

**Table S3** Primer sequences and gene annotation for qRT-PCR.

Gene ID	Primer sequence (5'-3')		Gene annotation	Gene origin
Zm00001d009899	F: TCAAACAAGCTCAGGGGCAA	R: GAGCGTAAGGCCTGAGAAGG	Pectin methylesterase17	Transcriptome data (Zou et al., 2022)
Zm00001d009057	F: GCTCTATGGTCAGTGCTGGA	R: CATAGGCCCTCTTCCAGGT	Polygalacturonase49	Transcriptome data (Zou et al., 2022)
Zm00001d040649	F: CTGGACGACCTTCAACTCCG	R: GTAGAACGTCGAGAGGTCCG	Pectin methylesterase16	Transcriptome data (Zou et al., 2022)
Zm00001d051503	F: CCCCgATGACACCTATCCC	R: CATGTCATCAACATCGCGTCC	Pectinesterase inhibitor 12	Common data base (NCBI)
Zm00001d030712	F: GGCgGCGTTCTATGACTGTA	R: CCGAGGTAGAGTGCAAGTGG	Putative pectinesterase 11	Common data base (NCBI)
Zm00001d010793	F: ACATCACCTTCAAGCAGAACAC	R: GTAGCAGTCGCGGTAGTAGT	Pectin methylesterase 38	Common data base (NCBI)
Zm00001d028819	F: GCAATCGGGCAGGATACT	R: TCATATCGACAACGCAGCCT	Putative pectinesterase	Common data base (NCBI)
GAPDH	F: CTTCGGCATTGTTGAGGGTTTG	R: TCCTTGGCTGAGGGTCCGTC	<i>Zea mays GAPDH</i> gene	-
ppi	F: AAAGAACACCGGACTTGG	R: ACATCGTCAAGGCTATCG	UMAG_03726	(Lin et al., 2021)

Note: Transcriptome data derived from Zou et al. (2022) and common data base using NCBI (<https://www.ncbi.nlm.nih.gov/>); “-” no data.