



**Supplemental information, Figure S4** PC shapes of type-A and type-B ARR loss of function alleles and their relative expression level.

(A) Representative images and quantitative analyze of 2 DAG cotyledons PC morphology in type-A ARR loss of function mutants. Bar =20 $\mu$ m.

(B) Representative images and quantitative analyze of 2 DAG cotyledons PC morphology in type-B ARR loss of function mutants. Bar =20 $\mu$ m. Asterisks indicate a significant increase relative to wild type PCs ( $p < 0.05$ , t test).

(C) Real-time PCR results of relative expression levels in the loss of function ARR. Asterisks represent significant decreasing of expression level.

The primers for Real-time PCR are as below.

qARR1\_for: TTGAAGAAACCGCGTGTCTCT,  
qARR1\_rev: CCTTCTCAACGCCGAGCTGATTAA,  
qARR2\_LP: GGAATGATGTTGCCAGTAGC,  
qARR2\_RP: GTTATTGAAGACCGAGTGAGTAG,  
qARR3\_for: CCGTTGATGACAGCCTAGTTGA,  
qARR3\_rev: CGTGACTTTGCAGGATGTGATT,  
qARR4\_for: CTGTATGCCTGGAATGACT,  
qARR4\_rev: AATAAGAAATCTTGAGCACCT,  
qARR5\_for: ACACTTCTTCATTAGCATCACCG,  
qARR5\_rev: CTCCTTCTTCAAGACATCTATCGA,  
qARR6\_for: GTCTACCCTGTTCACCTCG,  
qARR6\_rev: AGAATCATCAGTGTAGGCT,  
qARR7\_for: GCATTCAGAGAAGTACCAGTAGTG,  
qARR7\_rev: GCTAAGGTCTTGGCCTCTATAC,  
qARR8\_for: TGCACTCTCTACATCGCCACAAAT,  
qARR8\_rev: ACTTCTAAACGCCGCTGATTCCTT,  
qARR9\_for: TTCCTGCAAGAATCAGCAGATGTT,  
qARR9\_rev: AGTTGTCTCAATCTCCTCCAGCTT,  
qARR10\_for: TCAGAAATTCCGCGTTGCTCTGAA,  
qARR10\_rev: GTGAGTCAATAGCCGCCCTGTTA,  
qARR11\_LP: TAATGATGTCTGGTGGACGGCGAAA,  
qARR11\_RP: AAGCTCCGTGTTGCACTCCCTTCA,  
qARR12\_for: GGCCAGTCATCTTCAGAAATTCCG,  
qARR12\_rev: TGATTAGCCACCACTGATCCTC,  
qARR13-LP: CCCTAATCAGAATCAGGGACAAGC,  
qARR13-RP: ACTTGAACCCGAAATACCCGATCC,  
qARR14-LP: TCCTGGAAACTCGAAGAAGTCACG,  
qARR14-RP: AGAATCCGCTTTGGTACAGCTTTG,  
qARR15\_for: CTCAGCACTCAGAGAAATCC,  
qARR15\_rev: GTCTCTAGATTAACCCCTAGACTCT.