

**Supplementary Figure 1. Strategy for FACS purification of oligodendrocytes, microglia and myeloid cells from the CNS of infected mice.** Brain cells from JHMV infected wt mice at 5 days p.i. were stained with anti CD45, CD11b and O4 mAb. Representative plots depict gating strategy: All events were gated to exclude debris (P1); doublets were excluded based on FSC-W (P2; FSC-Area/FSC-Height). Oligodendrocytes (P3) were separated from CD45<sup>lo</sup> microglia (P5), CD45<sup>hi</sup> infiltrating leukocytes (P6) and other CNS resident cells (P4; CD45<sup>-</sup>O4<sup>+</sup>) by O4 staining (CD45<sup>-</sup>O4<sup>+</sup>). Microglia (P5) were separated from infiltrating and resident cells by their CD45<sup>lo</sup> CD11b<sup>+</sup> phenotype. Infiltrating myeloid cells (P7) were separated from other CD45<sup>hi</sup> CNS infiltrating cells by their CD45<sup>hi</sup>CD11b<sup>+</sup> phenotype.

**Supplementary Figure 2. PKR deficiency impairs mRNA but not protein expression of pro-inflammatory chemokines in virus infected BMDM.** BMDM from wt and PKR<sup>-/-</sup> mice were infected with MHV-A59 at a MOI of 1. Transcript expression of *Ccl2*, *Ccl5* and *Cxcl10* and secreted protein levels of CCL5 and CXCL10 were determined at 12 and 18 hours p.i. Data are the average of 3 separate experiments ± SEM. \* P ≥ .05.

**Supplementary Figure 3. PKR deficiency enhances T cell inflammation.** Numbers of total brain infiltrating leukocytes (CD45<sup>hi</sup>), macrophages (CD45<sup>hi</sup> F480<sup>+</sup>), CD8 and CD4 T cells derived from infected wt and PKR<sup>-/-</sup> mice determined by flow cytometry. Data represent the average of three separate experiments ± SEM with n = 3/group per timepoint and experiment). \* p ≥ .05.