

Appendix A Primers used in this study

Primer	Sequence	Notes
SHMT-F	ATGGATCCAGTAAGCGTGTGG	To amplify <i>GmSHMT08</i> from cDNA
SHMT-R	CTAATCCTTGTA CTTCATTT CAG	
HgHSP-GSP1	ATAAGGTCAGCGGTG	Primers for 5'RACE
HgHSP-GSP2	GGCTCTCGACAGCTTCAC	
HgHSP-GSP3	GTTTTGGTCCTGATGAGTCC	
HgHSP-GSP4	GCGGAACATCTCAACGCAGACGAA	Primers for 3'RACE
HgHSP-GSP5	CCGTGAAGGTTTGAAATCTGCCGA	
HgHSP70-F	ATGCTTCACGGATGGCGAGTTTTT	To amplify <i>HgHSP70</i> from SCN cDNA
HgHSP70-R	TCACTGCTGTCCCTCGCCCTT	
pGBKT7-SHMT-F	CATGGAGGCCGAATTCATGGATCCAGTAAGCGTGTGG	To clone <i>GmSHMT08</i> into pGBKT7 vector
pGBKT7-SHMT-R	GCCGCTGCAGGTCGACGCTAATCCTTGTA CTTCATTT CAG	
pGEX-4T-1-SHMT-f	GGATCCCCGGAATTCATGGATCCAGTAAGC	To clone <i>GmSHMT08</i> into pGEX-4T-1 vector
pGEX-4T-1-SHMT-r	TCACGATGCGGCCGCTTAAGATACCAGGAA	
pCZN1-Hg-HSP70-f	ACCCTCGAGGGATCCATGCTTCACGGATGGCGA	To clone <i>Hg-HSP70</i> into pCZN1 vector
pCZN1-Hg-HSP70-r	GATTACCTATCTAGATCACTGCTGTCCCTC	
pCZN1-Hg-HSP70p-f	GACAGGATCCATATGCAAACGGATATCAATTTGCCA	To clone <i>Hg-HSP70p</i> into pCZN1 vector
pCZN1-Hg-HSP70p-r	GATTACCTATCTAGATGAACAGCCGACGGAGGA	
SHMT-YFPn-f	CGAGAGTCGATCTGATCAAGAGACAGGATCCATGGATCCAGTAAGCGTGTGGGGTA	To clone <i>GmSHMT08</i> into pCAMBIA1300-35S-YFPn vector
SHMT-YFPn-r	CGAGCTCCTACATCGGTGCACTAGTGTCGACTTAAGATACCAGGAAGCCAGGCATGT	
SHMT-YFPc-f	ATTACAGTCGATCTGATCAAGAGACAGGATCCATGGATCCAGTAAGCGTGTG	To clone <i>GmSHMT08</i> into pCAMBIA1300-35S-YFPc vector
SHMT-YFPc-r	TTCTGCTTGCCATCGGTGCACTAGTGTCGACAGATACCAGGAAGCCAGGCA	
HSP70-YFPn-f	GAGAGTCGATCTGATCAAGAGACAGGATCCATGCTTCACGGATGGCGAGTTTTTGC	To clone <i>Hg-HSP70p</i> into pCAMBIA1300-35S-YFPn vector
HSP70-YFPn-r	TCGAGCTCCTACATCGGTGCACTAGTGTCGACTTACTGCTGTCCCTCGCCCTTTTTC	

HSP70p-YFPc-f	TTACAGTCGATCTGATCAAGAGACAGGATCCATGCAAACGGATATCAATTTGCCATAT	To clone <i>Hg-HSP70p</i> into pCAMBIA1300-35S-YFPc vector
HSP70p-YFPc-r	TCTGCTTGCCATCGGTGCACTAGTGTGACCTGCTGTCCCTCGCCCTTTTCTTC	
HSP70-ex1-F	GTTATCGGAATTGACCTGGGTAC	Used in RT-PCR to analyze expression patterns of HgHSP70 and in situ hybridization
HSP70-ex1-R	GTACGGCACAACCTTTTATGTCCT	

Appendix B Comparison of quantification of *HgHSP70* from samples of *Heterodera glycines* at different development periods/stages.

Stage	Target gene	Internal control
Egg	24.66	24.34
	24.94	23.70
	24.65	23.40
Pre-J2	24.62	22.90
	24.41	21.82
	24.35	22.27
Parasitic J2	23.64	24.63
	23.31	24.43
	23.51	23.85
Parasitic J3	24.52	24.13
	23.88	23.22
	24.67	24.84
Parasitic J4	25.07	22.03
	24.93	21.23
	24.87	21.10
Adult females	24.26	23.79
	24.22	23.27

	24.46	24.61
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