## Supplementary data

**Supplementary Table S1:** Predicted His-kinase proteins in soybean

Supplementary Table S2: His-containing phosphotransfer (HPt) proteins in soybean

**Supplementary Table S3:** Response regulator proteins in soybean

**Supplementary Figure S1:** cDNAs, protein sequences and promoter regions of soybean TCS members: Comparative amino acid sequence alignment of His-kinase proteins from *Arabidopsis*, rice and soybean.

**Supplementary Figure S2:** Heat map representation for the amino acid sequence identity of His-kinase proteins from *Arabidopsis*, rice and soybean. Elevated identity levels are indicated by increasing intensities of green color.

**Supplementary Figure S3:** Comparative amino acid sequence alignment of phosphotransfer (HPt) proteins from *Arabidopsis*, rice and soybean.

**Supplementary Figure S4:** Heat map representation for the amino acid sequence identity of phosphotransfer (HPt) proteins from *Arabidopsis*, rice and soybean. Elevated identity levels are indicated by increasing intensities of green color.

**Supplementary Figure S5:** Amino acid sequence alignment of response regulator proteins from *Arabidopsis*, rice and soybean.

**Supplementary Figure S6:** Heat map representation for the amino acid sequence identity of response regulator proteins from *Arabidopsis*, rice and soybean. Elevated identity levels are indicated by increasing intensities of green color.

**Supplementary Dataset 1:** cDNAs, protein sequences and promoter regions of soybean TCS members