Functional expression of a peritrophin A-like SfPER protein is required for larval development in *Spodoptera frugiperda* (Lepidoptera: Noctuidae)

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Table S1. Primers and experimental conditions used in quantitative RT-PCR.

Figure S1. Pairwise sequence alignment between SfPER and SfPMP24. The amino acids sequence of SfPMP24 (171 amino acids) was obtained from Dias et al. (41).

Figure S2. Multiple sequence alignment of SfPER peritrophin A-like chitin-binding domains. In the alignment, each of the six conserved cysteines residues from consensus arrangement of peritrophin A domain (PAD) i.e. C^1X_{13-18} $C^2X_5C^3X_{9-11}C^4X_{10-13}C^5X_{7-8}C^6$, has been enclosed in a square.

Table S1

Gene	Primer sequence (5'–3')	Product size (bp)	Ta[a] (°C)	S[b]	E[c]	r^{2d}
SfPER	*CACACGAAATCTGCAACAAGTTC*	127	58	-3.67	1.87	0.97
	CCGCAGACGACATTCTCGGGCCAGTC					
β-actin	*CGGTATCGTGCTGGACTCCGGTG*	150	58	-3.52	1.92	0.98
	GAGTAACCCCTCTCGGTGAGGATC					

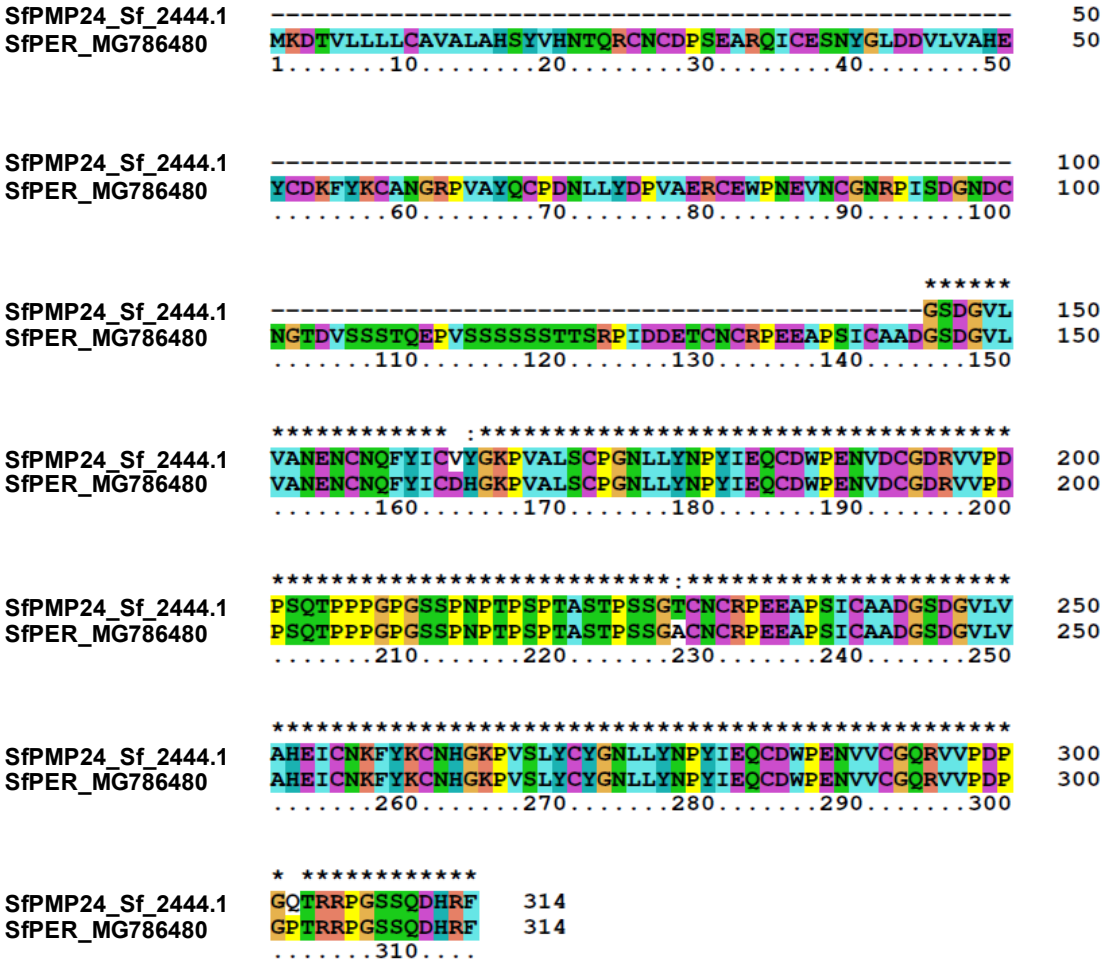
[a]Annealing temperature in the PCR program for a specific primer set.

[b]Slope of the linear regression line of the amplification efficiency plot.

[c]Amplification efficiency calculated by Q-gene as: 10^(-1/slope).

[d]Reproducibility of the real time PCR reaction.

Figure S1


SfPMP24_Sf_2444.1
SfPER_MG786480
MKDTVLLLLCAVALAHSYVHNTQRCNCDPSEARQICESNYGLDDVLVAHE
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NGTDVSSSTQEPVSSSSSSTTSRPIDDETCNCRPEEAPSICAADGSDGVL
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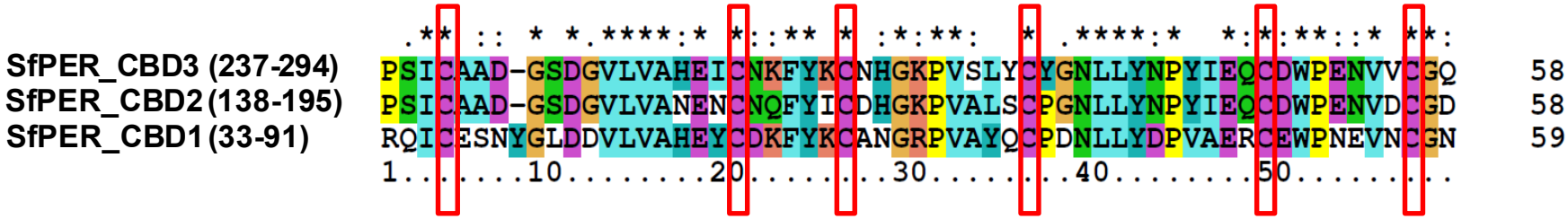
PSQTPPPGPGSSPNPTPSPTASTPSSGACNCRPEEAPSICAADGSDGVLV
AHEICNKFYKCNHGKPVSLYCYGNLLYNPYIEQCDWPENVVCGQRVVPDP
AHEICNKFYKCNHGKPVSLYCYGNLLYNPYIEQCDWPENVVCGQRVVPDP
GQTRRPGSSQDHRF
GPTRRPGSSQDHRF

Figure S2


SfPER_CBD3 (237-294)
SfPER_CBD2 (138-195)
SfPER_CBD1 (33-91)
PSICAAD-GSDGVLVAHEICNKFYKCNHGKPVSLYCYGNLLYNPYIEQCDWPENVVCGQ 58
PSICAAD-GSDGVLVANENCNQFYICDHGKPVALSCPGNLLYNPYIEQCDWPENVDCGD 58
RQICESNYGLDDVLVAHEYCDKFYKCANGRPVAYQCPDNLLYDPVAERCEWPNEVNCGN 59
1.....10.....20.....30.....40.....50.....