

**Table S1.** 8 genes of primer design for RT-qPCR

Gene	Primer name	Forward primer (5' –3' )	Reverse primer (5' –3' )
class III chitinase	<i>MGG_10333</i>	ATGTTCGGTCCTCCTCTGCTG	GGCGGCGAGGTTCTTGATGC
galactose-1-phosphate uridylyltransferase	<i>MGG_05098</i>	TCGCAGCCATCGCAACAACACTAC	CAATTCCTTGCCTGGTTCCTCTGG
phosphoglucomutase	<i>MGG_04495</i>	TTCGCAAGAAGGTCACAGTGTTCC	CGTCCGTCACCGCCAATCAC
glucosamine-6-phosphate isomerase	<i>MGG_00625</i>	AATGATAGTGTGCGACGAGGATGC	CCACCTGCTCGATGCTCTTGAAG
FAD binding domain-containing protein	<i>MGG_01605</i>	GTCAGCCACCTCTTCACCTTTAGC	TGCCTCGTGTATCCTGGTCTGG
bacteriodes thetaiotaomicron symbiotic chitinase	<i>MGG_01336</i>	GGCGGAGGCGAGTTCAACAC	CGGATAAACTGGGCACGGGAAG
bacteriodes thetaiotaomicron symbiotic chitinase	<i>MGG_03920</i>	CTGTTCTTCGTCCTGGCGTTCC	AGAAGTAGTGGGTGAGGTCGTAGC
chitin synthase 3	<i>MGG_09551</i>	TGTCAAGGCGATAATGGCGGATG	GAACATCAGGAGCGAGGCAACC