## **Additional file 6**

Homologous chromosomes of *S. frugiperda* and *B. mori*.

Homology is indicated by framed numbers at the intersection of Bm and Sf chromosomes. Numbers at intersections correspond to numbers of individual Sf contigs that produced significant BLAST hits against the Bm chromosome. BLAST hits originating from both BCs were given preference. When no Bm chromosome was hit by contigs from both BCs, the highest number of individual hits was given preference. Orange field = BLAST hits produced by contigs originating from BC\_A. Blue field = BLAST hits produced by contigs originating from BC\_B. Green fields = BLAST hits produced by contigs originating from BC\_A+B. Clock genes mapping to the Bm chromosomes are indicated in the second column.  $R^2$  and P-values of the Sf QTC are given in the two right columns.

	•																																
	clock genes mapping to <i>Bm</i>		Sf		Bm chromosomes															R <sup>2</sup>	P												
Bm			chr.												1	3m c	hroi	nos	omes	5												BC_A	BC_A
chr.	chromosomes		-		_			-	_	-		_									40	10									1.00	+BC_B	+BC_B
-		A X	B X	1	2	3	4	5	6	7	8	9	10	11*	12	13	14	15	16	17	18	19	20	21	22	23*	24*	25	26	27	28		
2	clk, cyc, per, pdp1	28	A 29		4					1																					₩	0.077	0.014
3	lark, jet	1	23		4	11			4	1					3			1	3	1		1		2			2	3		-	4	0.077	0.014
-	tim	31	15			11	15		4	1					5			1	3	1		1		2	-		_	3	-		_		
4		_	_			H	15	17		1															1		4		1	1	1		
5	CK2α	9	9					17	11	2			1						1						1		-		1	1	+-	0.002	0.01
6			10 25						11	8																				-	₩	0.082	0.01
7 8		19	_					-			-						4										1		-	2	₩		
9		15	3							2	6						4			1					3		1	0.5		2	0.5		
_		16						-		1		6	10												3	1	1	0,5	-	- 1	0,5		
10		14	16 22							1		1	13	7				1								1	1			1	4		
11*		21	21			1	1	-	2				2	/	1.4					2		1				1	_		-		₩	0.065	0.023
12			24			1	1	-	2	1			2	,	14	1		1		2		1			1		-		-		₩	0.065	0.023
13		24	18				1	-		1				1		1	3				2					1	1	1			₩		
14	2 CV20	23	7				1	-		_							3	17			2		1			1	1	1	_		1		
_	cry2, CK2β							-		_								17					1			1	-	1			1		
16	1 11.	4	20	•			2		2									-	6	1					٠.	1				<u> </u>	_		
17	cry1, dbt	17	_	2			3		2	1		1						5	4	16	1				1	2				<u> </u>	2		
18	sgg	13	_					_		1											4	10			_	1					1		
19		8 5	8 5			_		2	_								1	_	•	1	1	13	9		1	1	1			1	1		
20						2		1	2		6			1				2	2			2	9	0		1				<u> </u>	┿		
21	C Man	26	_			1			1		_		1	2						1		2		8	0					<u> </u>	┿		
22	cwo, CaMKII	6	6								4			_							1	-			8	10				<u> </u>			
23*		29	28			1							1	2								1				12				<u> </u>	2		
23*		12 32	13					-		_																2	2		-		₩		
24*		_	1.7														4	-									2	10		<u> </u>	<u> </u>		
25		2	17	Н	1	_	1	_			-	1	-	-		Н	4	3	H	-	2	_	-		⊢		_	19		7	1	0.101	0.0001
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28	slimb	10	11	2		1		1		1	1			1							1	_	<u> </u>		<u> </u>		_	0.5	<u> </u>	<b>!</b>	6	<u> </u>	
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			19			$\vdash$	1								1					1		$\vdash$			$\vdash$		0.5	0,5	1,5		0,5		
	L		17				1						Щ.				ш	Щ_	ш								0,5	0,0	1,0		0,0		