

Supplementary Figure 1. Whole plant Na<sup>+</sup> and K<sup>+</sup> contents in *S. maritima* seedlings treated with NaCl (25 mM), cAMP (500  $\mu$ M), Li<sup>+</sup> (10 mM), or Ca<sup>2+</sup> (10 mM). Three-week-old seedlings were transferred to Hoagland solution supplemented with 25 mM NaCl (Control), or 25 mM NaCl with cAMP, Li<sup>+</sup> or Ca<sup>2+</sup> for 144 h in 65%/75% (day/night) relative humidity. Values are means ± SD

(n=8) and bars indicate SD. Columns with different letters indicate significant difference at P < 0.05 (Duncan test).



Supplementary Figure 2. Na<sup>+</sup> and K<sup>+</sup> in *S. maritima* seedlings treated with NaCl (25 mM), cAMP (500  $\mu$ M), Li<sup>+</sup> (10 mM), or Ca<sup>2+</sup> (10 mM). Three-week-old seedlings were transferred to Hoagland solution supplemented with 25 mM NaCl (Control), or 25 mM NaCl with cAMP, Li<sup>+</sup> or Ca<sup>2+</sup> for

144 h in 65%/75% (day/night) relative humidity. Values are means  $\pm$  SD (n=8) and bars indicate

SD. Columns with different letters indicate significant difference at P<0.05 (Duncan test).



Supplementary Figure 3. Double reciprocal plots about effects of KCl concentration on root  $Na^+$  influx of *S. maritima* seedlings under 2.5 to 75 mM NaCl (A) and 100 to 200 mM NaCl (B). The data for these plots were calculated according to Figure 7. Points in the axes were calculated through the equations.



Supplementary Figure 4. Root Na<sup>+</sup> influx of *S. maritima* seedlings treated with Li<sup>+</sup> (A) and Ca<sup>2+</sup> (B). Seventeen-day-old seedlings were transferred to Hoagland solution supplemented with 25 mM NaCl or 150 mM NaCl for 4 days, respectively. Then, seedlings were transferred to Hoagland solution supplemented with corresponding concentrations of NaCl and Li<sup>+</sup> or Ca<sup>2+</sup> for 10 min before they were transferred into above corresponding solution labeled with <sup>22</sup>Na<sup>+</sup> Values are means ± SD (n=6) and bars indicate SD. Columns with different letters indicate significant difference at P<0.05 (Duncan test).



Supplementary Figure 5.  $K^+$  concentrations in *S. maritima* seedlings treated with 10 mM TEA<sup>+</sup> and different concentrations of NaCl. Three-week-old seedlings were transferred to Hoagland solution supplemented with 10 mM TEA<sup>+</sup> and different concentrations of NaCl for 48 h (150 mM

NaCl was added at 75 mM NaCl/24h) in 100% relative humidity chamber. Values are means±SD

(n=8) and bars indicate SD. Columns with different letters indicate significant difference at P < 0.05 (Duncan test).