AT4G02465.1

```
Col-0      MAI KWKRKAI RVVASSSGSVWI GRYLI DDDDVDEQSQEFQI QLNYQDMAT     50
Got-7      MAI KWKRKAI RVVASSSGSVWI GRYLI DDDDVDEQSQEFQI QLNYQDMAT     50

Col-0      EEEDKLLDALLSKDGASI AKRLSNCCFAKFGGVGI FMAEQVSSSKLFWRR       100
Got-7      EEEDKLLDALLSKDGASI AKRLSNCCFAKFGGVGI FMAEQVSSSKLFWRR       100

Col-0      DMQWRI GRLMRLPLTSLDFI RRRMLYPSFGTKHFLPLCNGK*       142
Got-7      DMQWRI GRLMRLPLTSLDFI RRRMLYPSFGTKHFLPLCNGK        141
```

Arabidopsis lyrata petraea plech 14-5 gene model produced using genewise

```
Col-0          26 LIDDDDVDEQSQEFQIQLNYQ                      DMAT-
                  LIDDDDVDE+SQEFQ QL+ Q                      DM +
                  LIDDDDVDEKSQEFQTQLDNQ                      DMTSC
plech 14-5    298 taggggggatcgtcaccgacGTCAGAT  Intron 1   CAGgaaat
                  ttaaaataaacaatacataaa<0-----[361  :  427]-0>atcgg
                  gttcttttgatagtgcattca                      tgcct

Col-0          51 EEEDKLLDALLSKDGASIAKRLSNCCFAKFGGVGIFMAEQVSSSK
                  EEEDK+LDAL SKDGASIAKRLS+          I+   Q    K
                  EEEDKILDALFSKDGASIAKRLSH---------AIYNFYQ!MKIK
plech 14-5    443 ggggaacggtttagggtagacctc         gatattc5aaaa
                  aaaaattacttcaagcctcagtca         ctaataa tata
                  gaacgatttgtcgtataatgtctt         tatccta ggag

Col-0          96                        LFWRRDMQWRIGRLMRLPLTSLDFIR
                                         LFWRRDMQWRIGRLMR  L S +FIR
                                         LFWRRDMQWRIGRLMRSLLISXEFIR
plech 14-5    553 GTGATGC  Intron 2   AAGtttaagactcagctactccattgtaa
                  <0-----[553  : 1535]-0>ttgggataggtggttgctttcgattg
                                         acgaatgagtcgggggagcttaacag

Col-0         122 RRMLYPSFGTKHFLPLCNGK
                  RR L PSFGTKHFLPLC GK
                  RRKLCPSFGTKHFLPLCYGK
plech 14-5   1614 acattcttgaacttctttga
                  ggatgcctgcaattctgaga
                  aagacgatccaccgtgcttg
```

Arabidopsis lyrata lyrata (JGI draft) gene model produced using genewise

```
Col-0          26 LIDDDDVDEQSQEFQIQLNYQ                      DMAT-
                  LIDDDDVDE+SQEFQ QL+ Q                      DM +
                  LIDDDDVDEKSQEFQTQLDNQ                      DMTSC
A.lyrata lyrata  298 taggggggatcgtcaccgacGTCAGAT  Intron 1   CAGgaaat
                  ttaaaataaacaatacataaa<0-----[361  :  427]-0>atcgg
                  gttcttttgatagtgcattca                      tgcct

Col-0          51 EEEDKLLDALLSKDGASIAKRLSNCCFAKFGGVGIFMAEQVSSSK
                  EEEDK+LDAL SKDGASIAKRLS+          I+   Q    K
                  EEEDKILDALFSKDGASIAKRLSH---------AIYNFYQ!MKIK
A.lyrata lyrata  443 ggggaacggtttagggtagacctc         gatattc5aaaa
                  aaaaattacttcaagcctcagtca         ctaataa tata
                  gaacgatttgtcgtataatgtctt         tatccta ggag

Col-0          96                        LFWRRDMQWRIGRLMRLPLTSLDFIR
                                         LFWRRDMQWRIGRLMR  L S +FIR
                                         LFWRRDMQWRIGRLMRSLLISXEFIR
A.lyrata lyrata  553 GTGATGC  Intron 2   AAGtttaagactcagctactccattgtaa
                  <0-----[553  : 1535]-0>ttgggataggtggttgctttcgattg
                                         acgaatgagtcgggggagcttaacag

Col-0         122 RRMLYPSFGTKHFLPLCNGK
                  RR L PSFGTKHFLPLC GK
                  RRKLCPSFGTKHFLPLCYGK
A.lyrata lyrata 1614 acattcttgaacttctttga
                  ggatgcctgcaattctgaga
                  aagacgatccaccgtgcttg
```

AT1G61165.1

```
Col-0          MLMLGDDI ASFI AYPTPAPGDSNSRTSSPNSI QEC*    36
CS22491        MLMLGDDI ASFI AYPTPAPGDSNSRTSSPNSI QEC*    36
Ag-0           MLMLGDDI ASFI AYPTPAPGDSNSRTSSPNSI QEC*    36
Kas-1          MLI LGDDI ASFI AYPTPAPGDSNSRTSSPNSI QEY*   36
CVI-0          VLMLGDDI ASFI AYPTPAPEDSSSRTSSPNSI QEC*    36
Bay-0          VLMPGDDI ASFI AYPTPAPQDSSSRTSSPNSI QEC*    36
A.lyrata_lyrata VLMLGEDI PTFI AYPASAPCVSNNRNSSPNSI LECE    36
```

AT3G30160.1

```
Col-0          MI I CI YLPLHTASSHVFFI TI TSLSHI SI PAI I I I VVTPELTSRCGRKCS   50
CVI-0          MI I CI YLPLHTASSHVFFI TI TSLSHI SI PAI I I I VVTPELTSRCGRKCS   50
Kas-1          MI I CI YLPLHTASSHVFFI TI TSLSHI SI PAI I I I VVTPELTSRCGRKCS   50
CS22491        MI I CI YLPLHTASSHVFFI TI TSLSHI SI PAI I I I VVTPELTSRCGRKCS   50
TS-1           MI I CI YLPLHTASSHAFFI TI TSLSHI SI PAI I I I VVTPELTSRCGRKCS   50
OY-0           MI I CI YLPLHTASSHVFFI TI TSLSHI SVPAI I I VVVTPELTSRCGRKCS   50
NOK-3          MI I CI YLPLHTASSHAFFI TI TSLSHI SVPAI I I VVVTPELTSRCGRKCS   50
Bay-0          MI I CI YLPLHTASSHAFFI TI TSLSHI SVPAI I I VVVTPELTSRCGRKCS   50

Col-0          TWLVSSPFI AGLL*                             64
CVI-0          TWLVSSPFI AGLL*                             64
Kas-1          TWLVSSPFI AGLL*                             64
CS22491        TWLVSSPFI AGLL*                             64
TS-1           TWLVSSPFI AGLL*                             64
OY-0           TWLVSSPFI AGLL*                             64
NOK-3          TWLVSSPFI AGLL*                             64
Bay-0          TWLVSSPFI AGLL*                             64
```

AT4G31960.1

```
Ag-0           MLTGLVVDI SMTSTAPTSPSRSESRQLQDPFGEVETKTQNDSVVSNKDKG   50
OY-0           MLTGLVVDI SMTSTAPTSPSRSESRQLQDPFGEVETKTQNDSVVSNKDKG   50
NOK-3          MLTGLVVDI SMTSTAPTSPSRSESRQLQDPFGEVETKTQNDSVVSNKDKG   50
TS-1           MLTGLVVDI SMTSTAPTSPSRSESRQLQDPFGEVETKTQNDSVVSNKDKG   50
Col-0          MLTGLVVDI SMTSTAPTSPSRSESRQLQDPFGEVETKTQNDSVVSNKDKG   50
CVI-0          MLTGLVVDI SMTSTAPTSPSRSESRQLQDPFGEVETKTQNDSVVSNKDKG   50
Bay-0          MLAGLVVDI SMTSTAPTSPSRSESRQLQDPFGEVETKTQNDSVVSNKDKG   50

Ag-0           LLGQKPNDNKTI KELKPKSAVSSYI SQRSI PPVQANKTRVDTRKRSVMKG   100
OY-0           LLGQKPNDNKTI KELKPKSAVSSYI SQRSI PPVQANKTRVDTRKRSVMKG   100
NOK-3          LLGQKPNDNKTI KELKPKSAVSSYI SQRSI PPVQANKTRVDTRKRSVMKG   100
TS-1           LLGQKPNDNKTI KELKPKSAVSSYI SQRSI PPVQANKTRVDTRKRSVMKG   100
Col-0          LLGQKPNDNKTI KELKPKSAVSSYI SQRSI PPVQANKTRVDTRKRSVMKG   100
CVI-0          LLGQKPNDNKTI KELKPKSAVSSYI SQRSI PPVQANKTRVDTRKRSVMKG   100
Bay-0          LLGQKPNDNKTI KELKPKSAVSSYI SQRSI PPVQANKTRVDTRKRSVMKG   100

Ag-0           CTDPI I TTNRFDCLATCET*                      120
OY-0           CTDPI I TTNRFDCLATCET*                      120
NOK-3          CTDPI I TTNRFDCLATCET*                      120
TS-1           CTDPI I TTNRFDCLATCET*                      120
Col-0          CTDPI I TTNRFDCLATCET*                      120
CVI-0          CTDPI I TTNRFDCLATCET*                      120
Bay-0          CTDPI I TTNRFDCLATCET*                      120
```

AT5G53144.1

```
Col-0          MGLYHTFGVSVMAKFGFDFRVVEFVPFVCRSV*    33
CVI-0          MGLYHTFGVSVMAKFGFDFRVVEFVPFVCRSV*    33
Ag-0           MGLYHTFGVSVMAKFGFDFRVVEFVPFVCRSV*    33
Bay-0          MGLYHTFGVSVMAKFGFDFRVVEFVPFVCRSV*    33
Kas-1          MGLYHTFGVSVMAKFGFDFRVVEFVPFVCRSV*    33
CS22491        MGLYHTFGVSVMAKFGFDFRVVEFVPFVCRSV*    33
A.lyrata_lyrata LGLYHTFGVSVMAKFGFDFRVVELVQFVCRSV*   33
```

AT5G57567.1

```
Ag-0           MLMELQAEKEAILAVEAAAIAKALSKLPAEEAELGKAESKE*    42
CVI-0          MLMELQAEKEAILAVEAAAIAKALSKLPTEEAELGKAESKE*    42
OY-0           MLMELQAEKEAILAVEAAAIAKALSKLPTEEAELGKAESKE*    42
CS22491        MLMELQAEKEAILAVEAAAIAKALSKLPTEEAELGKAESKE*    42
Bay-0          MLMELQAEKEAILAVEAAAIAKALSKLPTEEAELGKAESKE*    42
Col-0          MLMELQAEKEAILAVEAAAIAKALSKLPTEEAELGKAESKE*    42
```

AT4G38781.1

```
CVI-0_1                          MPSYI YVRSVNRL- SYQPHPTTVI LGI FVFVKARTEVLGFCSSAI LAGPL DLKS    53
Ag-0_1                           MPSYI YLRSVNRL- SYQPHPTTVI LGI FVFVKARTEVLGFCSSAI LLG- LWI - *  51
Bay-0_1                          MPSYI YLRSVNRL- SYQPHPTTVI LGI FVFVKARTEVLGFCSSAI LLG- LWI - *  51
CS22491_1                        MPSYI YLRSVNRL- SYQPHPTTVI LGI FVFVKARTEVLGFCSSAI LLG- LWI - *  51
Col-0_1                          MPSYI YVRSVNRL- SYQPHPTTVI LGI FVFVKARTEVLGFCSSAI LLG- LWI - *  51
Kas-1_1                          MPSYI YVRSVNRL- SYQPHPTTVI LGI FVFVKARTEVLGFCSSAI LLG- LWI - *  51
A.cebennensis                    LSI YMFVRLI VFL- TYRPHPTTVI LGFFVFI KARTEVLGLFFSAI - - - - - WI C*  48
A.lyrata_petraea_Tannenberg_T1a  I YI YMFVRLI VFLNSNRPHPTTVI LGFFVFI KARTEVLGLFFSGI WLV- LWI C*  53
A.lyrata_lyrata                  I YI YMFVRLI VFLNSNRPHPTTVI LGFFVFI KARTEVLGLFFSAI WLV- LWI C*  53
```

Arabidopsis_lyrata_petraea_NT_12b
gene model produced using genewise

```
Arabidopsis_thaliana_Col-0       MPSYIYVRSVNRLSY--QPHPTTVILGIFVFVKARTEVLGFCSSAILLGLWI-*
                                    YIYVRSVNRLS    PHPTTVILG+FVF+KARTEVLG+  SAI L LWI *
Arabidopsis_lyrata_petraea_NT12b 
                                 LYxYIYVRSVNRLS!SNRPHPTTVILGFFVFIKARTEVLGLFFSAIWLVLWIC*
                                 ctmtatgctgacct4taccccaagatgttgtaagcaggtgctttgatcgctatt
                                 tatatatgctagtc cagcaccctttgtttttacgcattgtttcctgtttgtgg
                                 ctatattcgttttt tcatcggggtagtcgccgtcggtagtccagtggctgtta
```

AT5G50361.1

```
CVI-0      MCLPLI APHLI ATPRSPI GHHFPRTSSLNVGFKQNATSLTFVQSRRCVVHRLVSHVARFSPNVST*   66
Ag-0       MCLPLI APHLI ATPRSPI GHHFPRTSSLNVGFKQNATSLTFVQSRRCAVPRLVSHVARFSPNVST*   66
Kas-1      MCLPLI APHLI ATPRSPI GHHFPRTSSLNVGFKQNATSLTFVQSRRCAVHRLVSHVARFSPNVST*   66
Bay-0      MCLPLI APHLI ATPRSPI GHHFPRTSSLNVGFKQNATSLTFVQSRRCAVHRLVSHVARFSPNVST*   66
CS22491    MCLPLI APHLI ATPRSPI GHHFPRTSSLNVGFKQNATSLTFVQSRRCAVHRLVSHVARFSPNVST*   66
Col-0      MCLPLI APHLI ATPRSPI GHHFPRTSSLNVGFKQNATSLTFVQSRRCAVHRLVSHVARFSPNVST*   66
```

Arabidopsis_lyrata_petraea_Tannenberg_T1a
gene model produced using genewise

```
Arabidopsis_thaliana_Col-0       MCLPLIAPHLIATPRSPIGHHFPRTSSLNVGFKQNATSLTFVQSRRCAVHRLVSHVARFSPNVST*
                                 M +PLIAPH IATPRS IGHHFPRTSSL VGFKQNATSL FVQSRRCAVHRLVSHVA+FSPNVST*
Arabidopsis_lyrata_petraea__Tannenberg_T1a
                                 MWIPLIAPHxIATPRSxIGHHFPRTSSL!VGFKQNATSL!FVQSRRCAVHRLVSHVAKFSPNVST*
                                 atactagcccagacctcagcctccatac2ggtacagatc4tgctcctggcctgtcggattcagtat
                                 tgtcttccawtcccgcytgaatcgccgt tgtaaaccct ttacgggctagttcatcatccatcca
                                 ggwtacagcaacttctyttccctttgtc cacaaccgta ccaattcttttgcgcgagttacggga
```

Arabidopsis_lyrata_petraea_NT_12b
gene model produced using genewise

```
Arabidopsis_thaliana_Col-0       MCLPLIAPHLIATPRSPIGHHFPRTSSLNVGFKQNATSLTFVQSRRCAVHRLVSHVARFSPNVST*
                                 M +PLIAPHLIATPRSPIGHHFPRTSSL VGFKQNATSL FVQSRRCAVHRLVSHVA+FSPNVST*
Arabidopsis_lyrata_petraea_NT12b 
                                 MWIPLIAPHLIATPRSPIGHHFPRTSSL!VGFKQNATSL!FVQSRRCAVHRLVSHVAKFSPNVST*
                                 atactagcccagacctcagcctccatac2ggtacagatc4tgctcctggcctgtcggattcagtat
                                 tgtcttccattcccgcctgaatcgccgt tgtaaaccct ttacgggctagttcatcatccatcca
                                 ggatacagcaacttcttttccctttgtc cacaaccgta ccaattcttttgcgcgagttacggga
```

Arabidopsis_cebennensis
gene model produced using genewise

```
Arabidopsis_thaliana_Col-0       MCLPLIAPHLIATPRSPIGHHFPRTSSLNVGFKQNATSLTFVQSRRCAVHRLVSHVARFSPNVST*
                                 M LPLIAPHLIATPRSPIGHH PRTSSL VG KQNATSL FVQSRRCAVHRLVSHVA+FSPNVST*
Arabidopsis_cebennensis 
                                 MWLPLIAPHLIATPRSPIGHHSPRTSSL!VGPKQNATSL!FVQSRRCAVHRLVSHVAKFSPNVST*
                                 atcctagcccagacctcagcctccatac2ggcacagatc4tgctcctggcctgtcggattcagtat
                                 tgtcttccattcccgcctgaaccgccgt tgcaaaccct ttacgggctagttcatcatccatcca
                                 ggatacagcaacttcttttccctttgtc cacaaccgta ccaattcttttgcgcgagttacggga
```

Arabidopsis_lyrata_lyrata
gene model produced using genewise

```
Arabidopsis_thaliana_Col-0       MCLPLIAPHLIATPRSPIGHHFPRTSSLNVGFKQNATSLTFVQSRRCAVHRLVSHVARFSPNVST*
                                 M LPLIAPHLIATPRS IGHHFPRTSSL VGFKQNATSL FVQSRRCAVHRLVSHVA+FSPNVST*
Arabidopsis_lyrata_lyrata 
                                 MWLPLIAPHLIATPRSLIGHHFPRTSSL!VGFKQNATSL!FVQSRRCAVHRLVSHVAKFSPNVST*
                                 atcctagcccagacctcagcctccatac2ggtacagatc4tgctcctggcctgtcggattcagtat
                                 tgtcttccattcccgcttgaatcgccgt tgtaaaccct ttacgggctagttcatcatccatcca
                                 ggatacagcaacttctcttcccctttgtc cacaaccgta ccaattcttttgcgcgagttacggga
```

AT2G36854.1

Arabidopsis lyrata lyrata (JGI draft) gene model produced using genewise

```
Col-0              2 SLKRVKHHGTKREDEE-----TRIARAGGFEPGCDGGVSDGIYGGFKKT
                     +L RVKHHGTKREDEE     TR ARAG FEPGCDGGVSDG YGGFKKT
                     ALNRVKHHGTKREDEEEEAV!TRKARAGRFEPGCDGGVSDG!YGGFKKT
A.lyrata lyrata   10 gcaagaccgaaagggggggg2acagcggctgcgtggggtgg2tggtaaa
                     ctagtaaagcagaaaaaact cgacgcggtacggaggtcag aggtaac
                     cacggactcagaatagaatg gaatataacacatcatggca tcatgag

Col-0             46 SRFDSFVKWVFSKK
                     SRFDSFVKWVFS++
                     SRFDSFVKWVFSEE
A.lyrata lyrata  155 actgttgatgttgg
                     ggtacttagttcaa
                     tattccaggtcaga

Col-0              2 SLKRVKHHGTKREDEE-----TRIARAGGFEPGCDGGVSDGIYGGFKKT
                     +L RVKHHGTKREDEE     TR ARAG FEPGCDGGVSDG YGGFKKT
                     ALNRVKHHGTKREDEEEEAV!TRKARAGRFEPGCDGGVSDG!YGGFKKT
plech 8-3         63 gcaagaccgaaagggggggg2acagcggctgcgtggggtgg2tggtaaa
                     ctagtaaagcagaaaaaact cgacgcggtacggaggtcag aggtaac
                     cacggactcagaatagaatg gaatataacacatcatggca tcatgag

Col-0             46 SRFDSFVKWVFSKKIK
                     SRFDSFVKWVFS+  K
                     SRFDSFVKWVFSExKK
plech 8-3        208 actgttgatgttgNaa
                     ggtacttagttcaaaa
                     tattccaggtcagaga
```

Arabidopsis lyrata petraea plech 9-7 gene model produced using genewise

```
Col-0              2 SLKRVKHHGTKREDEE-----TRIARAGGFEPGCDGGVSDGIYGGFKKT
                     +L RVKHHGTKREDEE     TR ARAG FEPGCDGGVSDG YGGFKKT
                     ALNRVKHHGTKREDEEEEAV!TRKARAGRFEPGCDGGVSDG!YGGFKKT
plech 9-7         63 gcaagaccgaaagggggggg2acagcggctgcgtggggtgg2tggtaaa
                     ctagtaaagcagaaaaaact cgacgcggtacggaggtcag aggtaac
                     cacggactcagaatagaatg gaatataacacatcatggca tcatgag

Col-0             46 SRFDSFVKWVFSKKIK
                     SRFDSFVKWVFS++ K
                     SRFDSFVKWVFSEEKK
plech 9-7        208 actgttgatgttggaa
                     ggtacttagttcaaaa
                     tattccaggtcagaga
```

Arabidopsis lyrata petraea plech 11-2 gene model produced using genewise

```
Col-0              2 SLKRVKHHGTKREDEE-----TRIARAGGFEPGCDGGVSDGIYGGFKKT
                     +L RVKHH TKREDEE     TR ARAG FEPGCDGGVSDG YGGFKKT
                     ALNRVKHHDTKREDEEEEAV!TRKARAGRFEPGCDGGVSDG!YGGFKKT
plech 11-2        48 gcaagaccgaaagggggggg2acagcggctgcgtggggtgg2tggtaaa
                     ctagtaaaacagaaaaaact cgacgcggtacggaggtcag aggtaac
                     cacggactcagaatagaatg gaatataacacatcatggca tcatgag

Col-0             46 SRFDSFVKWVFSKKIK
                     SRFDSFVKWVFS+K K
                     SRFDSFVKWVFSEKKK
plech 11-2       193 actgttgatgttgaaa
                     ggtacttagttcaaaa
                     tattccaggtcagaga
```

Arabidopsis lyrata petraea plech 13-4 gene model produced using genewise

```
Col-0              2 SLKRVKHHGTKREDEE-----TRIARAGGFEPGCDGGVSDGIYGGFKKT
                     +L RVKHHGTKREDEE     TR ARAG FEPGCDGGVSDG YGGFKKT
                     ALNRVKHHGTKREDEEEEAV!TRKARAGRFEPGCDGGVSDG!YGGFKKT
plech 13-4        97 gcaagaccgaaagggggggg2acagcggctgcgtggggtgg2tggtaaa
                     ctagtaaagcagaaaaaact cgacgcggtacggaggtcag aggtaac
                     cacggactcagaatagaatg gaatataacacatcatggca tcatgag

Col-0             46 SRFDSFVKWVFSKKIK
                     SRFDSFVKWVFS+  K
                     SRFDSFVKWVFSExKK
plech 13-4       242 actgttgatgttgNaa
                     ggtacttagttcaaaa
                     tattccaggtcagaga
```

AT5G08220.1

Arabidopsis lyrata lyrata (JGI draft) gene model produced using genewise

```
Col-0                1 MTDAFLSNCHSIEPVLQEYPYRYFAHCLSR
                       MT AFL+NC S+ PVLQEY YRY+AHCLS
                       MTHAFLNNCDSMVPVLQEYSYRYLAHCLSE
A.lyrata lyrata      4 aacgtcaatgtagcgtcgtttctcgctttg
                       tcacttaagacttcttaaacagatcagtca
                       gatatactcccgggtaaatgtattgccaaa


Col-0               31                         VYTFGLGLVEMSVLVGQSFGVIS
                                               VYTF  G+VEM+VLVG S+G IS
                                               VYTFRPGVVEMNVLVGPSLG!IS
A.lyrata lyrata     94 GTTTGTT  Intron 1   TAGgtatacggggaagcggcatg4at
                       <0-----[94   :  433]-0>tactgcgttatatttgcgtg tc
                                               tcgtacataggccgtaatac cg


Col-0               54                            VLGNFVEPEESSKVIGN
                                                  VLGNFVEPE SSKVIGN
                                R:R[agg]          VLGNFVEPE-SSKVIGN
A.lyrata lyrata    504 AGGTAAAGA  Intron 2   CAGGgtgatggcg atagaga
                         <2-----[506  :  753]-2> ttgattaca gcattga
                                                  agattgagg tcagtgc
```

Arabidopsis lyrata petraea plech 11-2 gene model produced using genewise

```
Col-0                6 LSNCHSIEPVLQEYPYRYFAHCLSR                      V
                       L+ C S+EPVLQEY YRY+AHCLS                       V
                       LNICDSMEPVLQEYSYRYLAHCLSE                      V
plech 11-2           3 taatgtagcgtcgtttctcgctttgGTTTGTT  Intron 1   TAGg
                       tatgactacttaaacagatcagtca<0-----[78   :  413]-0>t
                       actcccgggtaaatgtattgccaaa                      t


Col-0               32 YTFGLGLVEMSVLVGQSFGVIS                         V
                       YTF  G+VEM+VLVG S+G IS                         V
                       YTFRPGVVEMNVLVGPSLG!IS          R:R[agg]       V
plech 11-2         417 tatacggggaagcggcatg4atAGGTAAAGA  Intron 2   CAGGg
                       actgcgttatatttgcgtg tc  <2-----[486  :  733]-2> t
                       cgtacataggccgtaataa cg                         a


Col-0               56 LGNFVEPEESSKVIGN
                       LGNFVEPE SSKVIGN
                       LGNFVEPE-SSKVIGN
plech 11-2         738 tgatggcg atagaga
                       tgattaca gcattga
                       gattgagg tcagtgc
```

AT2G29654.1

```
Bur-0     ATGATTGAAATGGTGAATGATAATTGAAGAAGTGGGCCACGTGAGAGAAGCATGTACTTT   60
Col-0     ATGATTGAAATGGTGAATGATAATTGGAGAAGTGGGCCACGTGAGAGAAGCATGTACTTT   60
Got-7     ATGATTGAAATGGTGAATGATAATTGGAGAAGTGGGCCACGTGAGAGAAGCATGTACTTT   60
Cvi-0     ATGATTGAAATGGTGAATGATAATTGAAGAAGTGGGCCACGTGAGAGAAGCATGTACTTT   60
Ler-1     ATGATTGAAATGGTGAATGATAATTGAAGAAGTGGGCCACGTGAGAGAAGCATGTACTTT   60
Bay-0     ATGATTGAAATGGTGAATGATAATTGAAGAAGTGGGCCACGTGAGAGAAGCATGTACTTT   60

Bur-0     TGGAAAGTGGGTCATTTCGAAGCTCTTCCTGTCTCCATCCACATGAAGTTGGCATT----   116
Col-0     TGGAAAGTGGGTCATTTCGAAGCTCTTCCTGTCTCCATCCACATGAAGTTGGCATTCTTG   120
Got-7     TGGAAAGTGGGTCATTTCGAAGCTCTTCCTGTCTCCATCCACATGAAGTTGGCATTCTTG   120
Cvi-0     TGGAAAGTGGGTCATTTCGAAGCTCTTCCTGTCTCCATCCACATGAAGTTGGCATTCTTG   120
Ler-1     TGGAAAGTGGGTCATTTCGAAGCTCTTCCTGTCTCCATCCACATGAAGTTGGCATTCTTG   120
Bay-0     TGGAAAGTGGGTCATTTCGAAGCTCTTCCTGTCTCCATCCACATGAAGTTGGCATTCTTG   120

Bur-0     ------------------------------------------------------------   116
Col-0     TGTCTTTACGGCCTAAGTTTGCGTTTCTACCTCTTGAGAAATGAATCTTGCCTTCTTGTT   180
Got-7     TGTCTTTACGGCCTAAGTTTGCGTTTCTACCTCTTGAGAAATGAATC-TGCCTTCTTGTT   179
Cvi-0     TGTCTTTACGGCCTAAGTTTGCGTTTCTACCTCTTGAGAAATGAATCTTGCCTTCTTGTT   180
Ler-1     TGTCTTTACGGCCTAAGTTTGCGTTTCTACCTCTTGAGAAATGAATC-TGCCTTCTTGTT   179
Bay-0     TGTCTTTACGGCCTAAGTTTGCGTTTCTACCTCTTGAGAAATGAATCTTGCCTTCTTGTT   180

Bur-0     ---     116
Col-0     TAG     183
Got-7     TAG     182
Cvi-0     TAG     183
Ler-1     TAG     182
Bay-0     TAG     183

Bur-0     MIEMVNDN* RSGPRERSMYFWKVGHFEALPVSIHMKLAX
Col-0     MIEMVNDNWRSGPRERSMYFWKVGHFEALPVSIHMKLAFLCLYGLSLRFYLLRNESCLLV*
Got-7     MIEMVNDNWRSGPRERSMYFWKVGHFEALPVSIHMKLAFLCLYGLSLRFYLLRNESAFLFX
Cvi-0     MIEMVNDN* RSGPRERSMYFWKVGHFEALPVSIHMKLAFLCLYGLSLRFYLLRNESCLLV*
Ler-1     MIEMVNDN* RSGPRERSMYFWKVGHFEALPVSIHMKLAFLCLYGLSLRFYLLRNESAFLFX
Bay-0     MIEMVNDN* RSGPRERSMYFWKVGHFEALPVSIHMKLAFLCLYGLSLRFYLLRNESCLLV*
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Arabidopsis lyrata lyrata (JGI draft) gene model produced using genewise

```
Col-0              1 MIEMVNDNWRSGPRERSMYFWKVGHFEALPVSIHMKLAFLCLYGLSLRF
                     MIEMVNDN RSGPRERSMYFWK      LPVSIHMK A+LC YGLSLRF
                     MIEMVNDNXRSGPRERSMYFWK!-----LPVSIHMKWALLC!YGLSLRF
A.lyrata lyrata   11 aagagagataagccgaaattta2     ccgtacaatgttt2tgcatct
                     ttattaaagggcgaggtatga      tctctatagcttg agtgtgt
                     gtaggtttaatgaggatgctga     ttacccgggaggt ccatgtt

Col-0             50 YLLRNESCLLV
                      LLRNESCLLV
                     !LLRNESCLLV
A.lyrata lyrata  141 2ctaagttccg
                      ttgaacgttt
                      cgatatcttt
```

Arabidopsis lyrata petraea plech 11-2 gene model produced using genewise

```
Col-0              1 MIEMVNDNWRSGPRERSMYFWKVGHFEALPVSIHMKLAFLCLYGLSLRF
                     MIEMVNDN RSGPRERSMYFW       LPVSIHMK A+LC YGLSLRF
                     MIEMVNDNXRSGPRERSMYFW!-----xLPVSIHMKWALLC!YGLSLRF
plech 11-2        66 aagagagataagccgaaattt2     Nccgtacaatgttt2tgcatct
                     ttattaaagggcgaggtatg       ctctctatagcttg agtgtgt
                     gtaggtttaatgaggatgctg      tttacccgggaggt ccatgtt

Col-0             50 YLLRNESCLLV
                      LLRNESCLLV
                     !LLRNESCLLV
plech 11-2       196 2ctaagttccg
                      ttgaacgttt
                      cgatatcttt
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AT2G46567.1

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Col-0       ATGATTTGGAGAGTTGGGAACAGAGACATTAGTGATTATAAGGTGTTGGGAAAGCGTGAC   60
Ler-1       ATGATTTGGAGAGTTGGGAACAGAGACATTAGTGATTATAAGGTGTTGGGAAAGCGTGAC   60
Bay-0       ATGATTTGGAGAGTTGGGAACTGAGACATTAGTGATTATAAGGTGTTGGGAAAGCGTGAC   60
Bur-0       ATGATTTGGAGAGTTGGGAACTGAGACATTAGTGATTATAAGGTGTTGGGAAAGCGTGAC   60
Got-7       ATGATTTGGAGAGTTGGGAACTGAGACATTAGTGATTATAAGGTGTTGGGAAAGCGTGAC   60
Cvi-0       ATGATTTGGAGAGTTGGGAACTGAGACATTAGTGATTATAAGGTGTTGGGAAAGCGTGAC   60
plech  9-7  ATGATTTGGAGAGTTGGTAACAGAGACATTAGTGATTATAAGGTGTTGGGAAGGCGTGAC   60
plech  17-7 ATGATTTGGAGAGTTGGTAACAGAGACATTAGTGATTATAAGGTGTTGGGAAGGCGTGAC   60
plech  13-4 ATGATTTGGAGAGTTGGTAACAGAGACATTAGTGATTATAAGGTGTTGGGAAGGCGTGAC   60
plech  8-3  ATGATTTGGAGAGTTGGTAACAGAGACATTAGTGATTATAAGGTGTTGGGAAGGCGTGAC   60
A.lyrata    ATGATTTGGAGAGTTGGTAACAGAGACATTAGTGATTATAAGGTGTTGGGAAGGCGTGAC   60
plech  14-5 ATGATTTGGAGAGTTGGTAACAGAGACATTAGTGATTATAAGGTGTTGGGAAGGCGTGAC   60
plech  11-2 ATGATTTGGAGAGTTGGTAACAGAGACATTAGTGATTATAAGGTGTTGGGAAGGCGTGAC   60

Col-0       TTGTTTCTTGACCCCAGCGTGAGATTGAAGGCAACACACGAGTTACTATAA   111
Ler-1       TTGTTTCTTGACCCCAGCGTGAGATTGAAGGCAACACACGAGTTACTATAA   111
Bay-0       TTGTTTCTTGACCCCAGCGTGAGATTGAAGGCAACACACGAGTTACTATAA   111
Bur-0       TTGTTTCTTGACCCCAGCGTGAGATTGAAGGCAACACACGAGTTACTATAA   111
Got-7       TTGTTTCTTGACCCCAGCGTGAGATTGAAGGCAACACACGAGTTACTATAA   111
Cvi-0       TTGTTTCTTGACCCCAGCGTGAGATTGAAGGCAACACACGAGTTACTATAA   111
plech  9-7  TTGTTTCTTGACCCCAGCGTGAGATTGAAGGCAACACACGAGTTACTATAA   111
plech  17-7 TTGTTTCTTGACCCCAGCGTGAGATTGAAGGCAACACACGAGTTACTATAA   111
plech  13-4 TTGTTTCTTGACCCCAGCGTGAGATTGAAGGCAACACACGAGTTACTATAA   111
plech  8-3  TTGTTTCTTGACCCCAGCGTGAGATTGAAGGCAACACACGAGTTACTATAA   111
A.lyrata    TTGTTTCTTGACCCCAGCGTGAGATTGAAGGCAACACACGAGTTACTATAA   111
plech  14-5 TTGTTTCTTGACCCCAGCGTGAGATTGAAGGCAACACACGAGTTACTATAA   111
plech  11-2 TTGTTTCTTGARCCCAGCGTGAGATTGAAGGCAACACACGAGTTACTATAA   111

Col-0       MIWRVGNRDISDYKVLGKRDLFLDPSVRLKATHELL*
Ler-1       MIWRVGNRDISDYKVLGKRDLFLDPSVRLKATHELL*
Bay-0       MIWRVGN*DISDYKVLGKRDLFLDPSVRLKATHELL*
Bur-0       MIWRVGN*DISDYKVLGKRDLFLDPSVRLKATHELL*
Got-7       MIWRVGN*DISDYKVLGKRDLFLDPSVRLKATHELL*
Cvi-0       MIWRVGN*DISDYKVLGKRDLFLDPSVRLKATHELL*
plech 9-7   MIWRVGNRDISDYKVLGRRDLFLDPSVRLKATHELL*
plech 17-7  MIWRVGNRDISDYKVLGRRDLFLDPSVRLKATHELL*
plech 13-4  MIWRVGNRDISDYKVLGRRDLFLDPSVRLKATHELL*
plech 8-3   MIWRVGNRDISDYKVLGRRDLFLDPSVRLKATHELL*
lyrata      MIWRVGNRDISDYKVLGRRDLFLDPSVRLKATHELL*
plech 14-5  MIWRVGNRDISDYKVLGRRDLFLDPSVRLKATHELL*
plech 11-2  MIWRVGNRDISDYKVLGRRDLFLEPSVRLKATHELL*
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AT1G62181.1

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Cvi-0       ATGCAAAAACTCAGCGCTTACGGTTACATCGCGTGGTTAGCATTAGTGTG   50
plech 8-3   CTGCAAAAACTCAGCGCTTACGGTTACATCGCGTGGTGAGCATTAGTGTG   50
plech 9-7   CTGCAAAAACTCAGCGCTTACGGTTACATCGCGTGGTGAGCATTAGTGTG   50
lyrata      CTGCAAAAACTCAGCGCTTACGGTTACATCGCGTGGTGAGCATTAGTGTG   50
Ler-1       - - - CAAAAACTCAGCGCTTACGGTTACATCGCGTGGTGAGCATTAGTGTG   47
Got-7       ATGCAAAAACTCAGCGCTTACGGTTACATCGCGTGGTGAGCATTAGTGTG   50
Bur-0       ATGCAAAAACTCAGCGCTTACGGTTACATCGCGTGGTTAGCATTAGTGTG   50
Col-0       ATGCAAAAACTCAGCGCTTACGGTTACATCGCGTGGTTAGCATTAGTGTG   50
Bay-0       ATGCAAAAACTCAGCGCTTACGGTTACATCGCGTGGTTAGCATTAGTGTG   50

Cvi-0       TGAGATGTGGCGGCTAGGTAAGGAGGACACATGGCTGAGAACAAAACTTT   100
plech       TGAGATGTGGCGGCTAGGAAAGGAAGACACACGGCTGAGA- - - - - - - - - -   90
plech       TGAGATGTGGCGGCTAGGAAAGGAAGACACACGGCTGAGA- - - - - - - - - -   90
lyrata      TAAGATGTGGCGGCTAGGAAAGGAAGACACACGGCTGAGA- - - - - - - - - -   90
Ler-1       TGAGATGTGGCGGCTAGGA- AGGAGGGCACACGGCTGAGAACAAAACTTT   96
Got-7       TGAGATGTGGCGGCTAGGAGAGGAGGACACACGGCTGAGAAGAAAACTTT   100
Bur-0       TGAGATGTGGCGGCTAGGAGAGGAGGACACACGGCTGAGAACAAAACTTT   100
Col-0       TGAGATGTGGCGGCTAGGAGAGGAGGACACACGGCTGAGAAGAAAACTTT   100
Bay-0       TGAGATGTGGCGGCTAGGAGAGGAGGACACACGGCTGAGAAGAAAACTTT   100

Cvi-0       GA      102
plech 8-3   - -     90
plech 9-7   - -     90
lyrata      - -     90
Ler-1       GA      98
Got-7       GA      102
Bur-0       GA      102
Col-0       GA      102
Bay-0       GA      102

Cvi-0       MQKLSAYGYIAWLALVCEMWRLGKEDTWLRTKL*
plech 8-3    LQKLSAYGYIAW*ALVCEMWRLGKEDTR LR
plech 9-7    LQKLSAYGYIAW*ALVCEMWRLGKEDTR LR
lyrata       LQKLSAYGYIAW*ALVCKMWRLGKEDTR LR
Ler-1        -QKLSAYGYIAW*ALVCEMWRLGRRAHG *EQNFX
Got-7       MQKLSAYGYIAW*ALVCEMWRLGEEDTR LRRKL*
Bur-0       MQKLSAYGYIAWLALVCEMWRLGEEDTR LRTKL*
Col-0       MQKLSAYGYIAWLALVCEMWRLGEEDTR LRRKL*
Bay-0       MQKLSAYGYIAWLALVCEMWRLGEEDTR LRRKL*
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