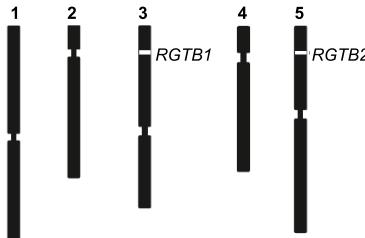
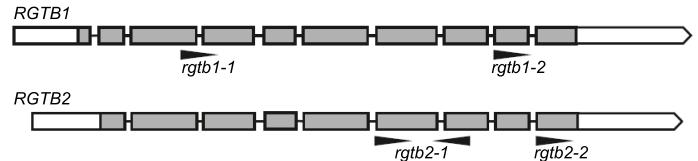


A



B



C

<i>RGTB1</i>	1	ATGAGCTCTACGTTCTCCAGATGGTTAGCTCGTAGCTGACAAGCATGTACGTTACATTCT	-----	GATGGCAGAAAA	77
<i>RGTB2</i>	1	ATGG-----CAGAC-----AACTCTGAGCTGGCAAGCATCTCGTTACATTCTGAATTGATGGCAGAAAA			62
<i>RGTB1</i>	78	GAAGAAAGAGAGTTTGAGTCTGTGGTATGGATCATCTAAGAATGAATGGTCATACTGGGACTCACCAC	CTCGACTTAC		160
<i>RGTB2</i>	63	AAAAAAAGAGAGTTTGAGTCTGTGGTATGGATCATCTGAGAATGAATGGTCATACTGGGACTAACACACTGGCTTAC			145
<i>RGTB1</i>	161	TTCACAAGCTGGCTGTGTTCTGAAGAGGAAGTCATTTCTGGCTCATGACTGCCAGCATGAATCTGGGGCTTGGCGGT			243
<i>RGTB2</i>	146	TCGACAAGCTGGCTGTGTTCTGAAGATGAAGTTGTGTCATGGGTATGAGCTGCCAGCATGAGCTGGCTTGGCGGT			228
<i>RGTB1</i>	244	AACACTGGACGATCCACATATCCTATATACACTCAGTGTGTACAATCTGGCCATTGACAAATCAACATTCTGA			326
<i>RGTB2</i>	229	AACTACTGGCATGATCCGCATGTTGTATACACTCAGTGTGTACAATCTGGCCCTTCTCGACAAACTCAACATTCTGA			311
<i>RGTB1</i>	327	CATTGGGAAAGTGTCAAGTTATGGCTAAGTGCAGAATGAAGATGGATCCTTCAGGGAGATATGGGGGAGAAAATAGATA			409
<i>RGTB2</i>	312	TGTTGAAAAAGTTCAAAATTATATTGCTGGTTACAGAATGAAGATGGATCCTTCAGGGAGATATGGGGCAGAGTAGATA			394
<i>RGTB1</i>	410	CGAGGTTTCGTCATAGCTATTGCTGTCTCAATATTGAAATGTCTTGACAAAATCAATGTGGAGAAGGCCGTTAAGTAC			492
<i>RGTB2</i>	395	CAAGGTTTCGTCATAGCTATGCTGCCCTCAATTAAATGTTGATAAAATCAATGTGAAGAAGCTGTTGATTAC			477
<i>RGTB1</i>	493	ATTGTGAGCTGCAAAACCTGGATGGTTGGTGCACACCTGGAGCAGAGTCCCAGGACAATTTCCTGCTGCGT			575
<i>RGTB2</i>	478	ATTGTGAGCTGCAAAACCTGGATGGTTGGTGCACCTGGAGCAGAGTCCCAGGACAATTTCCTGCTGCGT			560
<i>RGTB1</i>	576	TGGTGTCTTGCTATCACTGGGAGTCTCCATCATGTTGATAAGGACTCACTGGTTGGTTATGTGAAAGACAA-TTA-A			655
<i>RGTB2</i>	561	GGGTGCTCTGCTATCACCGGAATCTCCATCGTGTGATAAGGACTTACTGGATGGTTATGTGAAAGACAAGACTACG			643
<i>RGTB1</i>	656	AGGCTGGGGCTTAAATGGACGTCTGAGAAACTCGTGATGTTGCTATTCTGGTGGCTCTACGAGCCTAATCATGATA			738
<i>RGTB2</i>	644	AGTCGGAGGTTAAATGGACGACGACTGGAGAAACTCCCTGATGTTGCTATTCTGGTGGCTTATCCAGCTTAATCATGATC			726
<i>RGTB1</i>	739	GATAGAGTTCACTGGATCGACAAAGCAAAGCTGTCAAGTTCATTCTGGACTGTCAAGGATTGGACACGGAGGACATCTCAGA			821
<i>RGTB2</i>	727	GATAGAGTTCACTGGATCGAGAAAGCAAAGCTGTCAAGTTATCTGGACTCTCAGGACATGGAAACGGAGGACATCTCAGA			809
<i>RGTB1</i>	822	CCGACCCGAGGATGCTGTTGATATCTTCCACACCTACTTGGAGTGCAGGGCTTCCCTCTTGAGTACCTGGAGTCAGAAG			904
<i>RGTB2</i>	810	TAGACCCAGCTATCTGTTGATATCTTCCACACCTACTTGGAGTGCAGGGCTCTCTCTCGAGTACCTGGAGTCAGAAG			892
<i>RGTB1</i>	905	TAAATGATCCAGCCTATGTTGCTGTTGATGTCGTCAACCGGATTATATTCAACAAATGA			966
<i>RGTB2</i>	893	CAATTGATCCTGCCTACGTTGCTGTCATCAACCGGATTCTTCACCAAAATGA			954

D

<i>RGTB1</i>	1	MSSTSSSQMVQLVADKHVRYIL--MAEK-KESFESVVMDHLRMNGAYWG LTTLDLLDKLGCVSSEEVISWLMTQHESGGF			78
<i>RGTB2</i>	1	MAD-----KLVAGKHRYILNLMAEKKKESFESVVMDHLRMNGAYWG LTTLA LLDFKLGSVSEDEVVSWVMTQHESGGF			74
<i>RGTB1</i>	79	AGNTGHDPHLYTLSAVQILALFDKINILDIKVSSYVAKLQNEDGSFSGDMWGEIDTRFSYIAICCLSILKCLDKIINVEK			159
<i>RGTB2</i>	75	AGNTGHDPHVLYTLSAVQILALFDKLNILDVEKVSNYIAGLQNEDGSFGDWEVDRFSYIAICCLSILKCLDKIINVKK			155
<i>RGTB1</i>	160	AVKYIVSCKNLDDGFPGCTPAGAESHAGQIFCCVGLALITGSLHHVDKDSLGWWLCERO-LKAGGLNGRPEKLADVCYSWWL			239
<i>RGTB2</i>	156	AVDYIVSCKNLDDGFPGCTPAGAESHAGQIFCCVGLALITGNLHRVDKDLLGWWLCEQRDYESGGLNGRPEKLDPVCYSWWL			236
<i>RGTB1</i>	240	SSLIIMIDRVHWIDKAKLVFIIDCQDLDNNGG1SDRPEDAVIDFHTYFGVAGLSLLEYPGVKIDPAYALPVDVVNRIIFTK			320
<i>RGTB2</i>	237	SSLIIMIDRVHWIEKAKLVFIIDSDQMDNGG1SDRPSYTVDFHTYFGVAGLSLLEYPGVKIDPAYALPVHVINRILFTK			317

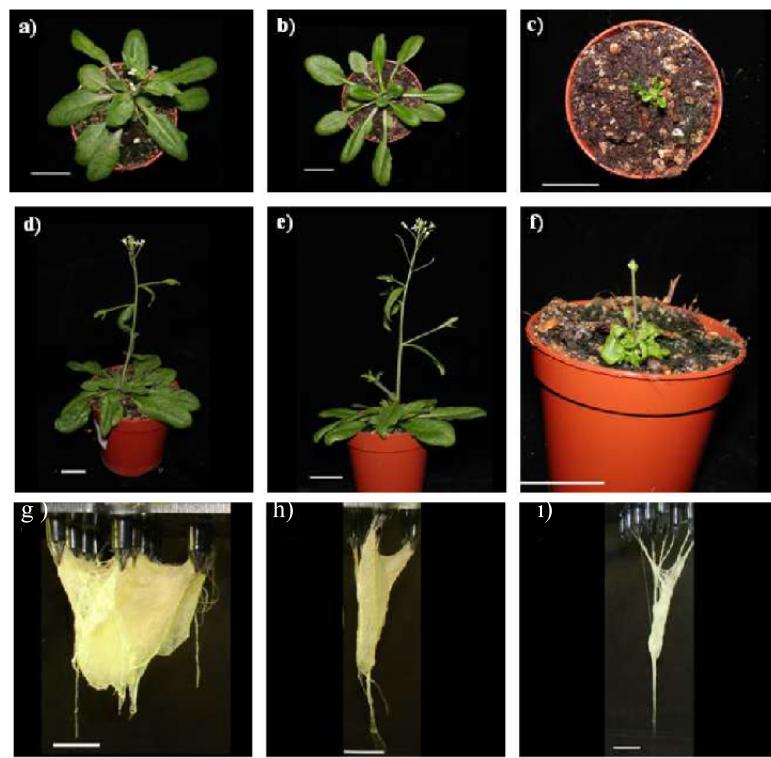
Comparison of AtRGTB subunits. A) chromosomal location of AtRGTB genes, B) gene structure and location of inserts in corresponding SALK lines, C) comparison of nucleotide and D) aminoacid sequences of AtRGTB. Homology regions are shaded.

Amino acid and nucleotide sequence analysis and insert positioning

AtRGTB1 and AtRGTB2 nucleotide sequences, NM_121259 and NM_180236, respectively, were derived from the EMBL server. Corresponding amino acid sequences, NP_568259 and NP_850567, respectively, were derived from the PDB server. Alignments were performed with the T-coffee (<http://www.ebi.ac.uk/Tools/msa/tcoffee>) and visualized with Jalview. DNA obtained from genotyping PCR reaction of each mutant line was sequenced from the Lbb1.3 primer (<http://oligo.ibb.waw.pl/>). Results of the sequencing were aligned with genomic sequence of the AtRGTB1 and AtRGTB2 genes with the EMBOSS program (<http://emboss.bioinformatics.nl>).

Fig. S2

wt *rgtb2-1 -/-* *rgtb1-2 -/-*



wt *rgtb2-2 -/-* *rgtb1-1 -/-*

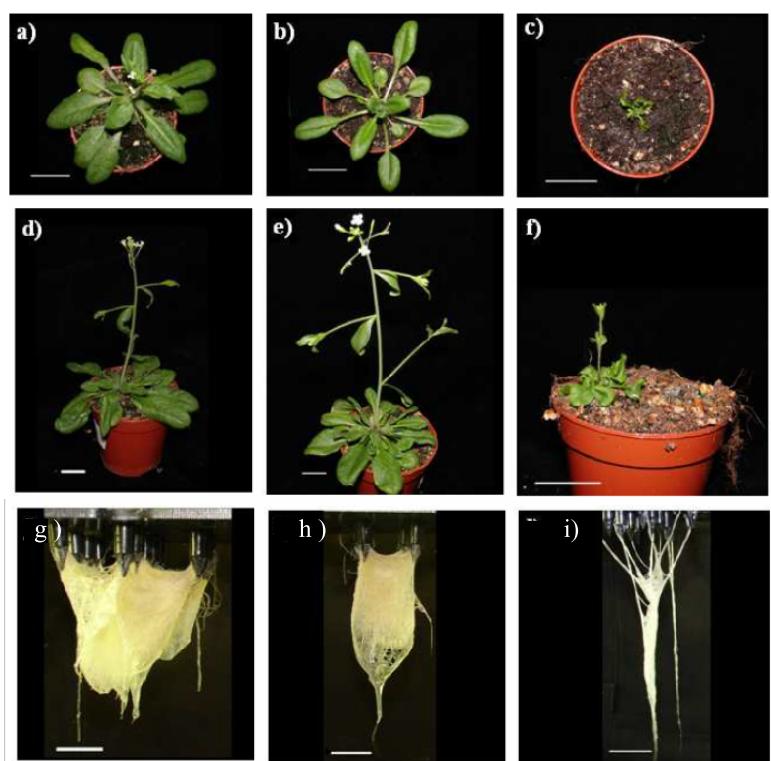


Fig. S2 Morphology of *rgtb* homozygous mutants. a-c) 4-week old rosette, d-f) 5-week old flowering stem, g-i) 5-week old root system grown in hydroponics.