

Use	Primer #	Name	Primer Sequence
Split N-terminal HA tag	1	RC #1	GTTTTTTGACGAGTATGCATATGTATCCTTACGATGTTCC
Ectopically express HA-Fis1	2	RC #2	CGATGTTCCAGATTATGCCGAAGACTCCAACCTCAG
	3	RC #3	GCACAACGGTGATTAATTAATTTTTGATAGCGTCCACAA
Ectopically express HA-Fis1 Δ TM	4	RC #4	CGATGTTCCAGATTATGCCGAAGACTCCAACCTCAG
	5	RC #5	GCACAACGGTGATTAATTAATTAAGCACGGAGCCAATGAG
Create Fis1 sgRNA for CRISPR	6	RC #6	ACTGGAGTCGGTTTTAGAGCTAGAAATAGCAAG
	7	RC #7	TTGAGTATGCAACTTGACATCCCCATTTAC
Endogenously tag TGGT1_265180 C-terminus with myc or HA	8	TgME49_265180 Tag.FOR	TTCCAATCCAATTTAATTAATGAGTACGCAGTGAGCCTTCG
	9	TgME49_265180 Tag.REV	CCACTTCCAATTTAATTAACCAAAATCGAACCTTTCGATGT
Ectopically express 265180-HA* and 265180 Δ SID-HA under native promoter	10	FIP1 EE.HA.DHFR.F OR	TTCCAATCCAATTTAATTAATTATCTCCTTTGCGGACGCTAGG
	11	FIP1 no SID.REV	CCACTTCCAATTTAATTAACTGCTTCGCGTCACTGC
Knockout of TGGT1_265180 coding sequence	12	Fis1.KO.5UTR.FOR	CGGTATCGATAAGCTTTTTTCGTTGAATCATATCCGCTTTGTCT
	13	Fis1.KO.5UTR.REV	CGTGCTGATCAAGCTTCTCGTACAGTGCTCACAAAAACGC
	14	Fis1.KO.3UTR.FOR	AGTTCTAGAGCGGCCGCATGGCGCCCCGGTTATCGGCTG
	15	Fis1.KO.3UTR.REV	ACCGCGGTGGCGGCCGCAGCGGTATACTAGAGGTCAGCGTACT
Confirmation of TGGT1_265180 knockout	16	Fis1 KO P1.FOR	TCAAGCAGACGGAGAGGC
	17	Fis1 KO P1.REV	CGACGGACTGTCCATACGT
	18	Fis1 KO P2-3.FOR	CAACTCACTGACCGCGGT
	19	Fis1 KO P3.REV	CAGAAGGGCTGTTGCGAG
Targeting to Ku80 site for complementation and ectopic expression	20	IMC2A-CmR [Ku80].F	GTCCCCGGTTCGCCTCAGCACACACACATGACGTACATCGAAGCTGGGTACCTGTAATTCC
	21	IMC2A-CmR [Ku80].R	GTAATGTCGGAATAGTTCCCATCAGAAACAATGGAGCTATCCGCGTCCCATTGCGCCATTCAG
Mutating sgUPRT to sgKu80 for CRISPR/Cas9	22	sgKU80.F1	CTCATATTCGGTTTTAGAGCTAGAAATAGC
	23	sgKU80.R1	AAAGGTGTACAACCTTGACATCCCCATTTAC

Table S2. Primers used in this study. All sequences are 5' to 3'. *Used TgME49_265180 Tag.REV as the reverse primer for ectopic expression of 265180-HA