

Supplementary Materials

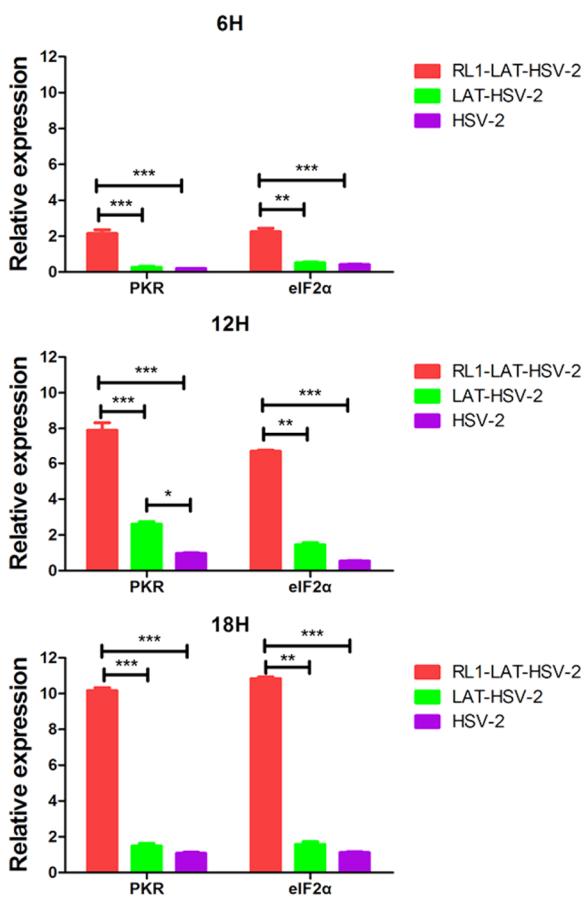


Figure S1. The mRNA levels of PKR and eIF2 α in the VK2 cells infected with RL1-LAT-HSV-2, LAT-HSV-2 and HSV-2. The RNA levels of GAPDH were used to normalize the target RNA levels. Relative quantification was compared between the infected group and the control group (cells without infection).

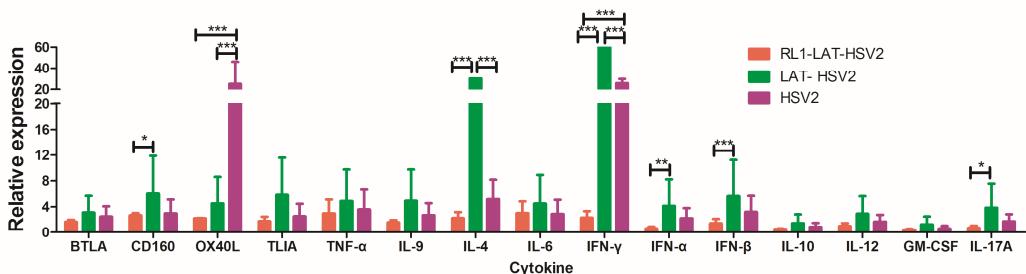


Figure S2. The mRNA levels of various inflammatory factors in the vaginal tissue of mice infected with RL1-LAT-HSV-2, LAT-HSV-2 and HSV-2. The RNA levels of GAPDH were used to normalize the target RNA levels. Relative quantification was compared between the infected group and the control

group (mice without infection). The samples were obtained 1 day after infection.

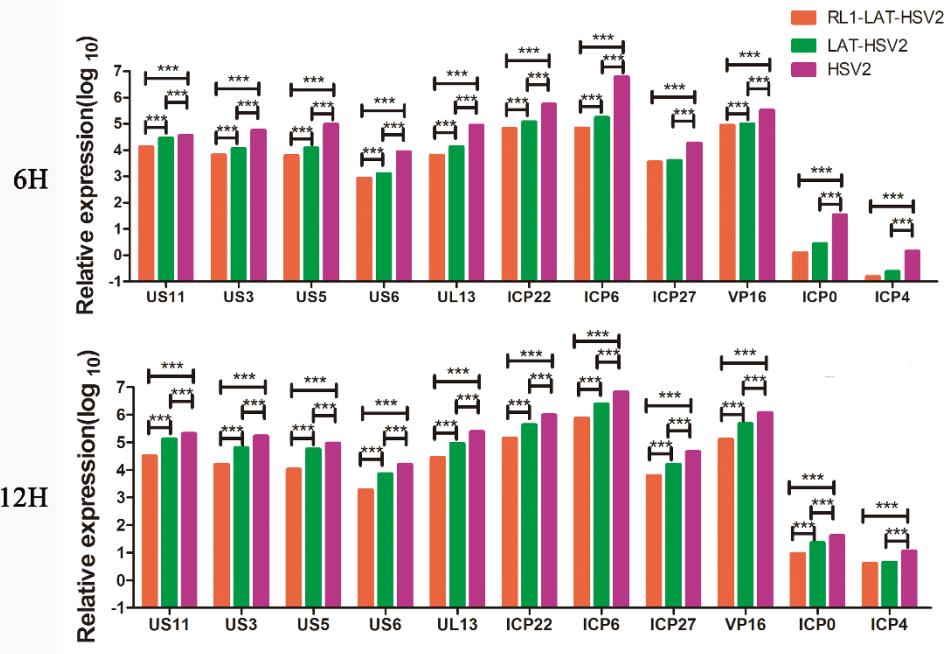


Figure S3. The levels of viral genes in VK2 cells infected by RL1-LAT-HSV-2 , LAT-HSV-2 or HSV-2.

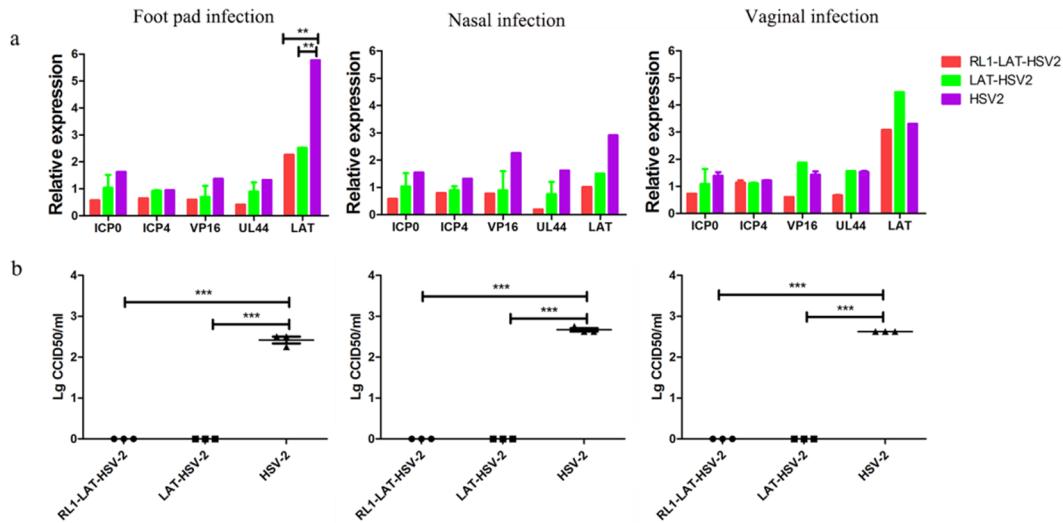


Figure S4. a. The levels of viral genes in co-culturing samples of Vero cells infected and dorsal root ganglia tissues from mice infected with RL1-LAT-HSV-2 , LAT-HSV-2 or HSV-2. b. The viral titers of co-culturing samples of Vero cells and dorsal root ganglia tissues from mice infected with RL1-LAT-HSV-2 , LAT-HSV-2 or HSV-2. The samples were obtained 7 day after co-culturing. The dorsal root ganglia tissues of mice were collected 2 month after infection.

Table S1. Specific primers used in the experiment.

| Gene | Primer(5'-3') |
|---------------------|----------------------------|
| gRNA-LAT-1-F | CACCGC GTTCTCGCAG GTAGGTTT |
| gRNA-LAT-1-R | AAACAAACCTACCTGCGAGAACGC |
| gRNA-LAT-2-F | CACCAGAG AGAAGAGAGC AGGGGT |
| gRNA-LAT-2-R | AAACACCCCTGCTCTCTCTCT |
| gRNA-LAT-3-F | CACCAGCCGTC CGCCGGGGGA CCC |
| gRNA-LAT-3-R | AAAC GGGTCCCCCGGCGGACGGCT |
| HSV2-LAT-F | GAGAGGGACTCCGGAGAAGG AAGGC |
| HSV2-LAT-R | TGGATCCGAACACGCCGGATCCGCG |
| Mo-GAPDH-F | AGGTCGGTGTGAACGGATTG |
| Mo-GAPDH-R | TGTAGACCATGTAGTTGAGGTCA |
| Mo-BTLA-F | GCCAGGACAGGAGAGTTA |
| Mo-BTLA-R | CTTACACCAAGTCACATTAGG |
| Mo-CD160 -F | CCTGAGACCAACTTAGAACAA |
| Mo-CD160-R | AACACCAACTGAGATGACTT |
| Mo-OX40L F | TGCTTCTGTGCTTCATCTAT |
| M0-OX40L R | ATCTGGTAACTGCTCCTCT |
| Mo-TLIA F | AATAAGCAACAACTGGTTCC |
| Mo-TLIA R | ATTAGTCTGTCTCCTTCTTCC |
| Mo-TNF- α -F | GCCAACGGCATGGATCTCAA |
| Mo-TNF- α -R | TCTTGACGGCAGAGAGGAGG |
| Mo-IL-9-F | TGGTGACATACATCCTGCCT |
| Mo-IL-9-R | GTGTCTCTGATGCCCATGT |
| Mo-IL-4-F | GTGAGCTCGTCTGTAGGGCT |
| Mo-IL-4-R | CCGCTTACCGATGAATCCAGG |
| Mo-IL-6-F | TGGGACTGATGCTGGTGACA |
| Mo-IL6-R | ACAGGTCTGTTGGGAGTGGT |
| Mo-IFN- γ -F | ATCAGGCCATCAGCAACAACA |
| Mo-IFN- γ -R | CGTCTCACCTCAAACCTGGCA |
| Mo-IFN- α -F | TGGCGGTGCTGAGCTACTGG |
| Mo-IFN- α -R | TGTACCAGGAGTGTCAAGGCTCTC |
| Mo-IFN- β -F | GATGAACTCCACCAGCAGACAGTG |
| Mo-IFN- β -R | CACCATCCAGGCGTAGCTGTTG |
| Mo-IL-1 β -F | TCGCAGCAGCACATCAACAAGAG |
| Mo-IL-1 β -R | TGCTCATGTCCCTCATCCTGGAAGG |
| Mo-IL-8-F | CCTGCTTGAATGGCTTGA |
| Mo-IL-8-R | GGCGGTATCTCTGTCTCT |
| Mo-IL-10-F | CTGCTATGCTGCCTGCTTACTG |
| Mo-IL-10-R | ATGTGGCTCTGGCCGACTGG |
| Mo-IL-12-F | CCTCCTGTGGGAGAAGCAGA |
| Mo-IL-12-R | CTTGAGCCTTCAGGCAGGAG |
| Mo-GM-CSF-F | AACATGTGTGCAGACCCGC |

| | |
|-------------|----------------------------|
| Mo-GM-CSF-R | TGGCTGTCATGTTCAAGGC |
| Mo-IL-17A-F | GCAATGAAGACCCCTGATAGA |
| Mo-IL-17A-R | TGCTGGATGAGAACAGAATT |
| Hu-PKR-F | TACCGTCAGAACAGCAGGGAGT |
| Hu-PKR-R | GCAACCTACCTCCTATCATGTGG |
| Hu-eIF2α-F | ATGCCGGGTCTAAGTTGTAGATT |
| Hu-eIF2α-R | TCCAGCAAGCTGACATAAGCC |
| ICP0-F | CCTCCTCCGCCCTTCCCTTG |
| ICP0-R | GCGTCTTCCTGGCACACTTCC |
| ICP4-F | ACCACCAACCACCAACCACAC |
| ICP4-R | AGGAGGAGGCGGGAGGAGGAG |
| VP16-F | CCAGCGTTCGGCAGCTACAC |
| VP16-R | GGTCTCGCGGTAGTACCTGTCC |
| UL44-F | ATGCCGGTTCCCAACTCCA |
| UL44-R | CCTCTAAGCTAGGCCCGTT |
| LAT-F | ACACGGGGCTGCCTTATACC |
| LAT-R | GGCGCATGCTAATGGGGTTC |
| US4-F | CGCTCTCGTAAATGCTCCCT |
| US4-R | TCTACCCACAACAGACCCACG |
| US4-Probe | CGCGGAGACATTGAGTACCAAGATCG |

Table S2. Pathological changes in other tissues of mice infected with RL1-

LAT-HSV-2, LAT-HSV-2 and HSV-2.

| Virus | Tissues | Day 1 | Day 3 | Day 5 | Day 7 |
|--------------|---------|-------|-------|-------|-------|
| RL1-LAT-HSV2 | Heart | ++ | + | + | + |
| | Liver | ++ | ++ | ++ | ++ |
| | spleen | + | + | + | + |
| | Lung | + | + | + | + |
| | Kidney | + | - | - | - |
| LAT-HSV2 | Heart | ++ | ++ | + | +++ |
| | Liver | ++++ | ++++ | ++++ | ++++ |
| | spleen | +++ | +++ | +++ | +++ |
| | Lung | ++ | ++ | ++ | ++ |
| | Kidney | ++ | + | + | - |
| HSV2 | Heart | ++ | ++ | ++ | ++ |
| | Liver | +++ | +++ | +++ | +++ |
| | spleen | +++ | +++ | +++ | +++ |
| | Lung | ++ | ++ | ++ | ++ |
| | Kidney | + | ++ | ++ | ++ |

-:Indicates no obvious abnormality

+:Indicates a small amount of inflammatory cells infiltration or bleeding

++:Indicates medium inflammatory cells infiltration or bleeding

+++:Indicates lots of inflammatory cells infiltration or bleeding

++++:Indicates serious inflammatory cells infiltration, bleeding or cell death