

Fig. S1. Phenotype of the ts/2 mutant at 18°C and 26°C.

(A-B) Phenotypes of the mutant plants. The wild-type (WT) and tsl2 mutant grown under normal growth temperature (22°C) conditions for 4 days were transferred to 18°C or 26°C for 12 days and photographed (A), chlorophyll contents of plant leaves were measured (B). The data represents the average of samples and the error bars indicate the standard error (n = 3).

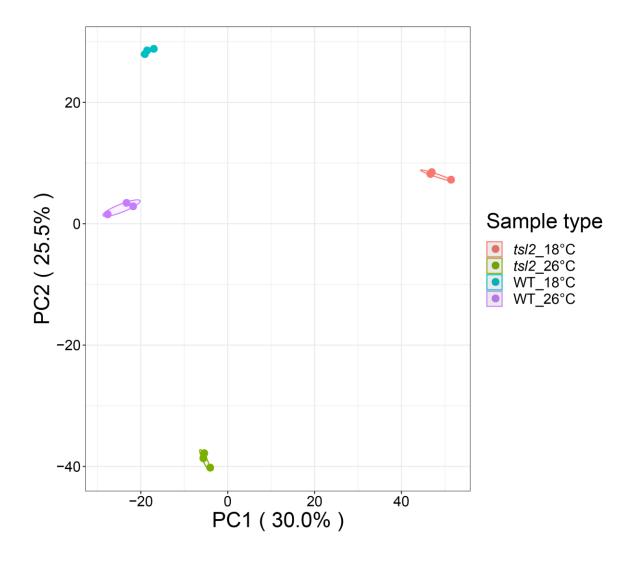


Fig. S2. Principle Component Analysis (PCA) of samples for quantitative proteomics.

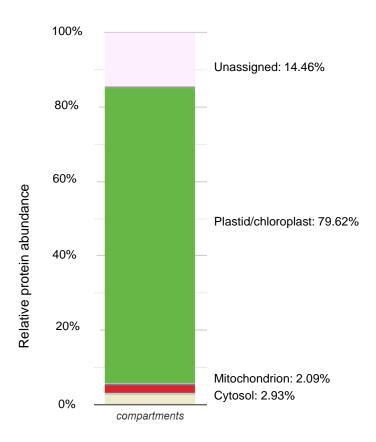


Fig. S3. Gene Ontology (GO) analysis of subcellular localizations of quantifiable proteins identified in the proteomics study.

Protein subcellular localizations were predicted by SUBA4 using the multiple marker abundance profiling (MMAP) online tool (https://suba.live/toolbox-app.html).

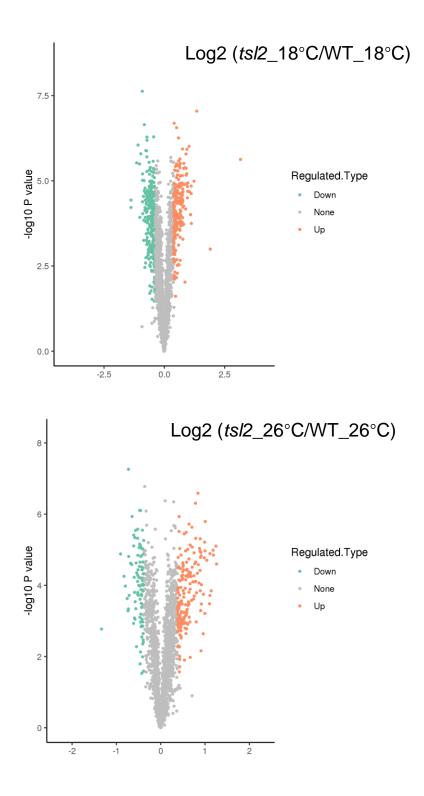


Fig. S4. Differentially expression proteins between WT and *tsl2* mutant plants under two temperature conditions.

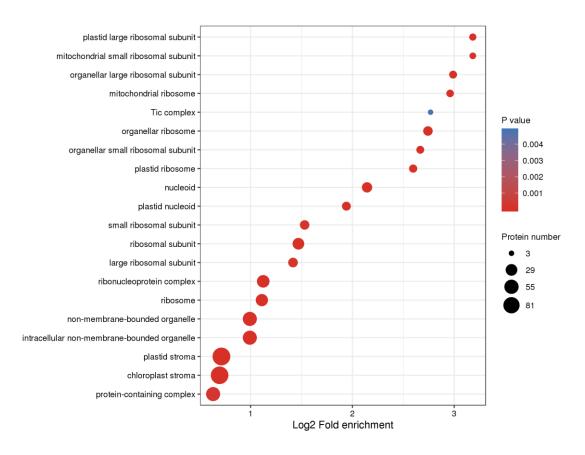


Fig. S5. Go analysis of proteins up-regulated in *tsl2* mutant plants at 18°C.

Criteria for differential expression were set as  $q \le 0.05$ , fold change (FC)  $\ge 1.3$  for upregulation. Totally 208 up-regulated proteins in *tsl2* mutant at 18°C were used for GO analysis.