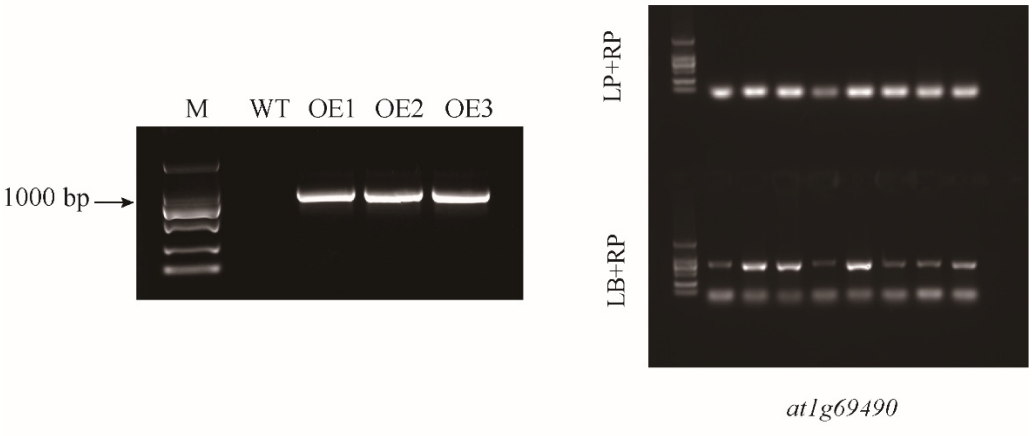
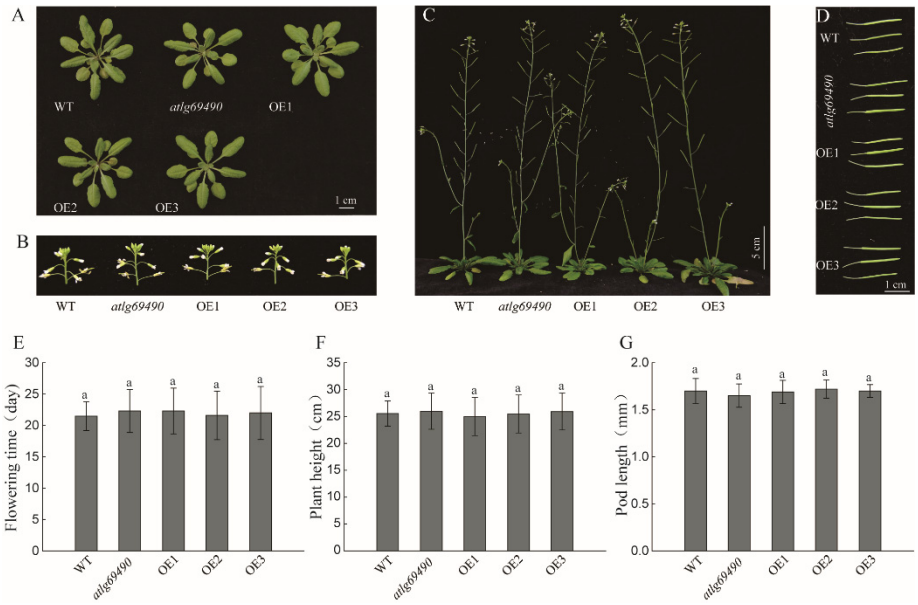
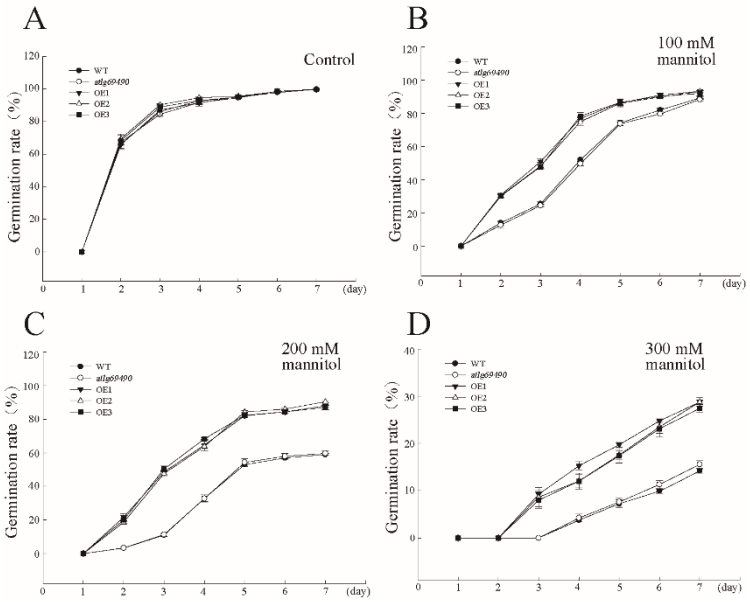


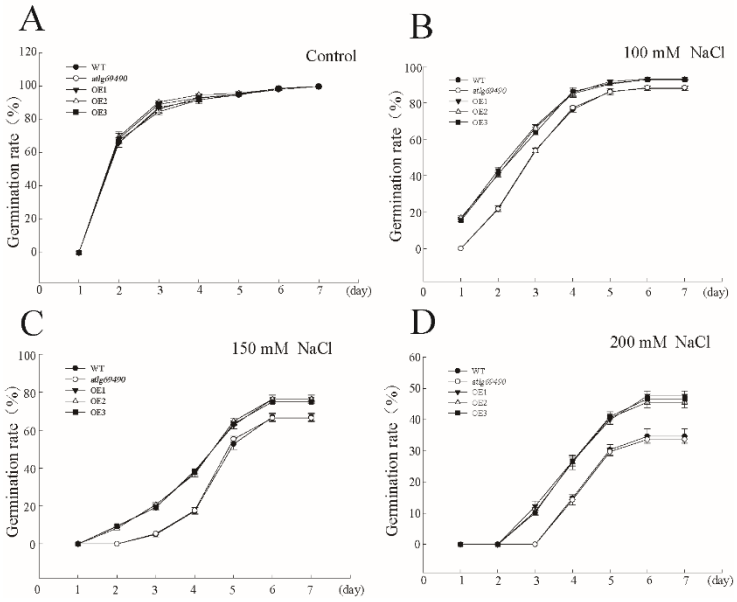
Supplement Figure S1 Identification of transgenic *PwNAC38* plants of *Arabidopsis thaliana*.



Supplement Figure S2 Effects of overexpression *PwNAC38* on growth and development of *Arabidopsis*. (A) Morphology of rosette leaves. Phenotype (B) and statistics (E) of flowering time under normal conditions. Phenotype (C) and statistics (F) of plant height under normal conditions. Phenotype (D) and statistics (G) of pod length under normal conditions. Similar letters indicate no significant difference under Dunnett's test (P<0.05).



Supplement Figure S3 Statistics of germination rates within 7 days after different concentrations of mannitol treatment.



Supplement Figure S4 Statistics of germination rates within 7 days after different concentrations of NaCl treatment.

Supplement Table S1 Primers used in this experiment

Application	Primer name	Sequence(5'—3')	
RT-qPCR	ANAC019	F: AATTCAGCAACAACGGTACTTC	R: GGTTTTCTGTTCGGTTAAGTCC
	ATHB-7	F: GCAAGTGGCTATATGGTTTCAG	R: GAAGCCAAGTTGTCGTAGTTTT
	DREB2A	F: CATGTTTGATGTCGATGAGCTT	R: ATTCCGTAGTTGAGGCTTTGTA
	ERD1	F: CTTTCTCTATCAGCACGAAACG	R: CGGTGCGATATATTGACAATCC
	RD29A	F: TTCTGTAAGGACGACGTTTACA	R: CGTACTCGTTACATCCTCTGTT
	ABF3	F: GATGTGGTTAACCGTTCTCAAC	R: CAGCTTGCAGTAGATTGTTGTT
	ABI5	F: AATAAGAGAGGGATAGCGAACG	R: GCTACCACCACCTCTATGTATC
	NCED3	F: GATGAATTTGTTCCAGAGAGCG	R: AACACTAGGATCAGCCGTTTTA
	Actin	F: GGTAACATTGTGCTCAGTGGTGG	R: AACGACCTTAATCTTCATGCTGC
Vector construction	PwNAC38-CDS-AD	F：ATGACCTTCTTAGCTTCGAATCCC	PwNAC38-CDS-cexu-R：TTAATAATCTTCCAAGGGATTGAA
	PwNAC38-BD	F: GATTACGCTCATATGATGACCTTCTTAGCTT	R: ACCCGGGTGGAATTCTTAATAATCTTCCAAG
	PwNAC38-1205	F: GAGGACCTGCATATGATGACCTTCTTAGCTT	R: CCGCTGCAGGTCGACTTAATAATCTTCCAAG
		F: CGGGCTGCAGGAATTCATGACCTTCTTAGCTT	R: CCCCCTCGAGGTCGACTTAATAATCTTCCAAG
Mutant identification	LP	CTTTTTAACCGTGGCTGTTTG	
	RP	GTCCCCGAACCAACTAGACTC	
	LB	ATTTTGCCGATTTCGGAAC	

Wavy lines in the primers indicate the overlapping sequences of seamlessly cloned linear vectors.