

Supplementary Tables

Table S2. Summary of CDA genes in *B.mori*.

GeneID	Name	Protien length	CDA Domain	Nscaf	Start	End	Strand	CHr	EST
BGIBMGA006213	BmCDA1	539	193-309	2847	8094528	8105043	+	4	YES
BGIBMGA006214	BmCDA2	576	227-363	2847	8113114	8118608	+	4	YES
BGIBMGA008988	BmCDA3	414	76-214	2930	2479822	2484042	+	3	NO
BGIBMGA010573	BmCDA4	437	111-244	2993	6820022	6842885	+	12	NO
BGIBMGA002696	BmCDA5	1612	1277-1409	2529	3321984	3333702	+	5	YES
BGIBMGA013758	BmCDA6	315	48-183	3097	789788	792617	−	28	YES
BGIBMGA013757	BmCDA7	364	47-182	3097	797560	804535	−	28	YES
BGIBMGA013756	BmCDA8	382	50-185	3097	810851	816660	−	28	YES

Table S3. The Accession Numbers of the chitin deacetylases from different insect species.

Protein name	Species	Accession No.
BmCDA1	<i>Bombyx mori</i>	BGIBMGA006213 *
BmCDA2	<i>Bombyx mori</i>	BGIBMGA006214 *
BmCDA3	<i>Bombyx mori</i>	BGIBMGA008988 *
BmCDA4	<i>Bombyx mori</i>	BGIBMGA010573 *
BmCDA5a	<i>Bombyx mori</i>	BGIBMGA002696 *
BmCDA5b	<i>Bombyx mori</i>	BGIBMGA002696 *
BmCDA6	<i>Bombyx mori</i>	BGIBMGA013758 *
BmCDA7	<i>Bombyx mori</i>	BGIBMGA013757 *
BmCDA8	<i>Bombyx mori</i>	BGIBMGA013756 *
DmCDA1	<i>Drosophila melanogaster</i>	CG32209
DmCDA2	<i>Drosophila melanogaster</i>	CG8756
DmCDA3	<i>Drosophila melanogaster</i>	NP_609806
DmCDA4	<i>Drosophila melanogaster</i>	NP_728468
DmCDA5a	<i>Drosophila melanogaster</i>	NP_722589
DmCDA5b	<i>Drosophila melanogaster</i>	NP_001097045
DmCDA9	<i>Drosophila melanogaster</i>	NP_611192
TcCDA1	<i>Tribolium castaneum</i>	ABU2522
TcCDA2	<i>Tribolium castaneum</i>	ABU25224/ABU25225
TcCDA3	<i>Tribolium castaneum</i>	ABW74145
TcCDA4	<i>Tribolium castaneum</i>	ABW74146
TcCDA5a	<i>Tribolium castaneum</i>	ABW74147
TcCDA5b	<i>Tribolium castaneum</i>	ABW74148
TcCDA6	<i>Tribolium castaneum</i>	ABW74149
TcCDA7	<i>Tribolium castaneum</i>	ABW74150
TcCDA8	<i>Tribolium castaneum</i>	ABW74151
TcCDA9	<i>Tribolium castaneum</i>	ABW74152
AaeCDA1	<i>Aedes aegypti</i>	XP_001656823
AaeCDA2	<i>Aedes aegypti</i>	XP_001656821
AaeCDA3	<i>Aedes aegypti</i>	XP_001651335
AaeCDA4	<i>Aedes aegypti</i>	XP_001651034
AaeCDA5	<i>Aedes aegypti</i>	XP_001663505

Table S3. *Cont.*

Protein name	Species	Accession No.
AgCDA1	<i>Anopheles gambiae</i>	XP_320597
AgCDA2	<i>Anopheles gambiae</i>	XP_320596
AgCDA3	<i>Anopheles gambiae</i>	XP_317336
AgCDA4	<i>Anopheles gambiae</i>	XP_310753
AgCDA5	<i>Anopheles gambiae</i>	XP_316929
AmCDA1	<i>Apis mellifera</i>	XP_391915
AmCDA2	<i>Apis mellifera</i>	XP_320596
AmCDA3	<i>Apis mellifera</i>	XP_001121246
AmCDA4	<i>Apis mellifera</i>	XP_001120478
AmCDA5a	<i>Apis mellifera</i>	XP_624655
AmCDA5b	<i>Apis mellifera</i>	XP_624655
TnCDA9	<i>Trichoplusia ni</i>	AY966402

* Accession No. of *Bombyx mori* CDA in the silkDB.

Table S4. Primers used for expression and tissue-specific expression profiles of *BmCDA7* genes.

Purpose	Sequence (5' to 3')
Probe synthesis for 5' RACE	GSP1: GGAGGAGTTCGGTGGGAGATTGA GSP2: CTTTAGCCAAGACCGCCGTGAGCAGA
Probe synthesis for 3' RACE	GSP1: AATCTCCCACCGAACTCCTCC GSP2: GTGCCCAACTGCTTCGCTG
Probe synthesis for RT-PCR and prokaryotic expression	F: GTCAC <u>CATATG</u> AAAGAACTGCAACTTGCTACGG R: CCG <u>CTCGAGT</u> TAATTAAGTCCAAATGGATTG
Probe synthesis for eukaryotic expression	F: CCGGA <u>ATT</u> CAGTATCCCGGGAGGCTTGGA R: AAGGCGG <u>CCGCT</u> TAATTAAGTCCAAATGGATTGCCG

Restriction sites are underlined; GSP: Gene specific primer; F: Forward primer; R: Reverse primer.