

Table 1 Primers and sequences used in the experiment

Primer name	Sequence	Usage
SPS-ORF-F	GGAAACGATTGGATTAACAGTT	ORF amplification
SPS-ORF-R	TTATCCTTTGAGTACCGCTAGT	
SISPS-QF2	CTGGTGGTCAGGTGAAGTATGTT	Fluorescence quantitative primer
SISPS-QR2	TCTAGTAAGCAAGTCAACCCGATA	
eIF-F	ATCCTTCAGAGCGGTGTTCA	Internal reference primer
eIF-R	ATCTCAAGAGCCTCTGGTGG	
HYG-F	TCGTTATGTTTATCGGCACTTT	Transgenic resistance identification
HYG-R	GGGCGTCGGTTTCCACTAT	
CR-SPS-F	AGAATCTCTGTATTTTTAGC	Knockout material identification
CR-SPS-R	TACACAACGCATCAAAACAA	
SPS-OE-F	AACGCCGTCAAGAACGTGAG	Identification of overexpression materials
SPS-OE- R	CCTCGCAAGTTCAACAACATAC	