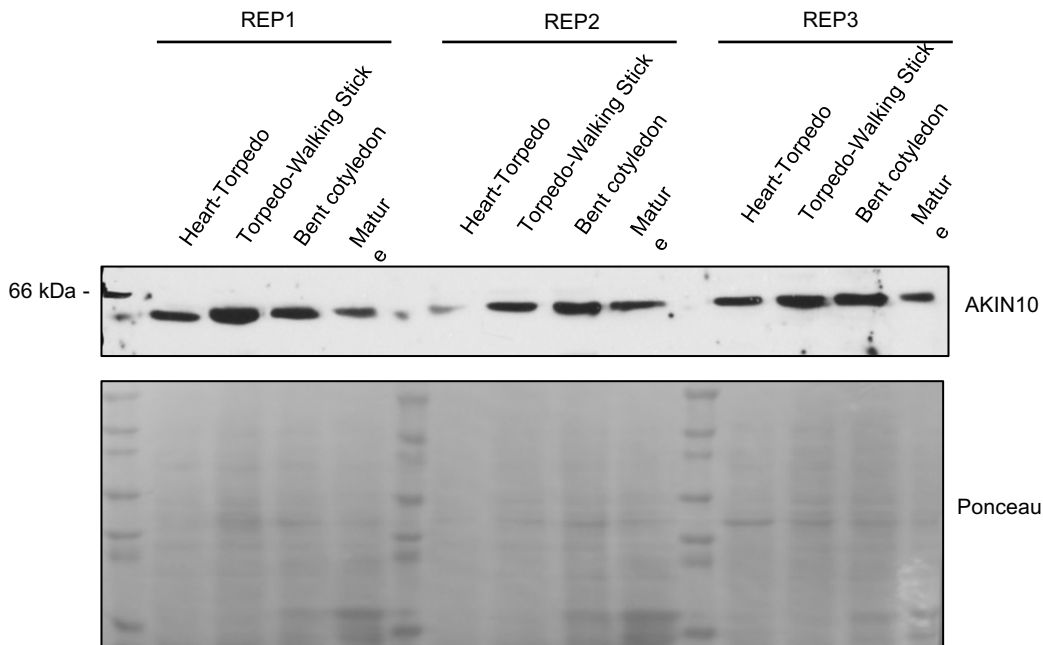


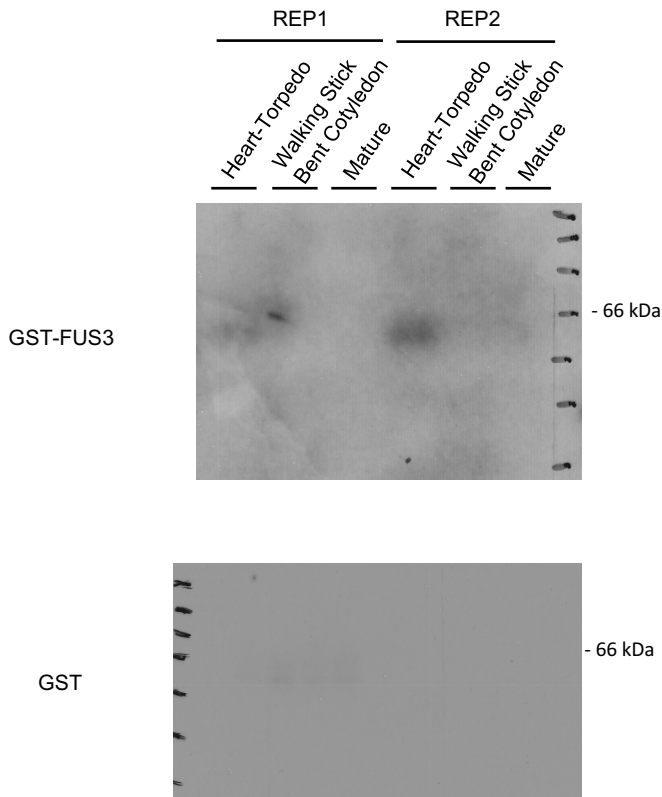
Table S1. List of primers used in this study.

| Gene ID | Forward Primer Reverse Primer |
|----------------------------|--|
| CRU2 At1G03880 | TCGAACCATCCCAAATCATC TTAGACCCCTTCCGTGAACA |
| SCT At1G47540 | TCGTTTTGGCTATCTTTGCAG CAACGGCATACTCCACCTTT |
| 2S3 At4G27160 | CGATGAGTTCGATTTGAGG GGTGGTCTGGAAGGGACATT |
| KCS18 AT4G34520 | ACAAGGCATTTATGCTGGAGA CGCTCTCATCGTCTTCTTGTT |
| GA3ox2 AT1G80340 | CCACCACCTCAAATACTGTGAA GGCTCTGTCTGGTTCTGGAC |
| ACT7 AT5G09810 | TCACAGAGGCACCTCTTAACC CCCTCGTAGATTGGCACAG |
| FUS3-eGFP | TTGGGCTCCGTTGAGAATATC GCAGATGAACTTCAGGGTCAG |



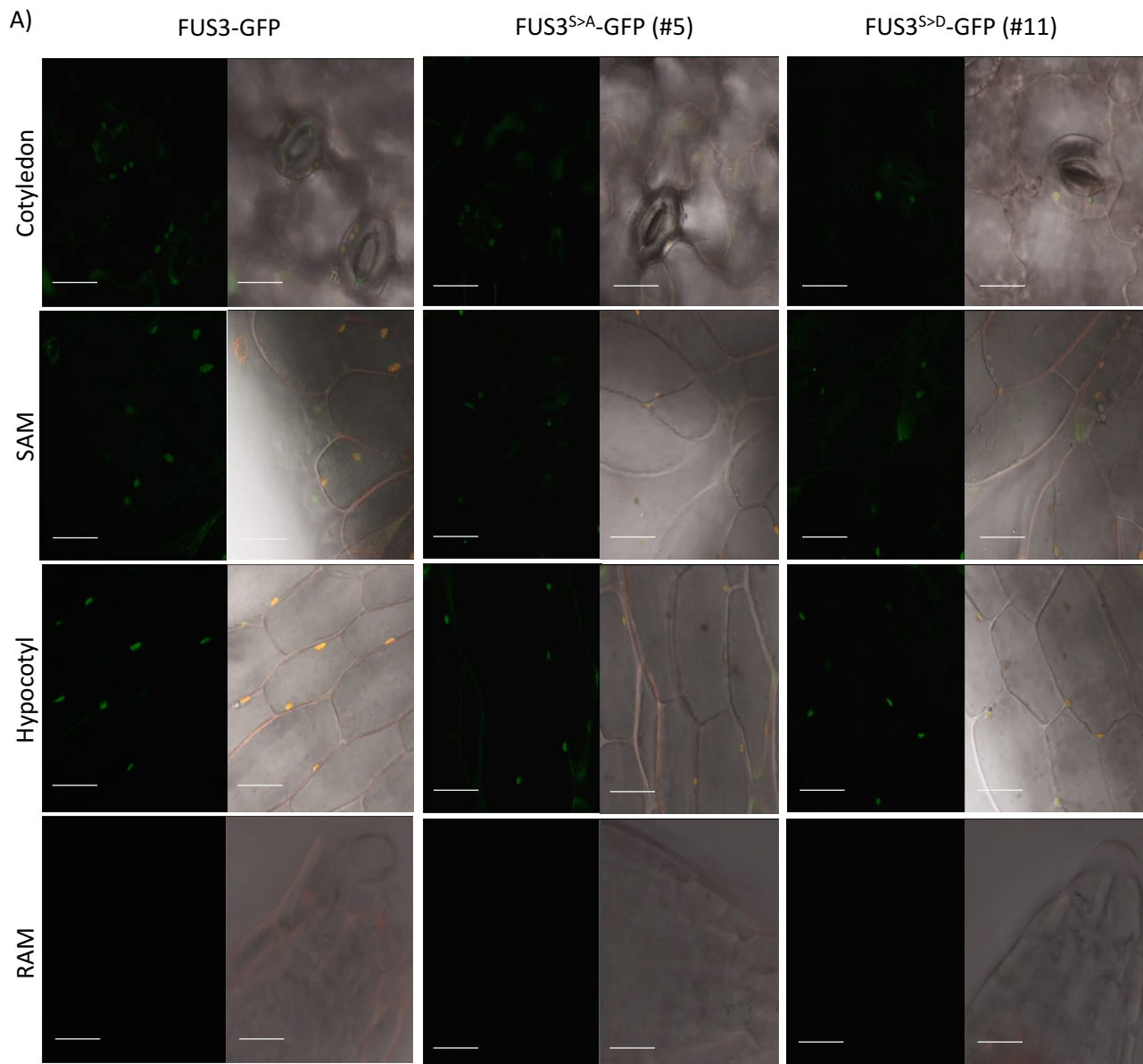
Supplemental Fig S1. AKIN10 protein levels during seed development

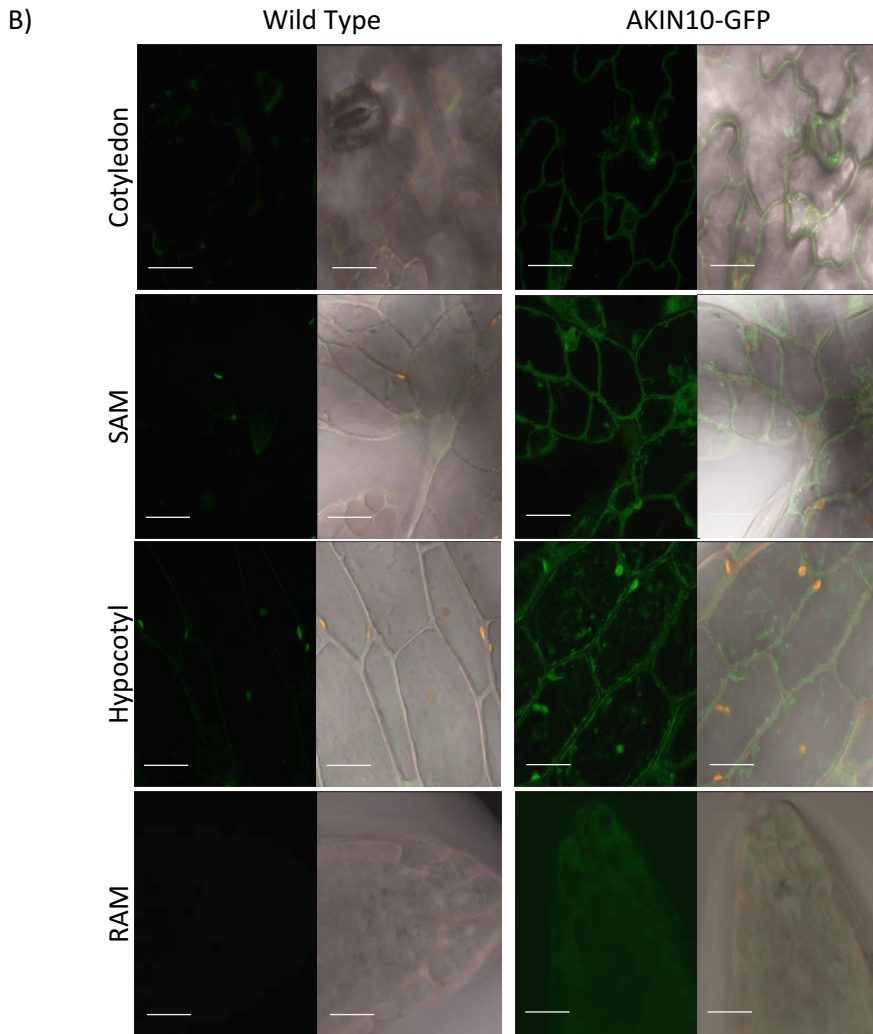
AKIN10 protein was detected throughout seed development from total soluble protein of isolated seeds using anti-AKIN10. Three biological replicates (REP) are shown. Ponceau stain is shown as the loading control.



Supplemental Fig S2. In-gel kinase assays.

In-gel kinase assay using GST-FUS3 (top) or GST (bottom) as the substrates. Cell extracts from siliques corresponding to the the heart/torpedo stage embryos show a phosphorylation band at the expected size of AKIN10 (~60 kDa). Two biological replicates (REP) were conducted.





Supplemental Fig. S3. FUS3-GFP and its phospho-variants are undetectable during early vegetative development at control temperature.

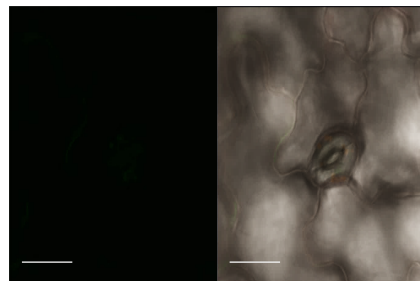
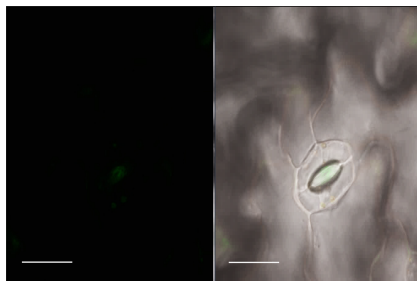
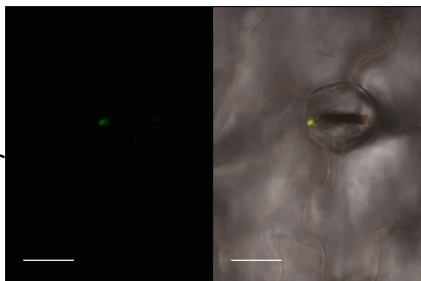
A) Confocal images showing lack of expression of FUS3-GFP, FUS3-GFP(S>A) and FUS3-GFP(S>D) variants in the cotyledon, shoot apical meristem region (SAM), hypocotyl and root apical meristem region (RAM) of Arabidopsis 5-days-old seedlings grown on MS plates at control temperature. B) AKIN10-GFP was detected in all organs imaged. Similar results were obtained in 10-days-old seedlings. Plants were grown under long days at 21/18°C. Scale bars: 20 μ m.

A)

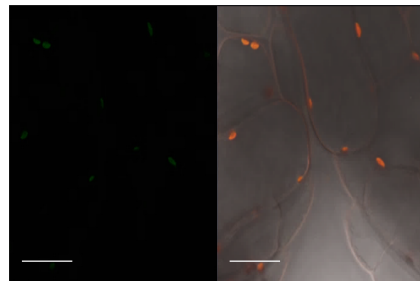
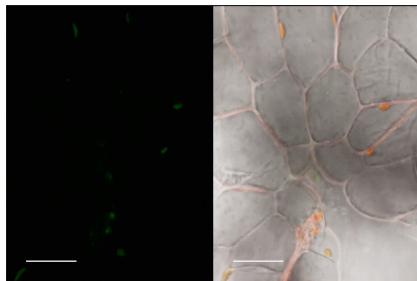
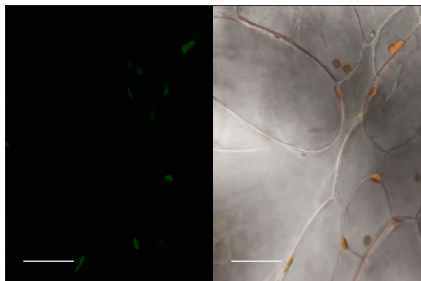
FUS3-GFP

FUS3^{S>A}-GFP (3)FUS3^{S>D}-GFP (11)

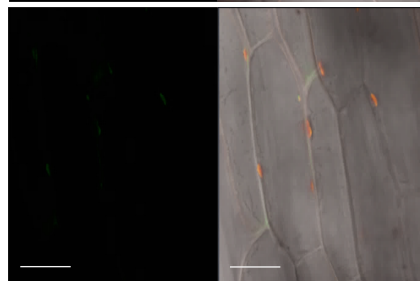
Cotyledon



SAM



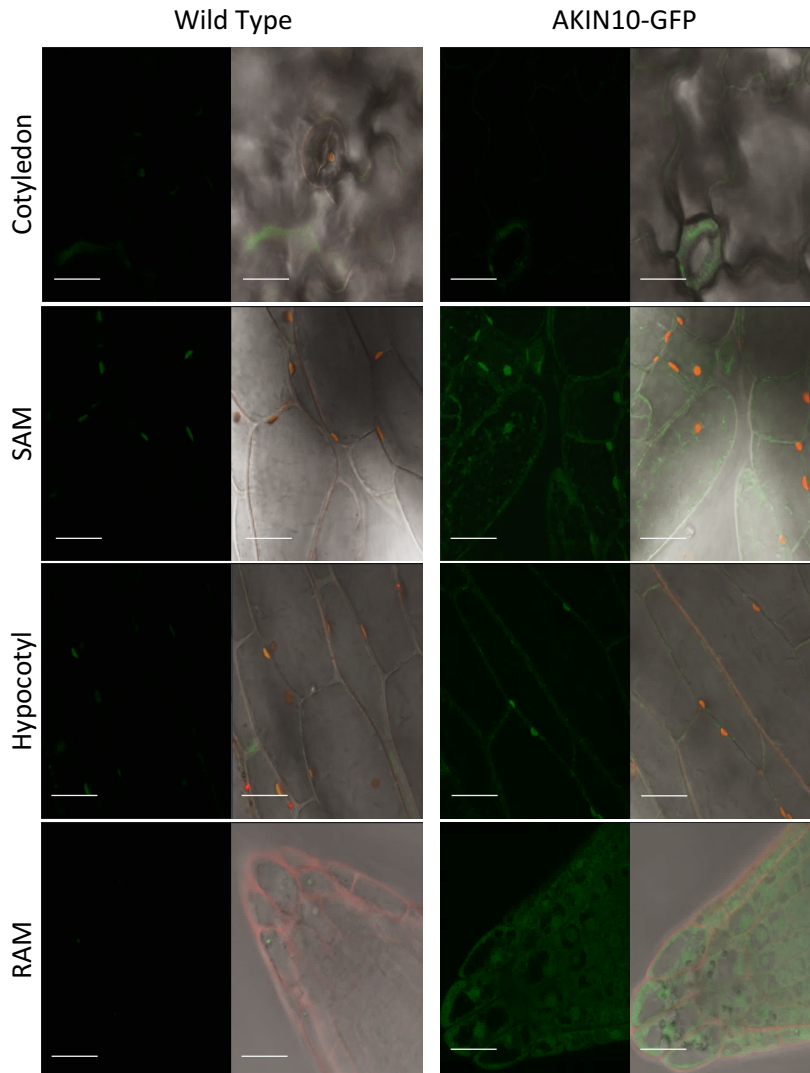
Hypocotyl



RAM



B)



Supplemental Fig. S4. FUS3-GFP and its phospho-variants are undetectable during early vegetative development under elevated temperature

Confocal images showing lack of expression of FUS3-GFP, FUS3-GFP(S>A) and FUS3-GFP(S>D) variants in the cotyledon, shoot apical meristem (SAM), hypocotyl and root apical meristem (RAM) of Arabidopsis 5-days-old seedlings grown on MS plates at elevated temperature. AKIN10-GFP was detected in all organs imaged.

Similar results were obtained in 10-days-old seedlings. Plants were grown under long days at 27/24°C. Scale bars: 20 μ m.