

Supplementary Table1 Comparison of TCP Homologue Gene between *Brassica rapa* and *Arabidopsis thaliana*.

Gene Name	Homologue Gene in Ar.	Identity (%)	Gene Name	Homologue Gene in Ar.	Identity (%)
<i>BrTCP1a</i>		71	<i>BrTCP13a</i>	<i>AtTCP13</i>	75
<i>BrTCP1b</i>	<i>AtTCP1</i>	70	<i>BrTCP13b</i>		75
<i>BrTCP1c</i>		70	<i>BrTCP14</i>	<i>AtTCP14</i>	76
<i>BrTCP2a</i>		80	<i>BrTCP15a</i>		84
<i>BrTCP2b</i>	<i>AtTCP2</i>	79	<i>BrTCP15b</i>	<i>AtTCP15</i>	86
<i>BrTCP3</i>	<i>AtTCP3</i>	60	<i>BrTCP15c</i>		80
<i>BrTCP4a</i>		76	<i>BrTCP17</i>	<i>AtTCP17</i>	67
<i>BrTCP4b</i>	<i>AtTCP4</i>	69	<i>BrTCP18a</i>		70
<i>BrTCP4c</i>		66	<i>BrTCP18b</i>	<i>AtTCP18</i>	68
<i>BrTCP5a</i>		82	<i>BrTCP19</i>	<i>AtTCP19</i>	68
<i>BrTCP5b</i>	<i>AtTCP5</i>	73	<i>BrTCP20a</i>		79
<i>BrTCP6</i>	<i>AtTCP6</i>	59	<i>BrTCP20b</i>	<i>AtTCP20</i>	65
<i>BrTCP7a</i>		70	<i>BrTCP21a</i>		80
<i>BrTCP7b</i>	<i>AtTCP7</i>	70	<i>BrTCP21b</i>	<i>AtTCP21</i>	83
<i>BrTCP7c</i>		70	<i>BrTCP21c</i>		80
<i>BrTCP8</i>	<i>AtTCP8</i>	75	<i>BrTCP22a</i>		78
<i>BrTCP9a</i>		69	<i>BrTCP22b</i>	<i>AtTCP22</i>	72
<i>BrTCP9b</i>	<i>AtTCP9</i>	67	<i>BrTCP24a</i>		73
<i>BrTCP10</i>	<i>AtTCP10</i>	77	<i>BrTCP24b</i>	<i>AtTCP24</i>	67
<i>BrTCP12</i>	<i>AtTCP12</i>	67			

Ar. equals to *Arabidopsis thaliana*.

Supplementary Table 2 The locations of *AtTCPs* and *BrTCPs* on the Chromosome.

	Chr.1	Chr.2	Chr.3	Chr.4	Chr.5	Chr.6	Chr.7	Chr.8	Chr.9	Chr.10	Total
<i>Arabidopsis thaliana</i>	8	3	6	1	6	-	-	-	-	-	24
<i>Brassica rapa</i>	3	8	8	1	4	3	5	2	4	1	39

Supplementary Table 3 Primers of qPCR.

Primer Name	Sequence (5'-3')	Primer Name	Sequence (5'-3')
<i>BrTCP1aF</i>	GGCATAGCAAGATTCAGACGG	<i>BrTCP1aR</i>	CGAAGAACTGGCGAGCAATT
<i>BrTCP1bF</i>	GCAAGATTCACACGGCACAA	<i>BrTCP1bR</i>	GAGATCGAAGAATTGGCGAGAA
<i>BrTCP1cF</i>	TTTACCTTTCTTCGCTGCCG	<i>BrTCP1cR</i>	TTTGACCCGGAGATGCTGTT
<i>BrTCP2aF</i>	GTGCTCACCTTTCTCCGAC	<i>BrTCP2aR</i>	ATCCTGCCGGAGAAATCAGA
<i>BrTCP2bF</i>	TCCGATGAACGATGACGACA	<i>BrTCP2bR</i>	GACAACGAGTTAGCCGACG
<i>BrTCP3F</i>	GCGAGATCGTGGAGGTTGAA	<i>BrTCP3R</i>	TGGCCGTACAGACTTTGCTG
<i>BrTCP4aF</i>	GTTCTACGGCAGAGCAATCC	<i>BrTCP4aR</i>	GCCACCAGCCTCTGAATTGA
<i>BrTCP4bF</i>	TTCTTCTCAATGAGACGCCG	<i>BrTCP4bR</i>	TGACCTCCTTGACCTCGAC
<i>BrTCP4cF</i>	GACTGGTGGCTTGTAACGGC	<i>BrTCP4cR</i>	TCGTCGGAGAAGGAGCAAAG
<i>BrTCP5aF</i>	TCATCGAGGCAATGGACCTC	<i>BrTCP5aR</i>	GTGTCTGTCTTTGCCACCGA
<i>BrTCP5bF</i>	TCCAGGTACCAATTTAGGTTTCTT	<i>BrTCP5bR</i>	CAAACTCTCTCGCGGTGTTG
<i>BrTCP6F</i>	GTTGCCTCTCTGTGTGCTG	<i>BrTCP6R</i>	CACTGGAGAGTCTCGCCGTC
<i>BrTCP7aF</i>	CGTCAAGCTGAGCCTTCCAT	<i>BrTCP7aR</i>	AGTGCATGTTGAGGTGGTGG
<i>BrTCP7bF</i>	ACGGAAGAGGGAGGAGGATC	<i>BrTCP7bR</i>	ATTTGTGGCCGAGCTCTCTC
<i>BrTCP7cF</i>	GAGCCTTCAATCATAGCCGC	<i>BrTCP7cR</i>	GTTTCTCGGAGTGAGGCTG
<i>BrTCP8F</i>	GGTTCCTTCTTGGCTCAGCC	<i>BrTCP8R</i>	GGCAAGCACCCCAAGATTAG
<i>BrTCP9aF</i>	CGGCCATCGCTATGTCTGTT	<i>BrTCP9aR</i>	CCGAGTTATCTCCCACGTCAG
<i>BrTCP9bF</i>	CTCCACCGTCGTCGTCATAA	<i>BrTCP9bR</i>	TTCCTCTTCTTCGACCTTGG
<i>BrTCP10F</i>	GTTATAGCGCCGGAGATGGA	<i>BrTCP10R</i>	GGTCTTTTCGTCCTGTGGCTC
<i>BrTCP12F</i>	CAACAACAGGAATGGTGATACCA	<i>BrTCP12R</i>	TTGAAATAGGGTTTCTCTCCTCATCTA
<i>BrTCP13aF</i>	TCGTGCTCGTGATGAAATC	<i>BrTCP13aR</i>	TTTGCTGTGACGGTCTTTGC
<i>BrTCP13bF</i>	GGAGACGGCGGACCTCTT	<i>BrTCP13bR</i>	AGGAGAAGCCATGTAGAGAAGTAACA
<i>BrTCP14F</i>	TCTCCCTCCACCAACACCA	<i>BrTCP14R</i>	GCAAGTCTTCTGCGGTTGTG
<i>BrTCP15aF</i>	ACGGTGAAACCATCGAGTGG	<i>BrTCP15aR</i>	TAGCCGGAATGGTTCCAGTC
<i>BrTCP15bF</i>	ATAAATCCGACGGCGAGACC	<i>BrTCP15bR</i>	TGGTTCCAGTCCCTGTAGCG
<i>BrTCP15cF</i>	TGGAACCATTCGGGCTAACT	<i>BrTCP15cR</i>	CGAAGATGAGCAGCGGAGAG
<i>BrTCP17F</i>	GAATCGTGAGAGCCTCGAGAA	<i>BrTCP17R</i>	TCCTGTCTCGAAGACCACGAA
<i>BrTCP18aF</i>	GCTGCGAGGAGTCTCAAACC	<i>BrTCP18aR</i>	CTCTATCCTCGACTGTCCCAT
<i>BrTCP18bF</i>	GCATGACCGAAAATAAGGTGG	<i>BrTCP18bR</i>	TCTCCTTCAAAATGGGCGTT
<i>BrTCP19F</i>	GAAGGCACGACTCAAACGCT	<i>BrTCP19R</i>	CCCTGAGCCACCCAAAACCT
<i>BrTCP20aF</i>	TTTTGCGTCCATTCTTGGTG	<i>BrTCP20aR</i>	CCAACATTCCTTCCTGAGC
<i>BrTCP20bF</i>	GTAAGAAGCAGCTTGCCCCC	<i>BrTCP20bR</i>	TCCTGATTCTCCGACCGC
<i>BrTCP21aF</i>	ACGAGCAACGACGGATCAGT	<i>BrTCP21aR</i>	CACGGCGTTAAGAGTTCCTTTG
<i>BrTCP21bF</i>	AAGGACCTCTTAACGCCGTCA	<i>BrTCP21bR</i>	TGCGAATTCTCCTCCCTCTC
<i>BrTCP21cF</i>	CTAACGGCGCCATAGTCGAG	<i>BrTCP21cR</i>	GGTCCTTAGCCGGTGGTTTC
<i>BrTCP22aF</i>	AGAACTCTACGACCGTCCG	<i>BrTCP22aR</i>	GAACCGATCTTCCCGGTGAT
<i>BrTCP22bF</i>	GGGAACTATTCGGCGAACT	<i>BrTCP22bR</i>	TGAGCAAAGACGGTTGAGCC

BrTCP24aF CAAGACCGTCTTGGCTTCGA

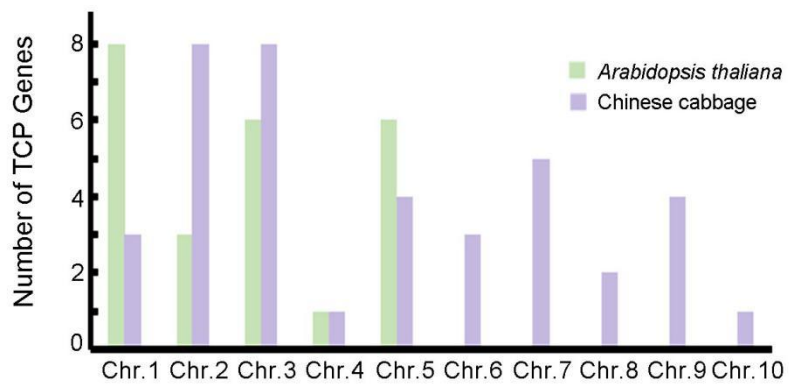
BrTCP24aR CAACTCGGAGATGGAGTCGG

BrTCP24bF GCGGCTTCTGACTCAATCTCC

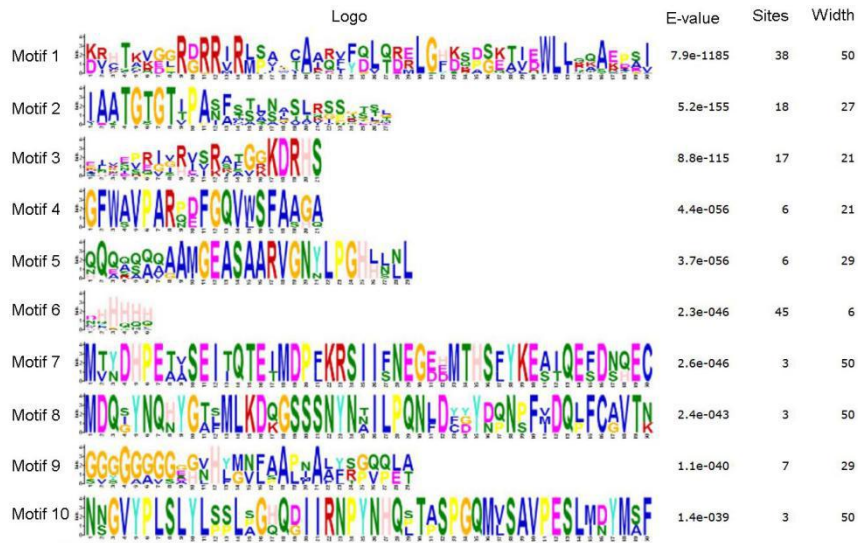
BrTCP24bR CGTGCTCGACTTAGACAGCG

BrActin3F GTACAACCGGCATCGTGCTT

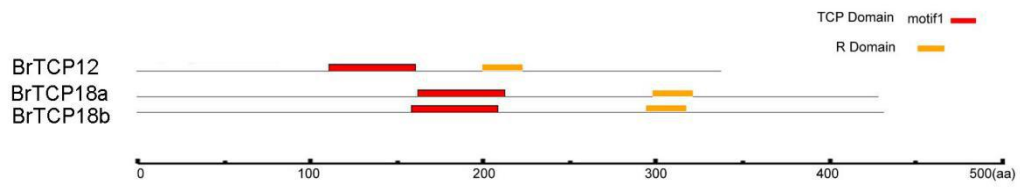
BrActin3R CATGTGGAAGTGCATAACCCTC



Supplementary Figure 1 The TCP number of *Arabidopsis thaliana* and *Brassica rapa* on each chromosome



Supplementary Figure2 Sequence logs of motifs in *BrTCPs*



Supplementary Figure 3 The location of R Domain on *BrTCP12*, *BrTCP18a* and *BrTCP18a*