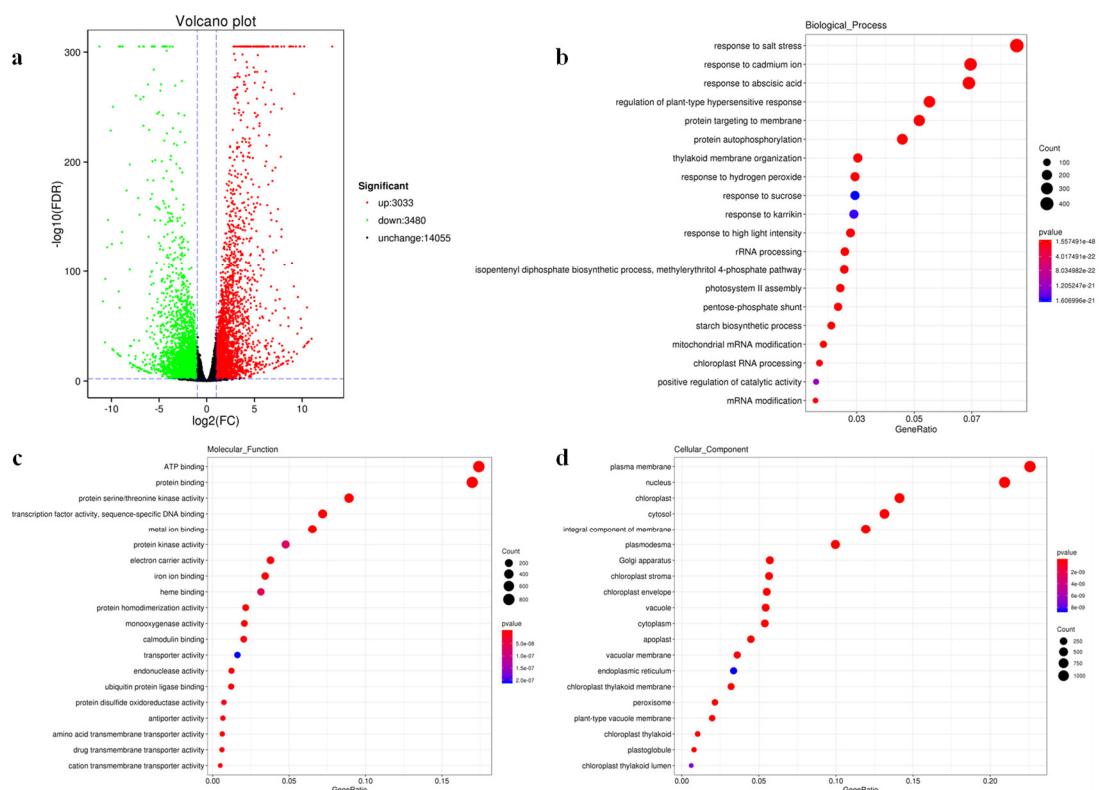
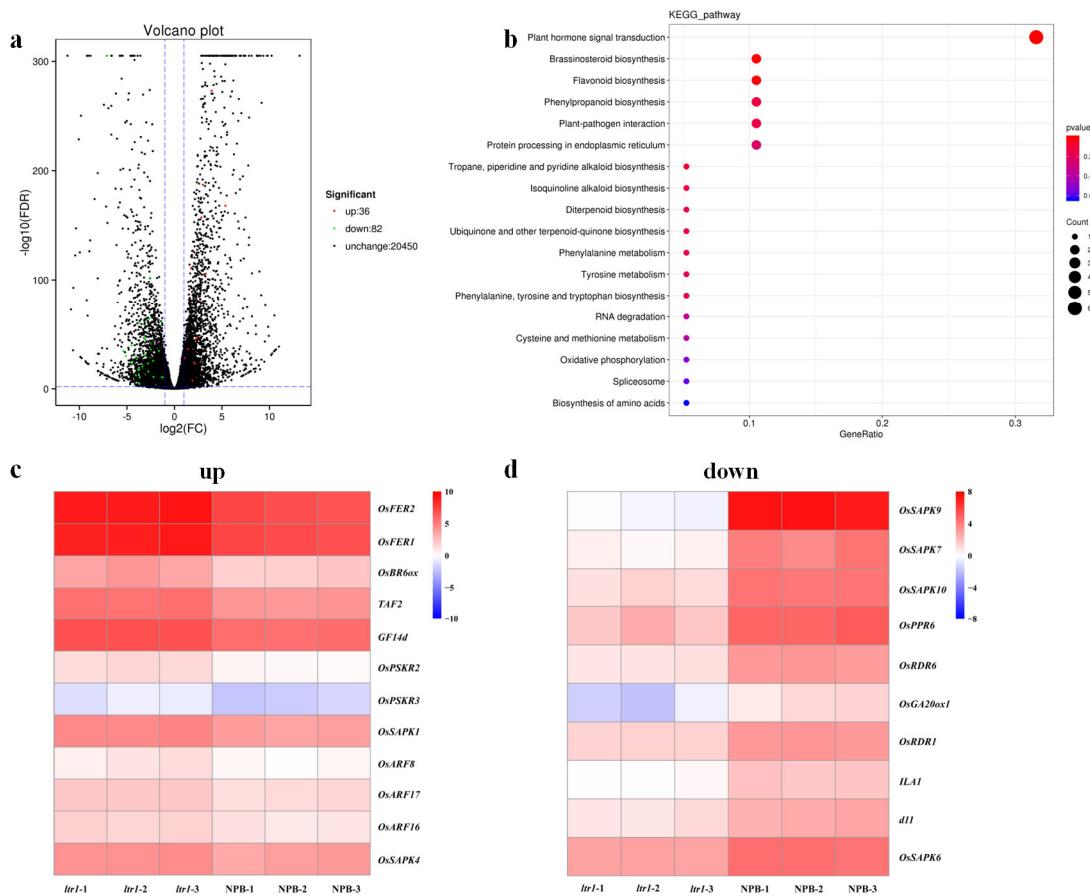


## Supplementary Figures

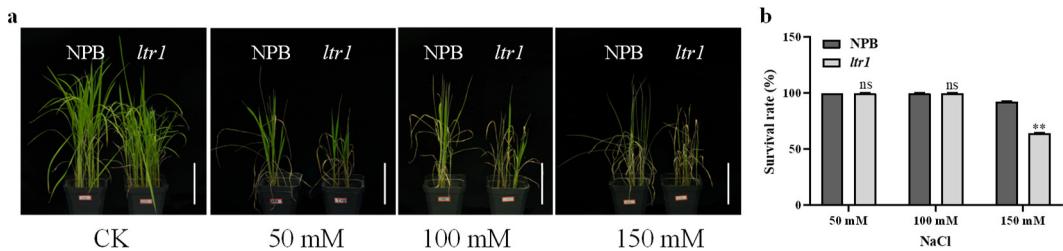
**Figure S1.** Amino acid sequence alignment of the 12 types of LTR1 homologs. Amino acids that were fully or partially conserved are shaded blue and green, respectively.



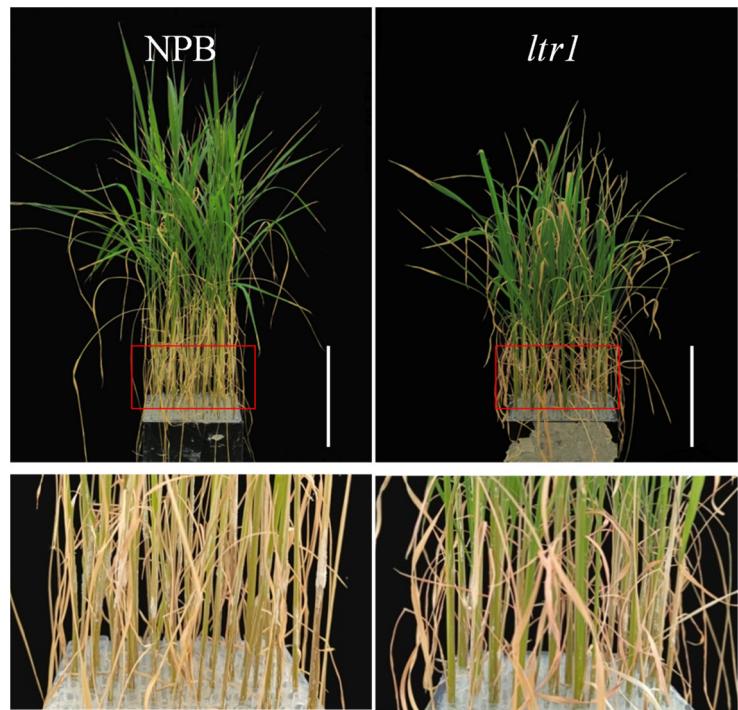
**Figure S2.** Differentially expressed genes in NPB and *ltr1* by RNA-seq. **(a)** Volcano plot of DEGs between NPB and *ltr1*. **(b)** Bubble diagram for GO enrichment analysis of DEGs in biological processes. **(c)** Bubble diagram for GO enrichment analysis of DEGs in molecular function. **(d)** Bubble diagram for GO enrichment analysis of DEGs in cell component.



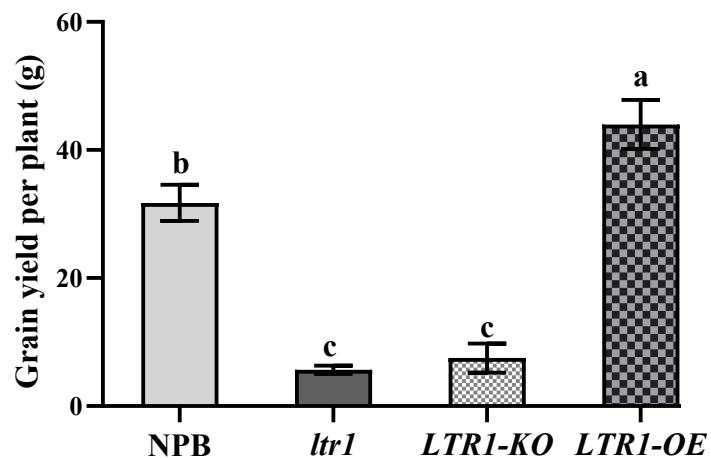
**Figure S3.** Differentially expressed genes related to leaf development in NPB and *ltr1*. **(a)** Volcano plot of DEGs related to leaf development between NPB and *ltr1*. **(b)** The KEGG pathway analysis of DEGs related to leaf development between NPB and *ltr1*. **(c and d)** Heat map of significantly up-regulated and down-regulated DEGs related to leaf development between NPB and *ltr1*.



**Figure S4.** The effects of different concentration of salt on NPB and *ltr1*. **(a)** Plant Morphology of NPB and *ltr1* under different concentration of salt treatment, bar=10 cm. **(b)** The survival rate of NPB and *ltr1* under different concentration of salt treatment. Data are given as means  $\pm$  SD. Asterisks indicate significant difference based on the Student's *t*-test: \*\* in the figure represents significant difference at  $p < 0.01$  and ns in the figure represents there is no significant difference at  $p < 0.05$ .



**Figure S5.** Plant morphology of NPB and *ltr1* under 100mM NaCl for 8 d, bar=11.5 cm.



**Figure S6.** The grain yield per plant in lines of NPB, *ltr1*, *LTR1-KO*, and *LTR1-OE*. Data are given as means  $\pm$  SD. Significant differences were determined by Duncan's new multiple range test and indicated with different lowercase letters ( $p < 0.05$ ).