Title:

Tomato *SlDREB* gene restricts leaf expansion and internode elongation by down-regulating key genes for gibberellin biosynthesis

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Supplementary Figures and Tables

Fig. S1 *SpDREB* expression in response to drought, salt and cold stress factors.

Salt stress was simulated by watering plants with 400 mM NaCl solution, and drought stress was simulated by removing the seedlings were from the soil, washed and placed on filter paper under 70% relative humidity at 25 ºC. Cold stress was imposed by transferring plants to a growth chamber and holding the plants at 4 ºC. All samples were collected at the indicated time points ('h' refers to hours after treatment) from three biological replicates of each treatment. Error bars indicate means ± SE (n = 3).

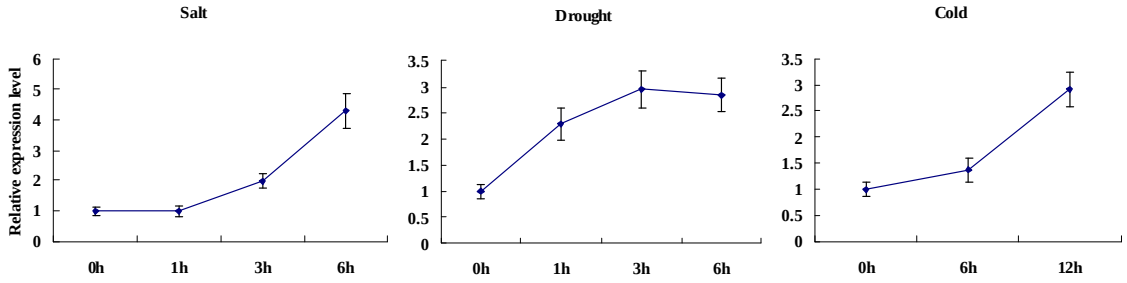

Fig. S2 Multiple alignments of the predicted protein sequence of SlDREB and DREBs from other plants.

A. Multiple alignments of the deduced amino acid sequence of SlDREB (cultivated tomato M82) and those of *Vitis vinifera* (VvDREB, F6H3D6), *Solanum tuberosum* (StDREB, G3K514), *Ricinus communis* (RcDREB, B9RQH3), *Populus trichocarpa* (PtDREB, A9PL48), *Malus domestica* (MdDREB, D5L132), *Glycine max* (GmDREB, C9WA60), *Arabidopsis lyrata subsp* (AtDREB, D7M4A2), *Medicago truncatula* (MtDREB, G7IUM6), *Arachis hypogaea* (AhDREB, B4UW60), *Cucumis melo* (CmDREB, Q75UJ6).

B. Alignment of predicted amino acid sequence of SlDREB and SpDREB (wild specie *S. pennellii*) shows substitution of two amino acids.

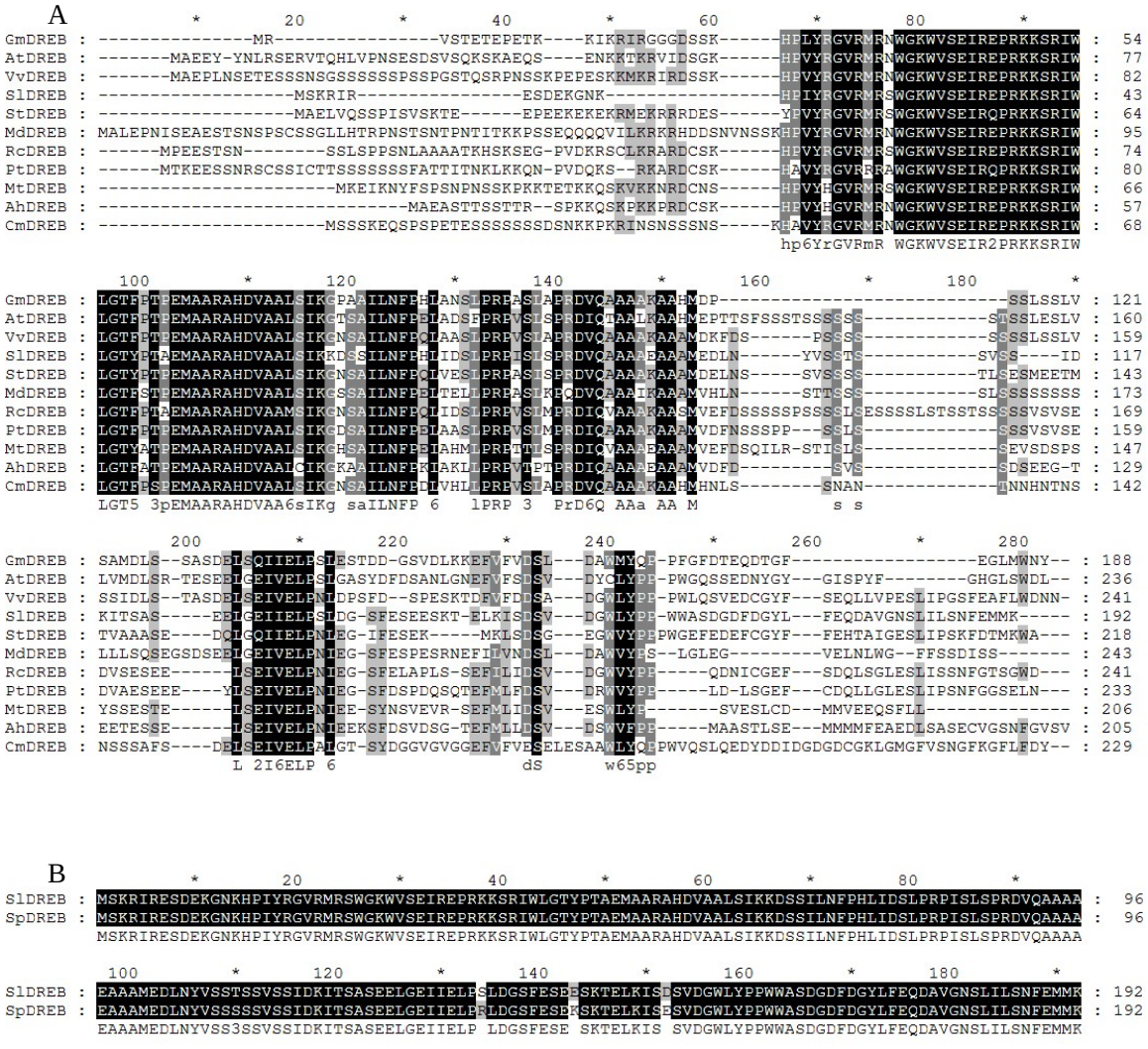

Fig. S3 Sequence of the promoter region of *SlCPS*.

-2449 TAAAGTTTGG CCTTCTCAAA ATAAAAATTG TAGAATTATT GAGGTTGAAA ATTATAAATA

-2289 AAAAATAATA TATTATATAA AATAGGATGA AAAAAGTACT ACATTTTTTT TTACTTTATA

AT-rich

-2329 TAAATAAAAA ACAATATATT ATATAAATCA ATAAATGTTA AAAATGTCTG GTCATGAGAC

-2269 TAATAAAATG TGGCATTCAA TTCTTTGAGT CTTGAAATAA CATATCAACA TACATGCTAA

-2209 TACTGAAAAT GATCAAGTTA AATACATATA TGATATGACA ATACAATGAA AACATTAAAC

-2149 TTAACGTAAT AAAGGAACTA TCCAGTTGCC ATCAGACCAT TCTTGATGAA CCCTCAACTT

-2089 ATCAATAGAA TAGGCAACGG GAAATAGACA TAGTACTCTT GTTCAACTTT GGCAGTGATT

-2029 ACCCCAAACC ACCATCCCTC ATTGGCATAC ACATCGTAGA TTTCCATTGG CCTTCTTTCA

-1969 TGTGGAATAA CAGGTGGACC TCTGAAACAT GTACCGACTC CTCTAGCGGC GCCGTCTTAT

DRE/CRT

-1909 CATCATTCAC CAGTGTTTTG TATTTAACTT TGTAATGATA AGCACCAATC GGATGAACAA

-1849 TACTTGCTTG GTAGTAAGAA CCTATATAGC CTTCTTCTTG GCTTGCTACT TCAATGTCAT

-1789 CATTAATTTG AAATATTAAC GTTGTTTCTT GTTTCTTATA TGCTGTCTCT CTAATGTTTT

-1729 CTGAGATAAT ATCAATTATT AATTGGTGAT TTTCGTTTGC ATCATTTGGT TCTGCCATTT

-1669 GAACTGATTG AGCCATTTTT TTTTTTTTAA AAAAAAAAAT AGCTATGACA AAAACCTATG

-1609 GCAAAACATT AGCTTTTATA AACAAATTTT ACAAAAGAGA TTCTTAAGGA AAAAATGTTA

-1549 AAAAATTACA CCCAAATCAA GAGAAATTTT ATGTCACGGT CAAACAATAT TTAAGGAATT

-1489 TTTATAAAAG ATTATCCTAA AATCTATGAT TGAAGATCAA TTTTTTATGC TCAAATGTTA

-1429 TTTGATGGTC AAAAAGATAT TTAAGGAAAA AAACTAAAAA ATACTCTCAA AATTCATGAC

-1369 TAAAAATTAT TTTTTAATCA TAAAATTTTA TTTCATGATC AAAAGATATC TGTGGTCAAT

-1309 ATTTTAACTA CTACTCTAAT AATCTATGAT TGGACCAGAT TTTTATGGTC AAATTTTGTT

-1249 TCATGTCCAA AATAAATATT TCAAATGAAA ATTTTGAAAA ATCACTTCCA AAATTTATTA

-1189 TTAAAATTTA TTTATTTTTA TAACCAATTA TATATTACTT CTTGGTGAAA CAAATATTAA

-1129 AGATTTTTTT TTTTTAAAAA AAAGAACTCC CAAAATTTAC AAAGAAAGTT CATTTTTTAT

-1069 TATCAAATTC TATTTGAGGA AGTTTTTTTG AAAACTTCTC CATATGAATG AATATCAATA

-1009 CTATAACATA TAATTTTACT TCATGGAAAA TATATATTTG AGGAAATATT TTAAAATTTA

-949 CTATAAAAGT TTATTTTTAA AGATCACATT TTTTATGATA AATAGATAAG ATTTTAAAAA

-889 ATAAATTTCA TAATCAACGA CTAAAGATTA ATTTTTTATG ATTAAACTTT ACTTCATGAC

-829 CAAACAAATA GTTAAAGGAT TTTTTTTGAA AAAAAAAAAA CTTTCAAAAC TCATTATCAA

-769 AAGATCAGAA GTAATTCTAA TTAATTATTT TTATGATTAA TTTTTAAAAA CTATTAGCAA

-709 AATTTATAGC TGAAGATTAT ATTATTAAAT TTTATAGTCA AATAAATATT TAAGGAAAAA

-649 CTTCAAAAAC TACTTTCAAA ATCTACCAAT TAAAAAGAAA TTAAAATTTA TGAGCAATGA

-589 AAATCTTTTA AATTGTGTTG AATATCATAA TAAATTTTAT AGTCAAACTA ATATTTAAGG

-529 AAAAACTTTA AGAATTACTT TTGAAAACTA TGGTCAAAAA TATATTTAAT AAAAATTACT

-469 TTAAAAAACT ATGATGAAAG AGATATTTTA AAAAATAAAT TCAAAGTTAT TTTCAAAATG

-409 TATGGGTAAA AGAACATTTC AAGAAAAAAA GAAAATTATG AGCAAAGTAT ATTTATGGAA

-349 AATCTTTAAA ACTACAATAA TATTGTATAT TTTTAGAAAA GGTATGGTCA AAGAAATATA

-289 TTTAAGTAAA AATGTATAGA AAAAAAAAGA AGATAAATAT TAAAGGAAAA TGTATTTGGA

-229 TTTGATCCTA ATGTACCTAC AGAGGGCATC CCTCGTGAAG TCATTTCTGT CTTTTTTTTC

-169 TTTTCCTCCC TCTATATAAA TCCTCTCCAA CCTCATCTTT TTCATTCCAC CCTCCCTCAT

-109 AAGTCATAAC AAACAAAAAA TATATCATCA TTACTAATTA GCTTTTTACT TGGTAGTATA

-49 AATAAATAAA TTATAATTAG TTTTTCTCAT CAACAAATTA AAAACAAACA TGTCGATCTC

Met

AGCTTCTTTT TTAAGATTTA GCCTCACTGC TCACTATCAA CCTTCTCCTT CTTCTTCT

Table S1 Primer sequences used for Real-time RT-PCR analysis of *SlDREB* and genes from the GA biosynthesis and GA response pathways in tomato.

Gene	**Sense(5'-3')**	**Antisense(5'-3')**
β-actin	GTCCTCTTCCAGCCATCCAT	ACCACTGAGCACAATGTTACCG
SlDREB	AGTTGGGGAAAATGGGTGTC	CGAGGCAATGAGTCAATTAGGT
SlGPS	TATGCAGAAAACATATTACAAGA	ATCAAGAACATCATCTATTAATTG
SlCPS	ATACCTAGAGCTAGCGAAATC	ACTGCCTAAATAGTACGTAACC
SlKS	TGATTTCTTTGATGTAGGAGGTTC	GCTTGCCACTTAGATGCTTTG
SlKO	CCACGAAGACACGCAGGTAG	ATCGTTCAGGCTTCCACTCTT
SlKAO	CTTTCAAATCCAACAATCCTG	TTAAAACCTTCCTGCAACCT
SlGA20ox1	CTCATTTCTAATGCTCATCGT	TGCAGATGATTCTTTCTTA GCG
SlGA20ox2	TTTCCATATTCTACCCTACAAG	TCATCGCATTACAATACTCTT
SlGA20ox3	AGCCAAATTATGCTAGTGTTAC	TTTTATGAGATTTGTGTCAACC
SlGA20ox4	GATGATAAATGGCACTCTATTC	TGACTTCCTTGTTCTTCTACAG
SlGA3ox1	GGCATTAGTAGTTAATATAGGTGA	AAATAAGCTACAGAAAGTCGATA
SlGA3ox2	GATCATAAATTTGTCATGGATAC	TGTTTCCATATGGTTAAGTAATC
SlGA2ox1	GGCATGTAAGATATTAGAATTGA	TTAATCCGTAGTAGAGAATCAGA
SlGA2ox2	ATTAAGATCCAATAACACTTCG	TCTTGATTTCACACTATTTGC
SlGA2ox3	GACCCTTCTACTTTCAGCTC-3	AAATTGAATTGTCTTCTATCCA
SlGA2ox4	ATGGAAGGAAAAGACAGTTTA	CTTTTCTCAAATAGGACCAAC
SlGA2ox5	GATCACTTACCAATAATCAACAG	CGTCATGGTTTACGACTTTA
SlGAST1	CAACAACAGAGAAATAACCAAC	TTATACGATGTCTTTGAACACC
SlDELLA	TGATGCGACTATACTTGATATAAG	GGGTTAATCTGTTTAATAGAGTTC