



**Supplemental Fig. S9** Analysis of self-activating activities. (a) Analysis of MsPYL8 self-activating activities. (b) Analysis of MsLTI(LOC103406509) self-activating activities. (c) Analysis of MsLEA (LOC103445100) self-activating activities. 3AT is a competitive inhibitor of yeast *HIS3* protein synthesis, and is used to inhibit leaky expression of *HIS3* genes. SD-TLH is a SD/-Trp-Leu-His-deficient plate. (d) Y2H assay to determine MsPYL8 interactions proteins in yeast rotary validation. (+) Positive control pBT3-SUC-YF12+pPR3-N-LOC101266657, the same as follows. (-) Negative control pBT3-SUC-PYL8(PYR1)+pPR3-N.