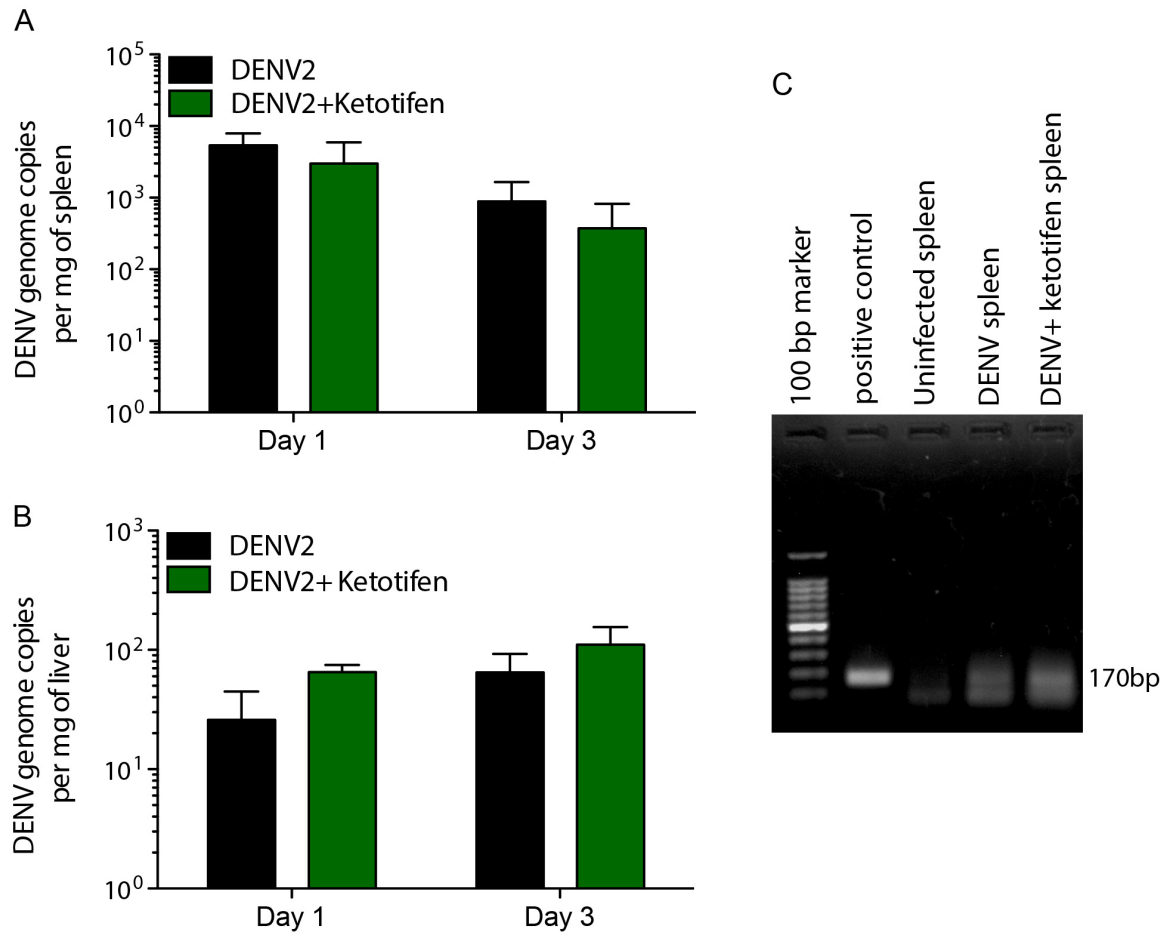
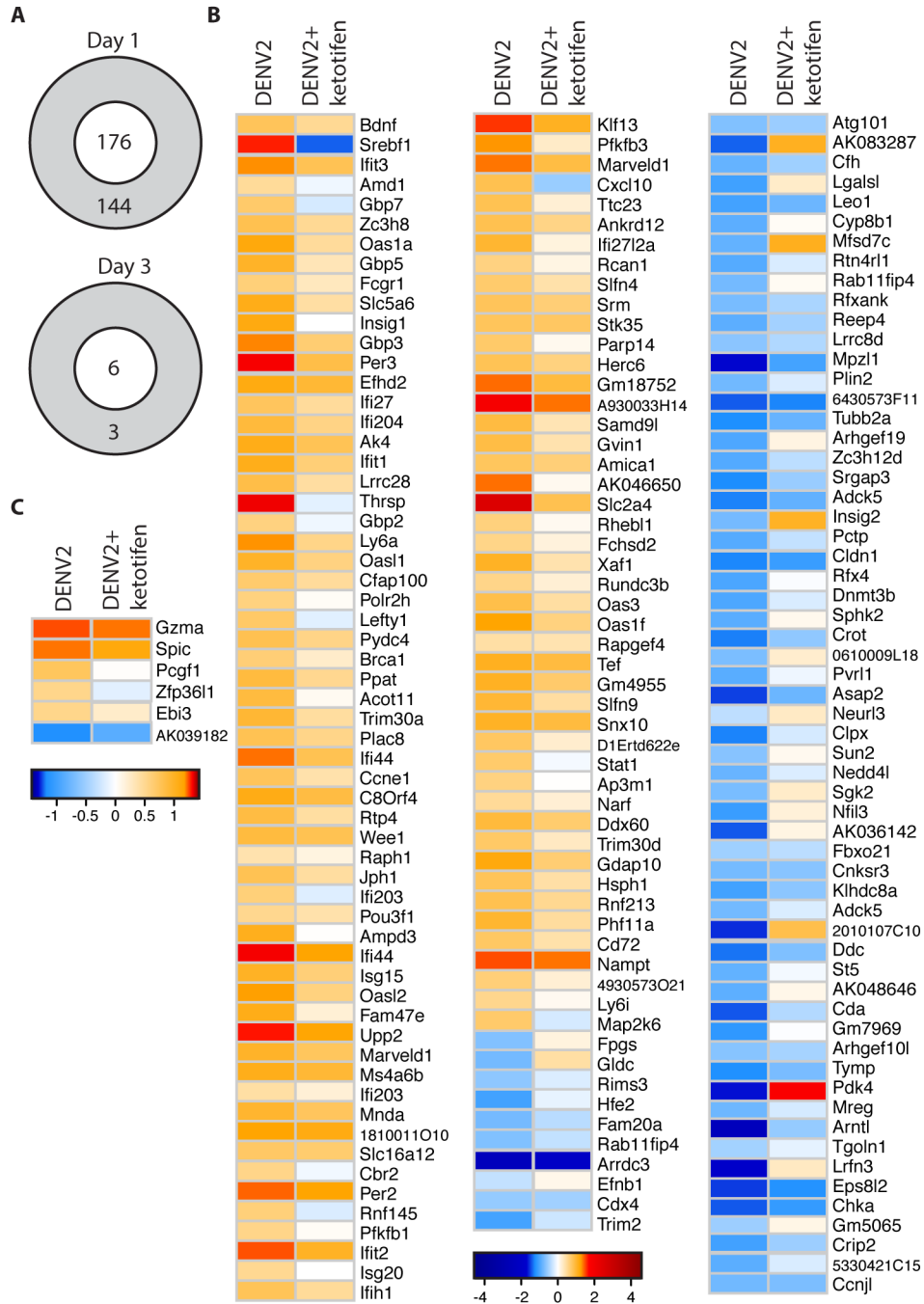


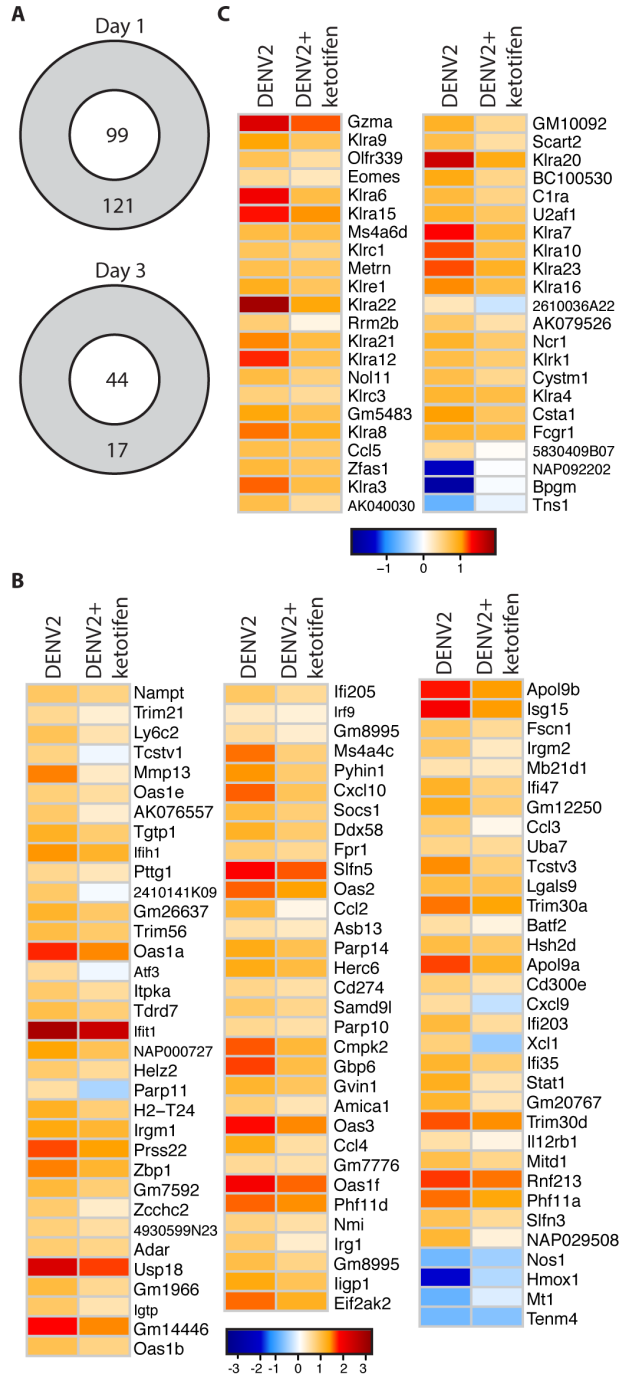
## Supplemental Material



**Supplemental Figure 1 - Validation of DENV infection of spleen and liver tissues.** Virus genome copies were quantitated in the (A) spleen and (B) liver of DENV-infected and ketotifen-treated mice days 1 and 3 post-infection. Viral copy numbers did not differ significantly by 2-way ANOVA. (C) Uncut gel image demonstrating that active virus replication was confirmed by measuring DENV negative-strand RNA using spleen samples from day 1 post-infection.



**Supplemental Figure 2 - Ketotifen treatment partially reverses the DENV2-mediated host response in the liver. (A)** Venn diagrams showing the number of DENV2-induced DE genes in the liver on days 1 and 3 whose expression changes are reversed by at least 10% by ketotifen treatment. Heatmaps showing the DENV2-induced genes in the liver whose expression changes on **(B)** day 1 and **(C)** day 3 are reversed by at least 10% by ketotifen treatment.



**Supplemental Figure 3 - Ketotifen treatment partially reverses the DENV2-mediated host response in the spleen.** (A) Venn diagrams showing the number of DENV2-induced DE genes in the spleen on days 1 and 3 whose expression changes are reversed by at least 10% by ketotifen treatment. Heatmaps showing the DENV2-induced genes in the spleen whose expression changes on (B) day 1 and (C) day 3 are reversed by at least 10% by ketotifen treatment.