Transient expression in *Arabidopsis* protoplasts

For observation of the sub-cellular localization of *JcKASIII*, the ORF of its cDNA was PCR amplified. The coding sequence of *JcKASIII* was generated using *GATEWAY*-compatible primers JcKASIII-attB1/attB2 with the cDNA template. The resulting fragment was then cloned into a pDONR207 vector, sequenced, and recombined into pEarleyGate 103 binary vectors following to supplier's instructions (*Invitrogen*, Carlsbad, USA). The PCR product was then fused upstream of the enhanced GFP in the cauliflower mosaic virus 35S-EGFP-Ocs 3' vector. This vector does not express the GFP well without adding a coding sequence to the 5' end of the ORF of the GFP; thus, control cells do not show fluorescence of the GFP. Protoplasts were isolated from the leaves of 3- to 4-week-old plants of *Arabidopsis* and the resulting constructs were transiently transformed using polyethylene glycol essentially according to Sheen *et al*. (2002). Fluorescence of the GFP was observed with a confocal laser-scanning microscope (*Tcs, sp2*, *Leica*, Mannheim, Germany).

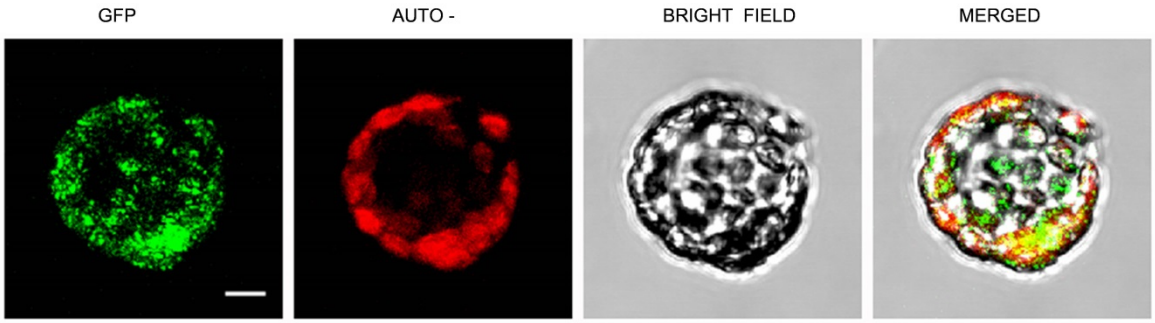

Fig. 1 Suppl. The transient expression of *JcKASIII-GFP* in *Arabidopsis* protoplasts. The laser-scanning confocal microscope images show the JcKASIII fluorescence (GFP) and the merged image. The chlorophyll auto-fluorescence (Auto-) and the bright-field images are presented. *Bar* = 5 μm.

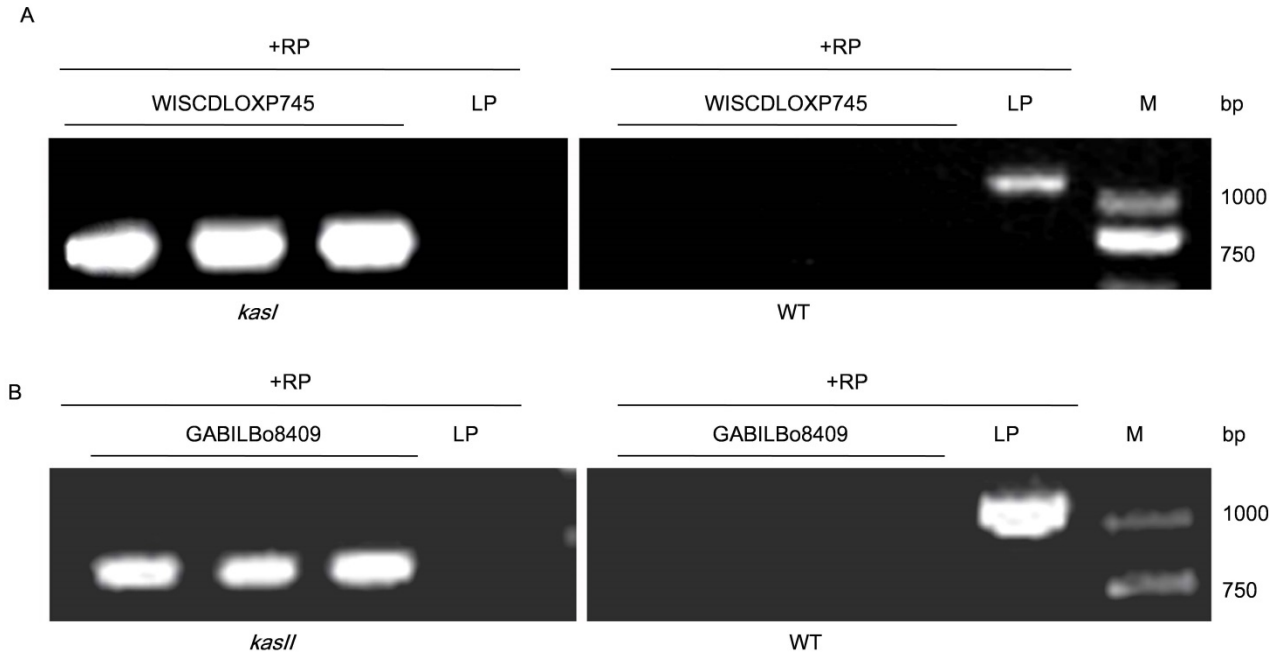

Fig. 2 Suppl. The identification of *kasI* and *kasII* mutants. *A* - The confirmation of the T-DNA insertion in *kasI Arabidopsis* mutants (three individual lines) by PCR amplification using a T-DNA bound primer WISCDLOXP745 paired to an antisense primer KASI-RP (+RP). Another sense primer KASI-LP (LP) was used to identify and confirm the homozygous lines. *B* - The confirmation of the T-DNA insertion in *kasII Arabidopsis* mutants (three individual lines) by PCR amplification using a T-DNA bound primer GABILBo8409 paired to an antisense primer KASII-RP (+RP). Another sense primer KASII-LP (LP) was used to identify and confirm the homozygous lines. M - DNA marker.

Table 1 Suppl. Primers used in this study.

Primer name	Nucleotide sequence
CS350573-LP	5’-TACTTCCCAATACCATCACCG-3’
CS350573-RP	5’-GAAGTGACGAGAGCCTGAATG-3’
GABILBo8409（LBo8409）	5’-ATATTGACCATCATACTCATTGC-3’
CS853792-LP	5’-GCTCGAGAAATGTCTGGTGAG-3’
CS853792-RP	5’-CCAAACGAGAAGAAGCAACAC-3’
WISCDLOXP745（P745）	5’-AACGTCCGCAATGTGTTATTAAGTTGTC-3’
JcKASIII-F1	5’-TCAAATACCCAGGCTCAT-3’
JcKASIII-R1	5’-AGTTCCTCTATCCGTCCA-3’
JcACTIN-F	5’-ATGAGCTTCGAGTTGCACCA-3’
JcACTIN-R	5’-AGCATCAGTGAGATCACGAC-3’
AtKASI-F	5’-ATGCAAGCTCTTCAATCTTCAT-3’
AtKASI-R	5’-GTTTAGGAGCGGAGACAGTG-3’
AtKASII-F	5’-ATTCGGGTTTGGTGGTCATAA-3’
AtKASII-R	5’-CGTTTTAGCTCCTGTCCAAGTCT-3’
AtKASIII-F	5’-TGGTCTTCCTGCTTCTGCC-3’
AtKASIII-R	5’-CCGCTTCTCACTGCCTCAT-3’
AtACTIN-F	5’-CCGGTATTGTGCTCGATTCTG-3’
AtACTIN-R	5’-TTCCCGTTCTGCGGTAGTGG-3’
JcKASIII-F	5’-CTAGTCTAGAATGGCAAATGCATCCGGT-3’
JcKASIII-R	5’-CGAGCTCGCCCCATCTAATAATTGCAGAAC-3’
AtKASIII-RNAi-attB1	5’-attB1-GCTAATGCATCTGGGTTCT-3’
AtKASIII-RNAi-attB2	5’-attB2-AGTACGAGTAGCAATCCA-3’
JcKASIII-attB1	5’-attB1-ATGGCAAATGCATCCGGT-3’
JcKASIII-attB2	5’-attB2-GCCCCATCTAATAATTGCAG-3’