

The LIM domain protein BmFHL2 inhibits egg production in female silkworm, *Bombyx mori*

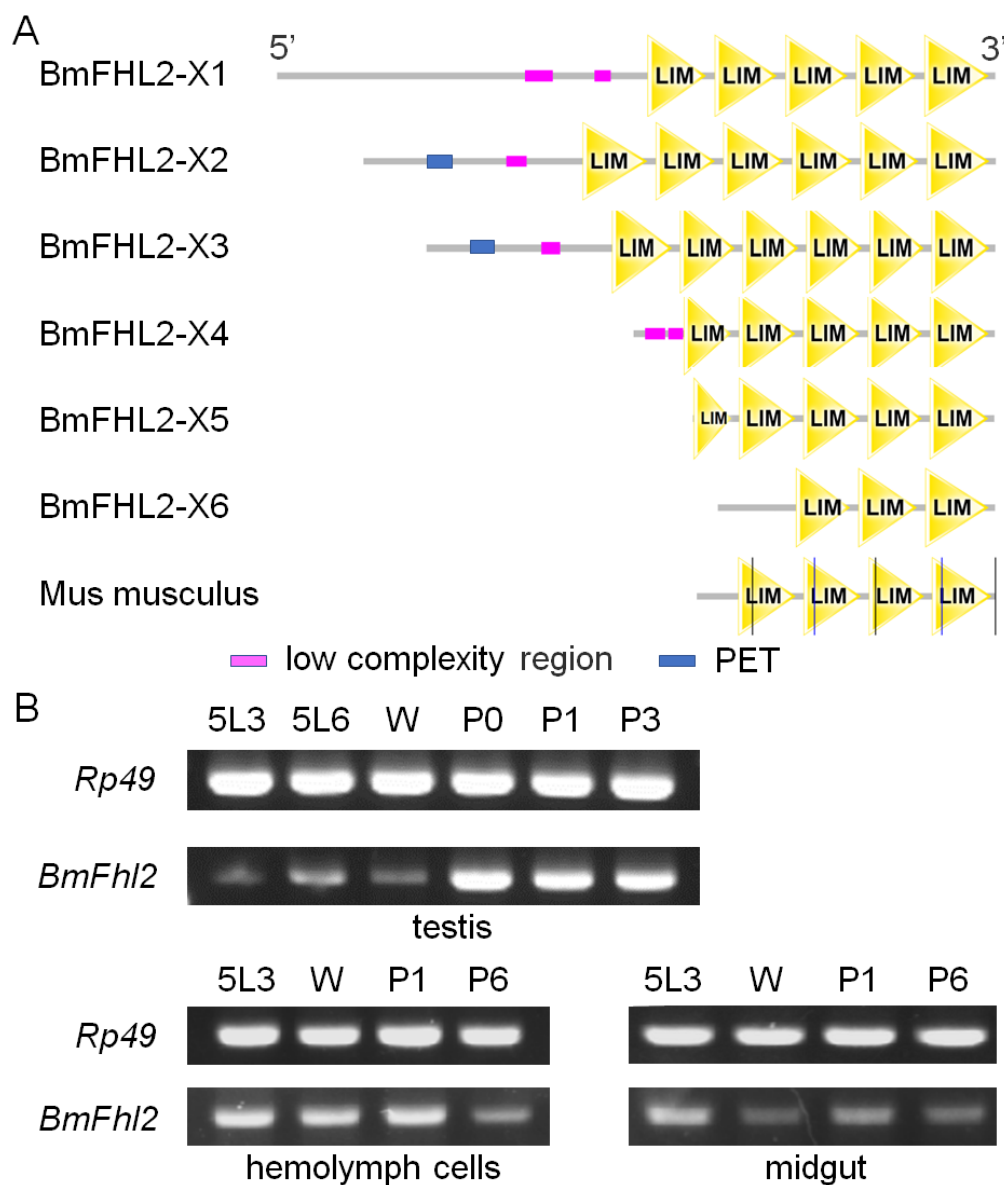


Figure S1. Schematic diagram of the domain analysis of BmFHL2. (A) Schematic diagram of the structure of different shears of silkworm FHL2 and mouse FHL2. (B) *BmFhl2* expression in testis, hemolymph cells and midgut at different time points. Total RNA was extracted from testis, hemolymph cells and midgut at different time points for RT-PCR analysis. *Rp49* was used as a reference gene. All samples were collected and mixed for three silkworm populations. 5L3: 5th instar 3 days, 5L6: 5th instar 6 days, W: wandering stage, P0: pupal stage 0 days, P1: pupal stage 1 day, P3: pupal stage 3 days, P6: pupal stage 6 days.

Table S1. Identification of interacting proteins of BmFHL2 by mass spectrometry.

NO.	Protein name	MW (KDa)	PepCount/ Unique Pepcount	Cover percent	sequence
a-1	26S proteasome non-ATPase regulatory subunit 11	47.2	15/15	34.92%	TYKPELEEDAVVR
a-2	proliferation- associated protein 2G4	42.1	8/8	21.9%	VLEQVIK
a-3	26S proteasome non-ATPase regulatory subunit 13	43	7/7	20.52%	YVGCADGGEALP ATER
a-4	probable citrate synthase 2	51.8	8/8	18.49%	VVPPILTELK
a-5	FAD-dependent oxidoreductase domain-containing protein 1	43.5	6/6	15.35%	IIDTENNVINAK
a-6	BTB/POZ domain- containing protein At1g21780	41.9	3/3	7.48%	EETIESQK
b-1	glutamate dehydrogenase	61.4	25/25	43.86%	IIAEAANGPTTPAA DK
b-2	ATP synthase subunit beta, mitochondrial	54.8	15/15	40.94%	FTQAGSEVSALLG R
b-3	low molecular lipoprotein 30K pBmHPC-12	29.2	3/2	14.84%	VVYGGNSADSTR
b-4	low molecular lipoprotein 30K pBmHPC-21	30.2	2/1	10.27%	VIFGTNTADTTR
b-5	low molecular lipoprotein 30K pBmHPC-19	27.4	2/2	6.33%	LIFAENAIK
c-1	polyubiquitin	17.2	3/3	39.22%	TITLEVEPSDTIENV K
c-2	ecdysteroid- phosphate phosphatase	161.1	2/2	1.4%	AELPLAALQR

Table S2. The sequence of primers.

Gene name	Primer name	Sequence (5'-3')
<i>BmRp49</i>	Rp49-q-F	CAGGCGGTTCAAGGGTCAATAC
	Rp49-q-R	TACGGAATCCATTTGGGAGCAT

<i>BmRp49</i>	Rp49-RT-F	GACCTGTTTACAGGCCGACA
	Rp49-RT-R	ACTCTGATGCTGAGCTGCTG
<i>BmFHL2</i>	FHL2-q-F	TTCTTGACCAAGCCCATCA
	FHL2-q-R	CCTGTCCGTCGGTGATGAAG
<i>BmFHL2</i>	FHL2-RT-F	TTCCGTGCTGGAACCAAGAA
	FHL2-RT-R	CGCAGATGAAGCAGTCGTTG
<i>Vg</i>	Vg-F	CTTGTGCCATCGATAGAACAG
	Vg-R	GTCGATATTGCATCCCCATC
<i>30Kc19</i>	30Kc19-F	GCGGTTGAAAAGAGCAAGCA
	30Kc19-R	ACTGGGAAACAATCCCGGAC
<i>VgR</i>	VgR-F	GAGTGCCTGGGCGAGGATGT
	VgR-R	CTGAGCGTCTGGCTTGTGA
<i>EcR</i>	EcR-F	GTGCTGGATGTGGTTGCTGAGGT
	EcR-R	CCGCTGGTCTAATAACGGTGGCT
<i>USP</i>	USP-F	ATGTCACCGCCCCGAAATGAAGCC
	USP-R	CTGCTGGGATGAGCGTCTTCTGT
<i>E75a</i>	E75a-F	TCGGTCGAGCTTGAGTGAGA
	E75a-R	TAGCACAGGAGTGCATGAGC
<i>siBmFHL2-405</i>	F	CCGGCUGCUACGAGGACAATT
	R	UUGUCCUCGUAGCAGCCGGTT
<i>siBmFHL2-777</i>	F	GCGCCAAGCAGAAGCUCAUTT
	R	AUGAGCUUCUGCUUGGCGCTT
<i>si NC</i>		UUCUCCGAACGUGUCACGUTT
<i>BmFHL2-X6</i>	F	GGTACCATGTCAGCGGACGTCTTGAG (Kpn I)
	R	GCGGCCGCTCATGAGCTTCTGCTTGGC (Not I)
