

Supplementary Materials for
Lrp1 is essential for lethal Rift Valley fever hepatic disease in mice

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Figs. S1 to S4

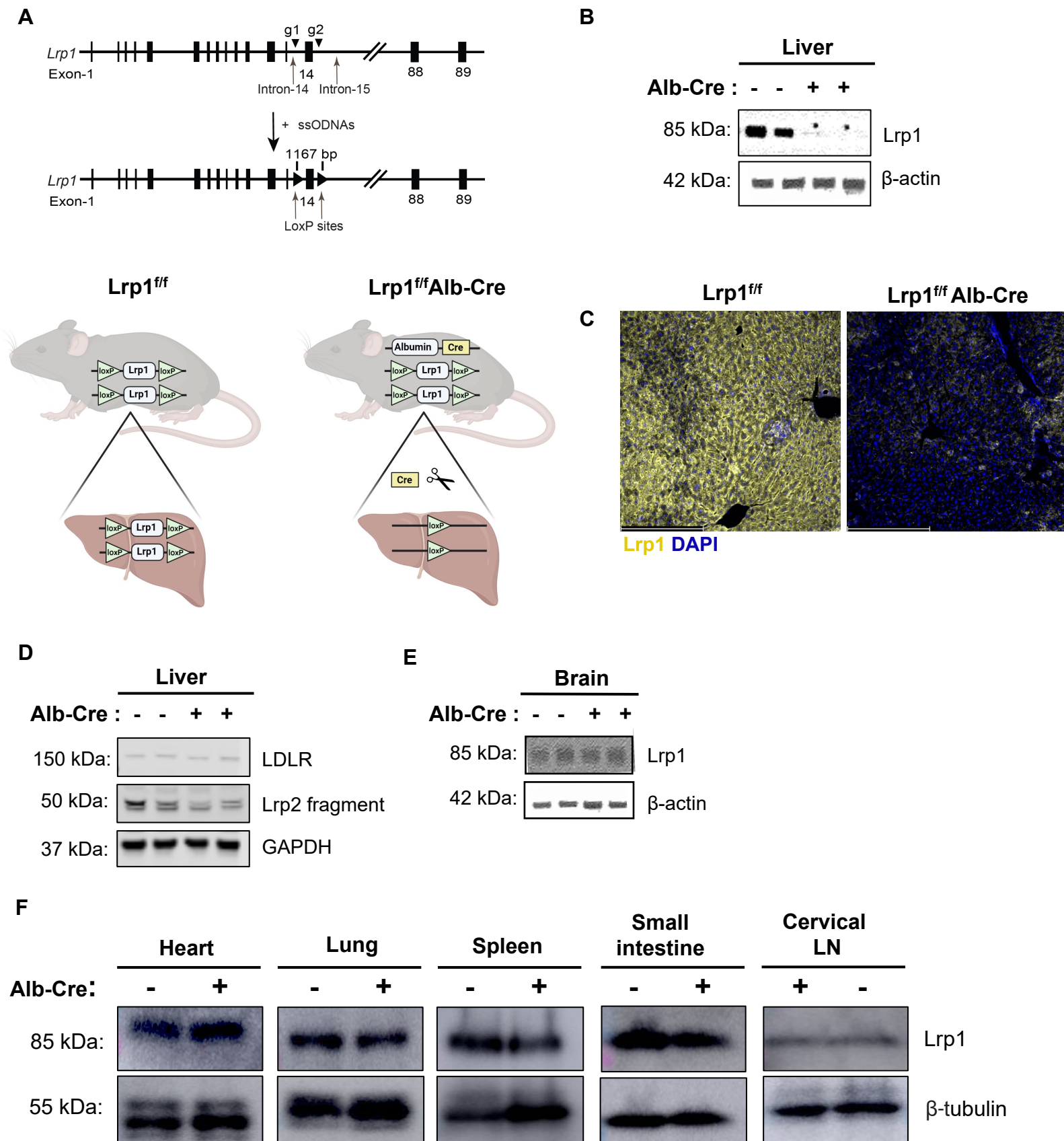


Fig. S1: Lrp1 KO is specific to liver tissue in *Lrp1^{f/f}Alb-Cre* mice . (A) Mice with Lrp1 deleted in hepatocytes were generated through breeding of *Lrp1^{f/f}* mice with *Lrp1^{f/f}Alb-Cre* mice. Created in BioRender. Lrp1 (B) protein and (C) staining (20X) are reduced in the liver tissue from *Lrp1^{f/f}Alb-Cre* mice compared to *Lrp1^{f/f}* control mice. (D) LDLR and Lrp2 levels in the livers of *Lrp1^{f/f}* and *Lrp1^{f/f}Alb-Cre* mice are unaffected. (E) and (F) Lrp1 expression in the brain and other tissues of *Lrp1^{f/f}* mice and *Lrp1^{f/f}Alb-Cre* mice.

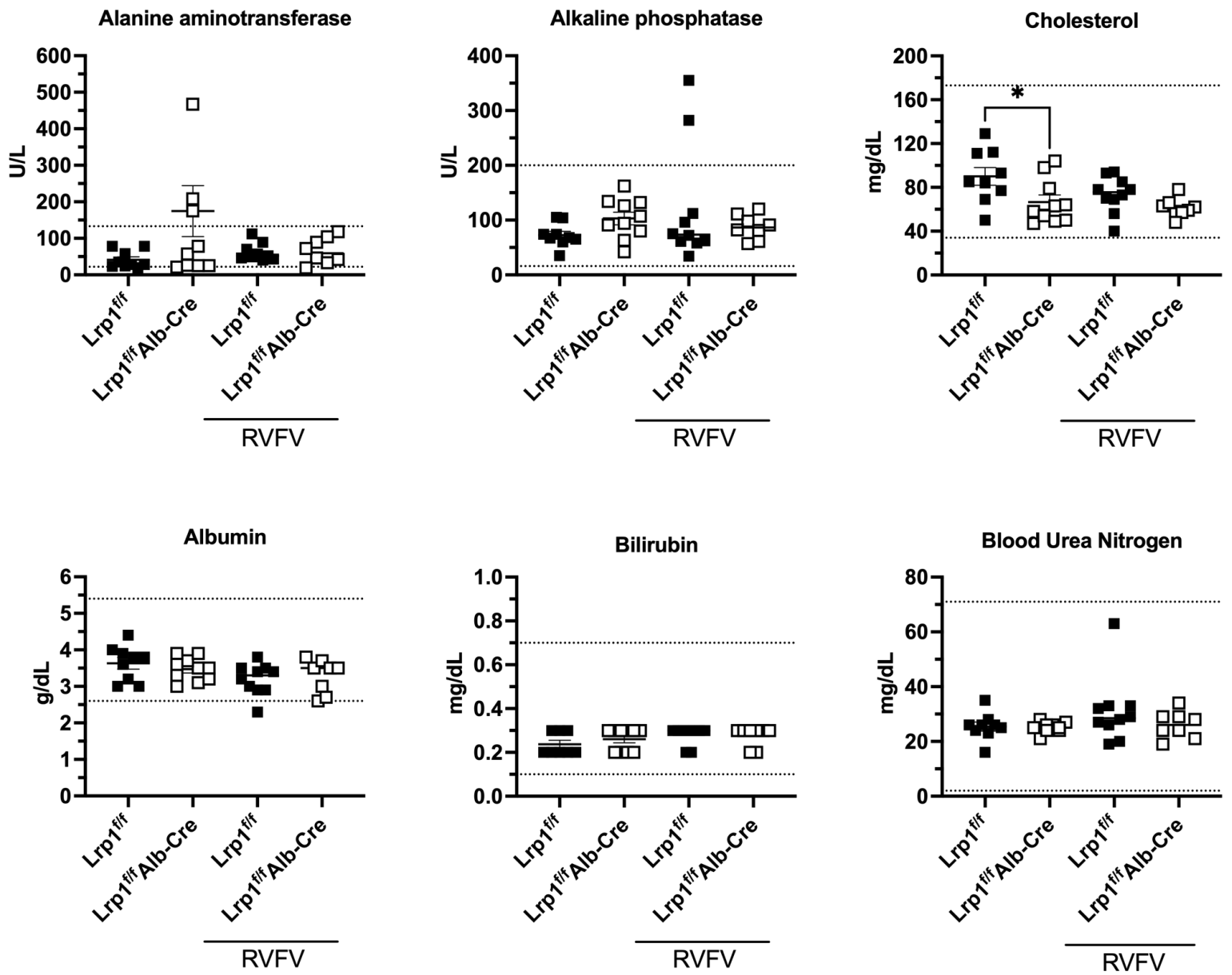


Fig. S2: Blood chemistry analysis in *Lrp1^{fl/fl}* and *Lrp1^{fl/fl} Alb-Cre* mice. Uninfected and infected mice (euthanasia at 3 dpi) of both genotypes were tested for liver analytes using a blood chemistry analyzer. For each analyte, the dotted lines indicate the normal range for each factor. Infected mice were given 20 PFU of RVFV ZH501 by footpad injection and blood was analyzed at euthanasia 3 dpi. Data are combined from three experiments (n=8-10 per group). Bars represent standard error mean. Statistics were determined using an unpaired t-test. p < 0.05, *.

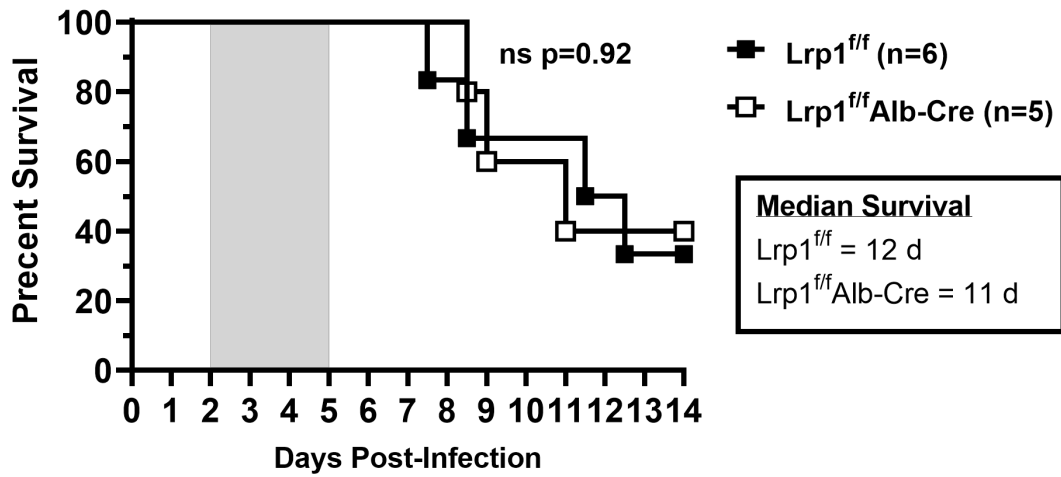


Fig. S3: *Lrp1* KO in hepatocytes does not impact development of RVF neurological disease after intranasal exposure. Mice of both genotypes were infected with 20 PFU of RVFV ZH501 intranasally and monitored for survival (n=5-6 per group). Kaplan-Meier survival analysis was completed to assess for significant differences between genotypes.

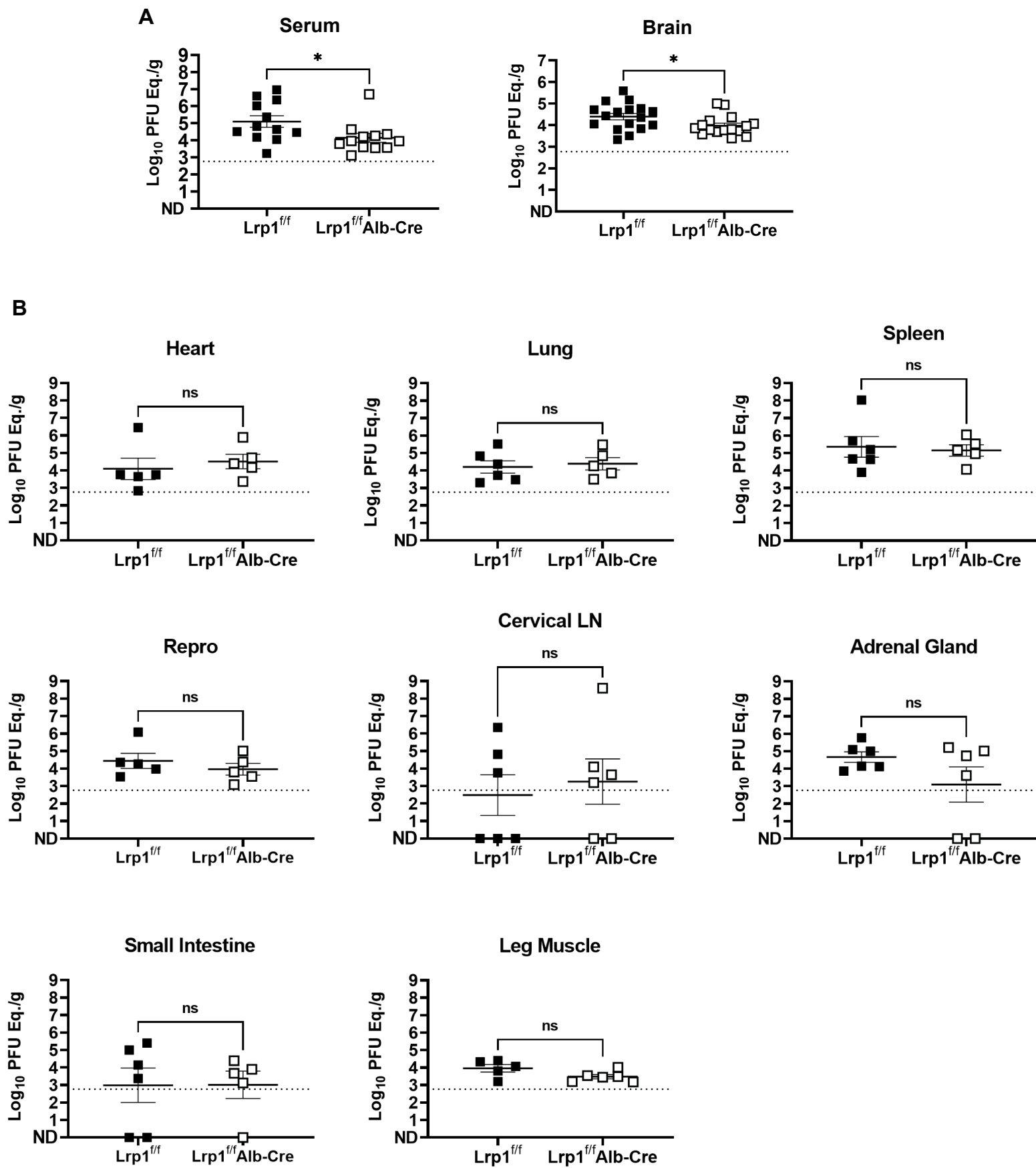


Fig. S4: Viral dissemination at 3 dpi is unaffected by lack of Lrp1 in hepatocytes. RVFV vRNA levels in (A) serum and brain, or (B) other tissues were measured by q-RT-PCR in indicated tissues at 3 dpi following inoculation with 20 PFU of RVFV ZH501 (n=6-12/group). Dotted line indicates limit of detection. Bars represent standard error mean. Statistics were determined using an unpaired t-test.