

**Table S1.** PCR primers and probes used in the study.

| Primer                  | 5'-3' sequences                                                                                                       |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>R1-OvgB</b>          | <b>cagtcctttcggactgtcataaacttattatgatgtcatgaagatgggaaaacatggcagttttagt</b><br><b>gtctcctcaaagcttggtgacattgattattg</b> |
| <b>R2-OvgB</b>          | <b>aacatcactaatgggaaaacaaacatgcagataaggcatgtctatcaaacatgaccagtgact</b><br><b>gacatccgaacggcccgataccccctagagcccc</b>   |
| P1 (P67co-LF2.1)        | ggcacacttggtatccccagacca                                                                                              |
| P2(Ov-optORF8-185 5' R) | agccctcctcctcattcag                                                                                                   |
| P3(Ov-optORF8-163 3' F) | ccaccagaccaagcaggata                                                                                                  |
| P4(LargeTK R2)          | ccacgtattgtaaactgcaac                                                                                                 |
| BoHV-4 ORF20 F          | ttgatagtcggtgttgggatgtgg                                                                                              |
| BoHV-4 ORF20 R          | cactgcccgggtgggaaatagca                                                                                               |
| OvHV-2-F                | tggtaggagcaggctaccgt                                                                                                  |
| OvHV-2-R                | atcatgctgacccttgacg                                                                                                   |
| OvHV-2-P                | tccacgcgtccgcactgtaaga                                                                                                |

R1-OvgB and R2-OvgB were used to create the CMV-OvHV-2-gB-V5 cassette R1 and R2 sequences, homologous to the TK locus, are in bold letters.

P1-P4 were used to confirm correct insertion of the CMV-OvHV-2-gB-V5 cassette into pBAC-BoHV-4-ΔTK-OvHV-2-gB. Primer's references: P1; P2; P3; P4.

BoHV-4 ORF20 F and BoHV-4 ORF20 R used for amplification of BoHV-4 DNA.

OvHV-2-F, OvHV-2-R and OvHV-2-P were used for amplification and detection of OvHV-2 DNA.

**Anti-OvHV-2 gB monoclonal antibody.** One of the monoclonal antibodies used to detect OvHV-2 gB expression, F1.2, was prepared in our laboratory. The antibody was produced in mice following a series of immunizations using a biolistic system to deliver a plasmid expressing the OvHV-2 ORF 8 intradermally. The plasmid used for immunizations, pOvHV-2-ORF8, has been previously described (Cunha et al., 2015). The plasmid consists of a codon-optimized OvHV-2 ORF8 cloned into pCDNA3.2/V5 (Invitrogen); OvHV-2 ORF 8 is expressed under control of a CMV promoter as an OvHV-2 gB fused to the V5 epitope. Spleen of hyperimmunized mice were collected and processed by standard methods for production of monoclonal antibodies. Antibodies showing specific reactivity to OvHV-2 gB were screened and selected by ELISA and immunoblotting.