

Supplementary information for

Mucin-1 is required for Coxsackie Virus B3-induced inflammation in pancreatitis

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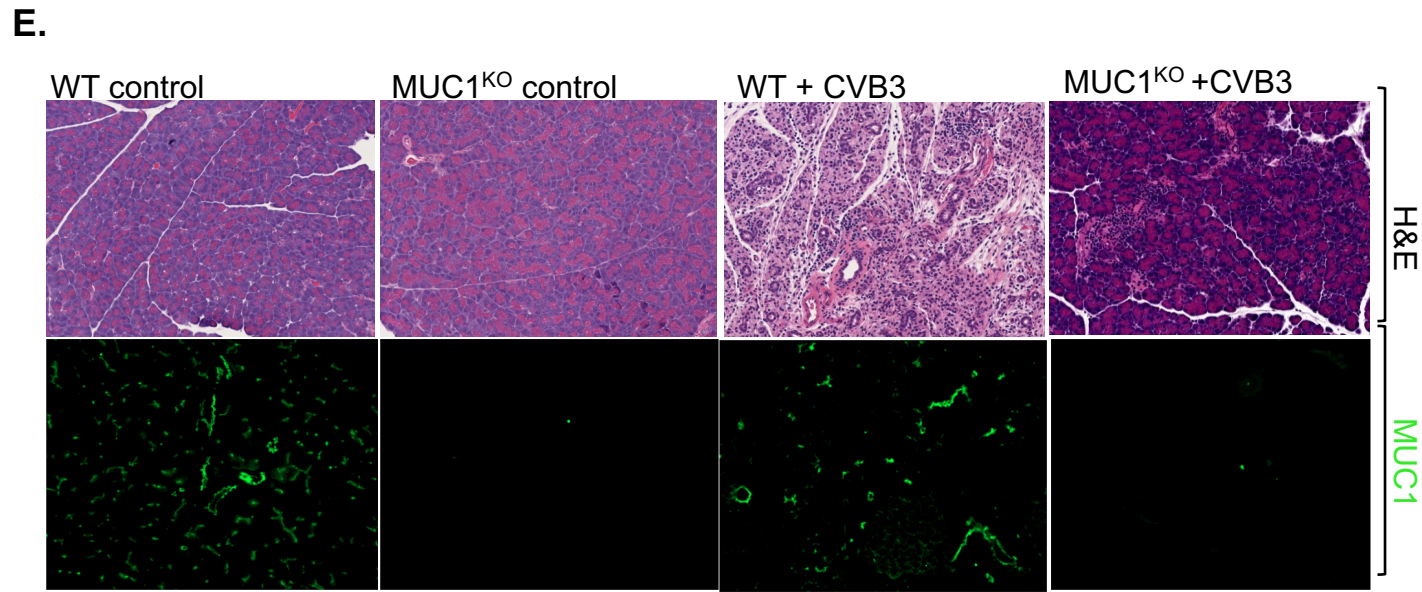
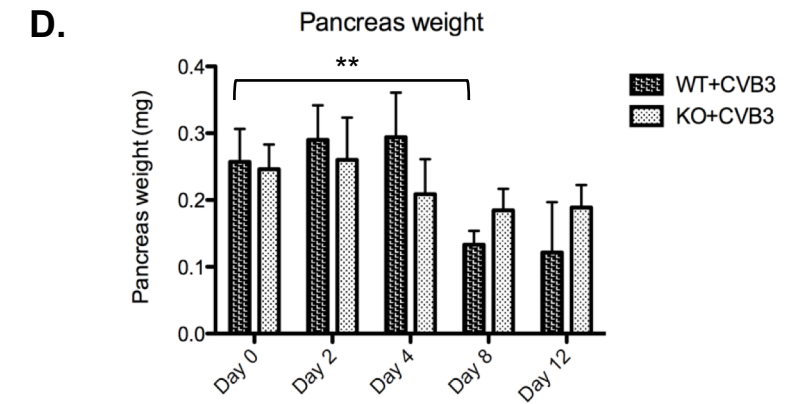
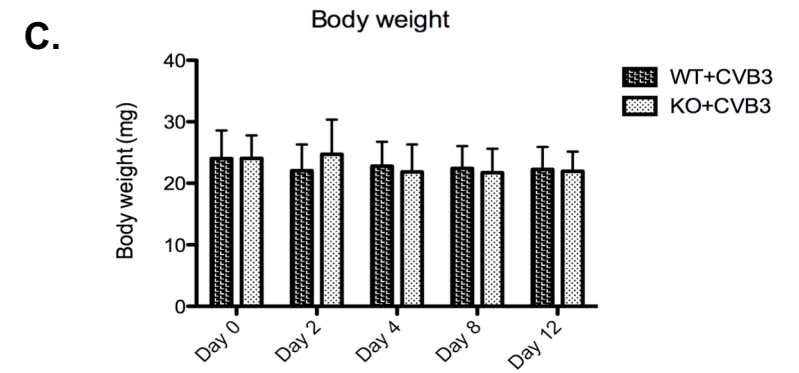
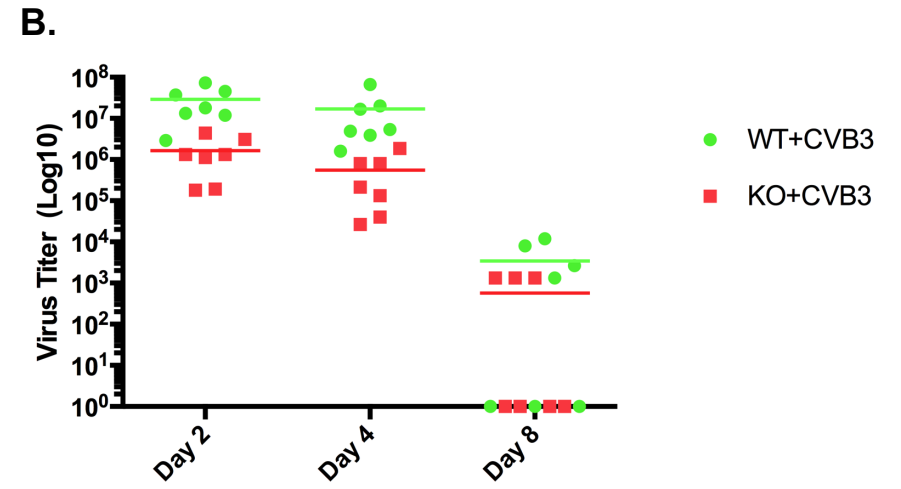
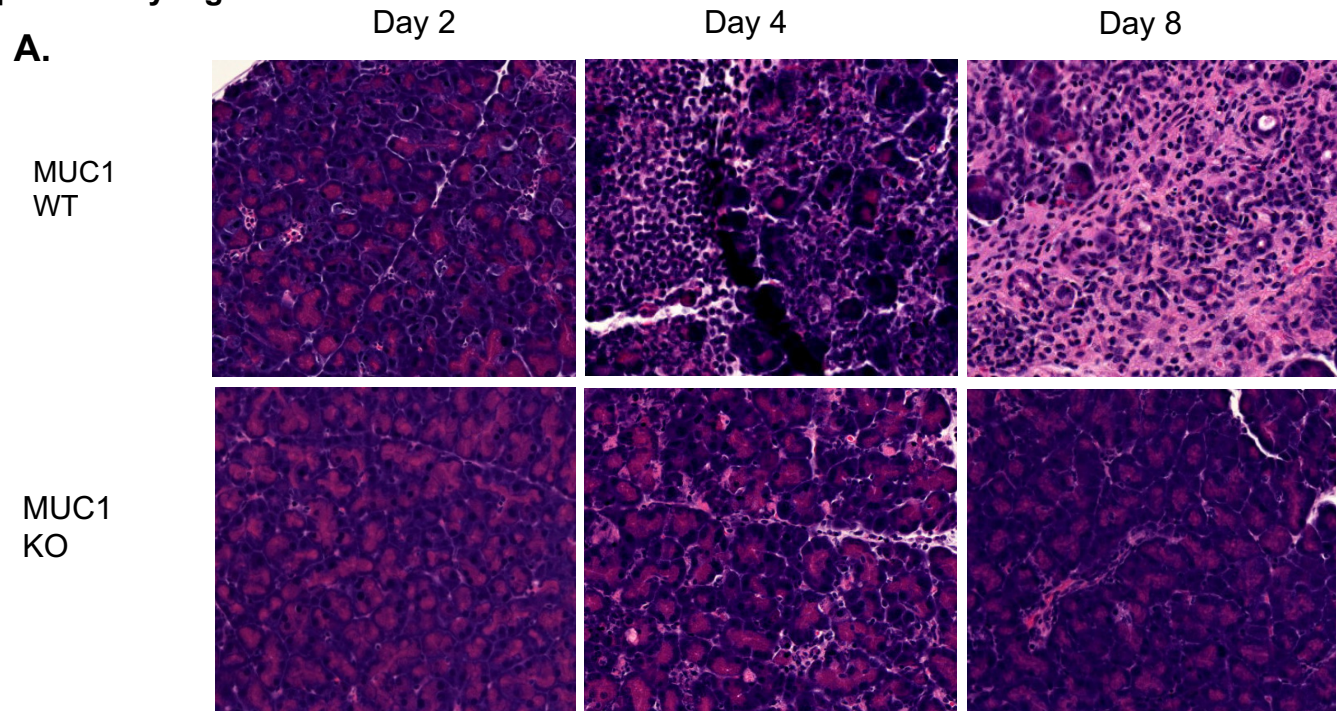
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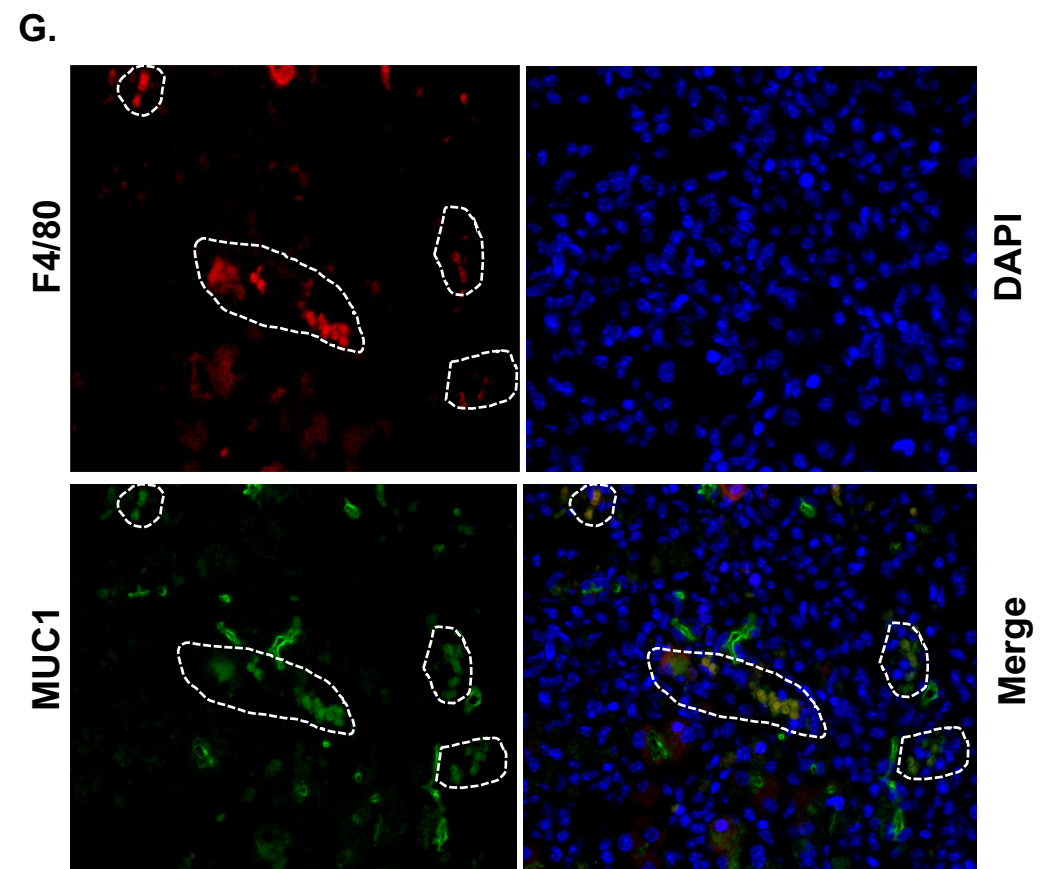
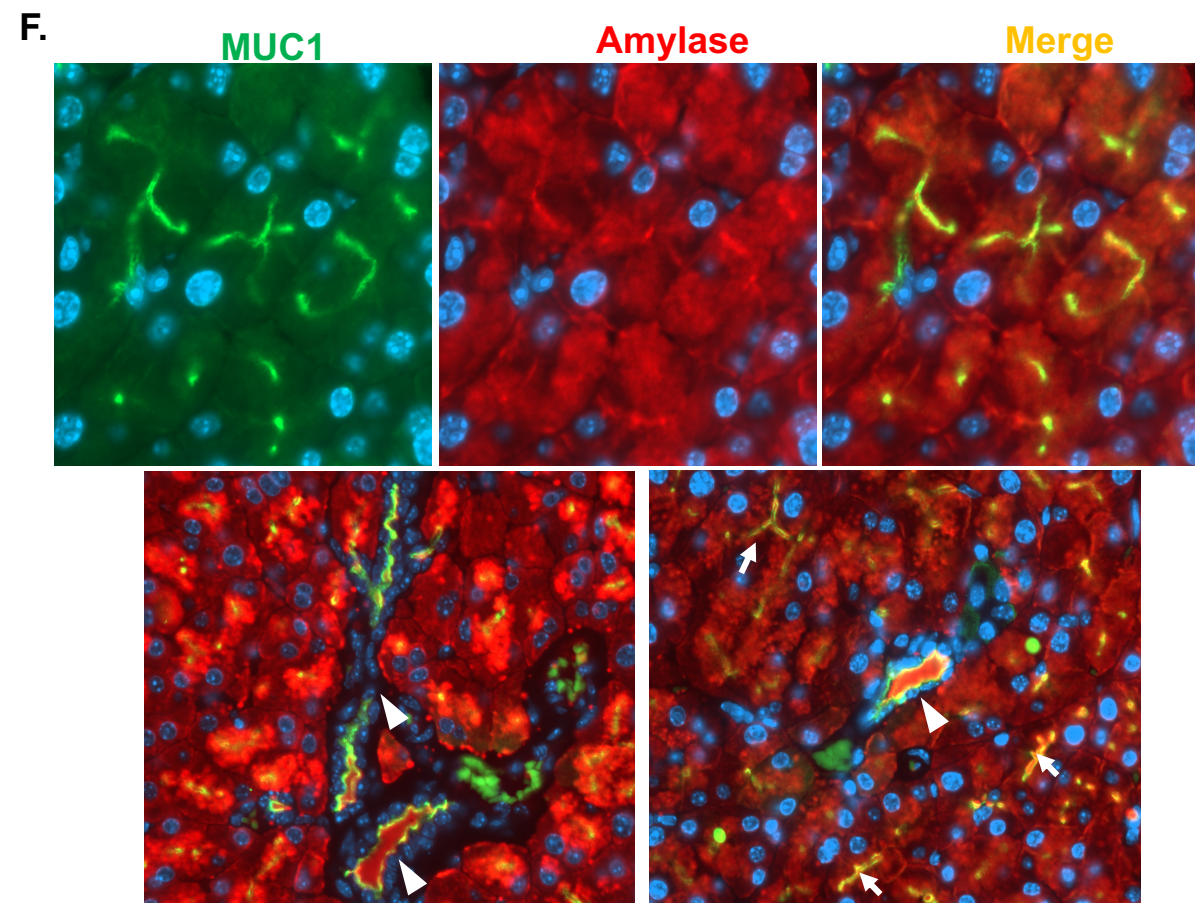
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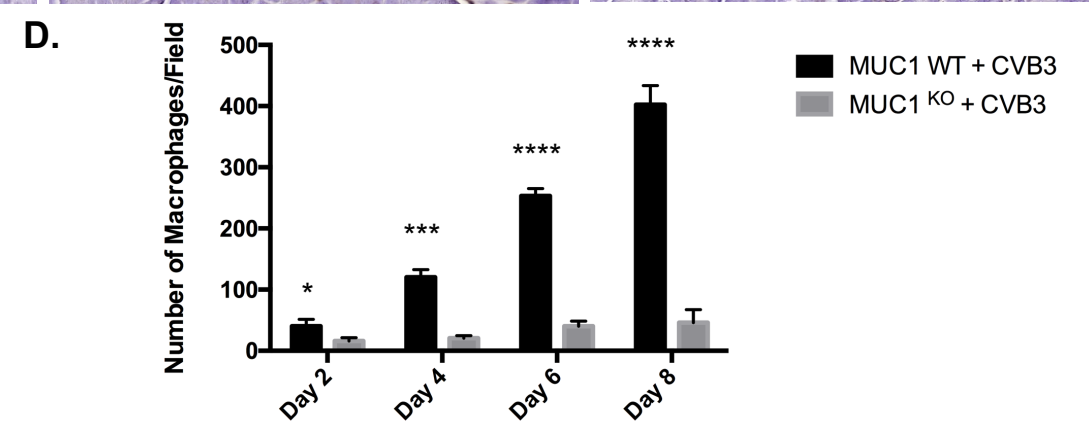
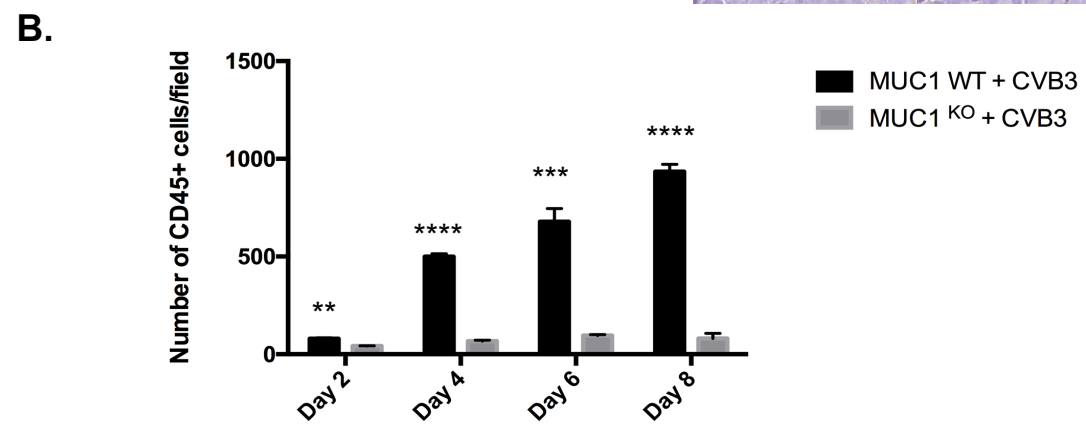
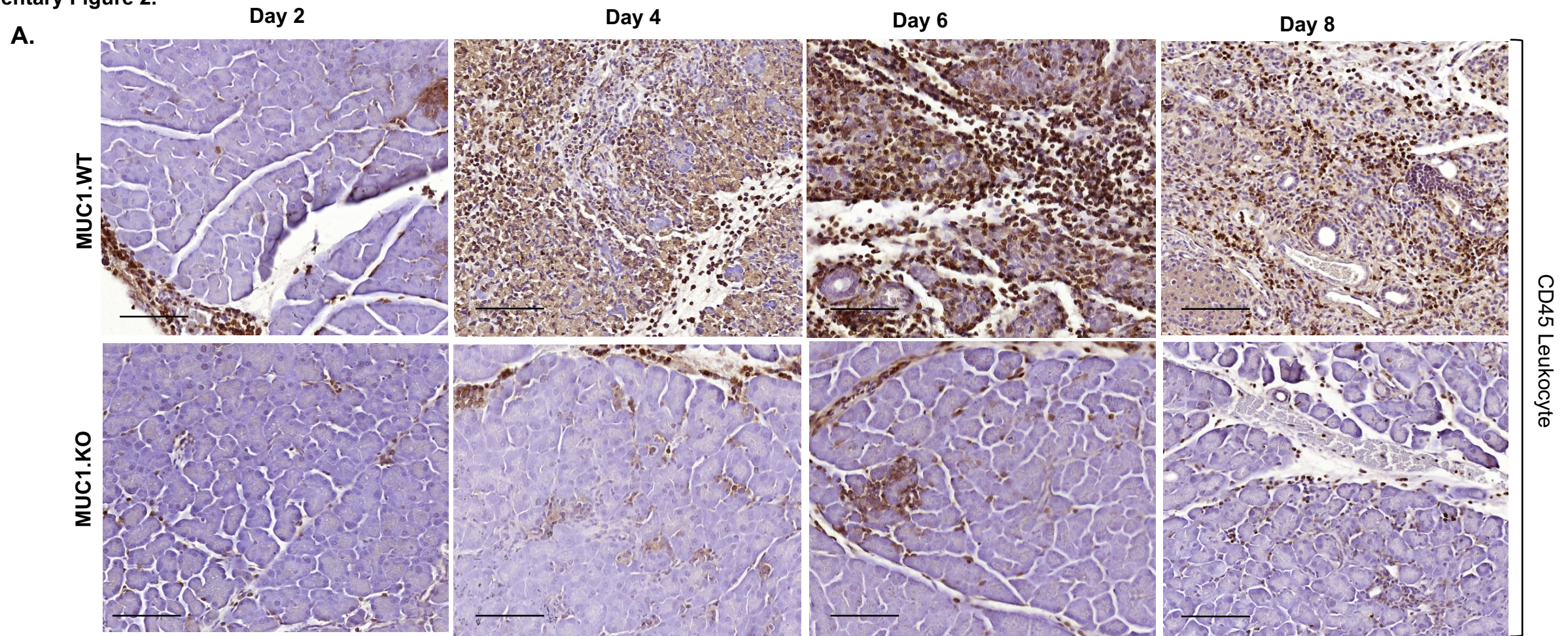
Supplementary Figure 1.

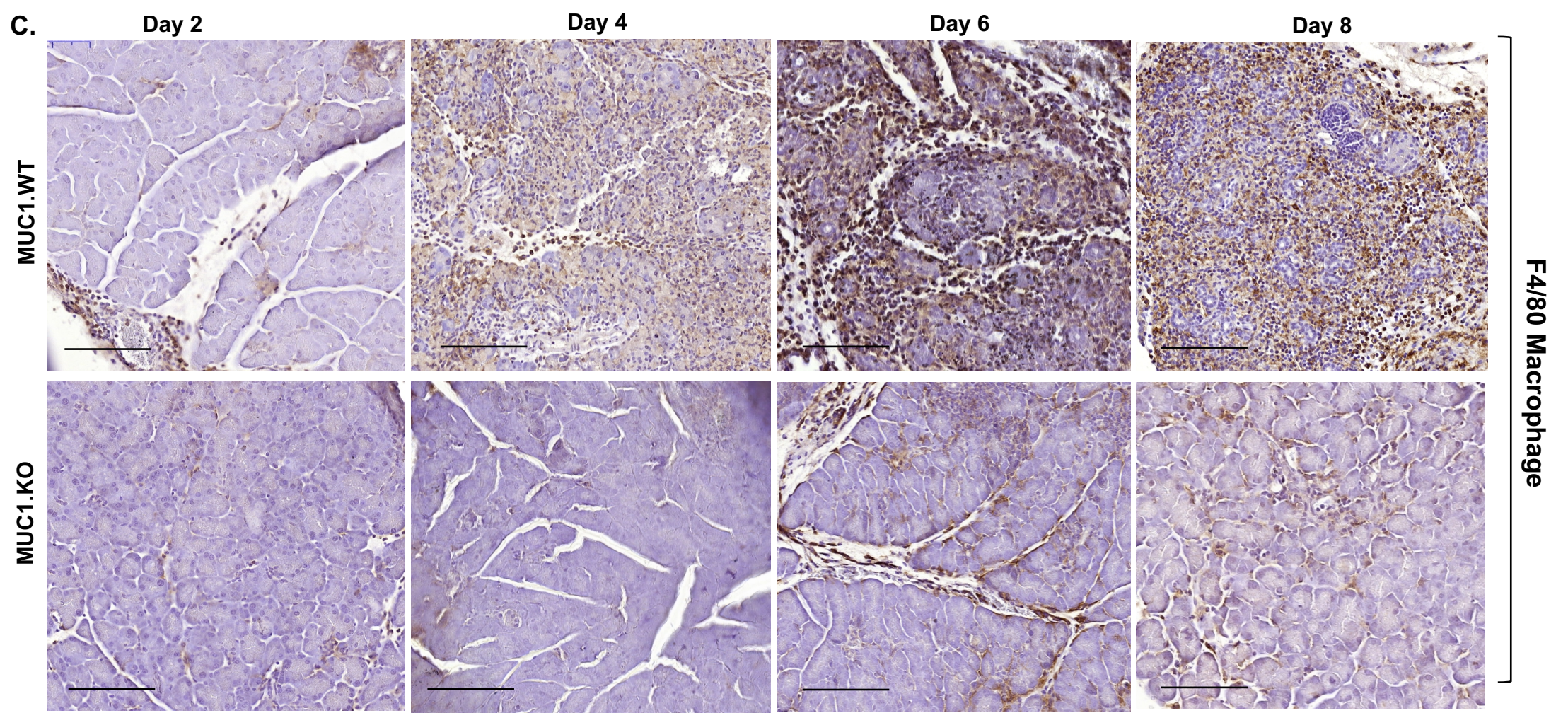




Supplementary Figure 1. Analysis of inflammation, body weight and pancreas weight in CVB3 infected WT and Muc1^{KO} mice. **(A)** Representative H&E-stained sections of pancreas from control mice and Muc1^{KO} mice inoculated with higher dose of virus (10e7 pfu) for 2, 4, 8 days. **(B)** Virus titer from spleens following virus infection at each time point was analyzed by plaque assay. Statistical analysis of Muc1^{WT} and Muc1^{KO} mice body weight **(C)** and pancreas weight **(D)** of WT and Muc1^{KO} mice was assessed during the course of infection at day 0, 2, 4, 8 and 12. ** $p \leq 0.01$ indicates statistical significance. **(E)** Pancreas from WT control, Muc1^{KO} with no CVB3, WT+CVB3 and Muc1^{KO}+CVB3 were subjected to H&E staining and immunofluorescence staining for Muc1. **(F)** Immunofluorescence pictures of MUC1 staining in wildtype mice pancreas. Green indicates MUC1 staining. Red indicates amylase staining. Arrow shows intercalated duct. Arrow heads points to intralobular duct. **(G)** MUC1 expression in macrophages. Red indicates F4/80 staining for macrophages. Green indicates MUC1 staining.

Supplementary Figure 2.

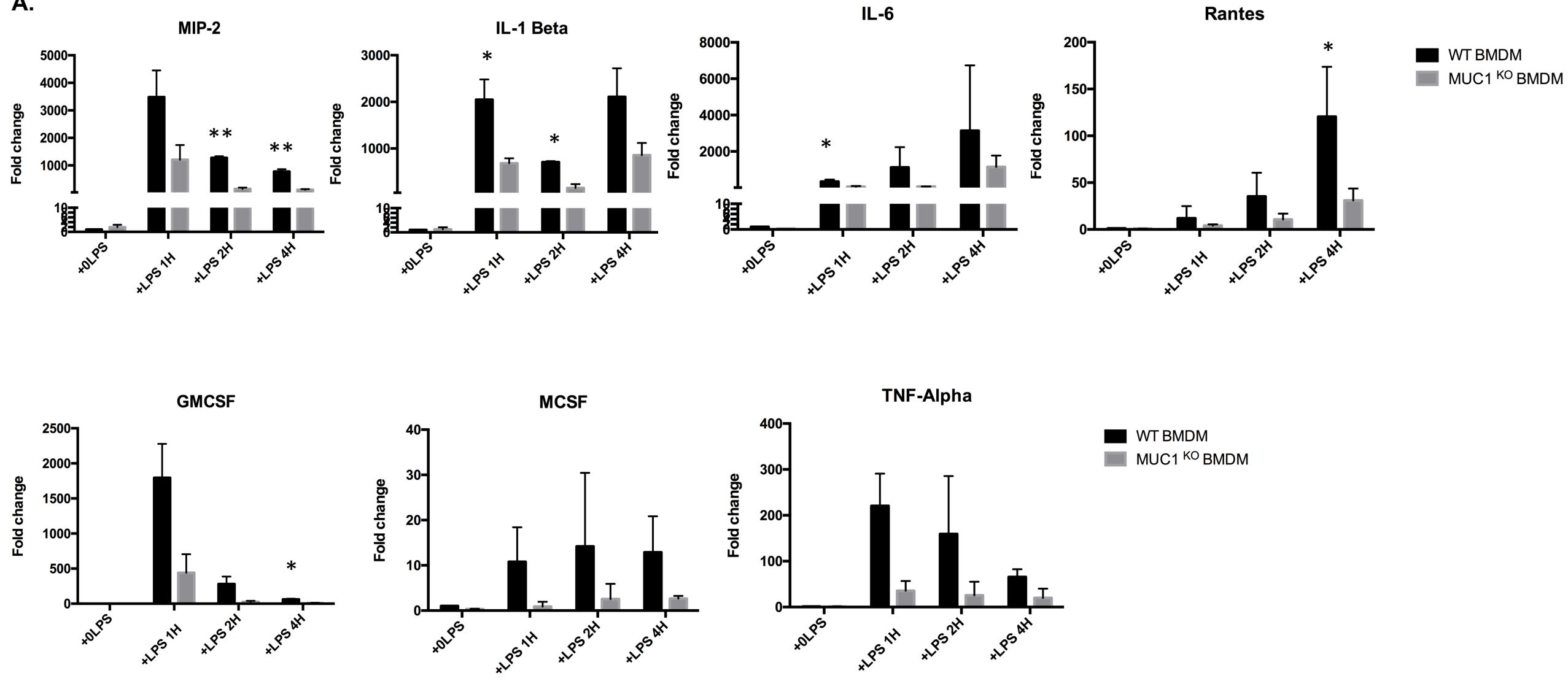




Supplementary Figure 2. Analysis of leukocyte infiltration in CVB3 infected WT and $Muc1^{KO}$ mice. IHC staining of **(A)** CD45+ leukocytes, and **(C)** F4/80+ macrophages in CVB3-infected WT and $Muc1^{KO}$ mice during the course of infection (day 2, 4, 6, and 8). Quantification of **(B)** CD45+ leukocyte infiltration, and **(D)** macrophage recruitment in the pancreas of WT and $Muc1^{KO}$ mice with CVB3 infection on day 2, day 4, day 6 and day 8. * $p < 0.05$, *** $p \leq 0.001$, **** $p \leq 0.0001$ indicates statistical significance.

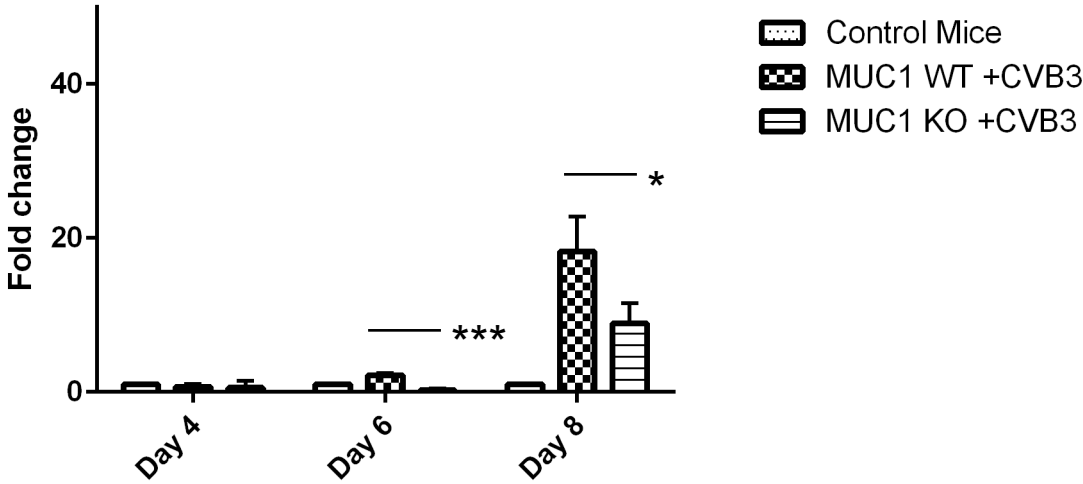
Supplementary Figure 3.

A.

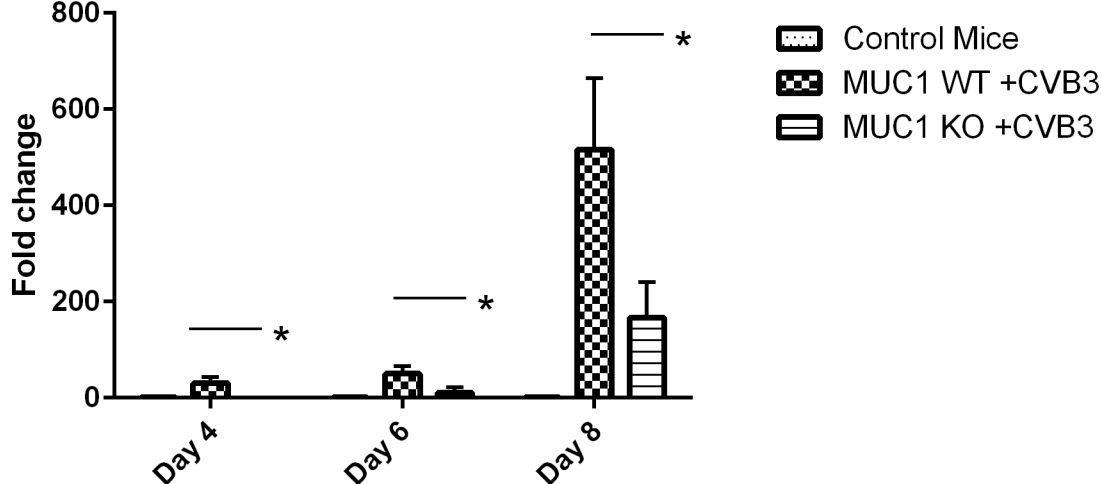


B.

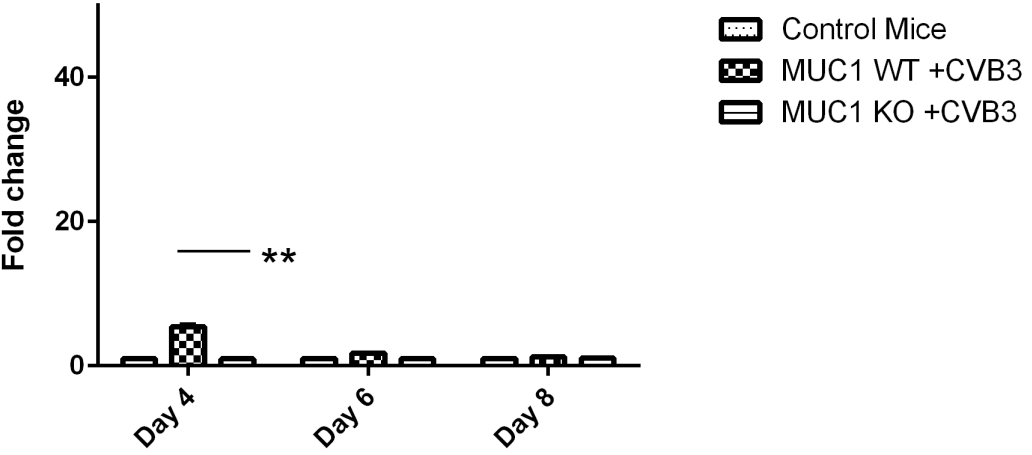
Ifnar1 mRNA expression



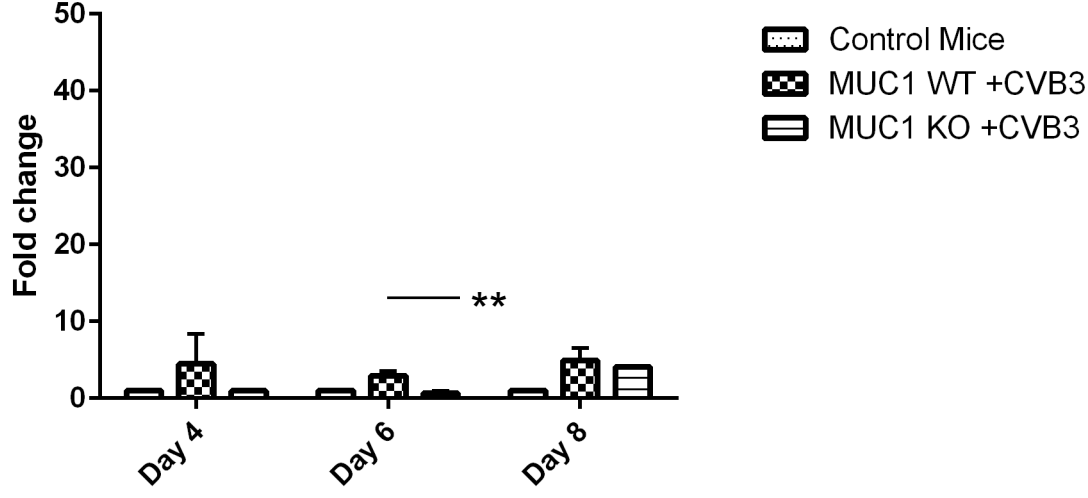
CXCL9 mRNA expression



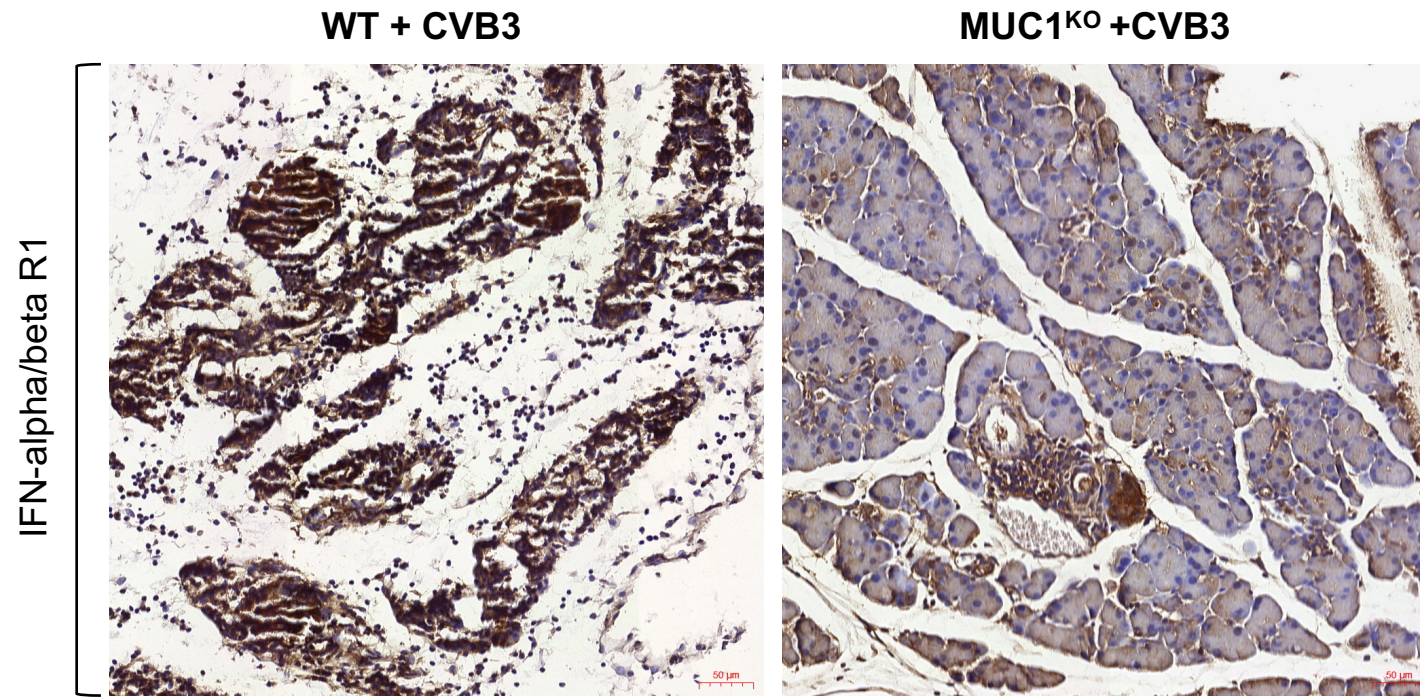
CXCL10 mRNA expression



CXCL11 mRNA expression



C.



Supplementary Figure 3. Cytokines expression evaluation. **(A)** Cytokines in WT and Muc1^{KO} BMDM were quantified by real-time PCR at different time point upon LPS stimulation. MIP-2: Macrophage Inflammatory protein. Quantification data shown are mean \pm SD and represent three independent experiments. ** $p \leq 0.01$ indicates statistical significance. **(B)** The mRNA expression level of type1 IFNs and type1 IFN-related chemokines (CXCL9, 10, 11) were evaluated by real-time PCR in this virus model system. $p < 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$ indicates statistical significance. **(C)** IHC for type1 IFNs on sections from WT control and Muc1^{KO} mice with CVB3 infection 8-days post-Inoculation. Scale bar 50 μ m.