



Supplemental Figure 1. Plasmid construction diagrams used for this study. (a) A linear key elemental diagram of pCAMBIA1300-GSN1-FLAG plasmid. The GSN1 cds was inserted into the multiple clone sites (MCS) between *Zea mays* Ubiquitin promoter and 3X FLAG tag using NEBuilder HiFi DNA Assembly (E2621L). (b) A linear key elemental diagram of pYLCRISPR/Cas9Pubi-GSN1-H. Two different sgRNAs were designed in exon of GSN1, and subsequently introduced into the backbone of pYLCRISPR/Cas9 vector by *BsaI*.