

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

A

* 20 * 40 * 60 * 80 * 100
BcAPX1 : ATGACGAAAGAACTACCCAGCTTAGCGAAGAGTACCCAGAAGGGTATTGAGAAGTGCAGGAGGAAGCTGAGAGGCTTGATCGCTGAGAGAAACTGTGCAC
BcAPX2 : ATGACGAAAGAACTACCCAGCTTAGCGAAGAGTACCCAGAAGGGTATTGAGAAGTGCAGGAGGAAGCTGAGAGGCTTGATCGCTGAGAGAAACTGTGCAC
BcAPX3 : ATGACGAAAGAACTACCCAGCTTAGCGAAGAGTACCCAGAAGGGTATTGAGAAGTGCAGGAGGAAGCTGAGAGGCTTGATCGCTGAGAGAAACTGTGCAC
↑
* 120 * 140 * 160 * 180 * 200
BcAPX1 : CAATCATGGTTCGCCATGGCACTCAGCTGGAAACATTGATGGCCCTCGAGGACTGGTGGTCCCTCGGAACATGAGGTTTGACGATGAGCTAGC
BcAPX2 : CAATCATGGTTCGCCATGGCACTCAGCTGGAAACATTGATGGCCCTCGAGGACTGGTGGTCCCTCGGAACATGAGGTTTGACGATGAGCTAGC
BcAPX3 : CAATCATGGTTCGCCATGGCACTCAGCTGGAAACATTGATGGCCCTCGAGGACTGGTGGTCCCTCGGAACATGAGGTTTGACGATGAGCTAGC
* 220 * 240 * 260 * 280 * 300
BcAPX1 : TCATGGAGCCAACAATGGTCTCCACATTGCTCTAGGTTGGAGCCTATCAGGGAGCAGTCCCTACCATCTCATGCTGATTTCCATCAGCTTGCT
BcAPX2 : TCATGGAGCCAACAATGGTCTCCACATTGCTCTAGGTTGGAGCCTATCAGGGAGCAGTCCCTACCATCTCATGCTGATTTCCATCAGCTTGCT
BcAPX3 : TCATGGAGCCAACAATGGTCTCCACATTGCTCTAGGTTGGAGCCTATCAGGGAGCAGTCCCTACCATCTCATGCTGATTTCCATCAGCTTGCT
↑
* 320 * 340 * 360 * 380 * 400
BcAPX1 : GGTGTTGGCTGTTGAAGTCACCGGTGGACCTGAAATTCTTCCACCTGGAAAGAGAGGACAAGGCCACCTCCAGGGGTCGTCCTGGAT
BcAPX2 : GGTGTTGGCTGTTGAAGTCACCGGTGGACCTGAAATTCTTCCACCTGGAAAGAGAGGACAAGGCCACCTCCAGGGGTCGTCCTGGAT
BcAPX3 : GGTGTTGGCTGTTGAAGTCACCGGTGGACCTGAAATTCTTCCACCTGGAAAGAGAGGACAAGGCCACCTCCAGGGGTCGTCCTGGAT
↑
* 420 * 440 * 460 * 480 * 500
BcAPX1 : CCACAAAGGGTGTGACCACCTGGAGGCAGGTCTCTAAAGCAGATGGTTAACTGACCAAGGACATTGCGCTTGTCTGGTGCCTCACACTCTGGAAAG
BcAPX2 : CCACAAAGGGTGTGACCACCTGGAGGCAGGTCTCTAAAGCAGATGGTTAACTGACCAAGGACATTGCGCTTGTCTGGTGCCTCACACTCTGGAAAG
BcAPX3 : CCACAAAGGGTGTGACCACCTGGAGGCAGGTCTCTAAAGCAGATGGTTAACTGACCAAGGACATTGCGCTTGTCTGGTGCCTCACACTCTGGAAAG
* 520 * 540 * 560 * 580 * 600
BcAPX1 : ATGCCACAAGGATAGGTCTGGCTTCGAAGGCTCTGGACTCAACCCCTCTCATCTCGACAACACTTAACTCAAGGAACCTTGAGCGGTGAGAGGAA
BcAPX2 : ATGCCACAAGGATAGGTCTGGCTTCGAAGGCTCTGGACTCAACCCCTCTCATCTCGACAACACTTAACTCAAGGAACCTTGAGCGGTGAGAGGAA
BcAPX3 : ATGCCACAAGGATAGGTCTGGCTTCGAAGGCTCTGGACTCAACCCCTCTCATCTCGACAACACTTAACTCAAGGAACCTTGAGCGGTGAGAGGAA
* 620 * 640 * 660 * 680 * 700
BcAPX1 : GGTCTCTTCAGCTCCCTCTGACAAGGCTCTGGAGATCCCGTTTCCGCTCTGGAGAAATACGCTATGAGGAGAACATTTCGCTG
BcAPX2 : GGTCTCTTCAGCTCCCTCTGACAAGGCTCTGGAGATCCCGTTTCCGCTCTGGAGAAATACGCTATGAGGAGAACATTTCGCTG
BcAPX3 : GGTCTCTTCAGCTCCCTCTGACAAGGCTCTGGAGATCCCGTTTCCGCTCTGGAGAAATACGCTATGAGGAGAACATTTCGCTG
* 720 * 740 *
BcAPX1 : ATTACGCTGAGGCCACTTGAAGCTTCTGAGCTCGGGTTGCTGATGCTAA : 753
BcAPX2 : ATTACGCTGAGGCCACTTGAAGCTTCTGAGCTCGGGTTGCTGATGCTAA : 753
BcAPX3 : ATTACGCTGAGGCCACTTGAAGCTTCTGAGCTCGGGTTGCTGATGCTAA : 753

B

* 20 * 40 * 60 * 80 * 100
BcAPX1 : MTKNYPAVSEYYQKAIKCRRLRLGLIAEKNCPIMVRLAWHSAGTFDCASRTGGPFGTMRFDDELAHGANGLHIALRLLEPIREQFTISHADFHQLA
BcAPX2 : MTKNYPAVSEYYQKAIKCRRLRLGLIAEKNCPIMVRLAWHSAGTFDCASRTGGPFGTMRFDDELAHGANGLHIALRLLEPIREQFTISHADFHQLA
BcAPX3 : MTKNYPAVSEYYQKAIKCRRLRLGLIAEKNCPIMVRLAWHSAGTFDCASRTGGPFGTMRFDDELAHGANGLHIALRLLEPIREQFTISHADFHQLA
↑
* 120 * 140 * 160 * 180 * 200
BcAPX1 : GVVAVEVTGGPEIPFHGREDKPQPPPPEGRLPDATKGCDHLRQVFLKQMG LTDQDIVALSGAHTLGRCHKDRSGFEGAWTSNPLIFDNSYFKELLSGEK
BcAPX2 : GVVAVEVTGGPEIPFHGREDKPQPPPPEGRLPDATKGCDHLRQVFLKQMG LTDQDIVALSGAHTLGRCHKDRSGFEGAWTSNPLIFDNSYFKELLSGEK
BcAPX3 : GVVAVEVTGGPEIPFHGREDKPQPPPPEGRLPDATKGCDHLRQVFLKQMG LTDQDIVALSGAHTLGRCHKDRSGFEGAWTSNPLIFDNSYFKELLSGEK
↑
* 220 * 240 *
BcAPX1 : GLLQLPSDKALLDPVFRPLVEKYANDEAFFADYAEAHKLSELGFADA* : 250
BcAPX2 : GLLQLPSDKALLDPVFRPLVEKYANDEAFFADYAEAHKLSELGFADA* : 250
BcAPX3 : GLLQLPSDKALLDPVFRPLVEKYANDEAFFADYAEAHKLSELGFADA* : 250

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.

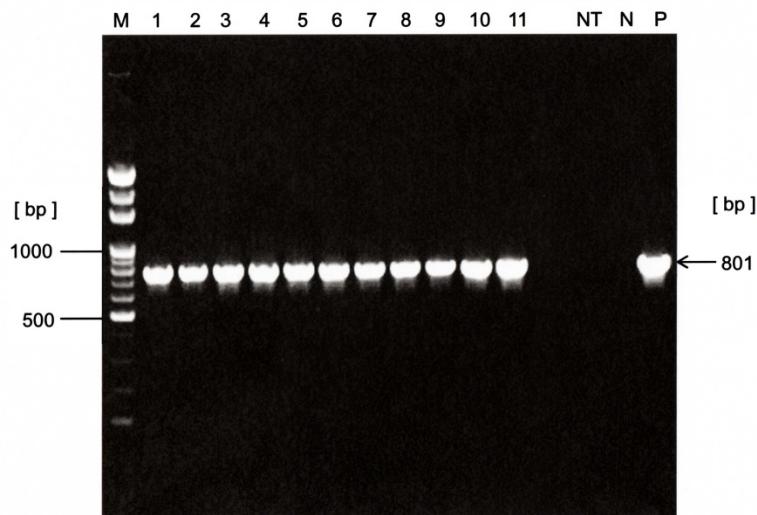


Fig. 3 Suppl. Analysis of T1 *Arabidopsis* by genomic PCR for *BcAPX* gene. The expected size of the fragment of *BcAPX* (indicated by an arrow) was 801 bp. M - 100 bp marker, lanes 1 to 11 - *BcAPX* 1-1, 1-3, 1-4, 1-5, 1-8, 2-1, 2-2, 2-3, 3-2, 3-3, and 3-5, NT - non-transgenic *Arabidopsis*, N - negative control (using distilled-deionized water as template), P - positive control (using pZP200/*BcAPX* plasmid as template).