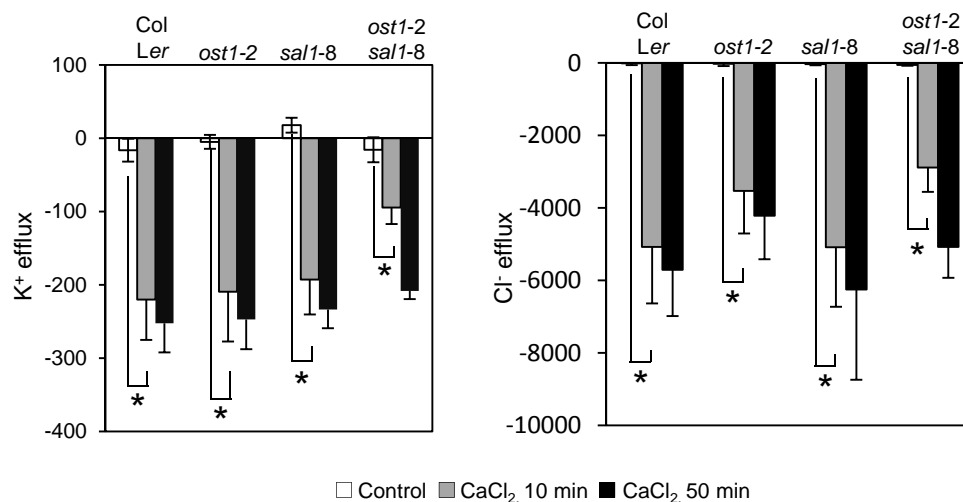


A Ion fluxes in ABA and *sal1* mutants in response to CaCl_2 , a positive control inducer of ion fluxes



B Effect of PAP on activity of ion channels expressed in oocytes

Treatment	$I_{\text{ion}} (\mu\text{A})$					
	SLAC1		KAT1		KAT2	
	0 min	30 min	0 min	30 min	0 min	30 min
Control (OST1-activated for SLAC1)	-0.55 ± 0.06 (n.s.)	-1.48 ± 0.30 (n.s.)	-2.37 ± 0.45 (n.s.)	-5.79 ± 1.98 (n.s.)	-2.86 ± 0.78 (n.s.)	-5.66 ± 1.91 (n.s.)
100 μM PAP (OST1-activated for SLAC1)	-0.45 ± 0.21 (n.s.)	-1.24 ± 0.31 (n.s.)	-2.71 ± 0.48 (n.s.)	-6.65 ± 2.84 (n.s.)	-2.98 ± 0.89 (n.s.)	-3.92 ± 0.99 (n.s.)
100 μM PAP without OST1 activation (SLAC1 only)	-0.26 ± 0.05 (n.s.)	-0.84 ± 0.11 (n.s.)	N/A	N/A	N/A	N/A

Figure 3 – figure supplement 1. Effect of endogenously accumulated and exogenous PAP on ion fluxes in guard cells and transporter activity in oocytes respectively.

(A) Changes in ion fluxes (K^+ , Cl^-) in genotypes treated with CaCl_2 , a known secondary messenger and inducer of stomatal closure downstream of ABA, transcription, NO and ROS. Bars denote means of at least five plants \pm SEM. Asterisk indicates statistically significant difference to 0 min ($p < 0.05$, ANOVA) (B) Effect of 100 μM PAP on the activity of the chloride ion channel SLAC1 and potassium ion channels KAT1 and KAT2 expressed in *Xenopus* oocytes. Steady-state ion channel currents were measured at -110 mV for SLAC1 and -150 mV for KAT1 and KAT2 (see Methods for voltage clamp protocols and measuring conditions). “OST1-activated for SLAC1” treatments refer to oocytes co-injected by both SLAC1 and OST1 cRNA to allow expression of both proteins and for phosphorylation of SLAC1 by OST1, which activates SLAC1 activity. Means and SE of three to four biological replicates per treatment and ion channel are shown.

Figure 3 – figure supplement 1