

Fig. 1 Suppl. Vector maps of pENTR/*BcAPXs* (A) and pPZP200/*BcAPXs* (B).

A

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      *      20      *      40      *      60      *      80      *      100
BcAPX1 : ATGACGAAGAACTACCCAGCTGTTAGCGAAGAGTACCAGAAGGCTATTGAGAAGTGCAAGGAGGAAGCTGAGAGGCTTGATCGCTGAGAAGAACTGTGCAC
BcAPX2 : ATGACGAAGAACTACCCAGCTGTTAGCGAAGAGTACCAGAAGGCTATTGAGAAGTGCAAGGAGGAAGCTGAGAGGCTTGATCGCTGAGAAGAACTGTGCAC
BcAPX3 : ATGACGAAGAACTACCCAGCTGTTAGCGAAGAGTACCAGAAGGCTATTGAGAAGTGCAAGGAGGAAGCTGAGAGGCTTGATCGCTGAGAAGAACTGTGCAC
      ↑

      *      120     *      140     *      160     *      180     *      200
BcAPX1 : CAATCATGGTTCGCTCGCATGGCACTCAGCTGGAAACATTGATTCGCGCTCGAGGACTGGTGGTCCCTTCGGAACAAATGAGTTTGACGATGAGCTAGC
BcAPX2 : CAATCATGGTTCGCTCGCATGGCACTCAGCTGGAAACATTGATTCGCGCTCGAGGACTGGTGGTCCCTTCGGAACAAATGAGTTTGACGATGAGCTAGC
BcAPX3 : CAATCATGGTTCGCTCGCATGGCACTCAGCTGGAAACATTGATTCGCGCTCGAGGACTGGTGGTCCCTTCGGAACAAATGAGTTTGACGATGAGCTAGC

      *      220     *      240     *      260     *      280     *      300
BcAPX1 : TCATGGAGCCAAACATGGTCTCCACATTGCTCTTAGGTTGTTGGAGCCTATCAGGAGCAGTTCCCTACCATCTCTCATGCTGATTCCATCAGCTTGCT
BcAPX2 : TCATGGAGCCAAACATGGTCTCCACATTGCTCTTAGGTTGTTGGAGCCTATCAGGAGCAGTTCCCTACCATCTCTCATGCTGATTCCATCAGCTTGCT
BcAPX3 : TCATGGAGCCAAACATGGTCTCCACATTGCTCTTAGGTTGTTGGAGCCTATCAGGAGCAGTTCCCTACCATCTCTCATGCTGATTCCATCAGCTTGCT

      *      320     *      340     *      360     *      380     *      400
BcAPX1 : GGTGTTGTGGCTGTTGAAGTCACCGGTGGACCTGAAATTCTTCCACCCCTGGAAGAGAGGACAAGCCCCAGCCACCTCCAGAGGGTCTGCTCCCTGATG
BcAPX2 : GGTGTTGTGGCTGTTGAAGTCACCGGTGGACCTGAAATTCTTCCACCCCTGGAAGAGAGGACAAGCCCCAGCCACCTCCAGAGGGTCTGCTCCCTGATG
BcAPX3 : GGTGTTGTGGCTGTTGAAGTCACCGGTGGACCTGAAATTCTTCCACCCCTGGAAGAGAGGACAAGCCCCAGCCACCTCCAGAGGGTCTGCTCCCTGATG
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      *      420     *      440     *      460     *      480     *      500
BcAPX1 : CCACAAAGGGTTGTGACCACTTGAGGCAGGTCTTCTTAAAGCAGATGGGTTTAACTGACCAGGACATTGTCGCTTTGCTGGTGCCCACTCTGGGAAG
BcAPX2 : CCACAAAGGGTTGTGACCACTTGAGGCAGGTCTTCTTAAAGCAGATGGGTTTAACTGACCAGGACATTGTCGCTTTGCTGGTGCCCACTCTGGGAAG
BcAPX3 : CCACAAAGGGTTGTGACCACTTGAGGCAGGTCTTCTTAAAGCAGATGGGTTTAACTGACCAGGACATTGTCGCTTTGCTGGTGCCCACTCTGGGAAG

      *      520     *      540     *      560     *      580     *      600
BcAPX1 : ATGCCACAAGGATAGGTCTGGCTTCGAAGGTGCCTGGACTTCAAACCCCTCTCATCTTCGACAACCTTACTTCAAGGAACCTTTGAGCGGTGAGAAGGAA
BcAPX2 : ATGCCACAAGGATAGGTCTGGCTTCGAAGGTGCCTGGACTTCAAACCCCTCTCATCTTCGACAACCTTACTTCAAGGAACCTTTGAGCGGTGAGAAGGAA
BcAPX3 : ATGCCACAAGGATAGGTCTGGCTTCGAAGGTGCCTGGACTTCAAACCCCTCTCATCTTCGACAACCTTACTTCAAGGAACCTTTGAGCGGTGAGAAGGAA

      *      620     *      640     *      660     *      680     *      700
BcAPX1 : GGTCTTCTTCAAGTCCCTCTGACAAGGCTCTGTTGGACGATCCCGTTTCCGTCCTCTTGTGAGAAATACGCTAATGACGAGGAAGCATTTCGCTG
BcAPX2 : GGTCTTCTTCAAGTCCCTCTGACAAGGCTCTGTTGGACGATCCCGTTTCCGTCCTCTTGTGAGAAATACGCTAATGACGAGGAAGCATTTCGCTG
BcAPX3 : GGTCTTCTTCAAGTCCCTCTGACAAGGCTCTGTTGGACGATCCCGTTTCCGTCCTCTTGTGAGAAATACGCTAATGACGAGGAAGCATTTCGCTG

      *      720     *      740     *
BcAPX1 : ATTACGCTGAGGCCCACTTGAAGCTTTCTGAGCTCGGGTTTGTGATGCTTAA : 753
BcAPX2 : ATTACGCTGAGGCCCACTTGAAGCTTTCTGAGCTCGGGTTTGTGATGCTTAA : 753
BcAPX3 : ATTACGCTGAGGCCCACTTGAAGCTTTCTGAGCTCGGGTTTGTGATGCTTAA : 753

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B

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      *      20      *      40      *      60      *      80      *      100
BcAPX1 : MTKNYPVSEYEQKAIKCKRRLRLGLIAEKNCAPIMVRLANHSAGTFDCASRTGGPFGTMRFDDELHAGNANGLHIALRLLEPIREQFPTISHADFHCLA
BcAPX2 : MTKNYPVSEYEQKAIKCKRRLRLGLIAEKNCAPIMVRLANHSAGTFDCASRTGGPFGTMRFDDELHAGNANGLHIALRLLEPIREQFPTISHADFHCLA
BcAPX3 : MTKNYPVSEYEQKAIKCKRRLRLGLIAEKNCAPIMVRLANHSAGTFDCASRTGGPFGTMRFDDELHAGNANGLHIALRLLEPIREQFPTISHADFHCLA
      ↑

      *      120     *      140     *      160     *      180     *      200
BcAPX1 : GVVAVEVTGGPEIPFHPGREDKPPPEGRLPDATKGC DHLRQVFLKQMG L TDQDIVALSGAHTLGRCHKDRSGFEGAWTSNPLIFDINSYFKELLSGEKE
BcAPX2 : GVVAVEVTGGPEIPFHPGREDKPPPEGRLPDATKGC DHLRQVFLKQMG L TDQDIVALSGAHTLGRCHKDRSGFEGAWTSNPLIFDINSYFKELLSGEKE
BcAPX3 : GVVAVEVTGGPEIPFHPGREDKPPPEGRLPDATKGC DHLRQVFLKQMG L TDQDIVALSGAHTLGRCHKDRSGFEGAWTSNPLIFDINSYFKELLSGEKE
      ↑

      *      220     *      240     *
BcAPX1 : GLLQLPSDKALLDDPVFRPLVEKYANDEEFAFFADYAEHLKLSLGFADA* : 250
BcAPX2 : GLLQLPSDKALLDDPVFRPLVEKYANDEEFAFFADYAEHLKLSLGFADA* : 250
BcAPX3 : GLLQLPSDKALLDDPVFRPLVEKYANDEEFAFFADYAEHLKLSLGFADA* : 250

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Fig. 2 Suppl. Comparison of nucleotide sequences (A) and amino acid sequences (B) among *BcAPX* 1-3. When the sequences were compared, they differed by two base pairs (A) and two amino acids (B) as indicated by arrowheads. *BcAPX1* was a clone from a previous study (Lin *et al.* 2010) and *BcAPX2* and *BcAPX3* were cloned for this study.

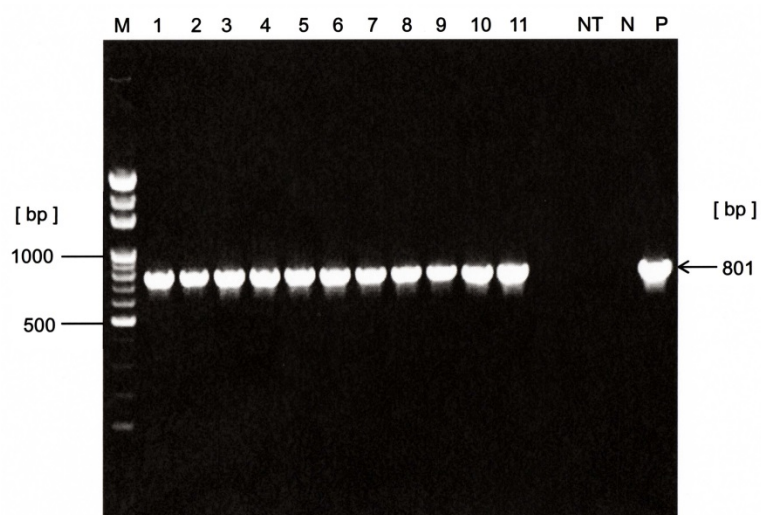


Fig. 3 Suppl. Analysis of T1 *Arabidopsis* by genomic PCR for *BcAPX* gene. The expected size of the fragment of *BcAPX* (indicated by an *arrow*) was 801 bp. M - 100 bp marker, lanes 1 to 11 - *BcAPX* 1-1, 1-3, 1-4, 1-5, 1-8, 2-1, 2-2, 2-3, 3-2, 3-3, and 3-5, NT - non-transgenic *Arabidopsis*, N - negative control (using distilled-deionized water as template), P - positive control (using pPZP200/*BcAPX* plasmid as template).