

A.thaliana_CNX1 --MRQRQLFSVF---L---LLLAFFV---SFQKLCYCDQDTVLYESFDEPFDGRWIVSKNSDYEGVWVHAKSEGHEDYGLLVSEKARKYGVIVKEL--DEPLNLKEGTVVLQYEV 100
A.lyrata_CNX1 --MRQRQLFSGF---L---LLLAFFV---SFQKLCYCDQDTVLYESFDEPFDGRWIVSKNSDYEGVWVHAKSEGHEDYGLLVSEKARKYGVIVKEL--DEPLNLKEGTVVLQYEV 100
C.rubella_CNX1 --MRERQLFSVF---L---LLLAFFV---SFQKLCYCDQDTVLYESFDEPFDGRWIVSKNGEYEGVWVHAKSEGHDDYGLLVSEKARKYGVIVKEL--DEPLNLKEGTVVLQYEV 100
T.hirsutiflora_CNX1 -----MTIAPKI---L---LLCLLS---SLW-LQIWASEPIFYESFDEDEFGRWIVSKSEGYSGVWVHAKSDGHDDYGLLVSEKARKYGVIVKEL--DEPISKDTTVLQYEV 96
P.hybrida_CNX1 -----MKICITQF---A---LLLLAC---CFVSQLYASSDEKIFYESFDEAFDGRWTVSDKEEYKGVWVHAKSEGHDDYGLLVSEKARKYGVIVKEL--DNVVDLKEGTVVLQYEV 97
G.max_CNX1 --MGERKGIPMALGLLAMILFFIASS--SSHVLVRASGDADDAIFYESFDEDFDGRWIVSDKEDYNGVWVHAKSDGHDDYGLLVSEKARKYGVIVKEL--AESVSLKDGTVVLQFET 109
P.sativum_CNX1 --MVDRKEIPLAMGLLAVLLFFVASSSSFHLVRASDEVDDAIFYESFDEDFDNRWIVSGKEEYNGVWVHAKSEGHDDYGLLVSEKARKYGVIVKEL--DAPVSLKDGTVVLQFET 110
Z.mays_CNX1 -----MGGRAL---L---LLLLVS---ALV-FQIHASDPLLYEFPDEDFEGRWVSKKDEYQGVWVHAKSDGHEDYGLLVSEKARKYGVIVKEL--DEPVTLKDGTVVLQYEV 95
O.sativa_CNX1 -----MVGGRAL---L---PLLLLS---ALL-VQIRASDPLFYEFPDESDFEGRWVLSGKDYKGVWVHAKSDGHEDYGLLVSEKARKYGVIVKEL--DEPVTLKDGTVVLQYEV 96
A.thaliana_CNX2 --MRERITTFVS---L---LLVALL---SFPSSVSYCDQDTILYESFDEPFDGRWVSEKAEYKGVWVHAKSEGHDDYGLLVSEKARKYGVIVKELDVPDEPLNLKEGTVVLQYEA 102
A.lyrata_CNX2 --MRERITLTFVS---L---LLVAL---SFSNLCYCDQDTILYESFDEPHGRWIVSEKPEYQGVWVHAKSEGHDDYGLLVSEKARKYGVIVKELDVPDEPLNLKEGTVVLQYEA 102
C.rubella_CNX2 --MRERTLTFVS---L---LLLALV---SFSNLCYCDQDTVLYESFEFPFDGRWIVSEKAEYQGVWVHAKSEGHDDYGLLVSEKARKYGVIVKEL--DEPLNLKEGTVVLQYEA 100
P.hybrida_CNX2 MEDRNRRIWKY---A---LLLLAC---CFVSQLYASSDVKFYDSFDDAFDGRWIVSEKDEYKGVWVHAKSEGHDDYGLLVSEKARKYGVIVKEL--DNVVDLKEGTVVLQYEV 102
E.salsugineum_CNX2 --MRERTLTFVS---V---LLVALV---SFQSLCYCDEQTILYESFDEPFDGRWIVSEKPEYQGVWVHAKSEGHDDYGLLVSEKARKYGVIVKEL--DEPLNLKEGTVVLQYEA 100
C.sativa_CNX2 --MRERVSTFVS---L---LLVALF---SFSNLCYCDQDTVLYESFDESDFDGRWIVSEKPEYQGVWVHAKSEGHDDYGLLVSEKARKYGVIVKEL--DEPLNLKDGTVVLQYEA 100
Z.mays_CNX2 -----MMGRAL-----L---LLLLVS---ALL-VQIRASDPLLYEFPDEDFEGRWIVSKKDEYQGVWVHAKSDGHEDYGLLVSEKARKYGVIVKEL--DEPVTLNDGTVVLQYEV 95

A.thaliana_CNX1 RFQEGLECGGAYLKYLRLPQAGWTPQGFDSESPYSIMFGPDKCGGTNKVHFILKHNKPKSGEYVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANLLSGEDFE 214
A.lyrata_CNX1 RFQEGLECGGAYLKYLRLPQAGWTPQGFDSESPYSIMFGPDKCGATNKVHFILKHNKPKSGEYVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANLLSGEDFE 214
C.rubella_CNX1 RFQEGLECGGAYLKYLRLPQAGWTPQGFDSESPYSIMFGPDKCGATNKVHFILKHNKPKSGEYVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANLLSGEDFE 214
T.hirsutiflora_CNX1 RLQEGLECGGAYLKYLRLPQAGWTPKGFNDNSPYTIMFGPDKCGGTNKVHFILKHNKPKSGEYVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANFLSADDFE 210
P.hybrida_CNX1 RLQEGLECGGAYLKYLRLPQAGWTPKGFNDNSPYTIMFGPDKCGATNKVHFILKHNKPKSGEYVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANFLSADDFE 211
G.max_CNX1 RLQEGLECGGAYLKYLRLPQESGWKPKGFNDNSPYTIMFGPDKCGATNKVHFILKHNKPKSGEYVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANFLSADDFE 223
P.sativum_CNX1 RLQEGLECGGAYLKYLRLPQESGWKPKGFNDNSPYTIMFGPDKCGATNKVHFILKHNKPKTGKHVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANFLSADDFE 224
Z.mays_CNX1 RLQEGLECGGAYLKYLRLPQAGWDAKEFDNETPYTIMFGPDKCGGTNKVHFILKHNKPKTGKYVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANFLSADDFE 209
O.sativa_CNX1 RLQEGLECGGAYLKYLRLPQAGWDAKEFDNETPYTIMFGPDKCGGTNKVHFILKHNKPKTGKYVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANFLSADDFE 210
A.thaliana_CNX2 RFQEGLECGGAYLKYLRLPQAGWVPPQGFNDNSPYTIMFGPDKCGATNKVHFILKHNKPKSGEYVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANFLSADDFE 216
A.lyrata_CNX2 RFQEGLECGGAYLKYLRLPQAGWVPPQGFNDNSPYTIMFGPDKCGATNKVHFILKHNKPKSGEYVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANFLSADDFE 216
C.rubella_CNX2 RFQEGLECGGAYLKYLRLPQAGWVPPQGFNDNSPYTIMFGPDKCGATNKVHFILKHNKPKSGEYVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANFLSADDFE 214
P.hybrida_CNX2 RLQEGLECGGAYLKYLRLPQAGWVPPQGFNDNSPYTIMFGPDKCGATNKVHFILKHNKPKSGEYVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANFLSADDFE 216
E.salsugineum_CNX2 RFQEGLECGGAYLKYLRLPQAGWVPPQGFNDNSPYTIMFGPDKCGATNKVHFILKHNKPKSGEYVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANFLSADDFE 214
C.sativa_CNX2 RFQEGLECGGAYLKYLRLPQAGWVPPQGFNDNSPYTIMFGPDKCGATNKVHFILKHNKPKSGEYVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANFLSADDFE 214
Z.mays_CNX2 RFQEGLECGGAYLKYLRLPQAGWDAKEFDNETPYTIMFGPDKCGGTNKVHFILKHNKPKTGKYVEHHLKFPSPVPYDKLSHVYTAILKPDNEVRILVDGEEKKANFLSADDFE 209

A.thaliana_CNX1 PALIPAKTIPDPEDKKPEDWDERAKIPDPNAVKKPDWDEDAPEIEDEEAEEKPEGWLDDPEEVEDDPEATKPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 328
A.lyrata_CNX1 PALIPAKTIPDPEDKKPEDWDERAKIPDPNAVKKPDWDEDAPEIEDEEAEEKPEGWLDDPEEVEDDPEATKPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 328
C.rubella_CNX1 PALIPAKTIPDPEDKKPEDWDERAKIPDPNAVKKPDWDEDAPEIEDEEAEEKPEGWLDDPEEVEDDPEATKPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 328
T.hirsutiflora_CNX1 PALIPAKTIPDPEDKKPEDWDERAKIPDIADSSAVKKPDWDEDAPEIEDEEAEEKPEGWLDDPEEDIDPEATKPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 324
P.hybrida_CNX1 PLPIPTKTIIPDPEDKKPEDWDERAKIPDPDAKKPEDWDEDAPEIEDEEAEEKPEGWLDDPEEDIDPEATKPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 325
G.max_CNX1 PPLIPSKTIPDPEDKKPEDWDERAKIPDPNAVKKPDWDEDAPEIEDEEAENPEGWLLDPEEVIDDPEATKPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 337
P.sativum_CNX1 PALIPSKTIPDPEDKKPEDWDERAKIPDPNAVKKPDWDEDAPEIEDEEAEEKPEWLDDHEEVD--DPEAKPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 336
Z.mays_CNX1 PALIPSKTIPDPEDKKPEDWDERAKIPDPNAVKKPDWDEDAPEIEDEEAEEKPEWLDDHEEVD--DPEAKPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 323
O.sativa_CNX1 PSLIPSKTIPDPEDKKPEDWDERAKIPDPDAVKPDWDEDAPEIEDEEAATKPEGWLDDPEEVIDDPEANKEPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 324
A.thaliana_CNX2 PPLIPSKTIPDPEDKKPEDWDERAKIPDPNAVKKPDWDEDAPEIEDEEAEEKPEGWLDDPEEVEEDPEASKPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 330
A.lyrata_CNX2 PPLIPSKTIPDPEDKKPEDWDERAKIPDPNAVKKPDWDEDAPEIEDEEAEEKPEGWLDDPEEVEEDPEASKPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 330
C.rubella_CNX2 PPLIPSKTIPDPEDKKPEDWDERAKIPDPNAVKKPDWDEDAPEIEDEEAEEKPEGWLDDPEEVEEDPEASKPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 328
P.hybrida_CNX2 PALIPAKTIPDPEDKKPEDWDERAKIPDPDAKKPEDWDEDAPEIEDEEAATKPEGWLDDPEEVIDDPEATKPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 330
E.salsugineum_CNX2 PPLIPSKTIPDPEDKKPEDWDERAKIPDPNAVKKPDWDEDAPEIEDEEAEEKPEGWLDDPEEVEEDPEASKPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 328
C.sativa_CNX2 PPLIPSKTIPDPEDKKPEDWDERAKIPDPNAVKKPDWDEDAPEIEDEEAEEKPEGWLDDPEEVEEDPEASKPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 328
Z.mays_CNX2 PALIPSKTIPDPEDKKPEDWDERAKIPDPNAVKKPDWDEDAPEIEDEEAATKPEGWLDDPEEVIDDPEAKPEDWDDEEDGMWEAPKIDNPKEAAPGCGGEWKRPMKRNPAYKG 323

A.thaliana_CNX1 KWSSPLIDNPAYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAKDEKVAETRYQTWTKPKFDVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 440
A.lyrata_CNX1 KWSSPLIDNPAYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAKDEKVAETRYQTWTKPKFDVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 440
C.rubella_CNX1 KWSSPLIDNPAYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAKDEKVAETRYQTWTKPKFDVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 440
T.hirsutiflora_CNX1 KWHAPMIDNPYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAADEKVAESYREKTWPKYDYVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 438
P.hybrida_CNX1 KWHAPMIDNPYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAADEKVAESYREKTWPKYDYVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 435
G.max_CNX1 KWSABYIDNPYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAADEKVAESYREKTWPKYDYVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 449
P.sativum_CNX1 KWSABYIDNPYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAADEKVAESYREKTWPKYDYVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 449
Z.mays_CNX1 KWHAPMIDNPYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAADEKVAESYREKTWPKYDYVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 435
O.sativa_CNX1 KWHAPMIDNPYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAADEKVAESYREKTWPKYDYVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 436
A.thaliana_CNX2 KWSSPLIDNPAYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAADEKVAESYREKTWPKYDYVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 442
A.lyrata_CNX2 KWSSPLIDNPAYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAADEKVAESYREKTWPKYDYVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 442
C.rubella_CNX2 KWSSPLIDNPAYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAADEKVAESYREKTWPKYDYVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 440
P.hybrida_CNX2 KWRAPLVDNPYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAADEKVAESYREKTWPKYDYVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 440
E.salsugineum_CNX2 KWSSPLIDNPAYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAADEKVAESYREKTWPKYDYVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 440
C.sativa_CNX2 KWSSPLIDNPAYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAADEKVAESYREKTWPKYDYVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 440
Z.mays_CNX2 KWHAPMIDNPYKGIWKPQIDIPNDYFELDRPDYEPAAIGIEIWTMQDGLFDNLILIAADEKVAESYREKTWPKYDYVEKEKQKAEDEA---AGSADGLSKYQKVVFDLLNKVA 434

A.thaliana_CNX1 DLSFLSAYKSKITELIEKAEQPNLTIGVLVAIVV---VFFSLFLKLIIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 530
A.lyrata_CNX1 DLSFLSAYKSKITELIEKAEQPNLTIGVLVAIVV---VFFSLFLKLIIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 529
C.rubella_CNX1 DLSFLSAYKSKITELIEKAEQPNLTIGVLVAIVV---VFFSLFLKLIIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 530
T.hirsutiflora_CNX1 DVPFLAAYKSKIIDIEKAEQPNLTIGVLVAIVV---VLLTILFLRIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 542
P.hybrida_CNX1 DVPFLGHEKAKVLDIEKAEQPNLTIGVLVAIVV---VFTTVLFLKLIIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 534
G.max_CNX1 DIPFLSEHKKSKIFDLIEKAEQPNLTIGVLVAIVV---VFFSLFLKLIIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 546
P.sativum_CNX1 DIAPFLSQQKSKIBIEKAEQPNLTIGVLVAIVV---VFFSLFLRILIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 546
Z.mays_CNX1 DVPFLAAYKSKIIDIEKAEQPNLTIGVLVAIVV---VFTTVLFLKLIIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 534
O.sativa_CNX1 DIPFLAAYKSKIIDIEKAEQPNLTIGVLVAIVV---VFTTVLFLRILIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 534
A.thaliana_CNX2 DISFLSAYKSKIMELIEKAEQPNLTIGVLVAIVV---VFLSLFLKLIIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 532
A.lyrata_CNX2 DISFLSAYKSKIMELIEKAEQPNLTIGVLVAIVV---VFLSLFLKLIIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 532
C.rubella_CNX2 DISFLSAYKSKIMELIEKAEQPNLTIGVLVAIVV---VFLSLFLKLIIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 530
P.hybrida_CNX2 DIPFLGHEKAKVLDIEKAEQPNLTIGVLVAIVV---VFTTVLFLKLIIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 539
E.salsugineum_CNX2 DISFLSAYKSKIMELIEKAEQPNLTIGVLVAIVV---VFLSLFLKLIIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 531
C.sativa_CNX2 DISFLSAYKSKIMELIEKAEQPNLTIGVLVAIVV---VFTTVLFLKLIIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 533
Z.mays_CNX2 DIPFLAAYKSKIIDIEKAEQPNLTIGVLVAIVV---VFTTVLFLKLIIFGKKAAAPVEKKKPEV-----AESSKS-----G-D---EA-EKK-EETAAPRKRQPRRD 532