



**Fig. S1.** Overexpressing levels of DKK1 in the peripheral circulation (A) and reproductive tracts (B and C) in pregnant mice. Plasma was obtained by retroorbital phlebotomy from pregnant females receiving intravenous injections of empty or DKK1 ADV ( $2.5 \times 10^9$  pfu in 0.2 ml saline) on day 1. Oviductal and uterine tissues were collected on day 4. DKK1 protein migrates as a doublet of 34-38 kDa was detected by Western blot (WB) using anti-6xHis antibody (Ab) in the plasma. To examine uterine levels of DKK1, proteins were first concentrated by immunoprecipitation (IP) using 6xHis Ab, then visualized by WB using anti DKK1 Ab. Similar as that in the plasma, DKK1-His fusion protein was detected as a doublet of 34-38 kDa in the day 4 uterus of DKK1 ADV-treated mice. Immunofluorescence staining in frozen sections further revealed a marked increase of DKK1 proteins in the oviduct and uterus in females receiving DKK1 ADV. Liver served as positive control. Red (Cy3) fluorescence indicated the antigen. Bar, 200  $\mu$ M.