



Fig. S1. Primer design by aligning full-length T4viral g23 MCP genes from Genbank using BioEdit v7.0.1. Sequence position 821 – 841 (a) and sequence position 944 – 966 were selected as forward primer mcp-821F (5'-CTKGCDGARATYACMGIGAART-3') and reverse primer mcp-966R (5'-ADDAWGCCYTTGAAYTTYTCAAC-3'), respectively. Heterogeneous positions were replaced with degenerated bases. The accession numbers of those sequences used for primer design included KT997817.1, KU686212.1, KP211958.1, JN371769.1, HQ316583.1, AY939844.2, GU071095.1, GU071098.1, GU071103.1, AY940168.2, GU071097.1, GU071108.1, GU071096.1, GU071106.1, GU071094.1, GU071105.1, AJ630128.1, HQ615693.1, GU071101.1, and GU075905.1.