.2 \_EK(Ubi)EEGYFDADGNFVEYVR\_ TEDGIQIEAFSLDREKEEGYFDADGNFVEYV 114.99 114.58 109

AT5G09390.1 AT5G09390.1, AT5G09390.2 \_SFLEDEDSDK(Ubi)QPPEK(ac)R\_ RRNLKRSFLEDEDSDKQPPEKRVRFPKGKKS 123.02 121.72 22

AT5G09390.1 AT5G09390.1, AT5G09390.2 \_SFLEDEDSDKQPPEK(Ubi)R\_ RSFLEDEDSDKQPPEKRVRFPKGKKSKPEQL 78.69 77.911 27

AT5G09390.1 AT5G09390.1, AT5G09390.2 \_YDEETK(Ubi)EYK(ac)EVVSEVATEEV\_ CYATTGKWYRYDEETKEYKEVVSEVATEEV\_ 44.054 44.054 337

AT5G09510.1 AT5G09510.1, AT5G09510.2 \_EAPAGEK(Ubi)PEPVR\_ IKKLRKAKREAPAGEKPEPVRTHLRNMIIVP 110.31 24.784 79

AT5G09590.1 AT5G09590.1 \_EAELHAQK(Ubi)DK(Ubi)ER\_ DDIQKMVREAELHAQKDKERKELIDTKNTAD 82.069 66.128 574

AT5G09590.1 AT5G09590.1 \_QAVTNPTNTVSGTK(Ubi)R\_ KRQAVTNPTNTVSGTKRLIGRKFDDPQTQKE 141 139.38 125

AT5G09590.1 AT5G09590.1 \_SSGGLSEDDIQK(Ubi)M(ox)VR\_ ITIRSSGGLSEDDIQKMVREAELHAQKDKER 110.55 89.582 563

AT5G09620.1 AT5G09620.1 \_LSTK(Ubi)PAR\_ EHMMHEYDRLLRLSTKPARMRLFLFPSSPIS 71.715 29.823 136

AT5G09620.1 AT5G09620.1 \_PHDNQLTYVNGDTK(Ubi)IM(ox)SVDR\_ PRPHDNQLTYVNGDTKIMSVDRGIRFPALVS 128.38 121.53 67

AT5G09620.1 AT5G09620.1 \_TGPDGK(Ubi)VAVNM(ox)AAPQVSDSV\_ QPVSGMTDLRTGPDGKVAVNMAAPQVSDSV\_ 143.33 141.4 517

AT5G09650.1 AT5G09650.1 \_DYK(Ubi)IPDGK(ac)PANR\_ FPGTLTAIRDWFRDYKIPDGKPANRFGLGDK 53.388 50.191 251

AT5G09650.1 AT5G09650.1 \_DYK(ac)IPDGK(Ubi)PANR\_ TAIRDWFRDYKIPDGKPANRFGLGDKPANKD 89.301 49.676 256

AT5G09680.2 AT5G09680.2, AT5G09680.1 \_LIPMDEVK(ac)K(Ubi)HR\_ KGESNKRLIPMDEVKKHRTGDSMWTVLKGRV 59.198 56.118 136

AT5G09770.1 AT5G09770.1, AT5G64650.1 \_IETTVTK(Ubi)AK(ac)EVR\_ VSQLVKHERIETTVTKAKEVRRLADNMIQLG;VSQLVQHERIETTVTKAKEVRRLADNMIQLG 74.987 68.905 37

AT5G09770.1 AT5G09770.1, AT5G64650.1 \_IETTVTK(ac)AK(Ubi)EVR\_ QLVKHERIETTVTKAKEVRRLADNMIQLGKE;QLVQHERIETTVTKAKEVRRLADNMIQLGKE 92.856 77.312 39

AT5G09770.1 AT5G09770.1, AT5G64650.1 \_LADNM(ox)IQLGK(Ubi)EGSLSAAR\_ AKEVRRLADNMIQLGKEGSLSAARRAAGFVR 44.998 44.394 53

AT5G09770.1 AT5G09770.1, AT5G64650.1 \_QSK(Ubi)PATPQPPQR\_ AYIEFIDRENELRQSKPATPQPPQRVPLDPW 45.661 44.222 123

AT5G64760.2 AT5G64760.2, AT5G64760.1, AT5G09900.2, AT5G09900.1, AT5G09900.3 \_LLNEEK(Ubi)QM(ox)R\_ SRQLESSIDRLLNEEKQMRLAENVAGTRKAA 62.463 42.256 19

AT5G09960.1 AT5G09960.1 \_ASLGNEEELIK(Ubi)PPESATSTAELTTVQSENQR\_ RDPSRASLGNEEELIKPPESATSTAELTTVQ 74.321 72.467 63

AT5G10010.1 AT5G10010.1 \_AAK(ac)VK(Ubi)EEPVYFEEK(ac)R\_ KKPVPKAKKPRAAKVKEEPVYFEEKRSLEDL 41.088 40.451 135

AT5G10010.1 AT5G10010.1 \_K(ac)GVSK(Ubi)AGR\_ \_\_\_\_MKKGAKRKGVSKAGRKAAVAETQNDEV 55.461 39.58 12

AT5G10010.1 AT5G10010.1 \_(ac)M(ox)K(Ubi)K(Ubi)GAK(ac)R\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_MKKGAKRKGVSKAGRKA 89.55 30.569 2

AT5G10070.1 AT5G10070.1, AT5G10070.2 \_(ac)GYGK(Ubi)HNR\_ \_\_\_\_\_\_\_\_\_\_\_MGYGKHNRSKGGNSSRGRTD 41.502 33.935 5

AT5G10350.2 AT5G10350.2, AT5G10350.1 \_LK(Ubi)EM(ox)EEEAAALR\_ DEDAVTELAEMKRRLKEMEEEAAALREMQAK 44.511 41.861 47

AT5G10360.1 AT5G10360.1, AT5G10360.2 \_IADK(Ubi)K(Ubi)K(Ubi)R\_ VTPLTLQRKRARIADKKKRIAKANSDAADYQ 102.71 25.656 199

AT5G10360.1 AT5G10360.1, AT5G10360.2 \_IAK(Ubi)ANSDAADYQK(Ubi)LLASR\_ QRKRARIADKKKRIAKANSDAADYQKLLASR 144.17 140.42 205

AT5G10360.1 AT5G10360.1, AT5G10360.2 \_K(Ubi)LFNLGK(ac)EDDVR\_ EKPRMRGPKRASKIRKLFNLGKEDDVRKYVN 103.44 99.222 145

AT5G10360.1 AT5G10360.1, AT5G10360.2 \_K(ac)LFNLGK(Ubi)EDDVR\_ GPKRASKIRKLFNLGKEDDVRKYVNTYRRTF 99.5 91.89 151

AT5G10360.1 AT5G10360.1, AT5G10360.2 \_LSSAPAK(Ubi)PVAA\_ ESLAKKRSRLSSAPAKPVAA\_\_\_\_\_\_\_\_\_\_\_ 104.43 94.546 245

AT5G65430.2 AT5G65430.2, AT5G10450.2, AT5G65430.1, AT5G10450.1, AT5G10450.3, AT5G65430.3, AT5G10450.4 \_IVSSIEQK(Ubi)EESR\_ GSLRAAWRIVSSIEQKEESRKNEEHVSLVKD 116.24 103.97 75

AT5G10540.1 AT5G10540.1 \_LEK(ac)AK(Ubi)LLGYR\_ TAIIDQILKLRLEKAKLLGYRNYAEVSMATK 49.3 44.96 279

AT5G10560.1 AT5G10560.1 \_GQETPGEDPK(Ubi)VVSEYGVEFVR\_ DPRWGRGQETPGEDPKVVSEYGVEFVRGFQE 85.737 84.593 177

AT5G10950.1 AT5G10950.1 \_SSGK(ac)DK(Ubi)VSDAR\_ KNRLVSSSTRSSGKDKVSDARKYGEALVGSR 96.551 84.843 26

AT5G10950.1 AT5G10950.1 \_VFYEDGDK(Ubi)ETLDLK(ac)K(ac)ER\_ VSSKKKHRVFYEDGDKETLDLKKERWELIEE 77.221 75.603 76

AT5G11200.1 AT5G11200.1, AT5G11170.1, AT5G11200.3, AT5G11200.2 \_DFLLK(Ubi)PELLR\_ GYVGIHSSGFRDFLLKPELLRAIVDSGFEHP 66.056 64.545 54

AT5G11200.1 AT5G11200.1, AT5G11170.1, AT5G11200.3, AT5G11200.2 \_EK(Ubi)DLSLK(ac)NVR\_ IVVGTPGRVLALAREKDLSLKNVRHFILDEC 68.536 48.329 184

AT5G11260.1 AT5G11260.1 \_VPEFGGEAVGK(Ubi)ETSGR\_ EEIRRVPEFGGEAVGKETSGRESGSATGQER 120.63 118.15 53

AT5G11260.1 AT5G11260.1 \_TPAEK(Ubi)ENK(Ubi)R\_ TVGESQRKRGRTPAEKENKRLKRLLRNRVSA 152.97 140.81 87

AT5G11260.1 AT5G11260.1 \_VK(Ubi)DLENK(ac)NSELEER\_ RERKKAYLSELENRVKDLENKNSELEERLST 82.651 79.991 121

AT5G11260.1 AT5G11260.1 \_VK(ac)DLENK(Ubi)NSELEER\_ AYLSELENRVKDLENKNSELEERLSTLQNEN 157.91 150.2 126

AT5G11310.1 AT5G11310.1 \_SK(ac)GMSDMAK(Ubi)R\_ MIDNGLRSKGMSDMAKRLSSLMSSLPHSKKL 42.336 18.306 515

AT5G11420.1 AT5G11420.1, AT5G25460.1 \_LGNEASIK(Ubi)QR\_ PAGKFAIRLGNEASIKQRLNVTKGMYYSLTF 66.056 38.802 94

AT5G11500.2 AT5G11500.2, AT5G11500.1 \_LNK(Ubi)TK(ac)VER\_ IRVEKRVNEIVNRLNKTKVERTPDLRAEREA 100.02 67.763 134

AT5G11520.1 AT5G11520.1 \_K(Ubi)AEQQLINDR\_ YRTEEGKPLVLNVVRKAEQQLINDRTRIKEY 38.875 35.013 98

AT5G11520.1 AT5G11520.1 \_K(Ubi)QLFEALR\_ TLELKAMADRIISMRKQLFEALRTRGTPGDW 68.224 57.059 372

AT5G11520.1 AT5G11520.1 \_TEEGK(Ubi)PLVLNVVR\_ VKLNLGVGAYRTEEGKPLVLNVVRKAEQQLI 68.676 67.486 89

AT5G11600.1 AT5G11600.1 \_AFEK(Ubi)K(ac)QR\_ EHGMLSPEKAKRAFEKKQRKMKQIRMGTPSK 85.212 74.903 176

AT5G11600.1 AT5G11600.1 \_AFEK(ac)K(Ubi)QR\_ HGMLSPEKAKRAFEKKQRKMKQIRMGTPSKS 79.116 71.896 177

AT5G11600.1 AT5G11600.1 \_TSASK(Ubi)NNGLDAR\_ TFSSKAESSQRTSASKNNGLDARKKKKVVDD 100.93 96.037 210

AT5G11710.1 AT5G11710.1 \_EDK(ac)NDYESFQK(Ubi)SR\_ DRDSREDKNDYESFQKSRRGVKTEEQSYTSK 76.728 75.74 211

AT5G11710.1 AT5G11710.1 \_YGSTDHDNLSSGK(ac)K(Ubi)SPDSAK(ac)HR\_ SRYGSTDHDNLSSGKKSPDSAKHRSYVSAAP 36.166 34.981 245

AT5G11710.1 AT5G11710.1 \_YQSGGFK(Ubi)Q\_ FFSSLSNQRYQSGGFKQ\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 80.165 76.672 559

AT5G11760.1 AT5G11760.1 \_SGYLK(ac)K(Ubi)SSQGGDEAVVQR\_ \_\_MSKKRKARSGYLKKSSQGGDEAVVQRRKL 85.937 83.867 14

AT5G11890.1 AT5G11890.1 \_ELDPDEAK(Ubi)HLR\_ IATSTAARELDPDEAKHLRSDLTRARVGYEI 77.744 69.345 212

AT5G11900.1 AT5G11900.1 \_LPGGK(Ubi)VK(ac)K(ac)K(ac)DR\_ GGTSKKEEVKRLPGGKVKKKDRQEVIIEKVV 37.613 36.174 98

AT5G11900.1 AT5G11900.1 \_LPGGK(ac)VK(ac)K(Ubi)K(ac)DR\_ TSKKEEVKRLPGGKVKKKDRQEVIIEKVVRN 66.989 43.871 100

AT5G11900.1 AT5G11900.1 \_LPGGK(ac)VK(ac)K(ac)K(Ubi)DR\_ KKEEVKRLPGGKVKKKDRQEVIIEKVVRNKR 66.004 22.4 102

AT5G11900.1 AT5G11900.1 \_QEVIIEK(Ubi)VVR\_ GGKVKKKDRQEVIIEKVVRNKRKCITIVKGL 150.1 118.62 111

AT5G12020.1 AT5G12020.1 \_ENK(Ubi)ENEGVK(Ubi)YVR\_ NDNVLVVSGERQRENKENEGVKYVRMERRMG 130.36 127.5 91

AT5G12030.1 AT5G12030.1 \_DNK(Ubi)ENEGVK(ac)FVR\_ NENVLVVSGKRQRDNKENEGVKFVRMERRMG 51.726 48.009 92

AT5G12030.1 AT5G12030.1 \_DNK(ac)ENEGVK(Ubi)FVR\_ VSGKRQRDNKENEGVKFVRMERRMGKFMRKF 119.39 115.52 98

AT5G12120.1 AT5G12120.1 \_(ac)SSASK(Ubi)M(ox)K(ac)SR\_ \_\_\_\_\_\_\_\_\_\_MSSASKMKSRDKKVMNDSQKT 73.499 67.719 6

AT5G12120.1 AT5G12120.1 \_(ac)SSASK(ac)MK(Ubi)SR\_ \_\_\_\_\_\_\_\_MSSASKMKSRDKKVMNDSQKTPS 63.624 57.843 8

AT5G12140.1 AT5G12140.1 \_FAVDEHNK(ac)NENLTLEYK(Ubi)R\_ AVDEHNKNENLTLEYKRLLGAKTQVVAGTMH 257.15 248.73 47

AT5G12230.1 AT5G12230.1 \_K(Ubi)HDGDEDLNDVQR\_ HDSGDHSKKHHDKKRKHDGDEDLNDVQRHKK 90.759 87.562 188

AT5G12240.2 AT5G12240.2, AT5G12240.1 \_AELDSSK(Ubi)QSTSQSVVDR\_ PVVRSRDHRAELDSSKQSTSQSVVDREVSEW 147.17 145.02 29

AT5G12410.1 AT5G12410.1 \_(ac)ASGDQSK(ac)K(Ubi)R\_ \_\_\_\_\_\_\_MASGDQSKKRKQHYRPQNRPVKKK 131.52 114.85 9

AT5G12430.1 AT5G12430.1 \_LK(ac)IESEGK(Ubi)ASR\_ RVMEEMERLKIESEGKASRLPEDMQNLNSSF 50.354 41.944 133

AT5G13030.1 AT5G13030.1 \_PYEEQPGM(ox)EK(Ubi)YAR\_ IRLMKRPYEEQPGMEKYARLPPAWAYRPGVC 53.448 50.368 612

AT5G13050.1 AT5G13050.1 \_GGGYYDTFLK(Ubi)R\_ GRRLGRGGGYYDTFLKRYQDRAKEKGWRYPL 74.841 73.088 217

AT5G13050.1 AT5G13050.1 \_K(ac)SLK(Ubi)AM(ox)DPSLR\_ FKQKRVVRSTVRKSLKAMDPSLRTQQDEAIQ 58.098 51.194 72

AT5G13260.1 AT5G13260.1 \_AQNVAAK(Ubi)AAAQR\_ VTNMSNVKRAQNVAAKAAAQRLAKVMASQTN 147.62 146.37 58

AT5G13310.1 AT5G13310.1 \_LK(ac)EDEIEANK(Ubi)FNTSASQPSESK(ac)EPHAEESSEAM(ox)PR\_ VAARIRLKEDEIEANKFNTSASQPSESKEPH 65.624 65.085 165

AT5G13310.1 AT5G13310.1 \_PSSSK(Ubi)FSTSSSAPASR\_ AKIFGSLPFSRPSSSKFSTSSSAPASRQQSG 61.962 61.331 31

AT5G13330.1 AT5G13330.1, AT5G61890.1 \_DPK(ac)K(Ubi)AAR\_ QRPWGKWAAEIRDPKKAARVWLGTFETAEEA;QRPWGKWAAEIRDPKKAARVWLGTFETAESA 65.252 43.952 110

AT5G13330.1 AT5G13330.1, AT5G61890.1 \_EEEEK(Ubi)NYGYNYYNYPR\_ QQQLQQQQQQREEEEKNYGYNYYNYPRE\_\_\_ 33.265 32.687 200

AT5G13430.1 AT5G13430.1, AT5G13440.1 \_TEDDIK(Ubi)LANSVDVGSLR\_ RGKPVFIRRRTEDDIKLANSVDVGSLRDPQE 76.586 71.828 183

AT5G13470.1 AT5G13470.1 \_LVSPAQSFPPK(Ubi)R\_ QTQKRLVSPAQSFPPKRQRFEQDESVEKLPD 84.169 82.789 40

AT5G13490.2 AT5G13490.2, AT5G13490.1 \_LTEPYK(Ubi)GIR\_ NQDEMLKAGRLTEPYKGIRDCFGRTIRDEGI 76.064 48.636 129

AT5G13560.1 AT5G13560.1 \_TAVNK(Ubi)AVEVGNR\_ \_\_\_\_\_\_MSWLRTAVNKAVEVGNRKNITRTVK 44.511 26.375 10

AT5G13590.1 AT5G13590.1 \_DTTAITK(Ubi)SVSER\_ RDIERSSCRDTTAITKSVSERQKESVGFSSP 95.183 90.667 282

AT5G13590.1 AT5G13590.1 \_VIK(Ubi)EQVGK(ac)R\_ YGFESDRGYDLSRVIKEQVGKRNLCDDGKVQ 55.064 26.887 594

AT5G13590.1 AT5G13590.1 \_VIK(ac)EQVGK(Ubi)R\_ DRGYDLSRVIKEQVGKRNLCDDGKVQGPAAV 74.464 38.04 599

AT5G13970.1 AT5G13970.1 \_ANLIAAK(Ubi)LR\_ FNEREKDPRANLIAAKLRLKEDAEAVNKLNS 76.679 42.292 161

AT5G13970.1 AT5G13970.1 \_FSSDVK(Ubi)DR\_ DDSKSPKRVRFSSDVKDRTLTEGDNDSVMEA 122.19 37.62 248

AT5G13970.1 AT5G13970.1 \_SK(Ubi)DESLVDPLM(ox)ELPR\_ SNRKAYMDFLNMIRSKDESLVDPLMELPRSV 99.927 99.349 318

AT5G13970.1 AT5G13970.1 \_SVAFVPK(Ubi)R\_ VDPLMELPRSVAFVPKRKPMAESKVENIDKD 54.157 34.371 338

AT5G14220.2 AT5G14220.2, AT5G14220.1 \_(ac)ASGAVADHQIEAVSGK(Ubi)R\_ ASGAVADHQIEAVSGKRVAVVGAGVSGLAAA 52.862 50.864 17

AT5G14240.1 AT5G14240.1 \_EAAK(ac)VK(Ubi)R\_ YRKKRLSELREAAKVKRYGTVTPISGSDFVR 62.717 14.544 97

AT5G14540.1 AT5G14540.1 \_SYGSM(ox)DSLEPSK(Ubi)LFAEK(ac)DR\_ SSARSYGSMDSLEPSKLFAEKDRNSPESAII 37.884 36.476 112

AT5G14540.1 AT5G14540.1 \_VWDASDPK(Ubi)PVSASSAR\_ SVNSTAARVWDASDPKPVSASSARSYGSMDS 36.029 35.167 92

AT5G14780.1 AT5G14780.1 \_AYDLEGK(Ubi)TIGTVGAGR\_ WNVAGIAYRAYDLEGKTIGTVGAGRIGKLLL 85.493 85.493 198

AT5G14780.1 AT5G14780.1 \_YAAGTK(Ubi)DMLER\_ SGTTIDAQLRYAAGTKDMLERYFKGEDFPTE 83.182 75.817 355

AT5G14950.1 AT5G14950.1 \_PSK(Ubi)YSQQLEEDK(ac)PR\_ PCDLHIVNFKVPRPSKYSQQLEEDKPRFALI 38.376 30.666 1065

AT5G15030.1 AT5G15030.1, AT5G15030.2 \_IGDK(Ubi)EIDGSGSQNQHPVGSPR\_ DLFQIFSERMKRIGDKEIDGSGSQNQHPVGS 137.12 134.77 156

AT5G15200.2 AT5G15200.2, AT5G15200.1 \_DLLTLDEK(Ubi)SPR\_ SRIRNAARDLLTLDEKSPRRIFEGEALLRRM 96.229 57.447 67

AT5G15450.1 AT5G15450.1 \_AAELK(Ubi)YGSLNSLQR\_ QQAEREYDLNRAAELKYGSLNSLQRQLNEAE 62.287 59.091 578

AT5G15450.1 AT5G15450.1 \_LSLTNDTDK(Ubi)ASR\_ IKLEMERLSLTNDTDKASRERLNRIETELVL 54.343 41.242 511

AT5G15510.1 AT5G15510.1, AT5G15510.2 \_ASQEEFFK(Ubi)NR\_ CVAYETLRASQEEFFKNRIESEEDKEALEEC 64.82 56.075 138

AT5G15770.1 AT5G15770.1 \_K(ac)LEISDK(Ubi)R\_ \_MAETFKIRKLEISDKRKGFIELLGQLTVTG 66.299 20.17 15

AT5G15910.1 AT5G15910.1 \_ATEAEILDK(Ubi)FGNR\_ GYFEGKRATEAEILDKFGNRGSVLRPGFIHG 59.227 59.227 178

AT5G16130.1 AT5G16130.1 \_K(Ubi)LTGK(ac)DVVFEYPVEA\_ NNTEYKLETMVGVYRKLTGKDVVFEYPVEA\_ 83.292 81.616 176

AT5G16130.1 AT5G16130.1 \_K(ac)LTGK(Ubi)DVVFEYPVEA\_ YKLETMVGVYRKLTGKDVVFEYPVEA\_\_\_\_\_ 82.651 80.265 180

AT5G16130.1 AT5G16130.1 \_TLTSVHEAM(ox)LEDVAFPAEIVGK(Ubi)R\_ EAMLEDVAFPAEIVGKRTRYRLDGSKIMKVF 56.882 36.891 139

AT5G16260.1 AT5G16260.1 \_AK(Ubi)FEQK(ac)GER\_ PLRPADKLLMSVSRAKFEQKGERFITKQTDN 99.568 81.509 363

AT5G16260.1 AT5G16260.1 \_AK(ac)FEQK(Ubi)GER\_ ADKLLMSVSRAKFEQKGERFITKQTDNKKKK 155.11 132.43 367

AT5G16260.1 AT5G16260.1 \_DAQK(Ubi)CIEAMNGR\_ QGVVLVRFKDRRDAQKCIEAMNGRWYAKRQI 40.516 34.621 469

AT5G16260.1 AT5G16260.1 \_EIK(Ubi)DAEAEAER\_ SASTEDEFEKWQREIKDAEAEAERLKNGSVS 81.625 63.552 127

AT5G16260.1 AT5G16260.1 \_LK(Ubi)NGSVSGTELVEDDHER\_ WQREIKDAEAEAERLKNGSVSGTELVEDDHE 193.06 170.24 137

AT5G16270.1 AT5G16270.1 \_PTPVLEPATTK(Ubi)R\_ FLKMRPTPVLEPATTKRLRSAPRSTATKRKV 60.08 54.185 546

AT5G16450.2 AT5G16450.2, AT5G16450.1 \_QFIEEK(Ubi)GNGR\_ KVFEDNGLIRQFIEEKGNGRVLVVDGGGSQR 67.334 63.251 61

AT5G16470.1 AT5G16470.1 \_GGGK(Ubi)AGLADR\_ LQAKADAALTNRGGGKAGLADRTGKEKGGHA 77.062 0 30

AT5G16470.1 AT5G16470.1 \_NLHEALAAPAESSK(Ubi)PK(ac)PGIR\_ PRNLHEALAAPAESSKPKPGIRGSLKK\_\_\_\_ 80.236 78.131 93

AT5G16660.2 AT5G16660.2, AT5G16660.1 \_EK(Ubi)NTSSLNVPVETDPEVEATT\_ NSAIDNVSSRLRGREKNTSSLNVPVETDPEV 39.387 39.355 147

AT5G16680.1 AT5G16680.1 \_DLK(Ubi)GLQSDGK(ac)R\_ RGNSSVSHANNNRDLKGLQSDGKRGNLTKQV 54.343 45.932 558

AT5G16680.1 AT5G16680.1 \_DLK(ac)GLQSDGK(Ubi)R\_ HANNNRDLKGLQSDGKRGNLTKQVSNLSRNR 62.088 46.224 565

AT5G16680.1 AT5G16680.1 \_EANASASSIDQK(ac)LK(Ubi)SR\_ NREANASASSIDQKLKSRGNSSVSHANNNRD 68.481 66.336 541

AT5G16680.1 AT5G16680.1 \_HADK(Ubi)IEAAPDAK(ac)R\_ EVTFNTYSSGKRHADKIEAAPDAKRQVVEAS 51.643 47.58 364

AT5G16710.1 AT5G16710.1 \_AETEDVIAGWRPK(Ubi)VMG\_ NTRAETEDVIAGWRPKVMG\_\_\_\_\_\_\_\_\_\_\_\_ 67.136 66.705 255

AT5G16730.1 AT5G16730.1 \_(ac)ASK(ac)TK(ac)TSLSETTTTTTPTGK(Ubi)SSPATPR\_ KTSLSETTTTTTPTGKSSPATPRIAKRTVNK 58.349 58.185 21

AT5G16730.1 AT5G16730.1 \_LSQIK(ac)EDLK(ac)K(Ubi)ANER\_ PQTTTRLSQIKEDLKKANERISSLEKDKAKA 89.624 85.275 109

AT5G16730.1 AT5G16730.1 \_SPK(Ubi)LPTPPEK(ac)SQAR\_ RSSPNSKSSVERRSPKLPTPPEKSQARVAAV 48.527 45.742 73

AT5G16730.1 AT5G16730.1 \_SPK(ac)LPTPPEK(Ubi)SQAR\_ SSVERRSPKLPTPPEKSQARVAAVKGTESPQ 50.305 47.047 80

AT5G16730.1 AT5G16730.1 \_SSPNSK(Ubi)SSVER\_ TPHSRLSLDRSSPNSKSSVERRSPKLPTPPE 118.9 95.787 64

AT5G16730.1 AT5G16730.1 \_VAAVK(Ubi)GTESPQTTTR\_ LPTPPEKSQARVAAVKGTESPQTTTRLSQIK 173.71 145.36 89

AT5G16780.1 AT5G16780.1 \_ASK(ac)K(ac)SHEDDDETHK(Ubi)AAER\_ ERASKKSHEDDDETHKAAERYEHSDNRGLNE 53.554 51.683 144

AT5G16780.1 AT5G16780.1 \_FTGEAEK(Ubi)K(ac)LEELR\_ GIFLDAKGRFTGEAEKKLEELRKRIQGQTTH 49.216 44.335 353

AT5G16780.1 AT5G16780.1 \_GLNEGGDNVDAASSGK(Ubi)EASALDLQNR\_ GLNEGGDNVDAASSGKEASALDLQNRILKMR 162.47 160.6 171

AT5G16780.1 AT5G16780.1 \_(ac)M(ox)EVEK(Ubi)SK(ac)SR\_ \_\_\_\_\_\_\_\_\_\_\_MEVEKSKSRHEIREERADYE 40.496 37.847 5

AT5G16780.1 AT5G16780.1 \_(ac)M(ox)EVEK(ac)SK(Ubi)SR\_ \_\_\_\_\_\_\_\_\_MEVEKSKSRHEIREERADYEGS 72.2 64.745 7

AT5G16780.1 AT5G16780.1 \_SNAYQEAIAK(Ubi)ADEASR\_ IEYEKRSNAYQEAIAKADEASRLLRREQVQP 48.216 48.216 459

AT5G16780.1 AT5G16780.1 \_SRDEDTEK(Ubi)EISR\_ EKERDRKRSRDEDTEKEISRGRDKEREKDKS 138.02 132.07 76

AT5G16930.1 AT5G16930.1 \_ESK(Ubi)LSEDVNR\_ RVKAMAEAEGRARESKLSEDVNRRMLVDRAN 56.548 51.653 248

AT5G16930.1 AT5G16930.1 \_EVIDYK(Ubi)VAEHQQR\_ NCLLDANLFREVIDYKVAEHQQRKKLAGTDA 73.927 69.31 624

AT5G16930.1 AT5G16930.1 \_NQELVK(Ubi)M(ox)QEESAIR\_ QAENEAQRTRNQELVKMQEESAIRREVARRA 34.432 32.129 193

AT5G17020.2 AT5G17020.2, AT5G17020.1 \_NDPSGFK(Ubi)NNIR\_ FVNGLYESRNDPSGFKNNIRDFLVQSKEFSA 53.237 35.101 1004

AT5G17050.1 AT5G17050.1 \_(ac)TK(Ubi)PSDPTR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MTKPSDPTRDSHVAVLAF 35.445 29.41 3

AT5G17160.1 AT5G17160.1 \_K(ac)TTTK(Ubi)AEPQPSSQLVSR\_ PPSTATRTTRRKTTTKAEPQPSSQLVSRSCR 43.81 43.401 79

AT5G17160.1 AT5G17160.1 \_TALQVLPGNNK(Ubi)TAE\_ KTSNRTALQVLPGNNKTAE\_\_\_\_\_\_\_\_\_\_\_\_ 71.279 67.563 566

AT5G17440.1 AT5G17440.1 \_QEPVVDSTK(Ubi)YTAADVR\_ LKKLTARQEPVVDSTKYTAADVRITDQKLRL 58.712 56.976 254

AT5G17460.1 AT5G17460.1, AT5G17460.2 \_LEK(ac)EIK(ac)K(Ubi)AR\_ KTKQESGRNRLEKEIKKARQQAKDSTDQIDG 55.353 38.141 108

AT5G17690.1 AT5G17690.1 \_K(Ubi)ISGDGGFGSDDGGGGGGGGSGESILR\_ AGEAETAVETVGESRKISGDGGFGSDDGGGG 243.94 242.71 33

AT5G17690.1 AT5G17690.1 \_LIDNEK(Ubi)EYDPTLNELR\_ GSVGMARQVRLIDNEKEYDPTLNELRGPVNN 89.358 87.289 257

AT5G17690.1 AT5G17690.1 \_SDGK(Ubi)EALVDNR\_ VQEVLVTFLALRSDGKEALVDNRFLKAHNPH 77.062 73.201 414

AT5G17790.1 AT5G17790.1 \_SDDNALGSK(Ubi)TTR\_ TDGNSKRSDDNALGSKTTRSLNEILGSSSSL 71.888 69.467 439

AT5G17900.1 AT5G17900.1 \_K(Ubi)LETK(ac)QIVVEEVR\_ EEALEELAKRKLEQRKLETKQIVVEEVRKDE 41.621 0 219

AT5G17900.1 AT5G17900.1 \_K(ac)LETK(Ubi)QIVVEEVR\_ EELAKRKLEQRKLETKQIVVEEVRKDEEIRK 95.981 0 223

AT5G17900.1 AT5G17900.1 \_M(ox)QK(Ubi)VSVLDR\_ EWAEEAEEDDDVRMQKVSVLDRAFPKNDDLG 42.336 37.82 52

AT5G17920.2 AT5G17920.2, AT5G17920.1, AT3G03780.3, AT3G03780.2, AT3G03780.1 \_SDEK(Ubi)LLSVFR\_ MDADVITIENSRSDEKLLSVFREGVKYGAGI 96.229 88.58 678

AT5G18230.1 AT5G18230.1, AT5G18230.2 \_K(Ubi)PPSSVADTPLR\_ PVAAKEEDATTLPSRKPPSSVADTPLRGIGR 66.989 63.411 368

AT5G18540.2 AT5G18540.2, AT5G18540.1 \_(ac)GGGAIDEELTEDEK(Ubi)R\_ \_MGGGAIDEELTEDEKRALRGSKFAPLTSLP 159.52 159.03 15

AT5G18550.1 AT5G18550.1 \_TGDCK(Ubi)FGTSCR\_ PEQPECQYFMRTGDCKFGTSCRFHHPMEAAS 65.842 57.432 316

AT5G18570.1 AT5G18570.1 \_VEEK(Ubi)IETLR\_ EEVKLSESNVARVEEKIETLREIEEEEKEKE 51.445 36.301 109

AT5G18750.1 AT5G18750.1 \_(ac)SNK(Ubi)DEALR\_ \_\_\_\_\_\_\_\_\_\_\_\_MSNKDEALRAKDLAEDWMS 72.607 48.652 4

AT5G18800.2 AT5G18800.2, AT5G18800.1, AT3G06310.3, AT3G06310.1 \_K(Ubi)EQEAFEK(Ubi)VCPLK(Ubi)\_ VGCMYYYTNEFDLCRKEQEAFEKVCPLK\_\_\_ 119.25 117.95 94

AT5G18800.2 AT5G18800.2, AT5G18800.1, AT3G06310.3, AT3G06310.1 \_(ac)SSAVDATGNPIPTSAVLTASAK(Ubi)HIGM(ox)R\_ TGNPIPTSAVLTASAKHIGMRCMPENVAFLK 35.66 33.678 23

AT5G18810.1 AT5G18810.1 \_GFGFVK(Ubi)YR\_ PRNYYTGEPRGFGFVKYRYAEDAAEAMKRMN 48.242 35.715 94

AT5G18810.1 AT5G18810.1 \_YAEDAAEAM(ox)K(Ubi)R\_ GFVKYRYAEDAAEAMKRMNHKVIGGREIAIV 44.543 43.032 106

AT5G18900.1 AT5G18900.1 \_SAVADNDSGESK(Ubi)FSEVR\_ SLKRSAVADNDSGESKFSEVRTSSGTFISKG 173.03 172.34 83

AT5G18900.1 AT5G18900.1 \_VLSENK(ac)EDLSDCAK(Ubi)R\_ RRVLSENKEDLSDCAKRGIAVKPRKGDALLF 37.77 34.743 196

AT5G19010.1 AT5G19010.1 \_NPAAASQYPK(Ubi)R\_ QRRMVRNPAAASQYPKRTQPCKSNRGDEDCA 128.01 106.02 520

AT5G19350.2 AT5G19350.2, AT5G19350.1 \_GAK(Ubi)VVTDPSTGR\_ LQETFRVHYSSVRGAKVVTDPSTGRSKGYGF 34.264 27.787 147

AT5G19550.1 AT5G19550.1 \_K(Ubi)AEQQLVNDPSR\_ YRTEEGKPLVLDVVRKAEQQLVNDPSRVKEY 105.25 88.902 54

AT5G19550.1 AT5G19550.1 \_TEEGK(Ubi)PLVLDVVR\_ VKINLGVGAYRTEEGKPLVLDVVRKAEQQLV 96.464 94.461 45

AT5G19900.1 AT5G19900.1 \_VDDQDSHIAQLEEENLTLK(Ubi)ER\_ QDSHIAQLEEENLTLKERLFLMERELGDMRR 50.202 49.133 330

AT5G19950.3 AT5G19950.3, AT5G19950.2, AT5G19950.1 \_LENK(Ubi)AVIR\_ INNDVTPGTKVRLENKAVIRDGLVCLTPKEV 64.265 15.703 156

AT5G19960.1 AT5G19960.1 \_SADDAIEDM(ox)DGK(Ubi)SIGGR\_ SNRRSADDAIEDMDGKSIGGRAVRVNDVTTR 74.141 72.344 70

AT5G20200.1 AT5G20200.1 \_GK(Ubi)AALNDDVAISELER\_ NVNEGNFSISAQRRGKAALNDDVAISELERL 122.75 111.37 149

AT5G20200.1 AT5G20200.1 \_LM(ox)EGK(Ubi)TFSQAEIDR\_ NDDVAISELERLMEGKTFSQAEIDRLIEMIS 46.318 44.955 168

AT5G20200.1 AT5G20200.1 \_YGQLSK(Ubi)GR\_ QSPSQSVERRYGQLSKGRDGGLFGPSRRTRQ 69.598 58.841 380

AT5G20290.1 AT5G20290.1, AT5G59240.1 \_QPANTK(ac)LSSNK(Ubi)TVR\_ RKKRKYEMGRQPANTKLSSNKTVRRIRVRGG 38.376 37.387 37

AT5G20540.1 AT5G20540.1 \_DM(ox)FNK(Ubi)LQAQR\_ GNDLKRIRFSRDMFNKLQAQRWWADNYDKVM 36.424 31.326 186

AT5G20540.1 AT5G20540.1 \_LK(Ubi)GISSGEATPK(ac)SASGR\_ QQQPRVWGKEMEARLKGISSGEATPKSASGR 60.938 58.701 120

AT5G20540.1 AT5G20540.1 \_LK(ac)GISSGEATPK(Ubi)SASGR\_ MEARLKGISSGEATPKSASGRNRVDPIVFVE 49.537 48.407 130

AT5G20540.1 AT5G20540.1 \_SEDENAK(Ubi)VEYHPEDTPATPPLNK(ac)ER\_ AFPLPTPPRSEDENAKVEYHPEDTPATPPLN 46.399 46.337 228

AT5G20540.1 AT5G20540.1 \_SEDENAK(ac)VEYHPEDTPATPPLNK(Ubi)ER\_ VEYHPEDTPATPPLNKERLPRTIHRPPGLAA 174.53 174.3 244

AT5G20600.1 AT5G20600.1 \_DAAETSLAGPSSEK(Ubi)SSK(ac)R\_ NRDAAETSLAGPSSEKSSKRVRFAMKNNLVW 60.764 60.133 452

AT5G20600.1 AT5G20600.1 \_ENK(Ubi)GEEQVSTVNR\_ PVSVSKKTKKRKRENKGEEQVSTVNRDAAET 73.927 72.488 428

AT5G20810.1 AT5G20810.1, AT5G20810.2 \_(Ubi)M(ox)DENNAAK(Ubi)LTGIR\_ \_\_\_\_\_\_\_\_MDENNAAKLTGIRQIVRLKEILQ 34.768 12.19 8

AT5G20890.1 AT5G20890.1 \_VIDNK(Ubi)DNAEK(ac)FR\_ SECARNALLKRVIDNKDNAEKFRSDLLKIAM 95.417 93.874 144

AT5G20890.1 AT5G20890.1 \_VIDNK(ac)DNAEK(Ubi)FR\_ NALLKRVIDNKDNAEKFRSDLLKIAMTTLCS 79.492 78.302 149

AT5G20920.2 AT5G20920.2, AT5G20920.3, AT5G20920.1 \_FAPK(Ubi)NFEGILR\_ LDGQQRLVVKGRFAPKNFEGILRRYITDYVI 60.255 55.739 205

AT5G20920.2 AT5G20920.2, AT5G20920.3, AT5G20920.1 \_SVAPIK(Ubi)TGFVAR\_ LRCEKCGSQRSVAPIKTGFVARVSRRKT\_\_\_ 48.568 43.674 255

AT5G22000.3 AT5G22000.3, AT5G22000.2, AT5G22000.1 \_NTSMADLGSEVK(Ubi)R\_ LFSRNTSMADLGSEVKREVSAGIATVSRMME 83.692 80.114 303

AT5G22000.3 AT5G22000.3, AT5G22000.2, AT5G22000.1 \_YK(Ubi)ESISK(ac)NTR\_ SESLKSRLNAVSTRYKESISKNTRNWKDRLF 37.968 32.909 274

AT5G22000.3 AT5G22000.3, AT5G22000.2, AT5G22000.1 \_YK(ac)ESISK(Ubi)NTR\_ SRLNAVSTRYKESISKNTRNWKDRLFSRNTS 45.433 43.765 279

AT5G22010.1 AT5G22010.1 \_EEAEDLIK(Ubi)R\_ GTLDSLEREEAEDLIKRHGGRITGSVSKKTT 74.464 69.406 231

AT5G22040.3 AT5G22040.3, AT5G22040.2, AT5G22040.1 \_AQPQHQENPK(Ubi)TGYDNNR\_ QGSDPRAQPQHQENPKTGYDNNRGVQTFEGL 35.473 33.737 112

AT5G22040.3 AT5G22040.3, AT5G22040.2, AT5G22040.1 \_EK(Ubi)INTINAR\_ DQIEAEDAEIARHREKINTINARYEEQLATL 88.495 37.15 156

AT5G22040.3 AT5G22040.3, AT5G22040.2, AT5G22040.1 \_GQIDPK(Ubi)SGM(ox)EK(ac)QGSDPR\_ GVDSSRTYYRGQIDPKSGMEKQGSDPRAQPQ 89.468 87.733 91

AT5G22040.3 AT5G22040.3, AT5G22040.2, AT5G22040.1 \_LAK(Ubi)DQIEAEDAEIAR\_ EGLEQKFMDDITRLAKDQIEAEDAEIARHRE 84.508 80.972 140

AT5G22220.3 AT5G22220.3, AT5G22220.2 \_(ac)SEEVPQQFPSSK(Ubi)R\_ \_\_\_MSEEVPQQFPSSKRQLHPSLSSMKPPLV 31.675 30.686 13

AT5G22320.2 AT5G22320.2, AT5G22320.1 \_GNPISDNDK(Ubi)SAK(ac)K(ac)VR\_ LRNLNIRGNPISDNDKSAKKVRTLLLPSVNV 40.493 38.106 224

AT5G22320.2 AT5G22320.2, AT5G22320.1 \_GNPISDNDK(ac)SAK(Ubi)K(ac)VR\_ LNIRGNPISDNDKSAKKVRTLLLPSVNVFNA 71.08 68.693 227

AT5G22610.1 AT5G22610.1 \_(Ubi)EENIEK(Ubi)R\_ \_\_\_\_\_\_\_\_\_MEENIEKRICVEQLAIEDLISK 46.37 13.9 7

AT5G22950.1 AT5G22950.1 \_IK(ac)VPAQK(Ubi)ASTSR\_ LPVAVRKERIKVPAQKASTSREEEAVAEGVD 46.88 43.561 197

AT5G23150.1 AT5G23150.1 \_LESEQGK(Ubi)LAPR\_ VGVSGKKRRLESEQGKLAPRVDESSRAAKKP 120.86 87.767 317

AT5G23420.2 AT5G23420.2, AT5G23420.1 \_(Ubi)AGPSTTSNAPK(Ubi)QR\_ \_\_\_\_MAGPSTTSNAPKQRKRVEAETSSNTST 84.365 75.258 12

AT5G23440.1 AT5G23440.1 \_VTAPLK(Ubi)VYHVNR\_ AKAKIGSRVRVTAPLKVYHVNRVPEVDLEGM 68.536 63.814 115

AT5G23535.1 AT5G23535.1 \_GK(ac)DK(Ubi)GETGTIK(ac)R\_ KILRGDNVMIIRGKDKGETGTIKRVIRSQNR 110.51 97.588 29

AT5G23535.1 AT5G23535.1 \_GK(ac)DK(ac)GETGTIK(Ubi)R\_ VMIIRGKDKGETGTIKRVIRSQNRVIVEGKN 101.39 96 36

AT5G23535.1 AT5G23535.1 \_PEILK(Ubi)IR\_ GTGTSGSIIPRPEILKIRATPRPTTAGPKDT 108.24 31.18 123

AT5G23590.2 AT5G23590.2, AT5G23590.1 \_LLQAAM(ox)DQK(Ubi)K(Ubi)R\_ EDAVMQRLLQAAMDQKKRGV\_\_\_\_\_\_\_\_\_\_\_ 36.585 32.868 292

AT5G23700.1 AT5G23700.1 \_TQNVATK(Ubi)AAAQR\_ VGGLSTVKRTQNVATKAAAQRLAKVMALQNK 63.473 57.753 55

AT5G24460.1 AT5G24460.1 \_IK(Ubi)ILPGTYNR\_ GSIFNGDGDNIGQRIKILPGTYNRRVEERNS 77.662 41.238 215

AT5G24890.1 AT5G24890.1 \_GLASM(ox)SSLEDSLPSK(Ubi)R\_ RGLASMSSLEDSLPSKRGLSNHYKGKSKSFG 30.575 30.528 108

AT5G25060.1 AT5G25060.1 \_NIDNFM(ox)EELK(Ubi)R\_ EKGKTRNIDNFMEELKREQEMRERRNQDRDR 46.352 42.774 130

AT5G25060.1 AT5G25060.1 \_NQK(Ubi)SIIER\_ VDYGLSGPNEGNRNQKSIIERKEKREDSQES 56.258 7.4639 852

AT5G25080.1 AT5G25080.1 \_DLSK(Ubi)GEK(Ubi)SR\_ PDLTSTQKQSIRDLSKGEKSRIRYSETSARK 71.451 42.493 149

AT5G25080.1 AT5G25080.1 \_FIEHSLPDLTSTQK(Ubi)QSIR\_ TRFIEHSLPDLTSTQKQSIRDLSKGEKSRIR 186.75 184.99 141

AT5G25210.1 AT5G25210.1 \_GIENNNLK(Ubi)R\_ LRSPFSERGIENNNLKRMKMNHIQNLAKDEN 68.224 26.775 120

AT5G25540.1 AT5G25540.1 \_(ac)M(ox)K(Ubi)SGSSTLNPYAAAYVPLSK(ac)R\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_MKSGSSTLNPYAAAYVP 88.768 85.903 2

AT5G25540.1 AT5G25540.1 \_(ac)M(ox)K(ac)SGSSTLNPYAAAYVPLSK(Ubi)R\_ SSTLNPYAAAYVPLSKREGSLVDTKPVTQQH 34.217 33.285 20

AT5G25940.1 AT5G25940.1 \_NTEAQLK(Ubi)K(ac)VQQDSK\_ KTILQGARRNTEAQLKKVQQDSK\_\_\_\_\_\_\_\_ 96.773 88.477 108

AT5G25940.1 AT5G25940.1 \_NTEAQLK(ac)K(Ubi)VQQDSK\_ TILQGARRNTEAQLKKVQQDSK\_\_\_\_\_\_\_\_\_ 93.424 76.895 109

AT5G25940.1 AT5G25940.1 \_NTEAQLK(ac)K(ac)VQQDSK(Ubi)\_ RRNTEAQLKKVQQDSK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 52.599 50.799 115

AT5G26360.1 AT5G26360.1 \_GPSK(Ubi)DFINEVER\_ CKEPKACTVLLRGPSKDFINEVERNLQDAMS 60.157 58.967 381

AT5G26720.1 AT5G26720.1 \_VDDNDTK(Ubi)TK(ac)TTTR\_ EISLNEQNRVDDNDTKTKTTTRKKKKKKDVT 40.941 40.344 22

AT5G27470.1 AT5G27470.1 \_EEK(Ubi)GNNPEIIR\_ \_\_\_\_\_MLDINLFREEKGNNPEIIRESQRRRF 85.813 77.068 11

AT5G27540.2 AT5G27540.2, AT5G27540.1 \_DIVAEELK(Ubi)R\_ TSSRPEDRDIVAEELKRADAVVLTYACDRPE 70.056 45.281 86

AT5G27660.1 AT5G27660.1 \_AGFK(Ubi)PGDVVVR\_ VPTVIPGSPADRAGFKPGDVVVRFDGKPVIE 43.897 42.01 379

AT5G27670.1 AT5G27670.1 \_(ac)MESSQATTK(Ubi)PTR\_ \_\_\_\_\_\_\_MESSQATTKPTRGAGGRKGGDRKK 109 76.065 9

AT5G27720.1 AT5G27720.1 \_EVICTSK(Ubi)DGDR\_ DTWMNIHLREVICTSKDGDRFWRMPECYIRG 61.344 57.17 48

AT5G27720.1 AT5G27720.1 \_GNTIK(Ubi)YLR\_ RFWRMPECYIRGNTIKYLRVPDEVIDKVQEE 84.568 75.609 67

AT5G27720.1 AT5G27720.1 \_VPDEVIDK(Ubi)VQEEK(Ubi)TR\_ GNTIKYLRVPDEVIDKVQEEKTRTDRKPPGV 89.471 88.507 78

AT5G27820.1 AT5G27820.1 \_DVAAASK(ac)IGK(Ubi)ILGER\_ TMDITRDVAAASKIGKILGERLLMKDIPAVT 58.98 56.119 71

AT5G28490.1 AT5G28490.1 \_DFQAK(Ubi)AR\_ RAVRLFLREVRDFQAKARGVSYEKKRKRVNR 62.717 52.007 142

AT5G42020.2 AT5G42020.2, AT5G42020.1, AT5G28540.1 \_K(ac)FEDK(Ubi)EVQK(Ubi)DR\_ TVFDVKRLIGRKFEDKEVQKDRKLVPYQIVN 98.902 95.272 112

AT5G42020.2 AT5G42020.2, AT5G42020.1, AT5G28540.1 \_LIGEAAK(Ubi)NQAAVNPER\_ WVGFTDSERLIGEAAKNQAAVNPERTVFDVK 41.695 25.345 87

AT5G42020.2 AT5G42020.2, AT5G42020.1, AT5G28540.1 \_QATK(Ubi)DAGVIAGLNVAR\_ VTVPAYFNDAQRQATKDAGVIAGLNVARIIN 75.316 43.702 191

AT5G30490.2 AT5G30490.2, AT5G30490.1 \_LVEADSK(Ubi)EALER\_ AGQEIEVKRLVEADSKEALERGNKGSSSSSA 122.39 95.294 135

AT5G30490.2 AT5G30490.2, AT5G30490.1 \_M(ox)NEGVPNK(Ubi)R\_ KVADIWQRMNEGVPNKRVNFVSTALPAKNSA 80.231 77.552 34

AT5G30495.2 AT5G30495.2, AT5G30495.1 \_K(ac)VK(ac)EIEEK(Ubi)SR\_ KVSQYRKRKVKEIEEKSRAVTNKKWKKKGNQ 66.267 63.187 172

AT5G32440.2 AT5G32440.2, AT5G32440.1, AT5G32440.3 \_ALEALEK(Ubi)SINAR\_ KDAKARAARALEALEKSINARTGTDAMQNLQ 117.79 79.824 162

AT5G35360.2 AT5G35360.2, AT5G35360.1, AT5G35360.3 \_VM(ox)GDK(Ubi)ATAR\_ NFIGPNPDSIRVMGDKATARETMKNAGVPTV 52.579 45.683 188

AT5G35360.2 AT5G35360.2, AT5G35360.1, AT5G35360.3 \_YK(Ubi)QEDIVLR\_ IEEQIRVAMGEKLRYKQEDIVLRGHSIECRI 62.463 51.363 396

AT5G35910.1 AT5G35910.1 \_K(ac)EVK(ac)FGEGHK(Ubi)GR\_ DYEAARKEVKFGEGHKGRQGKREAAAGQKKG 88.101 83.379 826

AT5G35910.1 AT5G35910.1 \_TDEK(ac)VK(ac)EDVK(Ubi)LEQIR\_ GNAASKKKSRTDEKVKEDVKLEQIRSSVNLS 34.851 30.754 668

AT5G36230.1 AT5G36230.1 \_TQPGTVK(Ubi)SDEGER\_ FEVIFIGGRTQPGTVKSDEGERHTYSVIDCE 42.317 38.687 82

AT5G37475.1 AT5G37475.1 \_EEPLDPIAEK(Ubi)LR\_ PKGTSREEPLDPIAEKLRMQRLVEEADYQST 43.594 39.215 89

AT5G37720.2 AT5G37720.2, AT5G37720.1 \_(ac)SGALNM(ox)TLDEIVK(Ubi)R\_ \_\_MSGALNMTLDEIVKRGKTARSGGRGISRG 98.942 96.282 14

AT5G37770.1 AT5G37770.1 \_FDK(ac)NGDGK(Ubi)ISVDELK(ac)EVIR\_ LGSMDDIKKVFQRFDKNGDGKISVDELKEVI 32.353 30.79 27

AT5G37770.1 AT5G37770.1 \_NDVSDLK(Ubi)EAFELYDLDGNGR\_ GIGGGGNNRNDVSDLKEAFELYDLDGNGRIS 53.625 52.48 96

AT5G37770.1 AT5G37770.1 \_(ac)SSK(Ubi)NGVVR\_ \_\_\_\_\_\_\_\_\_\_\_\_MSSKNGVVRSCLGSMDDIK 57.177 38.083 4

AT5G38530.1 AT5G38530.1 \_LEK(Ubi)LLQTPAR\_ KLWRPTPLIRAKRLEKLLQTPARIYFKYEGG 66.056 57.355 144

AT5G38640.1 AT5G38640.1 \_AVVDPK(Ubi)VR\_ \_\_MESRRNPRAVVDPKVRQVGFFTSSQPDSS 56.547 31.41 14

AT5G38720.1 AT5G38720.1 \_NELLALQSK(ac)FEEDK(Ubi)K(ac)R\_ QRNELLALQSKFEEDKKRIQQLRAARRFKPF 94.203 91.482 291

AT5G38720.1 AT5G38720.1 \_NELLALQSK(ac)FEEDK(ac)K(Ubi)R\_ RNELLALQSKFEEDKKRIQQLRAARRFKPF\_ 129.05 125.52 292

AT5G38720.1 AT5G38720.1 \_PGLDELQK(Ubi)R\_ VSDYYEGRPGLDELQKRIDDFMTAHEERLEQ 91.867 62.123 192

AT5G38720.1 AT5G38720.1 \_SSVEDLK(Ubi)R\_ KRKAEEITRSSVEDLKRESKFKKSNKKKKMD 110.22 76.84 129

AT5G38840.1 AT5G38840.1 \_AK(Ubi)DISQGGLTQGQQTQIAR\_ EKIGHMKKEVAAIRAKDISQGGLTQGQQTQI 92.39 81.887 304

AT5G38840.1 AT5G38840.1 \_ESLGAK(Ubi)TGR\_ LEETLNDSIRESLGAKTGRKPTHGKKKGIVE 62.463 19.864 351

AT5G38890.1 AT5G38890.1 \_K(Ubi)VAK(Ubi)VGN\_ WTEMQCPLSGQTEQRKVAKVGN\_\_\_\_\_\_\_\_\_ 88.029 67.47 185

AT5G39510.1 AT5G39510.1 \_DELLEAGM(ox)ADTK(Ubi)TASADQR\_ AAARDELLEAGMADTKTASADQRARLMMSTE 83.423 83.234 113

AT5G39570.1 AT5G39570.1 \_K(Ubi)PESEYGSGYGGQTEVEYGR\_ ERPNPGYGSESGYGRKPESEYGSGYGGQTEV 185.41 184.92 119

AT5G39570.1 AT5G39570.1 \_K(Ubi)QPSYGR\_ PSYGRSEEQEEGSYRKQPSYGRGNDDDDDEQ 87.284 79.572 317

AT5G39570.1 AT5G39570.1 \_SDDQVESYIK(Ubi)PSYGR\_ KPSYGRSDDQVESYIKPSYGRSEEQEEGSYR 117.13 114.21 285

AT5G39800.1 AT5G39800.1 \_SSSLDILSPK(Ubi)R\_ SFRRKRSSSLDILSPKRAPRDFYKGKNCKPT 60.641 55.426 29

AT5G40200.1 AT5G40200.1 \_(ac)M(ox)K(Ubi)NSEK(ac)R\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_MKNSEKRGRKHKRQDAS 61.962 37.932 2

AT5G40770.1 AT5G40770.1 \_AVEQK(Ubi)QVAQQEAER\_ THLSYGVEFSRAVEQKQVAQQEAERSKFVVM 148.57 147.25 191

AT5G41020.1 AT5G41020.1 \_ENK(Ubi)DGFTGEDM(ox)EITGR\_ MKDKEKKRKKNKRENKDGFTGEDMEITGRES 48.216 45.651 47

AT5G41790.1 AT5G41790.1 \_ISELEK(Ubi)TM(ox)EER\_ EAQNREMVARISELEKTMEERGTELSALTQK 38.875 35.158 1082

AT5G42060.1 AT5G42060.1 \_EEVEIDK(Ubi)DLRR\_ \_\_\_MEEVAREEVEIDKDLRRKIKKTVKKILE 99.568 77.54 13

AT5G42070.1 AT5G42070.1 \_GDSK(Ubi)SSTSVDTSDSLLR\_ IGQSMDEVAFGRGDSKSSTSVDTSDSLLRQT 105.9 104.16 138

AT5G42070.1 AT5G42070.1 \_QTK(Ubi)PTSSSK(Ubi)SSNK(Ubi)\_ SSTSVDTSDSLLRQTKPTSSSKSSNK\_\_\_\_\_ 104.41 102.86 154

AT5G42220.1 AT5G42220.1 \_SNSVCQNEK(Ubi)DLGGDLEHPAR\_ HDLPSERSNSVCQNEKDLGGDLEHPARAKDT 35.625 35.625 577

AT5G42520.2 AT5G42520.2, AT5G42520.1, AT5G42520.3 \_VNPK(ac)ATTQTAANK(Ubi)R\_ GKRVNPKATTQTAANKRGPKNQRKVKKESED 39.629 34.256 180

AT5G42570.1 AT5G42570.1 \_NQLESIGHSPEGK(ac)K(Ubi)GM(ox)\_ NLRNQLESIGHSPEGKKGM\_\_\_\_\_\_\_\_\_\_\_\_ 48.405 46.261 215

AT5G42790.1 AT5G42790.1, AT1G47250.1 \_SQAAK(Ubi)TYLER\_ FEYQAFAIGSRSQAAKTYLERRFESFGDSSR 61.344 51.689 169

AT5G42950.1 AT5G42950.1 \_AK(Ubi)QAADLAK(ac)STSR\_ VARKTSEKKSRKQRAKQAADLAKSTSRAPLQ 114.7 100.7 1114

AT5G42950.1 AT5G42950.1 \_AK(ac)QAADLAK(Ubi)STSR\_ KKSRKQRAKQAADLAKSTSRAPLQETKKPQP 106.14 92.131 1121

AT5G42950.1 AT5G42950.1 \_EDM(ox)TFGAEESK(Ubi)DESGETR\_ PAGSREDMTFGAEESKDESGETRNYPDDKFR 112.82 111.46 402

AT5G42950.1 AT5G42950.1 \_EK(Ubi)GPSLPTSDGDHYR\_ NKWDEPGKDGEIIREKGPSLPTSDGDHYRPW 50.305 49.674 202

AT5G42950.1 AT5G42950.1 \_K(Ubi)TSEK(ac)K(Ubi)SR\_ TPATEVKNNDVSVARKTSEKKSRKQRAKQAA 86.898 49.554 1102

AT5G42950.1 AT5G42950.1 \_M(ox)K(Ubi)LLDVYR\_ ESGPGEPPHLRYSRMKLLDVYRMADTECYEK 66.692 64.538 302

AT5G42950.1 AT5G42950.1 \_NGDK(ac)DSGDNK(ac)K(Ubi)VDR\_ RNDRWRNGDKDSGDNKKVDRWDNVAPKFGEQ 85.988 83.991 130

AT5G43310.4 AT5G43310.4, AT5G43310.3, AT5G43310.2, AT5G43310.1 \_EGVDK(Ubi)EGIVETM(ox)QECGNDLVLVR\_ SDVVSENSTIREGVDKEGIVETMQECGNDLV 50.752 49.993 989

AT5G43310.4 AT5G43310.4, AT5G43310.3, AT5G43310.2, AT5G43310.1 \_IEALK(Ubi)IER\_ KKEKEEEDRKRIEALKIERQKRIASKSNSAV 105.52 55.48 710

AT5G43310.4 AT5G43310.4, AT5G43310.3, AT5G43310.2, AT5G43310.1 \_VSLDTQNK(Ubi)SVSQTR\_ PLSKRETRVSLDTQNKSVSQTRRLSEPKMGN 127.36 124.22 842

AT5G43720.1 AT5G43720.1 \_RDSEPK(Ubi)QTAGSSR\_ \_MAHGGYAKRRDSEPKQTAGSSRRSKVLRVE 43.761 40.045 15

AT5G43970.1 AT5G43970.1 \_AAGDAVEVSK(Ubi)K(ac)LLR\_ VSQGRRAAGDAVEVSKKLLRSTGKAAWIAGT 111.12 97.697 43

AT5G43970.1 AT5G43970.1 \_IGAGK(Ubi)SGGGDPNILAR\_ \_\_\_\_\_\_MAAKRIGAGKSGGGDPNILARISNS 77.746 73.528 10

AT5G44080.1 AT5G44080.1 \_VM(ox)VEPLDK(Ubi)AAAQR\_ GARGKRARVMVEPLDKAAAQRQRRMIKNRES 32.933 30.93 229

AT5G44310.1 AT5G44310.1, AT5G44310.2 \_NK(Ubi)DDDFK(ac)R\_ KGLEDLSKKAKENRNKDDDFKRF\_\_\_\_\_\_\_\_ 46.462 40.681 288

AT5G44310.1 AT5G44310.1, AT5G44310.2 \_TK(ac)DYAEQTK(ac)NK(Ubi)VNEGASR\_ AYDMKERTKDYAEQTKNKVNEGASRAADKAY 101.17 86.279 76

AT5G44560.2 AT5G44560.2, AT5G44560.1 \_EITSLQLEEK(Ubi)R\_ TRGIEREITSLQLEEKRLVAEIKKTAKTGNE 135.99 105.1 20

AT5G44690.1 AT5G44690.1 \_TMGK(Ubi)AK(Ubi)DEGK(ac)DAR\_ LWDSKERANRRRTMGKAKDEGKDARRVIDVK 31.675 26.172 381

AT5G44710.1 AT5G44710.1 \_ISK(Ubi)LEM(ox)LK(Ubi)R\_ EDPNVLAREEKERISKLEMLKRRDKGPPKKG 49.3 45.127 77

AT5G45010.1 AT5G45010.1 \_QLK(ac)K(Ubi)ELENASEK(ac)K\_ WDDDDVSDDFSRQLKKELENASEKK\_\_\_\_\_\_ 35.037 33.719 64

AT5G45010.1 AT5G45010.1 \_QLK(ac)K(ac)ELENASEK(Ubi)K\_ DFSRQLKKELENASEKK\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 41.621 38.482 72

AT5G45010.1 AT5G45010.1 \_QLK(ac)K(ac)ELENASEK(ac)K(Ubi)\_ FSRQLKKELENASEKK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 66.059 63.393 73

AT5G45190.1 AT5G45190.1, AT5G45190.2 \_PLVEGPGK(Ubi)DNSER\_ REAPHNSRPLVEGPGKDNSEREGGELQDDGA 95.417 92.099 391

AT5G45330.1 AT5G45330.1 \_GSDIK(Ubi)DLQVNPSPSAQSR\_ CDKVYDYILFRGSDIKDLQVNPSPSAQSRQE 39.585 38.223 100

AT5G45590.1 AT5G45590.1 \_FK(Ubi)PLNDGTIR\_ KKVKIKFYSSFKDRFKPLNDGTIRRWKEGKR 50.353 46.307 123

AT5G46020.1 AT5G46020.1 \_DAK(Ubi)K(Ubi)VEGR\_ EAAKKREEEKAARDAKKVEGRK\_\_\_\_\_\_\_\_\_ 125.97 59.779 158

AT5G46020.1 AT5G46020.1 \_LQEQGK(Ubi)TEQAR\_ KQRAHERYMRLQEQGKTEQARKDLDRLALIR 152.96 146.05 123

AT5G46020.1 AT5G46020.1 \_QK(ac)TLK(ac)AK(ac)DLDASK(Ubi)TTELSR\_ RVRQKTLKAKDLDASKTTELSRREREELEKQ 133.84 130.79 94

AT5G46070.1 AT5G46070.1 \_FDEVK(Ubi)ER\_ MEQKYRSEFQRFDEVKERCKAAEIEAKRATE 85.212 62.57 788

AT5G46070.1 AT5G46070.1 \_LK(ac)ETALDNK(Ubi)IR\_ QELAQARLKETALDNKIRAASSSHGKRSRFE 59.198 55.88 952

AT5G46070.1 AT5G46070.1 \_TDAVTSQK(Ubi)EK(ac)SESQR\_ TELADKARTDAVTSQKEKSESQRLAMERLAQ 51.771 49.384 817

AT5G46160.2 AT5G46160.2, AT5G46160.1 \_FDDNAVVLVDSK(Ubi)DK(ac)NTK(ac)TDR\_ SEVRFDDNAVVLVDSKDKNTKTDRQPIGTRV 71.853 70.185 133

AT5G46160.2 AT5G46160.2, AT5G46160.1 \_FDDNAVVLVDSK(ac)DK(Ubi)NTKTDR\_ VRFDDNAVVLVDSKDKNTKTDRQPIGTRVFG 31.138 28.643 135

AT5G46160.2 AT5G46160.2, AT5G46160.1 \_FDDNAVVLVDSK(ac)DK(ac)NTK(Ubi)TDR\_ DDNAVVLVDSKDKNTKTDRQPIGTRVFGPVP 126.02 122.66 138

AT5G46190.1 AT5G46190.1 \_VALISGTSEQK(Ubi)R\_ SHGGRVALISGTSEQKRTAENLFQAFIMST\_ 50.354 39.407 630

AT5G46280.1 AT5G46280.1 \_ITPK(Ubi)LTDEASER\_ FLKKYIHYAKHRITPKLTDEASERIAEAYAD 33.589 27.112 563

AT5G46290.2 AT5G46290.2, AT5G46290.1, AT5G46290.3 \_GFSSEGYIDGK(Ubi)NER\_ GGQIRGFSSEGYIDGKNERRLDDCLKYCIVA 54.09 50.894 123

AT5G46750.1 AT5G46750.1 \_(ac)ATENLTDK(Ubi)NVVFR\_ \_\_\_\_\_\_\_MATENLTDKNVVFRKLKSKSENKV 130.1 92.771 9

AT5G47210.1 AT5G47210.1, AT5G47210.3, AT5G47210.2 \_TGHGTGMK(Ubi)R\_ RNYDRHSRTGHGTGMKRNGGGRGNWGTTEDD 78.149 70.581 164

AT5G47210.1 AT5G47210.1, AT5G47210.3, AT5G47210.2 \_YAK(Ubi)EAAAPAIGDTAQFPSLG\_ GGRGGRGEGGNQRYAKEAAAPAIGDTAQFPS 61.276 60.312 340

AT5G47320.1 AT5G47320.1 \_VM(ox)TNK(Ubi)VTGR\_ FSSFNGVTEARVMTNKVTGRSRGYGFVNFIS 59.067 38.29 66

AT5G47690.1 AT5G47690.1, AT5G47690.2, AT5G47690.3 \_DEDPVTTTPK(Ubi)GK(ac)R\_ PDGVQRDEDPVTTTPKGKRTPKKNLKQLHPK 49.298 47.076 1464

AT5G47690.1 AT5G47690.1, AT5G47690.2, AT5G47690.3 \_FYEGTVK(ac)SYDSTK(Ubi)QR\_ DKRFYEGTVKSYDSTKQRHVILYEDGDVEVL 31.089 29.019 1394

AT5G47840.1 AT5G47840.1 \_FDDTEEK(Ubi)AK(ac)LR\_ EIAVRLTQRFDDTEEKAKLRLKTHNQNVSDV 59.198 53.983 224

AT5G47840.1 AT5G47840.1 \_FDDTEEK(ac)AK(Ubi)LR\_ AVRLTQRFDDTEEKAKLRLKTHNQNVSDVLS 74.611 66.479 226

AT5G47890.1 AT5G47890.1 \_GSISK(Ubi)SM(ox)K(ac)ELR\_ \_\_\_\_\_\_\_MAWRGSISKSMKELRILLCQSSPA 40.475 32.343 9

AT5G47890.1 AT5G47890.1 \_GSISK(ac)SM(ox)K(Ubi)ELR\_ \_\_\_\_MAWRGSISKSMKELRILLCQSSPASAP 48.568 37.309 12

AT5G47910.1 AT5G47910.1 \_FADDLPK(Ubi)R\_ KRASKKNARFADDLPKRSNSVAGGRGDDDEY 81.296 69.703 61

AT5G48030.1 AT5G48030.1 \_ELLEEFSK(Ubi)AEQGEYEQR\_ ANITQRQRELLEEFSKAEQGEYEQRTATGSS 100.04 98.479 440

AT5G48240.2 AT5G48240.2, AT5G48240.1, AT5G48240.3 \_NK(ac)K(ac)QK(ac)SK(Ubi)PSTSDR\_ VKKGTKAARNKKQKSKPSTSDRFKVTMKNQK 34.432 33.608 38

AT5G48240.2 AT5G48240.2, AT5G48240.1, AT5G48240.3 \_SK(Ubi)DAK(ac)VLK(ac)K(ac)R\_ NKAQHAQKGLNPSRSKDAKVLKKRRKEAFLS 75.819 54.781 233

AT5G48240.2 AT5G48240.2, AT5G48240.1, AT5G48240.3 \_SK(ac)DAK(ac)VLK(ac)K(Ubi)R\_ QKGLNPSRSKDAKVLKKRRKEAFLSELGKTK 49.448 48.009 239

AT5G48240.2 AT5G48240.2, AT5G48240.1, AT5G48240.3 \_VGVK(Ubi)K(ac)GTK(ac)AAR\_ MAMADRGSRKRRVGVKKGTKAARNKKQKSKP 85.522 84.142 24

AT5G48240.2 AT5G48240.2, AT5G48240.1, AT5G48240.3 \_VGVK(ac)K(Ubi)GTK(ac)AAR\_ AMADRGSRKRRVGVKKGTKAARNKKQKSKPS 96.604 81.925 25

AT5G48240.2 AT5G48240.2, AT5G48240.1, AT5G48240.3 \_VGVK(ac)K(ac)GTK(Ubi)AAR\_ DRGSRKRRVGVKKGTKAARNKKQKSKPSTSD 102.4 87.721 28

AT5G48335.1 AT5G48335.1 \_(ac)M(ox)QNPNSSSSLVDSTSAPK(Ubi)R\_ NPNSSSSLVDSTSAPKRYTPPNQRNRSSNRR 91.589 91.136 18

AT5G48680.1 AT5G48680.1 \_GK(Ubi)QQQVTR\_ KNRLNGGSGDFSSRGKQQQVTRKRGRQDDDK 120.87 53.907 32

AT5G48680.1 AT5G48680.1 \_RVDPK(Ubi)DLR\_ EDDDEPRLSKRRVDPKDLRLKLQKKRHGSQI 52.716 27.94 69

AT5G48680.1 AT5G48680.1 \_TVNPQTK(ac)NSK(Ubi)R\_ RDKLSRTVNPQTKNSKREAVRPAIKKVSVGT 95.094 83.655 112

AT5G49210.2 AT5G49210.2, AT5G49210.1 \_DYAK(Ubi)K(ac)VR\_ KDAERKLAQLRRDYAKKVRVYRKEYIHEIEM 117.16 82.268 75

AT5G49210.2 AT5G49210.2, AT5G49210.1 \_DYAK(ac)K(Ubi)VR\_ DAERKLAQLRRDYAKKVRVYRKEYIHEIEML 123.69 84.471 76

AT5G49210.2 AT5G49210.2, AT5G49210.1 \_EEK(ac)IK(Ubi)ER\_ LEMWKMMGQKREEKIKEREKLLREQSSLWIE 75.692 37.273 162

AT5G49210.2 AT5G49210.2, AT5G49210.1 \_K(Ubi)EYIHEIEMLR\_ AQLRRDYAKKVRVYRKEYIHEIEMLRVEKQR 94.122 70.665 82

AT5G49210.2 AT5G49210.2, AT5G49210.1 \_K(Ubi)ITEALVDNVVL\_ REQSSLWIEQKELERKITEALVDNVVL\_\_\_\_ 42.976 41.786 184

AT5G49210.2 AT5G49210.2, AT5G49210.1 \_LLK(Ubi)AEAAK(Ubi)VR\_ RLLAERAANEERRLLKAEAAKVRAEERKIAD 52.579 48.717 117

AT5G49520.1 AT5G49520.1 \_SDTINTQTNEENK(Ubi)K\_ QIRSDTINTQTNEENKK\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 141.13 140.27 398

AT5G49520.1 AT5G49520.1 \_SDTINTQTNEENK(ac)K(Ubi)\_ IRSDTINTQTNEENKK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 106.32 106.25 399

AT5G49910.1 AT5G49910.1 \_MNEVAEESK(Ubi)QVSYR\_ KRFIGRRMNEVAEESKQVSYRVIKDENGNVK 137.8 136.97 161

AT5G49910.1 AT5G49910.1 \_TTPSVVAYTK(Ubi)SK(ac)DR\_ NAEGQRTTPSVVAYTKSKDRLVGQIAKRQAV 33.265 32.477 120

AT5G49940.1 AT5G49940.1 \_VAVTQK(Ubi)LR\_ GPAAGVMTVRVAVTQKLREKIPSIAAVQLI\_ 116.73 54.763 221

AT5G50370.1 AT5G50370.1 \_GAQIDK(Ubi)VLNFAIDDSVLEER\_ EKLDEMLNRRGAQIDKVLNFAIDDSVLEERI 69.765 67.014 143

AT5G50370.1 AT5G50370.1 \_K(Ubi)DDNADVLR\_ VPGVDDLTGEPLIQRKDDNADVLRSRLDAFH 125.75 98.957 195

AT5G50370.1 AT5G50370.1 \_TVTQAEK(Ubi)LDEM(ox)LNRR\_ GFILDGFPRTVTQAEKLDEMLNRRGAQIDKV 203.27 186.02 129

AT5G50810.1 AT5G50810.1 \_(Ubi)M(ox)DPSMANNPELLQFLAQEK(Ubi)ER\_ SMANNPELLQFLAQEKERAMVNEMVSKMTSV 64.522 63.759 19

AT5G50810.1 AT5G50810.1 \_YM(ox)DM(ox)SM(ox)IIM(ox)K(Ubi)R\_ THCAQRYMDMSMIIMKRFNSQ\_\_\_\_\_\_\_\_\_\_ 115.04 112.51 72

AT5G50840.1 AT5G50840.1, AT5G50840.2 \_DK(Ubi)LESLCR\_ QQVLSERDSAITVRDKLESLCRELQRQNKML 74.464 57.793 163

AT5G50870.1 AT5G50870.1, AT5G50870.2 \_VCPK(Ubi)SDNLTR\_ DCERNQDSSGIRVCPKSDNLTRLTGTIPGPI 104.22 59.904 28

AT5G50920.1 AT5G50920.1 \_GQDFEK(Ubi)AGTLR\_ ITKEKNEAVRGQDFEKAGTLRDREIELRAEV 76.332 73.12 532

AT5G50920.1 AT5G50920.1 \_IIGQDEAVK(Ubi)AISR\_ EETLHKRIIGQDEAVKAISRAIRRARVGLKN 45.28 27.144 618

AT5G51040.2 AT5G51040.2, AT5G51040.1, AT5G51040.3 \_GWDDFK(Ubi)R\_ RAAAGQPWVRGWDDFKRGRDAPISGNQ\_\_\_\_ 50.966 47.574 173

AT5G51120.1 AT5G51120.1, AT5G51120.2 \_DLEDMK(ac)K(Ubi)R\_ EELEPGSSSRDLEDMKKRIKEIEEEAGALRE 43.083 22.383 58

AT5G51120.1 AT5G51120.1, AT5G51120.2 \_DLEDM(ox)K(ac)K(Ubi)R\_ ELEPGSSSRDLEDMKKRIKEIEEEAGALREM 69.812 23.35 59

AT5G51120.1 AT5G51120.1, AT5G51120.2 \_IK(Ubi)EIEEEAGALR\_ PGSSSRDLEDMKKRIKEIEEEAGALREMQAK 122.33 109.53 62

AT5G51300.3 AT5G51300.3, AT5G51300.2, AT5G51300.1 \_GK(ac)GSVK(Ubi)EGR\_ RETGAKIVIRGKGSVKEGRHQQKKDLKYDPS 82.417 50.995 289

AT5G51390.1 AT5G51390.1 \_K(Ubi)SLAEAGK(ac)R\_ SLPCFQASAEGLSRRKSLAEAGKRDIFYGED 50.353 39.982 40

AT5G51410.3 AT5G51410.3, AT5G51410.2, AT5G51410.1 \_K(ac)VEGLNAEK(Ubi)TVLLQR\_ EAEALMRKVEGLNAEKTVLLQRPTDKVLAMA 32.702 26.266 171

AT5G51700.1 AT5G51700.1 \_(ac)MEVGSATK(Ubi)K(Ubi)LQCQR\_ \_\_\_\_\_\_\_\_MEVGSATKKLQCQRIGCNAMFTD 95.264 90.053 8

AT5G51840.1 AT5G51840.1 \_IHAAK(ac)LK(Ubi)EEEAR\_ KKIEVSTERIHAAKLKEEEARKAFEAASKVV 95.273 90.062 94

AT5G51840.1 AT5G51840.1 \_K(Ubi)K(ac)IEVSTER\_ KLTAGPKKAAMEHLRKKIEVSTERIHAAKLK 52.247 47.149 79

AT5G52200.1 AT5G52200.1, AT5G52200.2 \_HTK(ac)GGNK(ac)ELDATK(Ubi)TVSGTSSSSSPELI\_ NSRHTKGGNKELDATKTVSGTSSSSSPELI\_ 68.657 68.381 177

AT5G52200.1 AT5G52200.1, AT5G52200.2 \_K(Ubi)AHYDEFR\_ EGSGSGKNERFNAHRKAHYDEFRKVKELRSS 101.65 87.837 123

AT5G52200.1 AT5G52200.1, AT5G52200.2 \_SSGSFYEEEEEEDDGAK(ac)GSK(Ubi)SETTTNSR\_ FYEEEEEEDDGAKGSKSETTTNSRHTKGGNK 117.03 116.96 156

AT5G52370.1 AT5G52370.1, AT5G58990.1 \_AAEAPK(ac)K(ac)ISGVHK(Ubi)R\_ GLRAAEAPKKISGVHKRCWKYIPNLSKTAPA 58.079 57.254 118

AT5G52470.2 AT5G52470.2, AT5G52470.1 \_ISVQNEDGTK(Ubi)VEYR\_ VYNEKRISVQNEDGTKVEYRVWNPFRSKLAA 151.74 143.61 115

AT5G52530.3 AT5G52530.3, AT5G52530.2, AT5G52530.1 \_VAASDIESEDK(Ubi)SSTHTLVAGESK(ac)R\_ KLVKRVAASDIESEDKSSTHTLVAGESKRPK 64.589 64.49 46

AT5G52530.3 AT5G52530.3, AT5G52530.2, AT5G52530.1 \_VEHVPIK(ac)K(Ubi)R\_ LGQHFVERVEHVPIKKRIFVVSSPSPSPSSS 53.751 46.184 82

AT5G52650.1 AT5G52650.1 \_AGGEFGGEK(Ubi)GGAPADYQPSFQGSGR\_ GYRAGPRAGGEFGGEKGGAPADYQPSFQGSG 38.744 38.399 143

AT5G52960.1 AT5G52960.1 \_K(ac)LGFYQSK(Ubi)DDR\_ PCIEAWLRKLGFYQSKDDRAVWLIQKPDWHA 72.29 56.35 109

AT5G52960.1 AT5G52960.1 \_YM(ox)K(Ubi)SGPGNLER\_ AQLSLDVTDLCIRYMKSGPGNLERDMERRFS 50.354 42.988 139

AT5G53070.1 AT5G53070.1 \_K(ac)LVDK(ac)EK(Ubi)FK(ac)NR\_ LANANLVLRKLVDKEKFKNRSSKDDKPDVQT 65.179 42.061 142

AT5G53220.3 AT5G53220.3, AT5G53220.2, AT5G53220.1 \_EK(ac)K(Ubi)PEK(Ubi)R\_ EVGYADVMSRLRREKKPEKRKWEYEADMLAD 53.968 22.546 245

AT5G53400.1 AT5G53400.1 \_STVEK(Ubi)MMFDQR\_ SKLGDLDPETRSTVEKMMFDQRQKQMGLPTS 130.1 122.97 262

AT5G53400.1 AT5G53400.1 \_TVVCEIK(Ubi)K(ac)NR\_ PVPTGTKARTVVCEIKKNRLKVGLKGQDPIV 64.82 45.576 176

AT5G53440.1 AT5G53440.1 \_QLSSSVVQEENGNASDQITK(Ubi)GASSR\_ SVVQEENGNASDQITKGASSREVAELSGGSE 49.765 49.74 476

AT5G53440.1 AT5G53440.1 \_VSK(Ubi)ESGSGDK(Ubi)R\_ EKKSKEESSTTVRVSKESGSGDKRKEYYDSV 151.16 145.79 45

AT5G53560.1 AT5G53560.1 \_DM(ox)M(ox)DK(Ubi)YFIGEIDSSSVPATR\_ FEDVGHSDTARDMMDKYFIGEIDSSSVPATR 73.294 70.493 74

AT5G53620.3 AT5G53620.3, AT5G53620.2, AT5G53620.1 \_AVSDSQDTTDYVDLEQLK(Ubi)LNR\_ SDSQDTTDYVDLEQLKLNRTDERTIYENGRE 102.07 101.44 48

AT5G53620.3 AT5G53620.3, AT5G53620.2, AT5G53620.1 \_EQNK(Ubi)ELATFR\_ NEAAWAKEGILREQNKELATFRRERDHSEAE 80.102 75.761 172

AT5G53620.3 AT5G53620.3, AT5G53620.2, AT5G53620.1 \_K(ac)LEEK(Ubi)DR\_ ENERSIREAERKLEEKDRELHAIKLDNEAAW 91.853 22.255 146

AT5G54310.1 AT5G54310.1 \_AK(ac)YEEK(Ubi)R\_ DRVGIENFIRAKYEEKRWVSRGEKARSPPRV 57.281 30.897 120

AT5G54430.1 AT5G54430.1 \_DGPVPIVTVK(Ubi)SGGDDDGDVVAASASAHHEHIK(ac)DE\_ RYPDDRDGPVPIVTVKSGGDDDGDVVAASAS 42.253 42.247 218

AT5G54430.1 AT5G54430.1 \_DGPVPIVTVK(ac)SGGDDDGDVVAASASAHHEHIK(Ubi)DE\_ GDVVAASASAHHEHIKDE\_\_\_\_\_\_\_\_\_\_\_\_\_ 106.94 106.87 240

AT5G54430.1 AT5G54430.1 \_GFGAEK(Ubi)K(Ubi)R\_ GLSAVIMGSRGFGAEKKRGSDGKLGSVSDYC 98.458 69.082 176

AT5G54600.2 AT5G54600.2, AT5G54600.1 \_VGHK(Ubi)VLEDGQK(ac)VR\_ MLYSKEKDVVSRVGHKVLEDGQKVRYLIKTG 77.74 76.916 135

AT5G54600.2 AT5G54600.2, AT5G54600.1 \_VGHK(ac)VLEDGQK(Ubi)VR\_ DVVSRVGHKVLEDGQKVRYLIKTGELIDTIE 86.803 83.607 142

AT5G54640.1 AT5G54640.1 \_GK(ac)TLGSGGAK(ac)K(Ubi)ATSR\_ \_\_MAGRGKTLGSGGAKKATSRSSKAGLQFPV 106.38 93.051 14

AT5G54930.2 AT5G54930.2 \_GK(Ubi)M(ox)TELLQENVR\_ HPVHMLKPMPSYGRGKMTELLQENVRETHFS 33.589 30.271 265

AT5G54930.2 AT5G54930.2 \_(ac)M(ox)EK(Ubi)ESHEENNHTISGDLTAK(ac)R\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MEKESHEENNHTISGDLT 43.696 43.45 3

AT5G55125.2 AT5G55125.2, AT5G55125.1 \_RFNEQEAEAAEENNNENQNK(Ubi)\_ QEAEAAEENNNENQNK\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 33.707 33.572 76

AT5G55200.1 AT5G55200.1 \_K(Ubi)AGLVK(Ubi)EDPLNEPFNPNR\_ EGVEMTEKQLAEVFRKAGLVKEDPLNEPFNP 76.586 73.865 231

AT5G55200.1 AT5G55200.1 \_VIRPAEVGVTCAVENQEGGK(Ubi)ESAA\_ AEVGVTCAVENQEGGKESAA\_\_\_\_\_\_\_\_\_\_\_ 83.312 82.527 298

AT5G55660.1 AT5G55660.1 \_GK(Ubi)GK(ac)TEK(Ubi)TR\_ KEDKKEDIKKSNKRGKGKTEKTRGKTKSDEE 79.659 52.77 302

AT5G55660.1 AT5G55660.1 \_GK(ac)GK(Ubi)TEK(Ubi)TR\_ DKKEDIKKSNKRGKGKTEKTRGKTKSDEEKK 89.679 74.301 304

AT5G55660.1 AT5G55660.1 \_LVAVVDK(Ubi)DSSR\_ VRERKSVERLVAVVDKDSSREFHVEKGKGTP 61.213 47.778 348

AT5G55660.1 AT5G55660.1 \_SAK(Ubi)SQK(Ubi)K(Ubi)TEEATR\_ KSSPAAGSSSSKRSAKSQKKTEEATRTNKKS 94.007 84.963 506

AT5G55660.1 AT5G55660.1 \_TSSDK(ac)K(Ubi)ESAGK(ac)SR\_ EETKKKKRGSRTSSDKKESAGKSRSKKTAVP 36.292 35.258 597

AT5G55660.1 AT5G55660.1 \_TSSDKK(Ubi)ESAGK(Ubi)SR\_ ETKKKKRGSRTSSDKKESAGKSRSKKTAVPT 76.759 66.571 598

AT5G55670.2 AT5G55670.2, AT5G55670.1 \_DTDYGK(Ubi)R\_ REDNHRSKSRDTDYGKRRRLTTE\_\_\_\_\_\_\_\_ 86.866 43.997 578

AT5G55670.2 AT5G55670.2, AT5G55670.1 \_EK(Ubi)DVGHGYDM(ox)PER\_ REDKDAGYERDIPREKDVGHGYDMPERRHRD 35.037 33.598 471

AT5G55670.2 AT5G55670.2, AT5G55670.1 \_NEEK(ac)EK(Ubi)VNM(ox)EEEDR\_ QSMKKNDEAGSRNEEKEKVNMEEEDRVEPVL 61.409 60.72 66

AT5G55670.2 AT5G55670.2, AT5G55670.1 \_NREDK(Ubi)DAGYER\_ EREWSGSSDRRNREDKDAGYERDIPREKDVG 63.091 59.513 459

AT5G55670.2 AT5G55670.2, AT5G55670.1 \_TQQAQSVIAQAK(Ubi)R\_ QVNRTQQAQSVIAQAKRGGPADPPSKPLVAN 91.62 74.409 337

AT5G55860.1 AT5G55860.1 \_K(Ubi)LEAVNESR\_ SELEWSKRTVDELTRKLEAVNESRDSANKAT 72.2 27.337 109

AT5G55920.1 AT5G55920.1 \_ELPK(Ubi)VLGQNTVDR\_ VTNTIVCNYDGRELPKVLGQNTVDRVLLDAP 42.317 38.999 424

AT5G56010.1 AT5G56010.1, AT5G56000.1, AT5G56030.1, AT5G56030.2 \_TK(Ubi)IAELLR\_ KNLKLGIHEDSQNRTKIAELLRYHSTKSGDE 78.113 46.809 429

AT5G56360.1 AT5G56360.1 \_K(Ubi)EQIEK(ac)VEEK(Ubi)ER\_ EQKILKGLVDQLKDRKEQIEKVEEKERLQKE 60.157 57.683 197

AT5G56360.1 AT5G56360.1 \_K(ac)EQIEK(Ubi)VEEK(Ubi)ER\_ KGLVDQLKDRKEQIEKVEEKERLQKEKEEKE 33.273 31.91 202

AT5G56360.1 AT5G56360.1 \_K(ac)EQIEK(ac)VEEK(Ubi)ER\_ DQLKDRKEQIEKVEEKERLQKEKEEKEKKEA 88.075 83.02 206

AT5G56360.1 AT5G56360.1 \_K(Ubi)EYDESSSK(ac)LNK(ac)IQSR\_ FQTTPVDKSEADRVRKEYDESSSKLNKIQSR 69.081 67.767 489

AT5G56360.1 AT5G56360.1 \_K(ac)EYDESSSK(ac)LNK(Ubi)IQSR\_ DRVRKEYDESSSKLNKIQSRISSLEKKLKQD 31.115 26.297 500

AT5G56710.2 AT5G56710.2, AT5G56710.1 \_K(Ubi)EEVITR\_ \_\_\_\_\_\_\_\_MSEKKGRKEEVITREYTINLHRR 161.02 27.506 8

AT5G56710.2 AT5G56710.2, AT5G56710.1 \_K(Ubi)FAEK(Ubi)AM(ox)GTK(Ubi)DVR\_ CTFKKKAPKAIKEIRKFAEKAMGTKDVRVDE 88.282 40.66 42

AT5G56730.1 AT5G56730.1 \_VSK(ac)EDLEK(Ubi)ER\_ AEFSSEIRVSKEDLEKERGAVMEEYRGNRNA 40.496 15.801 164

AT5G56940.1 AT5G56940.1 \_M(ox)GLK(Ubi)FDR\_ FNPLPGQDGGKRMGLKFDRIKYWLSVGAQPS 57.177 29.923 55

AT5G56950.1 AT5G56950.1 \_EIQGK(Ubi)HDEIETK(ac)FR\_ PKIRRRVEVLREIQGKHDEIETKFREERAAL 153.7 152.08 64

AT5G56950.1 AT5G56950.1 \_(ac)SNDK(Ubi)DSFNVSDLTSALK(ac)DEDR\_ \_\_\_\_\_\_\_\_\_\_\_MSNDKDSFNVSDLTSALKDE 115.54 84.047 5

AT5G57000.2 AT5G57000.2, AT5G57000.1 \_AK(Ubi)EELDAVIGAIHQR\_ IDESKVKAPNMFERAKEELDAVIGAIHQRKS 54.898 53.535 38

AT5G57015.1 AT5G57015.1 \_NSPVVTTPEGK(Ubi)R\_ GAGLRNSPVVTTPEGKRSSSTRKHYDSAIKG 84.169 74.344 406

AT5G57120.1 AT5G57120.1 \_(ac)GNESK(Ubi)TSALESEQK(Ubi)ALLLR\_ \_\_\_\_\_\_\_\_\_\_MGNESKTSALESEQKALLLRS 149.52 149.18 6

AT5G57120.1 AT5G57120.1 \_HEK(ac)TK(ac)K(ac)K(Ubi)R\_ VLGQVRGRDFRHEKTKKKRGSYRGGLIDQES 82.645 56.54 303

AT5G57120.1 AT5G57120.1 \_SEPEETK(Ubi)EETEDDDEESK(ac)R\_ EKVSKKRKRSEPEETKEETEDDDEESKRRKK 38.878 38.433 186

AT5G57120.1 AT5G57120.1 \_SEPEETK(ac)EETEDDDEESK(Ubi)R\_ PEETKEETEDDDEESKRRKKEENVVENDEGV 31.138 30.963 197

AT5G57350.2 AT5G57350.2, AT5G57350.1 \_ELSEIANQAK(Ubi)R\_ ERGGYRELSEIANQAKRRAEIARLRELHTLK 56.404 51.51 912

AT5G57410.2 AT5G57410.2, AT5G57410.1, AT5G57410.3 \_LEALLQQK(Ubi)DR\_ RLEAKVERLEALLQQKDREIATITRTEAKNT 85.355 79.407 72

AT5G58005.2 AT5G58005.2, AT5G58005.1 \_(ac)ALDTYASSNPNDVHEDVLLK(Ubi)AR\_ YASSNPNDVHEDVLLKARDACYKARDAFYAC 211.33 208.41 21

AT5G58040.1 AT5G58040.1 \_DFQQEEDVIQDK(Ubi)HSSR\_ GSHRDFQQEEDVIQDKHSSRPANNRKQYDNN 42.947 42.947 639

AT5G58040.1 AT5G58040.1 \_DVTEEK(ac)IGHDLADTK(Ubi)DGSEK(ac)GPGDR\_ RDVTEEKIGHDLADTKDGSEKGPGDRHLDTV 53.481 52.549 1120

AT5G58040.1 AT5G58040.1 \_K(Ubi)DEEYLR\_ MRNIYEPDDHINKRRKDEEYLRRSRPEKNEI 82.452 56.893 788

AT5G58040.1 AT5G58040.1 \_K(Ubi)QYDNNAPHQSR\_ DVIQDKHSSRPANNRKQYDNNAPHQSRKNQD 51.135 49.945 649

AT5G58040.1 AT5G58040.1 \_LSEPVHGSIGK(Ubi)SR\_ NTNGRLSEPVHGSIGKSRDVTEEKIGHDLAD 35.657 27.613 1103

AT5G58040.1 AT5G58040.1 \_NIYEPDDHINK(Ubi)R\_ DAGMRNIYEPDDHINKRRKDEEYLRRSRPEK 65.179 63.712 785

AT5G58040.1 AT5G58040.1 \_RK(Ubi)EDDPYSR\_ DKRKERDVDGAVWRRKEDDPYSRRGGDEGSR 79.489 77.068 719

AT5G58040.1 AT5G58040.1 \_SK(Ubi)DDQVPSR\_ GFRQRGKMRENEIRSKDDQVPSRKHMDDAGM 163.66 143.52 758

AT5G58040.1 AT5G58040.1 \_SRPEK(Ubi)NEISYGQR\_ KRRKDEEYLRRSRPEKNEISYGQRESMSRVK 143.76 139.54 800

AT5G58040.1 AT5G58040.1 \_VSDNDAVK(Ubi)LSTQDATR\_ PNSAPISRVSDNDAVKLSTQDATRQAIVDGG 78.078 77.009 64

AT5G58070.1 AT5G58070.1 \_FQPK(Ubi)NGVDTR\_ GRWYEIASFPSRFQPKNGVDTRATYTLNPDG 85.355 83.601 35

AT5G58070.1 AT5G58070.1 \_(ac)TEK(Ubi)K(ac)EM(ox)EVVK(ac)GLNVER\_ \_\_\_\_\_\_\_\_\_\_\_\_MTEKKEMEVVKGLNVERYM 43.794 40.258 4

AT5G58190.1 AT5G58190.1, AT5G58190.2 \_EK(Ubi)DQGSISSTSDLYGNR\_ DNRVRLTPDIGKRREKDQGSISSTSDLYGNR 75.018 72.671 260

AT5G58210.4 AT5G58210.4, AT5G58210.3, AT5G58210.2, AT5G58210.1 \_LSK(Ubi)DDRR\_ VCESLTTSKIPKRLSKDDRRALVESFVNEYR 143.89 113.72 51

AT5G58210.4 AT5G58210.4, AT5G58210.3, AT5G58210.2, AT5G58210.1 \_NLTHLGNQESK(Ubi)ADHLEGADVSADVVPTETR\_ TDEERNLTHLGNQESKADHLEGADVSADVVP 52.249 52.172 321

AT5G58470.2 AT5G58470.2, AT5G58470.1 \_GNK(Ubi)ISVTM(ox)AEK(ac)SAPR\_ HSAGGFFNNYEMRGNKISVTMAEKSAPRAPT 55.66 52.902 363

AT5G58470.2 AT5G58470.2, AT5G58470.1 \_GNK(ac)ISVTM(ox)AEK(Ubi)SAPR\_ NYEMRGNKISVTMAEKSAPRAPTFDQRGGGR 87.519 83.604 371

AT5G58470.2 AT5G58470.2, AT5G58470.1 \_VECNK(Ubi)CGALAPSGTSSGANDR\_ PSCGNVNFARRVECNKCGALAPSGTSSGAND 30.652 30.652 108

AT5G58590.1 AT5G58590.1 \_FDK(Ubi)EGNQWK(ac)ER\_ EDAVLDLKSKMYRFDKEGNQWKERGAGTVKL 34.264 5.9816 60

AT5G58590.1 AT5G58590.1 \_FDK(ac)EGNQWK(Ubi)ER\_ LKSKMYRFDKEGNQWKERGAGTVKLLKHKET 72.29 22.842 66

AT5G58740.1 AT5G58740.1 \_(ac)AEK(Ubi)LAPEKR\_ \_\_\_\_\_\_\_\_\_\_\_\_MAEKLAPEKRHDFIHNGQK 38.567 38.567 4

AT5G59460.1 AT5G59460.1 \_K(Ubi)QSEVVSEEQNRPNK(Ubi)SPR\_ SKVEPSGETDGDLKRKQSEVVSEEQNRPNKS 63.691 60.635 119

AT5G59460.1 AT5G59460.1 \_NLK(Ubi)FM(ox)QR\_ \_\_MAKREISSTLRNLKFMQRSSLKVEKKKAD 76.847 53.917 14

AT5G59870.1 AT5G59870.1 \_(ac)M(ox)ESTGK(Ubi)VK(ac)K(ac)AFGGR\_ \_\_\_\_\_\_\_\_\_\_MESTGKVKKAFGGRKPPGAPK 63.185 61.823 6

AT5G59870.1 AT5G59870.1 \_(ac)M(ox)ESTGK(ac)VK(ac)K(Ubi)AFGGR\_ \_\_\_\_\_\_\_MESTGKVKKAFGGRKPPGAPKTKS 57.434 54.676 9

AT5G59950.4 AT5G59950.4, AT5G59950.3, AT5G59950.1, AT5G59950.5, AT5G59950.2 \_SK(Ubi)GTAEVVYSR\_ ELKRYTVHFDRSGRSKGTAEVVYSRRGDALA 193.81 173.61 128

AT5G59950.4 AT5G59950.4, AT5G59950.3, AT5G59950.1, AT5G59950.5, AT5G59950.2 \_(ac)STGLDMSLDDMIAK(Ubi)NR\_ \_MSTGLDMSLDDMIAKNRKSRGGAGPARGTG 72.898 71.101 15

AT5G60030.1 AT5G60030.1 \_EIK(ac)SK(ac)ETK(Ubi)PSSDR\_ TELKSFHREIKSKETKPSSDRETKSTETKQS 57.034 35.122 64

AT5G60030.1 AT5G60030.1 \_ETK(Ubi)STETK(ac)QSSDAK(ac)SER\_ EIKSKETKPSSDRETKSTETKQSSDAKSERN 34.202 33.842 72

AT5G60030.1 AT5G60030.1 \_ETK(ac)STETK(Ubi)QSSDAK(ac)SER\_ ETKPSSDRETKSTETKQSSDAKSERNVIDEF 55.688 53.193 77

AT5G60030.1 AT5G60030.1 \_K(Ubi)SDEEIVSEER\_ EQRSGERKKEKKKKRKSDEEIVSEERKSKKK 92.112 91.207 252

AT5G60790.1 AT5G60790.1 \_SELEENQM(ox)K(Ubi)QYR\_ DQYCQTRSELEENQMKQYRWEQEQISHMKEY 78.342 77.353 310

AT5G60980.1 AT5G60980.1, AT5G60980.2 \_PAPVNQK(Ubi)LTAPPAEPAAR\_ THVARNKPRPAPVNQKLTAPPAEPAARPEAS 73.498 56.968 260

AT5G60980.1 AT5G60980.1, AT5G60980.2 \_QAVVEEK(ac)K(Ubi)TNSR\_ SPVTIGDRQAVVEEKKTNSRGGGNNGGSRGR 43.03 40.727 368

AT5G61030.1 AT5G61030.1 \_EAFTK(Ubi)YGEVVDTR\_ MAYSMDEDSLREAFTKYGEVVDTRVILDRET 230.26 204.29 62

AT5G61030.1 AT5G61030.1 \_VVK(Ubi)VNYANDR\_ AIQALDGRDLHGRVVKVNYANDRTSGGGFGG 104.82 101.25 112

AT5G61170.1 AT5G61170.1 \_K(Ubi)ITSSGQR\_ LQTMNIVDLDTKGGRKITSSGQRDLDQVAGR 144.12 105.96 123

AT5G61210.1 AT5G61210.1 \_EK(Ubi)LGLNSAPR\_ DDSPTRRVNHLEKREKLGLNSAPRGQSRTRE 61.344 53.457 207

AT5G61210.1 AT5G61210.1 \_VNHLEK(Ubi)R\_ VTRDDSPTRRVNHLEKREKLGLNSAPRGQSR 120.46 94.563 204

AT5G61280.1 AT5G61280.1 \_K(Ubi)SELEKR\_ ENERKLAATLLMEKRKSELEKRKGINNQHYK 54.157 10.349 197

AT5G61330.1 AT5G61330.1 \_M(ox)IK(Ubi)QM(ox)QQSR\_ SEQVASYMRDPSRMIKQMQQSRSTVAVFGTV 37.344 32.828 308

AT5G61920.2 AT5G61920.2, AT5G61920.1 \_K(Ubi)TETDHEIQIR\_ TVADREVQGLRAHIRKTETDHEIQIRSTLEK 65.179 61.839 101

AT5G61960.2 AT5G61960.2, AT5G61960.1 \_EETPNGTDPFLK(Ubi)EN\_ SENREETPNGTDPFLKEN\_\_\_\_\_\_\_\_\_\_\_\_\_ 36.944 36.893 913

AT5G62000.4 AT5G62000.4, AT5G62000.3, AT5G62000.2, AT5G62000.1 \_(ac)ASSEVSM(ox)K(Ubi)GNR\_ \_\_\_\_\_\_\_MASSEVSMKGNRGGDNFSSSGFSD 37.968 36.215 9

AT5G62390.1 AT5G62390.1 \_VSDLESK(Ubi)FDR\_ YPLKYLCDRVSDLESKFDRLVSPKSDRKYTL 53.237 44.827 102

AT5G62440.1 AT5G62440.1 \_(ac)AEEQEIVDSLSAEVNPDQK(ac)VDM(ox)EVETATPK(ac)AETGDEK(Ubi)R\_ MEVETATPKAETGDEKREREETEEEENGGES 53.104 53.089 38

AT5G62550.1 AT5G62550.1 \_K(ac)ETVPK(Ubi)NNLPVR\_ VKPSDKKRARKETVPKNNLPVRTKKSLATNS 84.479 83.29 399

AT5G62575.1 AT5G62575.1, AT5G62575.2 \_EK(Ubi)ALLAEDSALK(ac)R\_ SISRRGFHIEPGTREKALLAEDSALKRFKSH 45.614 15.13 41

AT5G62575.1 AT5G62575.1, AT5G62575.2 \_EK(ac)ALLAEDSALK(Ubi)R\_ PGTREKALLAEDSALKRFKSHKKSVHKLKRI 48.527 45.331 51

AT5G63260.1 AT5G63260.1, AT5G63260.2 \_NVGLDDSAK(Ubi)ELSVPISVPQGNVETDSR\_ ELSDQLRNVGLDDSAKELSVPISVPQGNVET 99.836 97.134 58

AT5G63260.1 AT5G63260.1, AT5G63260.2 \_(ac)SK(Ubi)PEETSDPNPTGPDPSR\_ \_\_\_\_\_\_\_\_\_\_\_\_\_MSKPEETSDPNPTGPDPS 52.814 50.952 3

AT5G63300.1 AT5G63300.1, AT5G63300.2 \_FFESSLEK(ac)K(Ubi)TR\_ QESRRRRFFESSLEKKTRKTKEAAKKYRKRR 42.031 40.591 125

AT5G63300.1 AT5G63300.1, AT5G63300.2 \_K(ac)TK(ac)EAAK(Ubi)K(ac)YR\_ ESSLEKKTRKTKEAAKKYRKRRPNPKPKPLS 128.85 85.167 134

AT5G63310.1 AT5G63310.1 \_K(Ubi)LIGK(ac)TDPLQAEPGTIR\_ VCMAWEGVGVVASARKLIGKTDPLQAEPGTI 32.366 29.34 168

AT5G63310.1 AT5G63310.1 \_NIVHGSDSPENGK(Ubi)R\_ TGRNIVHGSDSPENGKREIGLWFKEGELCKW 69.345 68.197 206

AT5G63320.1 AT5G63320.1 \_K(Ubi)VEDNPFDR\_ EDEDEEEDPPHFSQRKVEDNPFDRSEKQEHS 82.417 2.7577 734

AT5G63320.1 AT5G63320.1 \_LQAEAK(Ubi)AAEEAR\_ EKRLREEKERLQAEAKAAEEARRKAKAEAAE 46.378 42.226 614

AT5G63400.1 AT5G63400.1, AT5G63400.2 \_GTEIDK(Ubi)VLNFAIDDAILEER\_ EKLDEMLKRRGTEIDKVLNFAIDDAILEERI 54.225 51.581 142

AT5G63400.1 AT5G63400.1, AT5G63400.2 \_K(Ubi)DDNADVLK(ac)SR\_ TPGVDDITGEPLIQRKDDNADVLKSRLAAFH 208.82 173.17 194

AT5G63400.1 AT5G63400.1, AT5G63400.2 \_KDDNADVLK(Ubi)SR\_ GEPLIQRKDDNADVLKSRLAAFHSQTQPVID 128.54 99.638 202

AT5G63400.1 AT5G63400.1, AT5G63400.2 \_LK(ac)CSQK(Ubi)PDK(ac)R\_ VDLMSELLRRLKCSQKPDKRLIFIGPPGSGK 77.062 74.696 31

AT5G63400.1 AT5G63400.1, AT5G63400.2 \_TVTQAEK(Ubi)LDEM(ox)LK(Ubi)R\_ GFILDGFPRTVTQAEKLDEMLKRRGTEIDKV 68.044 65.742 128

AT5G63420.1 AT5G63420.1 \_K(Ubi)VVEGNDK(ac)R\_ LSGDPSVGSGVAALRKVVEGNDKRSRAKKAP 43.308 38.414 693

AT5G63460.3 AT5G63460.3, AT5G63460.2, AT5G63460.1, AT5G63460.4 \_DFQSLTVEK(Ubi)LR\_ SSRTGERDFQSLTVEKLRAMLKEKGLPTKGR 167.18 160.05 72

AT5G63460.3 AT5G63460.3, AT5G63460.2, AT5G63460.1, AT5G63460.4 \_(ac)M(ox)EASSSQPSDSSDQTASK(Ubi)FLSDLPSR\_ ASSSQPSDSSDQTASKFLSDLPSRGFLSSTV 64.845 64.637 18

AT5G63550.1 AT5G63550.1, AT5G63550.2 \_APPSK(Ubi)SVSIEK(ac)GR\_ VERFSLSTPMRAPPSKSVSIEKGRGTPLREI 72.321 68.334 123

AT5G63550.1 AT5G63550.1, AT5G63550.2 \_DVIIADQEK(Ubi)AK(ac)K(ac)R\_ ESPKETRDVIIADQEKAKKRKSTPKRGKSGE 97.69 92.634 252

AT5G63550.1 AT5G63550.1, AT5G63550.2 \_DVIIADQEK(ac)AK(Ubi)K(ac)R\_ PKETRDVIIADQEKAKKRKSTPKRGKSGESS 79.875 76.371 254

AT5G63550.1 AT5G63550.1, AT5G63550.2 \_DVIIADQEK(ac)AK(ac)K(Ubi)R\_ KETRDVIIADQEKAKKRKSTPKRGKSGESSD 63.185 58.13 255

AT5G63550.1 AT5G63550.1, AT5G63550.2 \_GK(Ubi)SGESSDTPAK(Ubi)R\_ DQEKAKKRKSTPKRGKSGESSDTPAKRKRQT 54.898 54.208 264

AT5G63620.2 AT5G63620.2, AT5G63620.1 \_AK(Ubi)GTLYDGETR\_ GHDDLCEDFFAYNRAKGTLYDGETRLFLRHD 73.435 56.522 173

AT5G63905.1 AT5G63905.1 \_AK(Ubi)AAEAAQR\_ QRKEEERQASAEARAKAAEAAQRRKEQFDKS 59.908 52.179 29

AT5G63905.1 AT5G63905.1 \_K(Ubi)EQFDK(ac)SAAGR\_ SAEARAKAAEAAQRRKEQFDKSAAGRAAQAQ 63.662 38.809 38

AT5G63905.1 AT5G63905.1 \_K(ac)EQFDK(Ubi)SAAGR\_ AKAAEAAQRRKEQFDKSAAGRAAQAQLQQMA 74.392 36.696 43

AT5G63950.1 AT5G63950.1 \_EEQTSK(Ubi)EFSR\_ KQGKSGFAIREEQTSKEFSREWEERISNVGK 62.466 36.421 234

AT5G63980.1 AT5G63980.1 \_DSIAEQEK(Ubi)ASAL\_ PLLLKAVRDSIAEQEKASAL\_\_\_\_\_\_\_\_\_\_\_ 67.997 66.75 403

AT5G64040.1 AT5G64040.1, AT5G64040.2 \_SK(ac)TNK(Ubi)ELNDK(Ubi)K(ac)R\_ NAGVIDEYLERSKTNKELNDKKRLATSGANF 58.32 36.654 100

AT5G64040.1 AT5G64040.1, AT5G64040.2 \_SK(ac)TNK(ac)ELNDK(Ubi)K(Ubi)R\_ DEYLERSKTNKELNDKKRLATSGANFARAFT 115.12 105.84 105

AT5G64130.1 AT5G64130.1, AT5G64130.3 \_PK(Ubi)LQPTQQQTR\_ QGVAKPKGPLEALRPKLQPTQQQTRYRKSPC 98.898 98.735 80

AT5G64160.1 AT5G64160.1 \_VRNDIDAPPSSESGEK(Ubi)R\_ VRNDIDAPPSSESGEKRISTATNPNAEESAD 106.38 103.72 139

AT5G64180.1 AT5G64180.1 \_GM(ox)QEQISK(Ubi)R\_ KLHMEELRGMQEQISKRDNEIKLLEAIIQTL 68.657 42.539 130

AT5G64180.1 AT5G64180.1 \_LGK(Ubi)SDVNG\_ LEAIIQTLGGKERLGKSDVNG\_\_\_\_\_\_\_\_\_\_ 75.738 61.069 153

AT5G64270.1 AT5G64270.1 \_(ac)ADLDPEIAK(Ubi)TQEER\_ \_\_\_\_\_\_MADLDPEIAKTQEERRKMEADLASL 33.842 30.645 10

AT5G64270.1 AT5G64270.1 \_PHNEDDDVGFK(Ubi)PR\_ NDVARPHNEDDDVGFKPRQSIAEREGEYRNR 92.939 92.13 94

AT5G64270.1 AT5G64270.1 \_VDAFAM(ox)GDK(Ubi)TPDASVR\_ RVLSPDRVDAFAMGDKTPDASVRTYTDHMRE 73.279 66.329 128

AT5G64320.1 AT5G64320.1 \_INEAAK(Ubi)M(ox)VNR\_ VILGLCKFDRINEAAKMVNRMLIRGFAPDDI 46.819 21.581 308

AT5G64350.1 AT5G64350.1 \_(ac)GVEK(Ubi)QVIR\_ \_\_\_\_\_\_\_\_\_\_\_MGVEKQVIRPGNGPKPAPGQ 137.14 110.35 5

AT5G64400.1 AT5G64400.1 \_K(Ubi)NSGSVIGA\_ ISKCQFYMDMLSECRKNSGSVIGA\_\_\_\_\_\_\_ 116.05 88.747 136

AT5G64670.1 AT5G64670.1 \_AK(Ubi)EVVEAAGGSVR\_ KWPLHFEVSRVTVRAKEVVEAAGGSVRRVYY 89.507 50.724 202

AT5G64670.1 AT5G64670.1 \_GHK(ac)GQK(Ubi)AR\_ GSGKGKTAGRGHKGQKARGTMKFGFEGGQTP 115.49 103.98 101

AT5G64670.1 AT5G64670.1 \_GIGSGK(Ubi)GK(ac)TAGR\_ PRKLKTRKGRGIGSGKGKTAGRGHKGQKARG 79.089 76.046 89

AT5G64670.1 AT5G64670.1 \_GIGSGK(ac)GK(Ubi)TAGR\_ KLKTRKGRGIGSGKGKTAGRGHKGQKARGTM 59.155 49.151 91

AT5G64680.2 AT5G64680.2, AT5G64680.1, AT5G64680.3 \_K(Ubi)NSESSSGK(ac)HR\_ SMFSGFTETPKSPKRKNSESSSGKHRSSTST 176.18 124.74 169

AT5G64680.2 AT5G64680.2, AT5G64680.1, AT5G64680.3 \_K(Ubi)NSESSSGK(Ubi)HR\_ TPKSPKRKNSESSSGKHRSSTSTVSGSSERS 149.23 141.86 177

AT5G64813.1 AT5G64813.1 \_LDEITSDDDQFYK(Ubi)R\_ SQRLDEITSDDDQFYKRTSFHGDPYKYNNTI 51.726 47.109 272

AT5G65220.1 AT5G65220.1 \_EAELK(Ubi)EIR\_ PKPSVVMMSKREAELKEIRSKTTEQLQEEVV 133.23 97.939 68

AT5G65220.1 AT5G65220.1 \_EIK(Ubi)EGIK(ac)K(ac)R\_ KQVARMLTVKREREIKEGIKKRLSRKLDRQW 71.614 28.317 127

AT5G65220.1 AT5G65220.1 \_EIK(ac)EGIK(ac)K(Ubi)R\_ MLTVKREREIKEGIKKRLSRKLDRQWKKSIV 79.148 24.167 132

AT5G65220.1 AT5G65220.1 \_M(ox)K(Ubi)K(Ubi)QVAR\_ KSARNEFKSSDFRRMKKQVARMLTVKREREI 62.717 18.368 111

AT5G65220.1 AT5G65220.1 \_NEFK(Ubi)SSDFR\_ ELFMLRLQKSARNEFKSSDFRRMKKQVARML 98.044 89.086 103

AT5G65260.1 AT5G65260.1 \_LK(Ubi)EMEDEAAALR\_ DDDAVKELDEMKKRLKEMEDEAAALREMQAK 86.772 74.141 51

AT5G65750.1 AT5G65750.1 \_AK(ac)QYYTK(Ubi)DENR\_ DPVVIGKTRAKQYYTKDENRTKNMGILIHGD 35.523 32.326 388

AT5G65770.3 AT5G65770.3, AT5G65770.1, AT5G65780.2, AT5G65770.2 \_EDLVGEK(Ubi)EHDLEVQSR\_ LREVDIKQREDLVGEKEHDLEVQSRALAEKE 83.54 79.79 405

AT5G65780.1 AT5G65780.1 \_K(Ubi)SIIEVAR\_ STPEIKGTILPGITRKSIIEVARSQGFKVEE 63.816 6.2266 327

AT5G66000.1 AT5G66000.1 \_LNTEHAVSK(Ubi)R\_ PTCSRERLNTEHAVSKRVEFDGLGMELDTDR 53.237 35.418 174

AT5G66410.1 AT5G66410.1 \_K(Ubi)EEDEEDYEYQESIR\_ LENLLVKKGMLSEKRKEEDEEDYEYQESIRR 62.861 62.283 202

AT5G66540.1 AT5G66540.1 \_FAK(Ubi)NPEEIR\_ QPLLTSLRQEVKRFAKNPEEIRKLGKLALKV 99.815 90.16 90

AT5G66540.1 AT5G66540.1 \_LPTK(ac)GK(Ubi)R\_ RFDDVQRAPRLPTKGKREAKELDESKSKKGL 68.915 22.489 374

AT5G66540.1 AT5G66540.1 \_PAPVITEEVTASLEDLIK(Ubi)SR\_ PVITEEVTASLEDLIKSRIIEARFDDVQRAP 63.488 62.861 352

AT5G66860.1 AT5G66860.1 \_IPAVVFPQSLLDTDASK(Ubi)R\_ PAVVFPQSLLDTDASKRGVSRKQLLTADKKQ 88.319 84.678 74

AT5G67170.2 AT5G67170.2, AT5G67170.1 \_AIADQLEGNEDEHNK(Ubi)YR\_ RAIADQLEGNEDEHNKYRNMIVLYIVKNREM 54.281 53.794 65

AT5G67510.1 AT5G67510.1 \_EGK(Ubi)VM(ox)QVYR\_ DEVQVVRGTFKGREGKVMQVYRRKWVIHIER 57.59 52.491 68

AT5G67510.1 AT5G67510.1 \_K(Ubi)DDEVQVVR\_ KDLRNKHNVRSMPIRKDDEVQVVRGTFKGRE 102.52 75.737 51

AT5G67510.1 AT5G67510.1 \_VLM(ox)SSPLSK(Ubi)DLR\_ APSSVRRVLMSSPLSKDLRNKHNVRSMPIRK 44.511 32.453 36

AT5G67590.1 AT5G67590.1 \_GEIGK(Ubi)VSGIPEEHLSR\_ TDAVVESDYKRGEIGKVSGIPEEHLSRKVII 99.044 98.413 41

AT5G67630.1 AT5G67630.1 \_(ac)AELK(Ubi)LSESR\_ \_\_\_\_\_\_\_\_\_\_\_MAELKLSESRDLTRVERIGA 66.056 58.327 5

ATCG01230.1 ATCG01230.1, ATCG00905.1, ATCG00065.1 \_GTLDAVGVK(Ubi)DR\_ VRYHIVRGTLDAVGVKDRQQGRSKYGVKKPK 133.05 71.888 108

ATCG01230.1 ATCG01230.1, ATCG00905.1, ATCG00065.1 \_(ac)PTIK(Ubi)QLIR\_ \_\_\_\_\_\_\_\_\_\_\_MPTIKQLIRNTRQPIRNVTK 36.557 31.663 5

ATCG00480.1 ATCG00480.1 \_AVAM(ox)SATEGLK(Ubi)R\_ NNRVRAVAMSATEGLKRGMDVVDMGNPLSVP 36.32 28.455 86

ATCG00640.1 ATCG00640.1 \_NDIK(Ubi)K(ac)EAAGISR\_ VTIILECTSCVRNDIKKEAAGISRYITQKNR 48.527 46.774 24

ATCG00640.1 ATCG00640.1 \_NDIK(ac)K(Ubi)EAAGISR\_ TIILECTSCVRNDIKKEAAGISRYITQKNRH 48.527 42.621 25

ATCG00780.1 ATCG00780.1 \_YDDNAAVVIDQEGNPK(Ubi)GTR\_ YDDNAAVVIDQEGNPKGTRVFGAIPRELRQL 67.645 66.962 94

ATCG01310.1 ATCG01310.1, ATCG00830.1 \_NAK(Ubi)DIYGR\_ GHKRLYRKIDFRRNAKDIYGRIVTIEYDPNR 71.692 42.53 70

ATCG01240.1 ATCG01240.1, ATCG00900.1 \_GTAEEK(Ubi)TAK(ac)SDPIYR\_ \_\_\_\_\_\_MSRRGTAEEKTAKSDPIYRNRLVNM 61.265 58.506 10

ATCG01240.1 ATCG01240.1, ATCG00900.1 \_GTAEEK(ac)TAK(Ubi)SDPIYR\_ \_\_\_MSRRGTAEEKTAKSDPIYRNRLVNMLVN 99.069 90.241 13

ATCG01240.1 ATCG01240.1, ATCG00900.1 \_GVTPDIAVK(Ubi)AR\_ VLRQAIRGVTPDIAVKARRVGGSTHQVPIEI 67.08 47.438 76

ATCG01020.1 ATCG01020.1 \_TSISK(Ubi)K(ac)R\_ \_\_\_\_MAVPKKRTSISKKRIRKKIWKRKGYWT 60.478 29.741 12

ATCG01020.1 ATCG01020.1 \_TSISK(ac)K(Ubi)R\_ \_\_\_MAVPKKRTSISKKRIRKKIWKRKGYWTS 77.282 16.523 13

ATCG01120.1 ATCG01120.1 \_K(Ubi)DYLSQR\_ TNKIRRLTSHLELHRKDYLSQRGLRKILGKR 111.74 54.561 43