

**Fig. S1.** Primer specific test by individual PCR. A: Primers for detection of *Nosema bombycis*. B: Primers for detection of BmNPV. C: Primers for detection of BmDNV. From left to right, each lane is M1: DL2000 marker (TaKaRa, Dalian, China); 1: *N. bombycis*; 2: BmNPV; 3: BmDNV; 4: mixture of *N. bombycis*, BmNPV, and BmDNV; 5: BmCPV-1; 6: BmIFV; 7: *Bacillus thuringiensis*; 8: *Beauveria bassiana*; 9: *Nomuraea rileyi*; 10: normal (uninfected) silkworm; 11: Mulberry leaves; M2: DL500 marker (TaKaRa, Dalian, China).

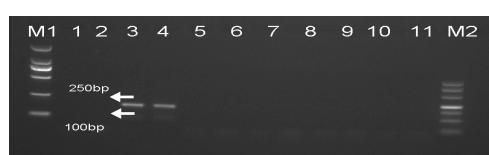
A



B

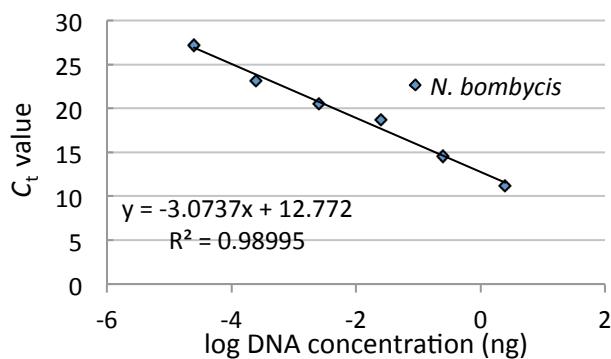


C

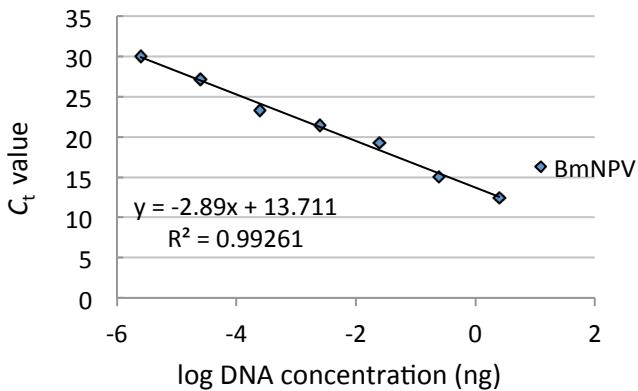


**Fig. S2.**  $C_t$  values obtained from serial dilution of *Nosema bombycis*, BmNPV, and BmDNV plasmid DNA in the simplex PCR systems, plotted versus the logarithm of the DNA concentrations ( $8.5 \times 10^8$  copies/uL  $\approx 2.5$  ng/uL). A: Simplex PCR system for detection of *N. bombycis*; B: Simplex PCR system for detection of BmNPV; C: Simplex PCR system for detection of BmDNV.

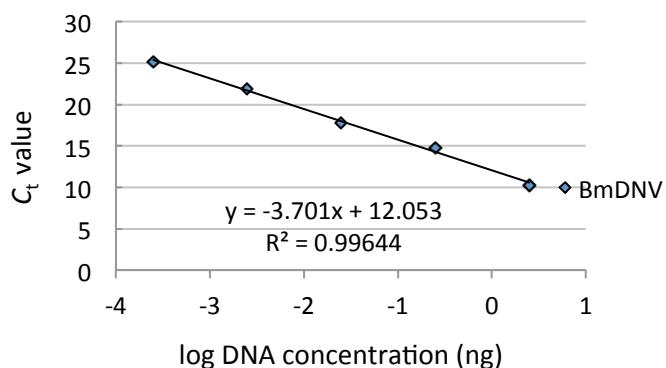
A



B

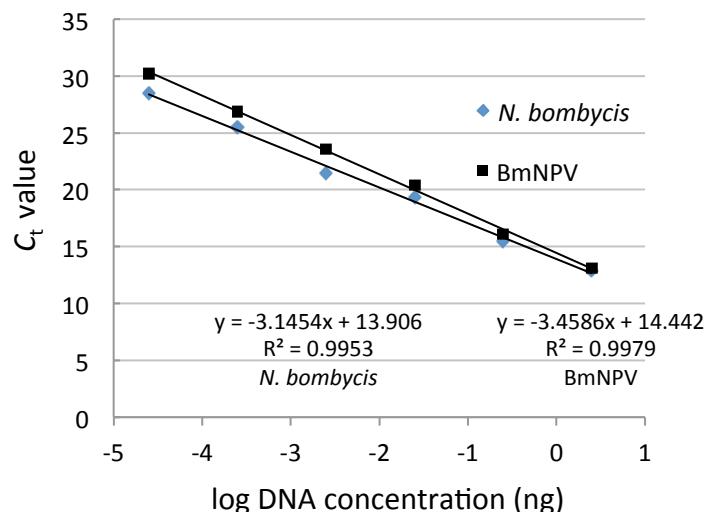


C

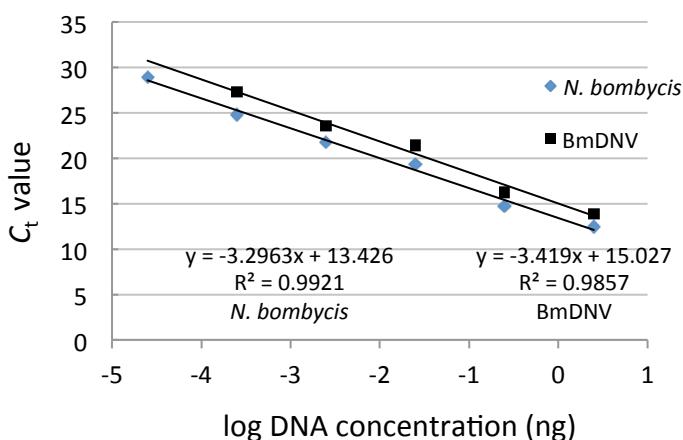


**Fig. S3.**  $C_t$  values obtained from serial dilution of *Nosema bombycis*, BmNPV, and BmDNV plasmid DNA in the duplex PCR systems, plotted versus the logarithm of the DNA concentrations ( $8.5 \times 10^8$  copies/uL  $\approx 2.5$  ng/uL). A: Duplex PCR system for detection of *N. bombycis* and BmNPV; B: Duplex PCR system for detection of *N. bombycis* and BmDNV; C: Duplex PCR system for detection of BmNPV and BmDNV.

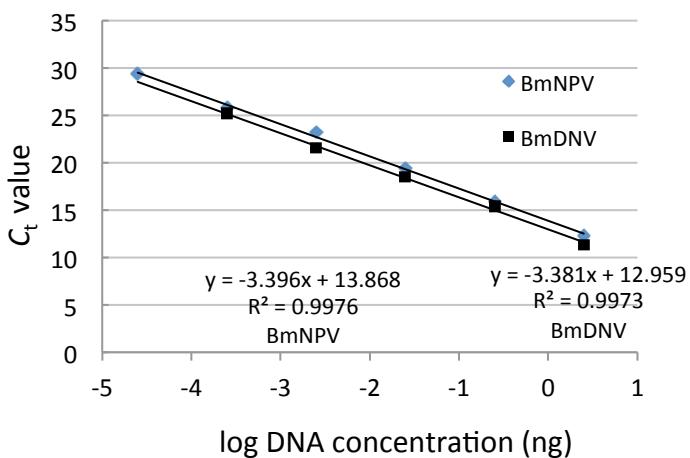
A



B

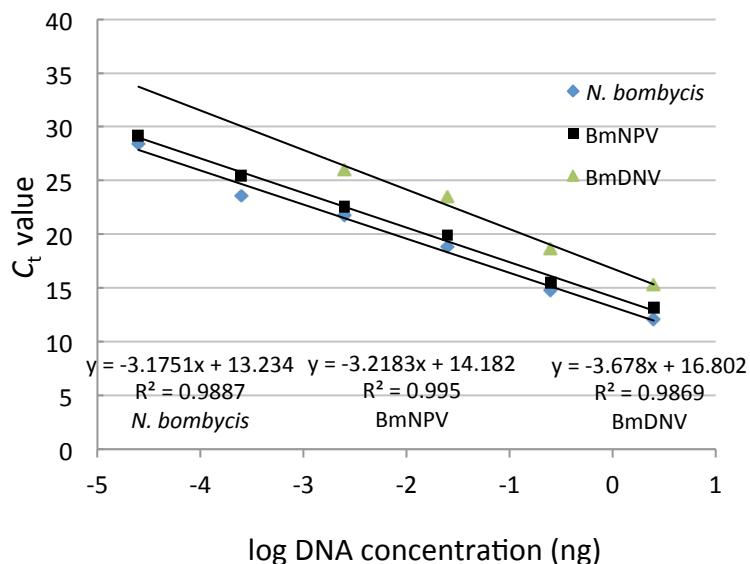


C



**Fig. S4.**  $C_t$  values obtained from serial dilution of *Nosema bombycis*, BmNPV, and BmDNV plasmid DNA in the multiplex PCR systems, plotted versus the logarithm of the DNA concentrations ( $8.5 \times 10^8$  copies/uL  $\approx 2.5$  ng/uL). A: The primer/probe sets between different pathogens were mixed in the ratio of 1:1:1 (*N. bombycis*:BmNPV:BmDNV); B: The primer/probe sets between different pathogens were mixed in the ratio of 2:2:3 (*N. bombycis*:BmNPV:BmDNV)

A



B

