

Supplementary Information

Title: A Single-Round Infectious Virus with a Codon-Deoptimized Genome: A Powerful Tool for Regulation of Pathogenicity of Wild-Type/Live-Attenuated Viruses

Authors:

Takafumi Noguchi, Anju Miyamori, Takeshi Sugimoto, Paola Miyazato, Hirotaka Ebina*

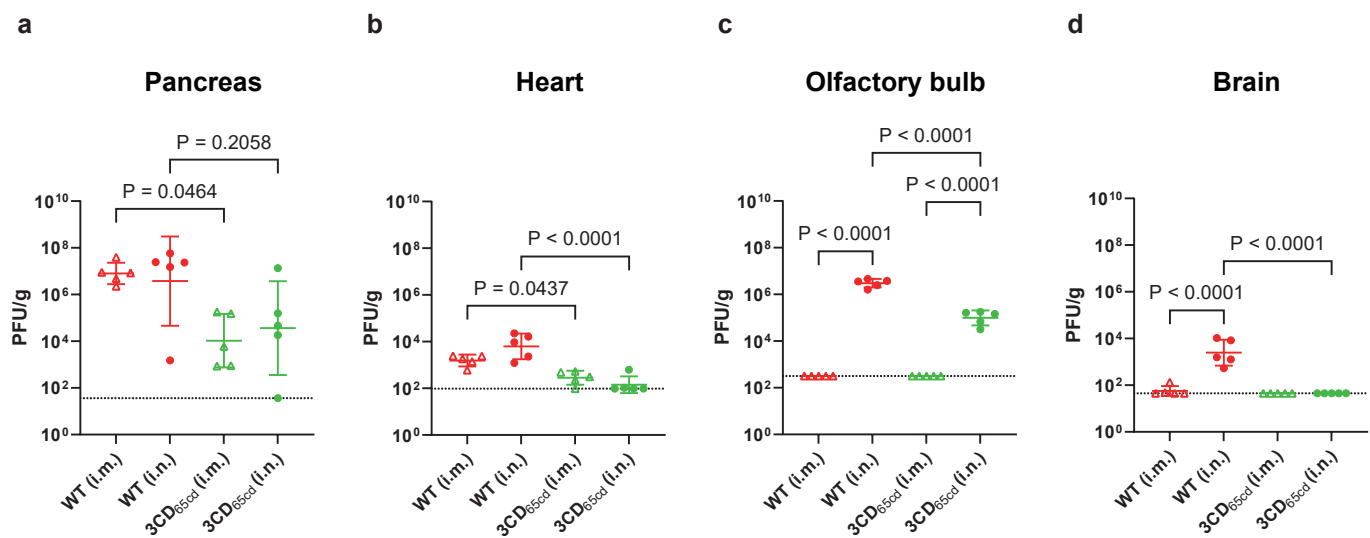


Figure S1. 3CD_{65cd} showed reduced viral replication in multiple tissues

Mice were infected with WT or 3CD_{65cd} (10^3 PFU/mouse) intramuscularly or intranasally. Four days post-infection, viral loads in the (a) pancreas, (b) heart, (c) olfactory bulb, and (d) brain were determined using a plaque assay. Filled circles and open triangles represent i.n. and i.m. infection, respectively (red: WT; green: 3CD_{65cd}). The dotted lines represent the assay's limit of detection (LOD). For statistical analysis, two-way ANOVA with Sidak's multiple comparisons test was performed. All data are presented as the mean $\pm$ SD. The LOD for each organ was set as: heart, 97 PFU/g; pancreas, 36 PFU/g; olfactory bulb, 3.2×10^2 PFU/g; and

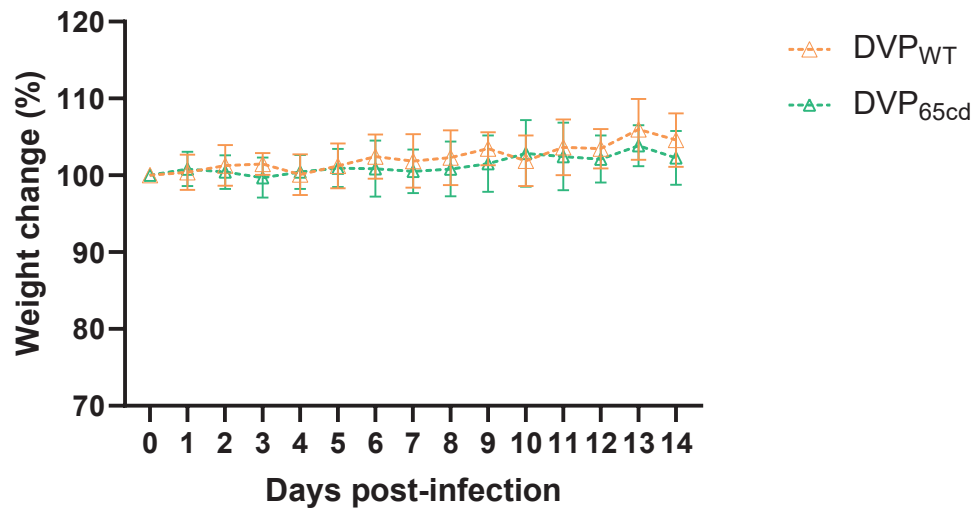


Figure S2. No significant weight loss was observed following high-dose DVP infection

Mice were infected with DVP_{WT} or DVP_{65cd} (2×10^4 IU/mouse) via the i.m. route. Body weight change and survival were monitored daily for 2 weeks. Dashed orange and green lines with open triangles represent the DVP_{WT}- or DVP_{65cd}-infected groups, respectively. All data are presented as the mean $\pm$ standard deviation (SD).