

**Accumulation of eicosapolyenoic acids confers enhanced sensitivity to  
abscisic acid and mitigates the effects of drought in transgenic  
*Arabidopsis thaliana***

*Xiaowei Yuan, Yaxiao Li, Shiyang Liu, Xinzheng Li, and Baoxiu Qi*

Table 1S. Sequences of primers used in this study.

Primer	Sequence (5'-3')
ACT2-F	TTGTGCTGGATTCTGGTGATG
ACT2-R	CGCTCTGCTGTTGTGGTG
NCED3-F	ACAAGGTCGCAAGATTCGG
NCED3-R	TTGAGTCTGGTGGAGTCATACAG
ABA1-F	AATGGTCAACGCTATGAAGGT
ABA1-R	CCCGTGTAACAAGTGTAGCCT
ABA2-F	TGGAGGAGCCACAGGGATAG
ABA2-R	CTGCTTCGTGGTGAGTCCAA
ABA3-F	GGATCATGCTGGTTCTACTTTG
ABA3-R	TGTCGAGCATCCGCTATAAG
AAO3-F	AGCAGTTGTGAAGCCGTTAG
AAO3-R	ACCATACGCTTGTGAATGAG
CYP707A-F	AGTCCATCAACACCCTCG
CYP707A-R	TACTTTCCTTAGTTCCTCGCT
RCAR1-F	CGAGACGGTGCAATACGT
RCAR1-R	AAGACTGCCGATTTTCAGG
PYR1-F	TCCAGGAAGCTGTTTCATCACT
PYR1-R	CGACGGAGCAGGATTTGA
GTG1-F	AGGCAAGGATGATAAACTGG
GTG1-R	GCTGAAGGCATAGGGAAAT
GTG2-F	GTGCGGTCGGTTCAAGAT
GTG2-R	CCACCTCTGCCTCCATTAG
ABI1-F	TCCCGTCTCACATCTTCGTC
ABI1-R	CTTCTCTATCCGTTTATGGTCA
ABI2-F	TGTTCCATTCAGACCATTAC
ABI2-R	ATATCCACACCTGCCATAGC
ABI5-F	TATGGGAGGGCTAAGGGG
ABI5-R	CGCATTCTTCTTTCAACTG
SNRK2.2-F	ATGGTCTTGCGGTGTAAC
SNRK2.2-R	GGTGTAAGTCCTCTGGGAT
SNRK2.3-F	GGTCACTAAGGCATCCTAATA
SNRK2.3-R	GCAAATCCGCTCGTAAAG
RD29B-F	GGGAAAGGACATGGTGAGG

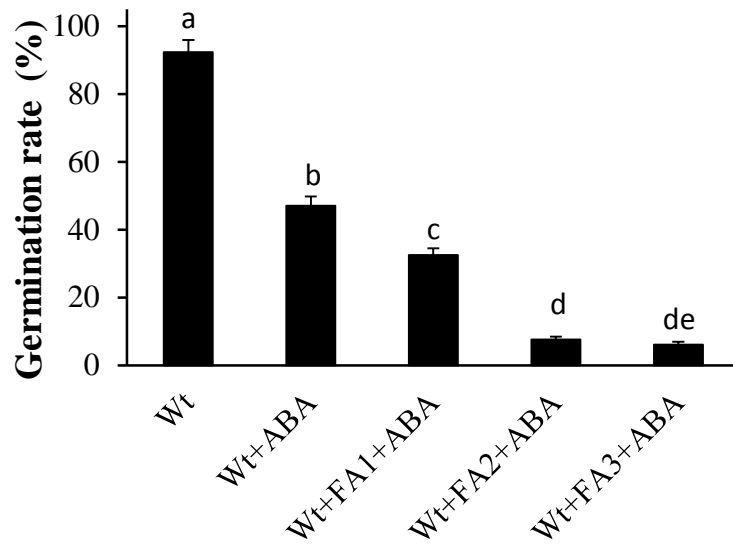
---

RD29B-R	ACGGTGGTGCCAAGTGAT
RD26-F	TCCCAAAGGCACTAAAACCAA
RD26-R	GACACAACACCCAATCATCCA
ABF3-F	TTCAATGATGGGAAACAATACC
ABF3-R	ACTAATCGTCCGAGGCAAG
COR15A-F	AAGAGGCATTAGCAGATGGTGAG
COR15A-R	GTTTGCGGCTTCTTTTCCTTT
ADH1-F	CTTGGTGCTGTTGGTTTAGG
ADH1-R	TGTCATGGTCTTTCGGGTT
ABF2-F	TTAGGCGTTGGTGCTGTG
ABF2-R	TTGTTTGGTCTGCCGTGA

---



**Fig. S1.** *IgASE1* expressing seedlings (*35:IgASE1*) were more sensitive to ABA during early seedling development. WT and transgenic seeds were germinated on  $\frac{1}{2}$  MS media for 5 days. They were then transferred to  $\frac{1}{2}$  MS media supplemented without (0  $\mu\text{M}$ ), or with 10 and 25  $\mu\text{M}$  ABA. They were scanned after 18 days cultivation in an environmental controlled growth room under long days.



**Fig. S2.** Effect of different amounts of exogenously supplied fatty acids to percentage of germinated seeds of the wild-type *Arabidopsis* in the presence of 0.5  $\mu$ M ABA. Seeds were germinated for 48h. FA1, 2.5 $\mu$ M of each EDA and ETrA; FA2, 5 $\mu$ M of each EDA and ETrA; FA3, 10 $\mu$ M of each EDA and ETrA). Different letters indicate statistically different values after one-way ANOVA.