

Spatial expression of *CLAVATA3* in the shoot apical meristem suggests it is not a stem cell marker in soybean

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Supplemental Figure 1. Alignment analysis of *GmCLV3a* and *GmCLV3b* with the start and stop codon highlighted. Underlined regions are the respective location of primer sites for *GmCLV3a* and *GmCLV3b*.

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GmCLV3a      CTATAAATACGTGTATTACCCTATGATCTTCACCACACAACATTACTTGTTCCACCACCTT
GmCLV3b      CTATAAATACGTGCATAACCCCATACTCTTCTTCAACAACAGCACTTGTTCCACCACCTG
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GmCLV3a      GCTCTCCTTGCAACTTCCACCCCTACCACCTACCTTGATTCTCTTGAGACTTTTTTTCC
GmCLV3b      GCTATCCTTGCAACTTCCACCCCT--ACCTAGTTTGATTCTCT-AAGACCTTTTTT-CC
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GmCLV3a      AATGCGGTCAAAGTTTATCTTTACCCTGTGGTTTTACTTATGCTTTTGTGCTTGCTTCT
GmCLV3b      AATGCGCATCAAAGTTTATCTTTACCACGGTGGTTTTAGTTATGCTTTTGTGCTTGCTTCT
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GmCLV3a      GATGAGGGAGCCTTCTGGTTGCGGTTCTGCGTATGAATGCTTTGGTGCTAATGCAGCTGA
GmCLV3b      TATGAGGGACCTTCTGGTTGCGGTTCTGCATATGAATGCTTTGGTGCTAATGCAGCTGG
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GmCLV3a      TCTAAGGGACATTCCAAACAGGAAGGTGCTGCTGTTTTGAAGGATAAGAAAAGTGTGC
GmCLV3b      TCTTACGGACATTCCAAACAGGAAGGTGCTGCCTGTTTTGAAGGATAAGAAAAGTGTGC
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GmCLV3a      TCTGAAGGCTAGTCTGCAAGGATCATCAAGCAACAAGTATGGTGAAAAGCCACTGAATTG
GmCLV3b      TCTGAAGGCTAGTCTGCGAGGATCATCAAGCAACAAGTATGGTGAAAAGCCACTGAATTG
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GmCLV3a      GGAGTTAAGGAAGGTTCCCTTCTGGTCCAGATCCGCTGCATCATAATGGTGTCAACCCCAA
GmCLV3b      GGAGTTAAGGAAGGTTCCCTTCAAGTCCAGATCCGCTGCATCATAACGGTGTGAACCCCAA
***** ***** ** * ** * ** * ** * ** * ** * ** * ** * ** * ** *
GmCLV3a      AAAGCCTCAAACCCCTTAAACTCACCATGGAACCTTCTTTGTGCTCTGGCCTAGTATT
GmCLV3b      AAATCCTCAAACCCCTTAAAGCTCACCTATGGAACCTGCTTTTGTGCTCTGGCCTAGTGTT
*** ***** ** * ** * ** * ** * ** * ** * ** * ** * ** * ** *
GmCLV3a      AGTTATCAGTGTG--AACATCTACCAGCTTATGGCATAAAT-----
GmCLV3b      AGTTATCAGTGTGTAACATCTACAAGCTTTGGCATAAGTTTATTGAAAAAT
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Supplemental Table 1. Expression levels of GmCLV1 homeolog, GmWUS, and putative cytokinin receptors and response regulators in soybean shoot apical meristem (SAM). SAMs were dissected as detailed in Wong *et al.*, 2009 (Wong *et al.*, 2009) and total RNA was extracted using Tri reagent (Sigma) according to manufacturer's instructions and with DNase digestion step incorporated. The cDNA library preparation and sequencing was carried out by Beijing Genomics Institute (China) according to the manufacturer's instructions (Illumina HiSeq™ 2000 platform). Sequence reads were processed using SOAP2 (Li *et al.*, 2009) and the abundance for each gene was calculated and expressed in RPKM (Mortazavi *et al.*, 2008).

Gene ID	SAM	Annotation
Glyma11g12190	0.50	CLAVATA1
Glyma12g04390	0.04	CLAVATA1
Glyma01g37190	9.67	WUSCHEL
Glyma01g04420.1	1.05	ARR5 (ARABIDOPSIS RESPONSE REGULATOR 5)
Glyma02g09450.1	11.97	ARR2 (ARABIDOPSIS RESPONSE REGULATOR 2)
Glyma02g47610.1	17.99	AHK2 (ARABIDOPSIS HISTIDINE KINASE 2)
Glyma04g06650.1	14.08	ARR12 (ARABIDOPSIS RESPONSE REGULATOR 12)
Glyma04g40100.1	11.54	ARR17 (ARABIDOPSIS RESPONSE REGULATOR 17)
Glyma05g28070.1	10.26	AHK3 (ARABIDOPSIS HISTIDINE KINASE 3)
Glyma06g06730.1	30.45	ARR12 (ARABIDOPSIS RESPONSE REGULATOR 12)
Glyma06g14750.1	51.87	ARR17 (ARABIDOPSIS RESPONSE REGULATOR 17)
Glyma07g08590.1	3.07	ARR2 (ARABIDOPSIS RESPONSE REGULATOR 2)
Glyma07g26890.1	15.73	ARR2 (ARABIDOPSIS RESPONSE REGULATOR 2)
Glyma07g37220.1	25.69	ARR2 (ARABIDOPSIS RESPONSE REGULATOR 2)
Glyma08g11060.1	1.11	AHK3 (ARABIDOPSIS HISTIDINE KINASE 3)
Glyma09g04470.1	9.85	ARR2 (ARABIDOPSIS RESPONSE REGULATOR 2)
Glyma09g14650.1	17.71	ARR12 (ARABIDOPSIS RESPONSE REGULATOR 12)
Glyma13g22320.1	1.54	ARR12 (ARABIDOPSIS RESPONSE REGULATOR 12)
Glyma14g01040.1	11.66	AHK2 (ARABIDOPSIS HISTIDINE KINASE 2)
Glyma14g12330.1	2.21	AHK5 (ARABIDOPSIS HISTIDINE KINASE 5)
Glyma15g15520.1	9.47	ARR2 (ARABIDOPSIS RESPONSE REGULATOR 2)
Glyma15g24770.1	9.67	ARR12 (ARABIDOPSIS RESPONSE REGULATOR 12)
Glyma17g03380.1	24.33	ARR2 (ARABIDOPSIS RESPONSE REGULATOR 2)
Glyma17g08380.1	6.42	ARR18 (ARABIDOPSIS RESPONSE REGULATOR 18)
Glyma17g33230.1	1.08	ARR12 (ARABIDOPSIS RESPONSE REGULATOR 12)