

Comprehensive genomic analysis and expression profiling of the BTB and TAZ (BT) genes in cucumber (*Cucumis sativus* L.)

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Electronic Supplementary Material (ESM)

Table S1. BTB-TAZ (BT) proteins from different plant species used for phylogenetic analysis

Name	Protein ID	Species	Name	Protein ID	Species
CsBT1	Csa1G032450.1	<i>Cucumis sativus</i>	SlBTB6	Solyc02g092460.2.1	<i>Solanum lycopersicum</i>
CsBT2	Csa1G049460.1	<i>Cucumis sativus</i>	SlBTB7	Solyc03g111710.2.1	<i>Solanum lycopersicum</i>
CsBT3	Csa6G495100.1	<i>Cucumis sativus</i>	SlBTB18	Solyc06g071820.2.1	<i>Solanum lycopersicum</i>
AtBT1	At5g63160	<i>Arabidopsis thaliana</i>	SlBTB19	Solyc06g071830.2.1	<i>Solanum lycopersicum</i>
AtBT2	At3g48360	<i>Arabidopsis thaliana</i>	MdBT1	MDP0000151000	<i>Malus domestica</i>
AtBT3	At1g05690	<i>Arabidopsis thaliana</i>	MdBT2	MDP0000643281	<i>Malus domestica</i>
AtBT4	At5g67480	<i>Arabidopsis thaliana</i>	MdBT3.1	MDP0000296225	<i>Malus domestica</i>
AtBT5	At4g37610	<i>Arabidopsis thaliana</i>	MdBT3.2	MDP0000187156	<i>Malus domestica</i>
OsBT1	LOC_Os01g68020.1	<i>Oryza sativa</i>	MdBT4	MDP0000215415	<i>Malus domestica</i>
OsBT2	LOC_Os02g38320.1	<i>Oryza sativa</i>			
OsBT3	LOC_Os01g66890.1	<i>Oryza sativa</i>			
OsBT4	LOC_Os04g40630.1	<i>Oryza sativa</i>			

Table S2. Primers used for qRT-PCR in this study

Gene	Forward primer	Reverse primer
<i>CsBT1</i>	TCGTTTCGTTCAATTCCTCTACAC	CACATTCTTGCGAGTTGGAGTA
<i>CsBT2</i>	CCTCACCTCCGACGAATCA	GAAGCCAGGATGCCAGAATG
<i>CsBT3</i>	TGCCACCTCCATTGCCTAA	TGCCACCATGATCCGTATGAATA
<i>CsAct3</i>	GGCAGTGGTGGTGAACAT	GATTCTGGTGATGGTGTGAGTC

Table S3. The predicted promoter *cis*-elements of the *BT* family genes in cucumber

	Motif name	Annotation	<i>CsBT1</i>	<i>CsBT2</i>	<i>CsBT3</i>
Developmental processes	CAT-box	cis-acting regulatory element related to meristem expression	1		
	O2-site	cis-acting regulatory element involved in zein metabolism regulation	1		
	HD-Zip 1	element involved in differentiation of the palisade mesophyll cells		1	1
	HD-Zip 2	element involved in differentiation of the palisade mesophyll cells		1	1
	GCN4_motif	cis-regulatory element involved in endosperm expression	1	1	
	circadian	cis-acting regulatory element involved in circadian control			1
	Skn-1_motif	cis-acting regulatory element required for endosperm expression	1	3	
Abiotic stress	HSE	cis-acting element involved in heat stress responsiveness	1	1	1
	MBS	MYB binding site involved in drought-inducibility		1	1
	TC-rich repeats	cis-acting element involved in defense and stress responsiveness	3		
	W-box	WRKY binding site involved in abiotic stress and defense response		2	
	EIRE	elicitor-responsive element		1	
	WUN-motif	wound-responsive element		1	
	ARE	cis-acting regulatory element essential for the anaerobic induction		2	
Hormone	CGTCA-motif	cis-acting regulatory element involved in the MeJA-responsiveness			2
	ABRE	cis-acting element involved in the abscisic acid responsiveness	2		
	ERE	ethylene-responsive element	2		
	TCA-element	cis-acting element involved in salicylic acid responsiveness	2		
Other cis-elements	AAGAA-motif	cis-acting regulatory element	3		
	AC-I	cis-acting regulatory element			1
	AC-II	cis-acting regulatory element	1		
	TCCACCT-motif	cis-acting regulatory element	1		
	Box III	protein binding site	1		1
	TATCCAT/C-motif	cis-acting regulatory element			1
	ATGCAAAT motif	cis-acting regulatory element associated to the TGAGTCA motif		1	