Supplementary materials

Table S1. The nucleotide sequences of *BmBilmp-1* of the silkworm and the ORF of *Blimp-1* of other 20 species used in constructing the phylogenetic tree.

>*BmBlimp-1-L*

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Table S2. The microarray data of *BmBlimp-1* in the silkworm.

A. Microarray data of silkworm *BmBlimp-1* gene expression in larval tissues

Tissue	Ovary -1	Ovary-2	Ovary -3	Ovary -4	Ovary -5	Ovary -6	Testis -1	Testis -2	Testis -3	Testis -4
value	36	162	105	79	182	325	396	590	502	311
Tissue	Testis -5	Testis -6	Head-F -1	Head-F -2	Head-M -1	Head-M -2	Integument-F -1	Integument-F -2	Integument-M -1	Integument-M -2
value	705	379	432	436	795	654	214	208	268	338
Tissue	Fat-F -1	Fat-F -2	Fat-M- 3	Fat-M- 4	Midgut-F -1	Midgut-F -2	Midgut-M -1	Midgut-M -2	Blood-F -1	Blood-F -2
value	41	95	90	119	93	299	433	62	72	97
Tissue	Blood-M -1	Blood-M -2	Malpighian tubes-F -1	Malpighian tubes-F -2	Malpighian tubes- -3	Malpighian tubes-F -4	Malpighian tubes-M-1	Malpighian tubes-M -2	Malpighian tubes-M -3	Malpighian tubes-M -4
value	97	64	160	30	226	115	167	217	272	43
Tissue	A/MSG-F -1	A/MSG-F -2	A/MSG-F -3	A/MSG-F -4	A/MSG-F -5	A/MSG-F -6	A/MSG-M -1	A/MSG-M -2	A/MSG-M -3	A/MSG-M -4
value	193	98	153	130	125	223	176	168	168	150
Tissue	A/MSG-M- 5	A/MSG-M- 6	PSG-F -1	PSG-F -2	PSG-F -3	PSG-F -4	PSG-M -1	PSG-M -2	PSG-M -3	PSG-M -4
value	259	142	54	40	62	54	23	57	33	66

B. Microarray Data of *BmBlimp-1* from Larvae to Adult Stage.

	5th4D	5th5D	5th6D	5th7D	W0	W12h	W24h	W36h	W48h	P0	P1	P2	P3	P4	P5	P6	P7	P8	Moth
Female	0	0	0	0	0	0	0	0	0	0	0	0	2.46	0.00	0.00	7.97	11.97	7.52	7.69
Male	0	0	0	0	0	0	0	0	0	0	0	0	4.62	10.09	0.00	15.68	17.88	8.35	14.10

Table S3. The list of predicted target genes, overlapping genes and GO annotation. (This data is attached to an Excel file)

Figure S1. The titer of ecdysone and the expression level of the *BmBlimp-1* gene in the pupal stage. The red line indicates the expression level of *BmBlimp-1* in female; the blue line indicates the male, and the dotted line indicates the titer of 20E.

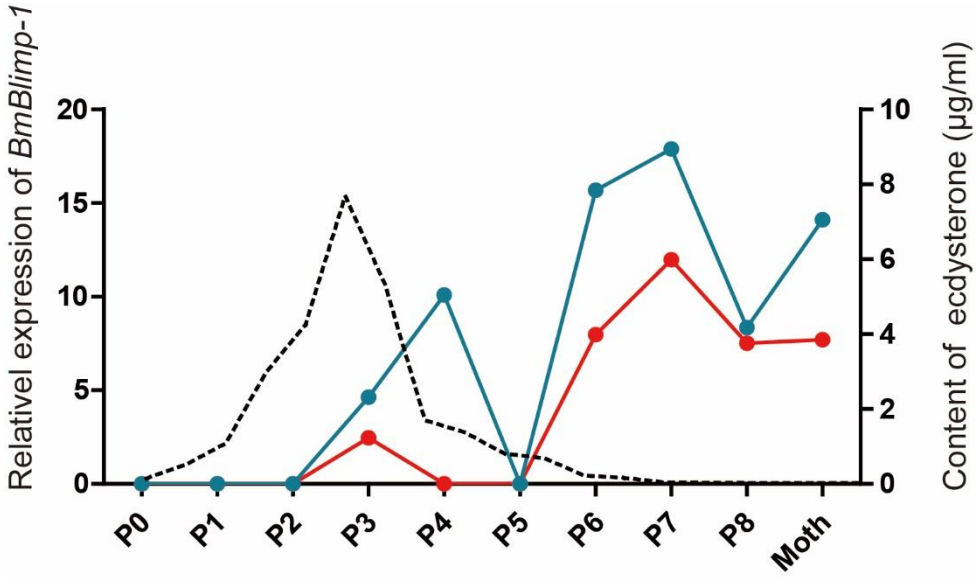

Table S4: The list of primers used in this study.

Name	Forward	Reverse
BmBlimp-1 for cloning	ATGTTGACTCACTGTGGTGGAC	TCAGGTGCATTCTATGATGAGT
BmBlimp-1 for qRT-PCR	GGAACTCAATACCGTCCCTTAG	TGGCTGGATTCTATAACGCTAG
WCP1a	CTCCTGTCGCTAAGGTGATC	AGAGTAGGCGAAGTCGTATTTG
WCP1b	TCTAAAATCGTAGCCTTGACCG	CTACATATTTGGTGGCATGGAG
WCP2	CAACTACTCAGTAGCTGATGGT	ATGAACCCTTCACTACATCACC
WCP3	AGTAGCCAAAATCGTAGCTCAT	CTTCTTGTTGGGACTTGTTGTC
WCP4	ACATATCATACAGCTCCAGCAA	GAGTATCCGTATTTAGGGTGGG
WCP5	CATCAAGCAACGGCACATTATA	CTCGACGGAATATGAGAACTCA
WCP6	CTCATCTCATACACGCTAGTCC	AGTCACCAGTTAGACTGTCTTG
WCP7	TTGTAGTGACAGTCGTGAGTAC	TGCTACTGGTACAACATGGTAG
WCP8	GAGAGTATAGTCTTCACGAGGC	AGTCCGGAGTTGATAACTTCAG
WCP9	TGAAGAGCAGGGCTACATAAAA	TAGAGCTTTTTGTATCTCGGCT
WCP10	CCAGTGGAAACCTCAAAATACG	TTGTTGTGGTCGAAGTCTGATA
WCP11	CCTAAGATCGTTCGGTCTGAAT	GTGTTCGTGTAACTGTAGCTTC
chitin synthase A	CGAGGATTTATGCTTGTGCTAC	TACACGAAGATACTTCTGAGCG
Wnt1	GGACTTGTTTGTTTCCCCTCG	GGTTATTAGCCCTCTCTTGTATTGC
decapentaplegic （*dpp*）	GTACCCTCTGATGAAGTAGCTC	CACGGAATCGAGAAGTCTTAGA
engrailed (*en*)	AAGATCTGGTTCCAGAACAAAC	GTTCCTCCTCTTCCTTTGTCAG
apterous (*ap*)	GGACCATGAAATCTTACTTCGC	AAGTATGACCATTAACCCCGTT
Serrate (*Ser*)	GATGTAACGCATGTTGGTGTAG	CTTCGTCTCCGATCCATTCATC
asense (*ase*)	ACAAAGAAAACACGTCTCGTTC	GCAGGCGAACTAATCATGAAAT
cubitus interruptus (*ci*)	CGAGATAACGTGAGCAATAAGC	GGTTTCGATAAAATCTCCTGGC
Serum Response Factor (*SRF*)	GATTCTGGGAAAAGGCTGATCC	AATTGCCTCACCTTCATATCCT
RPL3	CGGTGTTGTTGGATACATTGAG	GCTCATCCTGCCATTTCTTACT