

**Table S1.** Primers and probes for detection of *Nosema bombycis*, BmNPV, and BmDNV.

Target	Nucleotide sequence (5'→3') and fluorescent label <sup>a</sup>	Amplicon (base pairs)	GenBank accession number
<i>N. bombycis</i>	F: AGTGCCATCGTTGCTGGTT R: TGGGCCTTTCTTCTTTCCTAT P: FAM-ACCGCTAAGGAAACCCGCAAGGA-Eclipse	66	FJ854545
BmNPV	F: ATCGCCATCGGACAACGCGG R: GTGGCCGTCCGAATGCGTCT P: HEX-TTATGTCGGTGGATCGACAA-Eclipse	268	D16231.1
BmDNV	F: GGTGGAAGTGGAAAGTGGAAA R: TTTCCACTCGATTGGCTTGT P: Cy5-GGTGCAAGTAGAGGAGGTGC-BHQ3	171	AY236978

<sup>a</sup>F: forward primer; R: reverse primer; P: probe.

**Table S2.** Primer-and-probe specific test by individual real-time PCR.

Prime-and-probe set	Results of individual real-time PCR											
	<i>N. bombycis</i>	NPV	DNV	<i>N. bombycis</i> +NPV+ DNV	CPV-1	IFV	Bt	Bb	Nr	Ns	MI	
For detection of <i>N. bombycis</i>	+	—	—	+	—	—	—	—	—	—	—	
For detection of BmNPV	—	+	—	+	—	—	—	—	—	—	—	
For detection of BmDNV	—	—	+	+	—	—	—	—	—	—	—	

CPV-1: *B. mori* cyovirus 1 (Suzhou strain); IFV: *B. mori* infectious flacherie virus (Tongxiang strain); Bt: *Bacillus thuringiensis*; Bb: *Beauveria bassiana*; Nr: *Nomuraea rileyi* ; Ns: normal (uninfected) silkworm; MI: mulberry leaves.

+: positive result of the detection.

—: no positive signal after 40 PCR cycles.

**Table S3.** Degree of sequence identity of each PCR product to respective homologs in the NCBI database using BLASTn search. All BLAST hits were taken.

PCR product	Sequence identity (%)	Sequence description (GenBank accession number)
66 base pairs (SSUrRNA)	100%	<i>Microsporidia</i> species YFW-2009a small subunit ribosomal RNA pseudogene (AY145471), <i>Nosema bombycis</i> isolate GZNb small subunit ribosomal RNA pseudogene (FJ854545), <i>Nosema bombycis</i> noncoding region genomic sequence (EU616620), <i>Nosema</i> species small subunit ribosomal RNA pseudogene (AF310844), <i>Nosema bombycis</i> pseudo ribosomal RNA gene (D14632)
268 base pairs ( <i>Bombyx mori</i> NPV gene for DNA polymerase)	100%	<i>Bombyx mandarina</i> nucleopolyhedrovirus isolate S1 (FJ882854), <i>Bombyx mori</i> NPV strain India (JQ991010), <i>Bombyx mandarina</i> nucleopolyhedrovirus S2 (JQ071499), <i>Bombyx mori</i> NPV strain Cubic (JQ991009)
	99%	<i>Bombyx mori</i> NPV gene for DNA polymerase (D16231), <i>Bombyx mori</i> NPV strain Guangxi (JQ991011), <i>Bombyx mori</i> NPV strain Zhejiang, (JQ991008), <i>Bombyx mori</i> nuclear polyhedrosis virus isolate T3 (L33180)
	93%-96%	<i>Plutella xylostella</i> multiple nucleopolyhedrovirus isolate CL3 (DQ457003), <i>Autographa californica</i> nucleopolyhedrovirus clone C6 (L22858), <i>Autographa californica</i> nuclear polyhedrosis virus DNA polymerase gene (M20744), <i>Rachiplusia ou</i> multiple nucleopolyhedrovirus (AY145471)
171 base pairs ( <i>Bombyx mori</i> densovirus putative structural protein gene)	100%	<i>Bombyx mori</i> densovirus isolate Zhenjiang putative structural protein gene (AY236978), <i>Bombyx mori</i> densovirus 3 isolate VD1 (DQ017268)
	99%	<i>Bombyx mori</i> densovirus Zhenjiang segment VD1 (EU623082), Parvo-like virus orf4, orf3, orf2, orf1 genes (AB033596)