



Supplemental Figure S1. Molecular analysis of #16-11.

(A) Photograph of a regenerated #16-11 plant. (B) Southern blot analysis of *HindIII*-digested or *BamHI/EcoRV*-digested DNA from four independently regenerated plants of #16-11. Details are shown in Fig.2C, D.



Supplemental Figure S2. Growth of #3-4 in the greenhouse.

Photographs of mature plants of non-transformant (NT), wild-type (WT), and homozygous (GT) and heterozygous (H) for modified OASA2. Bar=10 cm.

Supplementary Table S1 Primers used in this study

Primer name	Sequence (5'-3')
OASA2 f1	CCCATCGAGGAAGAGTAAACCCAAAAA
OASA2 f2	GGAGACGCCAAGCTTCCTCTTCGAGTTCGTCGAGC
OASA2 f3	TTGTGAACCCAAGTCCAGCCATGGCATATGTACAGGTAT
OASA2 f4	GCCTTGGAGGGATTTCATTTGACGGAGACATGGACATCGC
OASA2 f5	ATGGACTTGTTTACTCGGGAGTGGTTG
OASA2 f6	GCGTGAGGTACCCCGCGGGGAAG
OASA2 f7	CTTGCTGCAAATGTGAGACCGTGAGTTA
OASA2 f8	TTGGTGTGTTGAGCCTTGCTTTTGTCT
OASA2 r1	TAAACATGCAGCGAGAAGAACCATGAA
OASA2 r2	GCTCGACGAACTCGAAGAGGAAGCTTGGCGTCTCC
OASA2 r3	ATACCTGTACATATGCCATGGCTGGACTTGGGTTCACAA
OASA2 r4	GCGATGTCCATGTCTCCGTCAAATGAAATCCCTCCAAGGC
OASA2 r5	TCCCAACCTCTCATCTCTCATTTTTCG
OASA2 r6	GGGCTTAGGGGTCCTGTTGGAAACTAT
OASA2 r7	GATCACCGCGCTTGCCTCTG
OASA2 r8	GTTCGCCTCTCAAACCTCTGGCTTAAAA
OASA2 r9	CTAGGCCATGCGTCTGAACTTGTCTCC
OASA2 RT-f	TGATGTTACCTTGGGCTTT
OASA2 RT-r	ATGCCGATCAAGATTTACCC
OsAct1 RT-f	AGGCCAATCGTGAGAAGATGACCCA
OsAct1 RT-r	GTGTGGCTGACACCATCACCAGAG