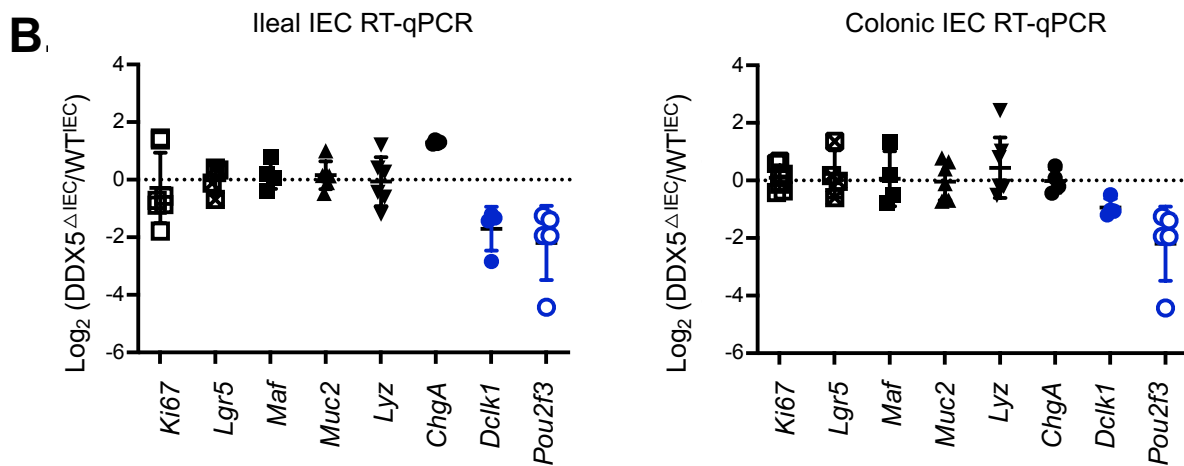
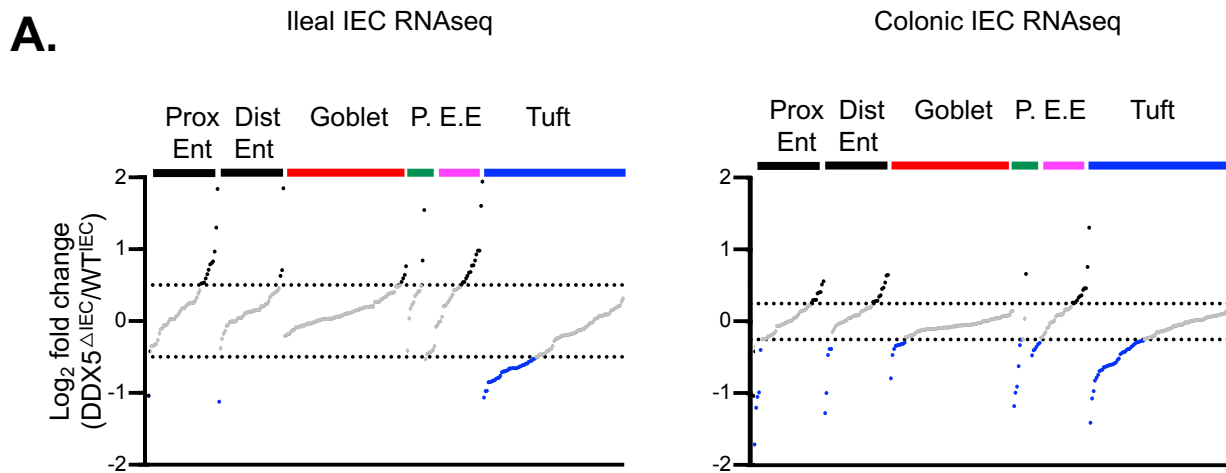
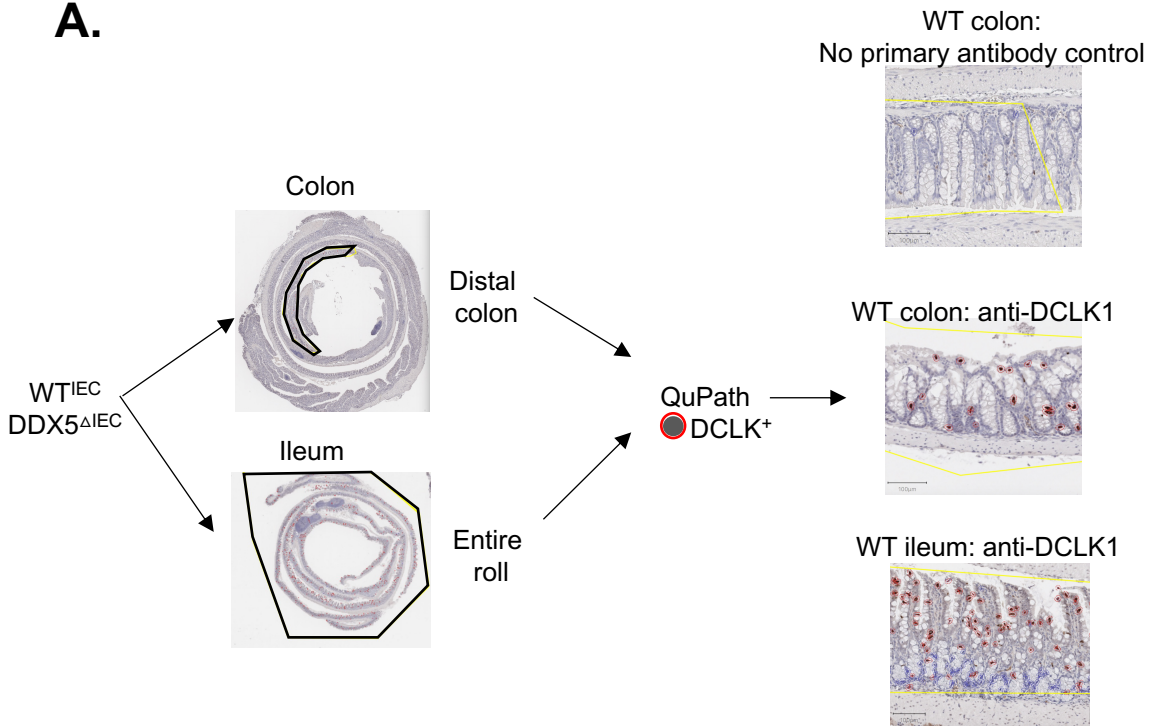


Supplementary figure 1: IEC-subset specific gene expression in the ileal and colonic epithelium.

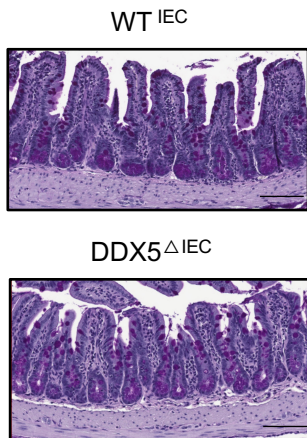


Supplementary figure 2: Intestinal crypt density and goblet cell numbers are DDX5-independent.

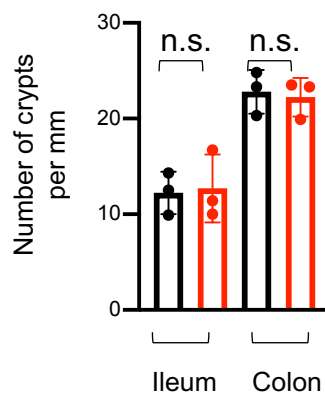
A.



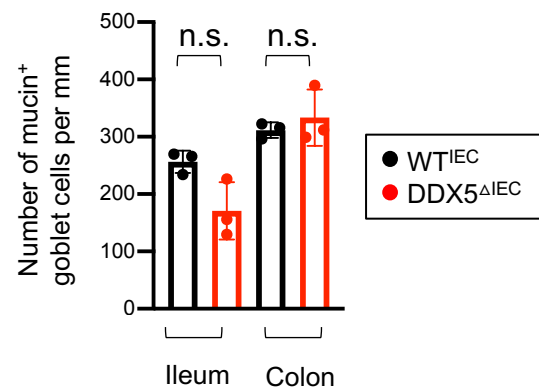
B.



C.

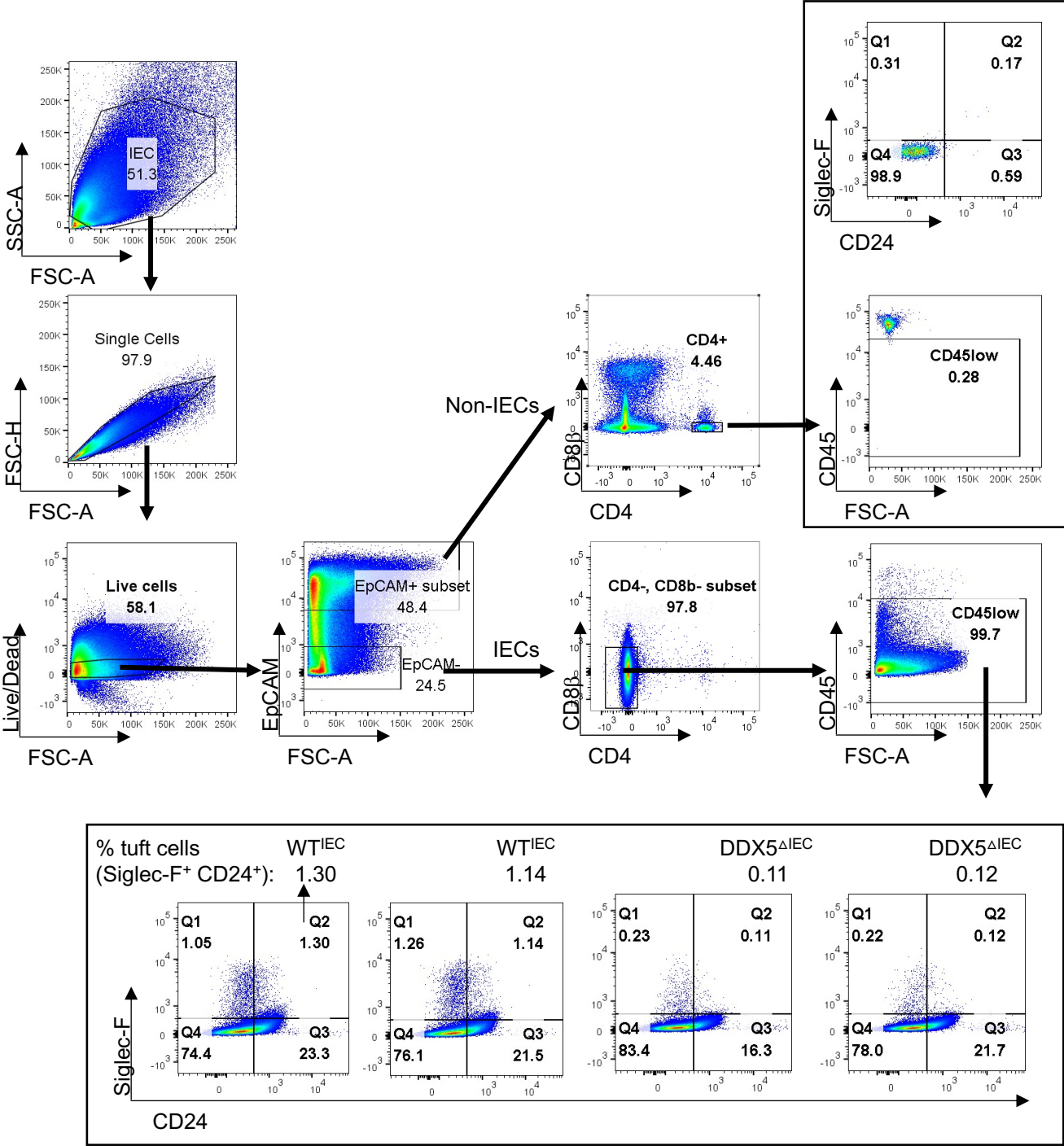


D.

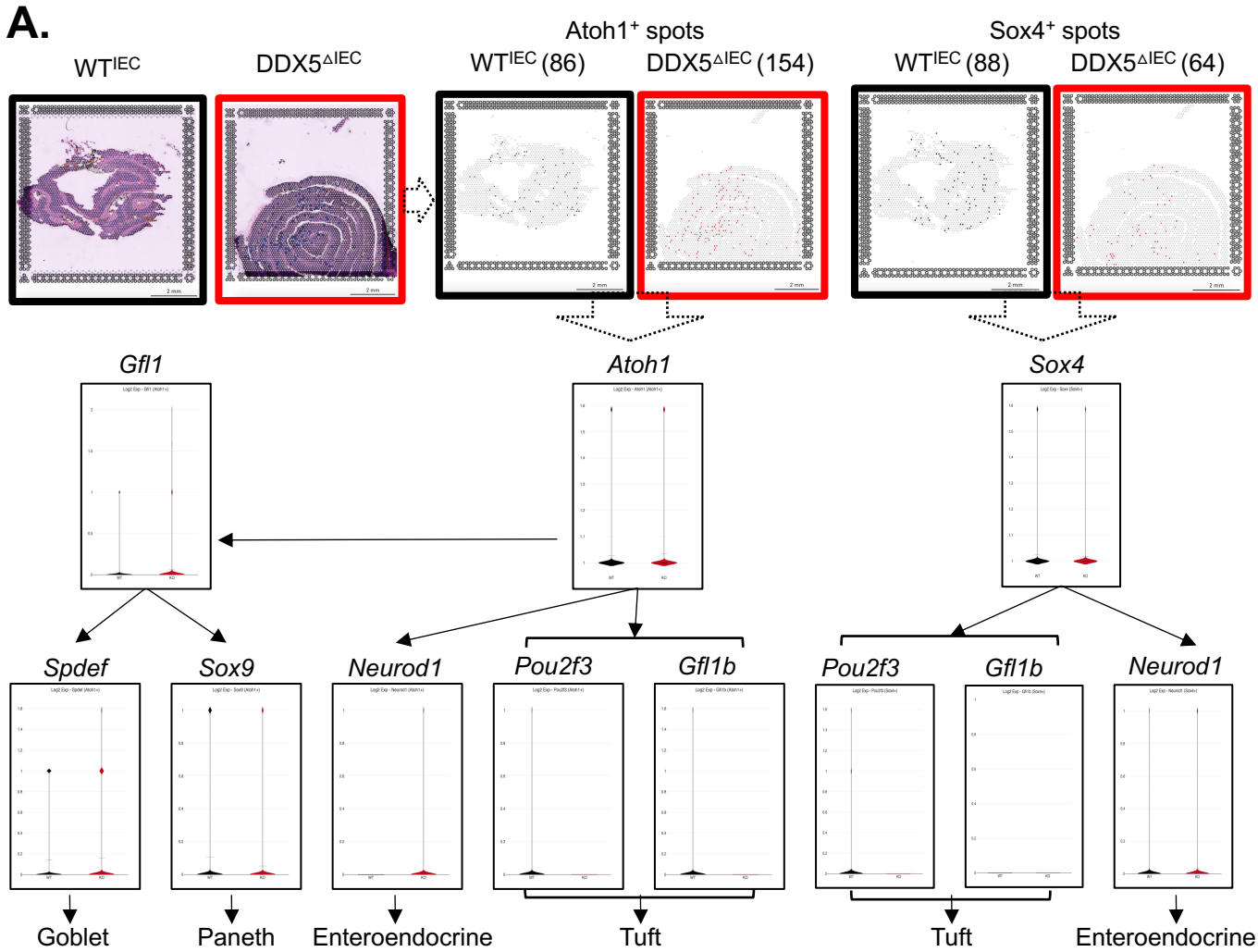


Supplementary figure 3: Tuft cell gating strategy.

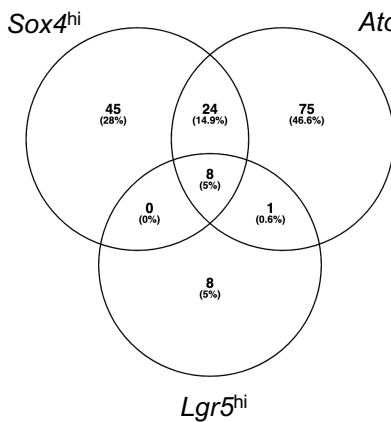
A.



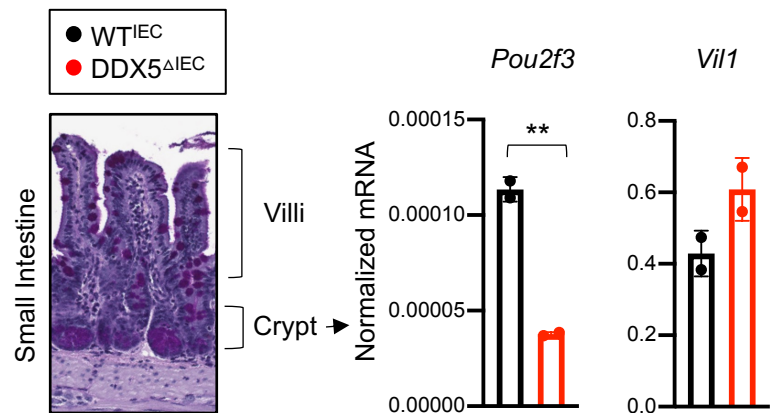
Supplementary figure 4. **DDX5 dependency of IEC subset defining genes in the small intestinal ISC and secretory lineage progenitors.**



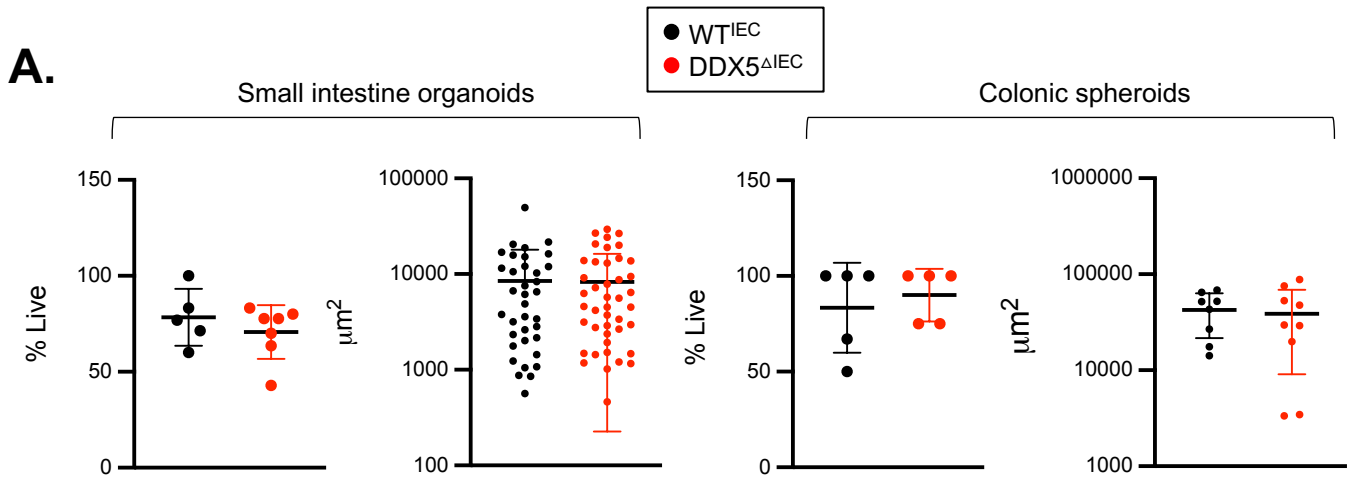
B. DDX5 dependent genes
($pV < 0.05$, Log₂ fold change > 4 or < -4)



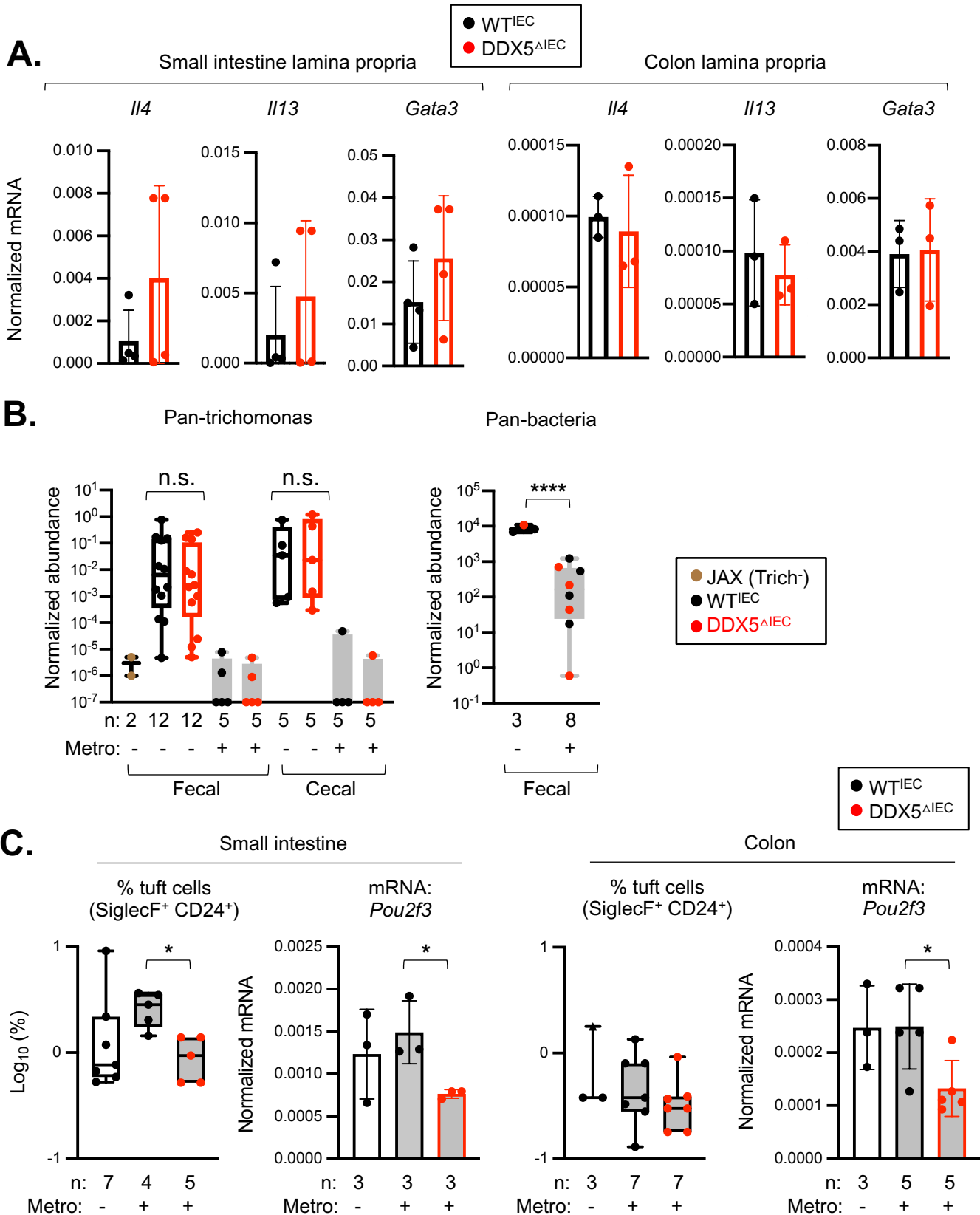
C.



Supplementary figure 5. **DDX5** is not involved in intestinal organoid survival and growth.

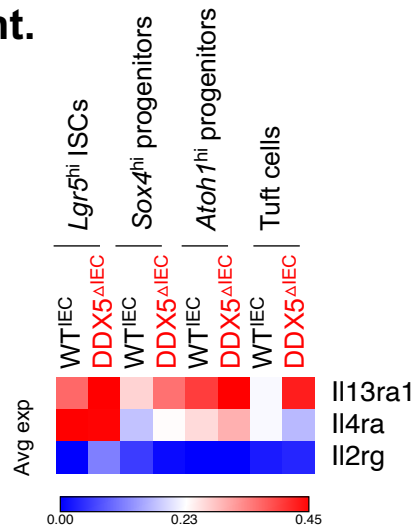


Supplementary figure 6. Similar type 2 cytokines and trichomonas levels in WT^{IEC} and DDX5^{ΔIEC} mice.

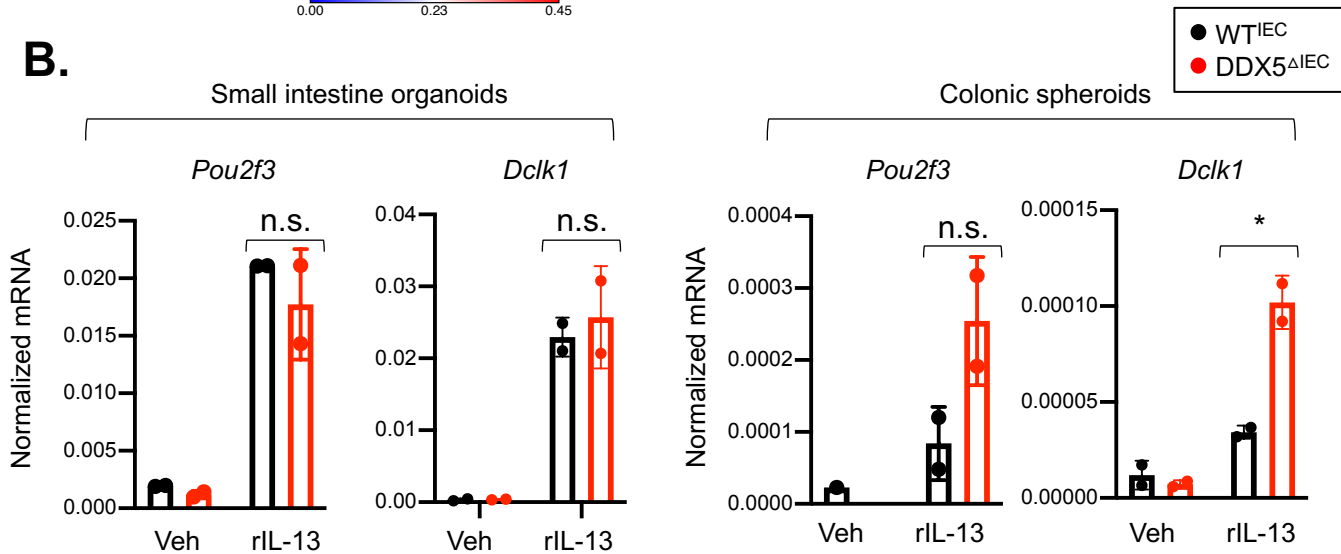


Supplementary figure 7. IL-13 driven tuft cell hyperplasia is DDX5-independent.

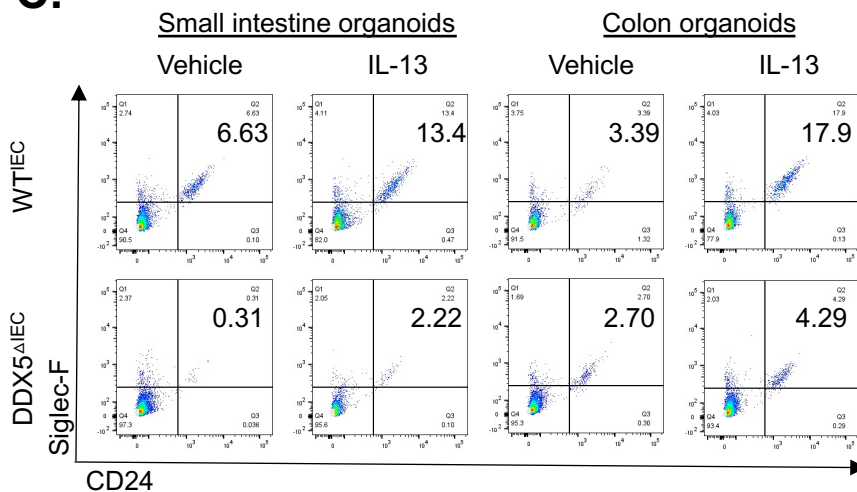
A.



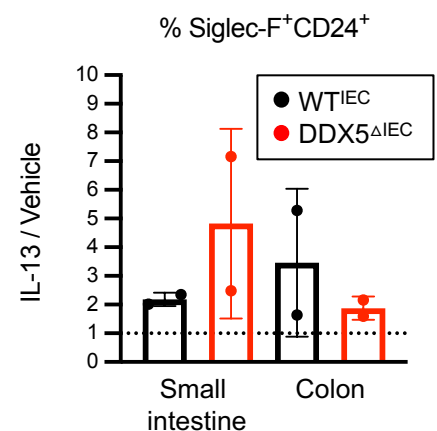
B.



C.

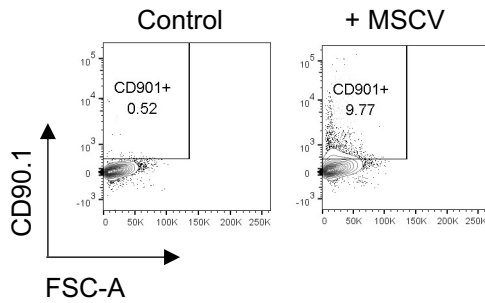


D.

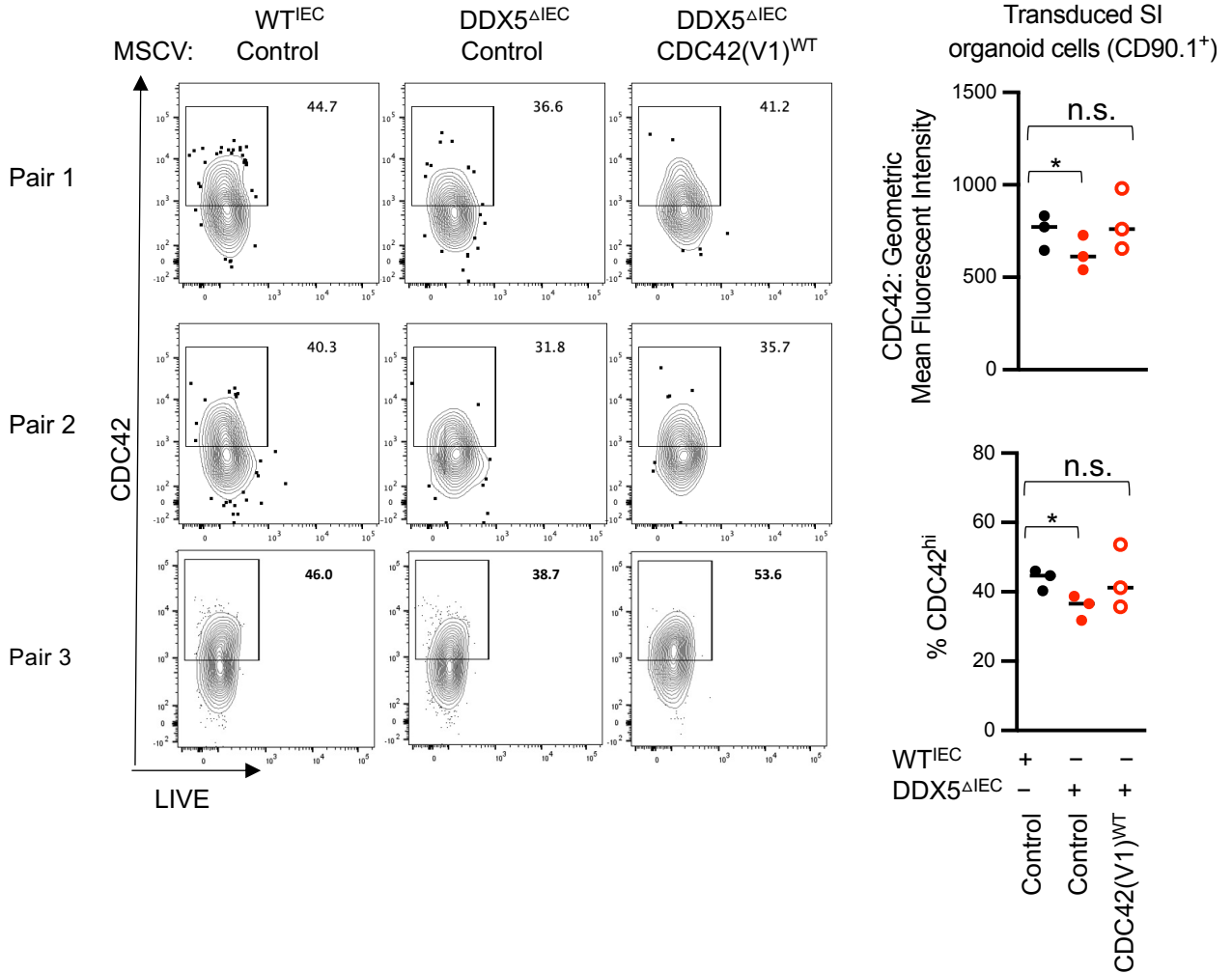


Supplementary figure 8: Restoring CDC42 protein levels in $DDX5^{\Delta IEC}$ small intestinal organoids.

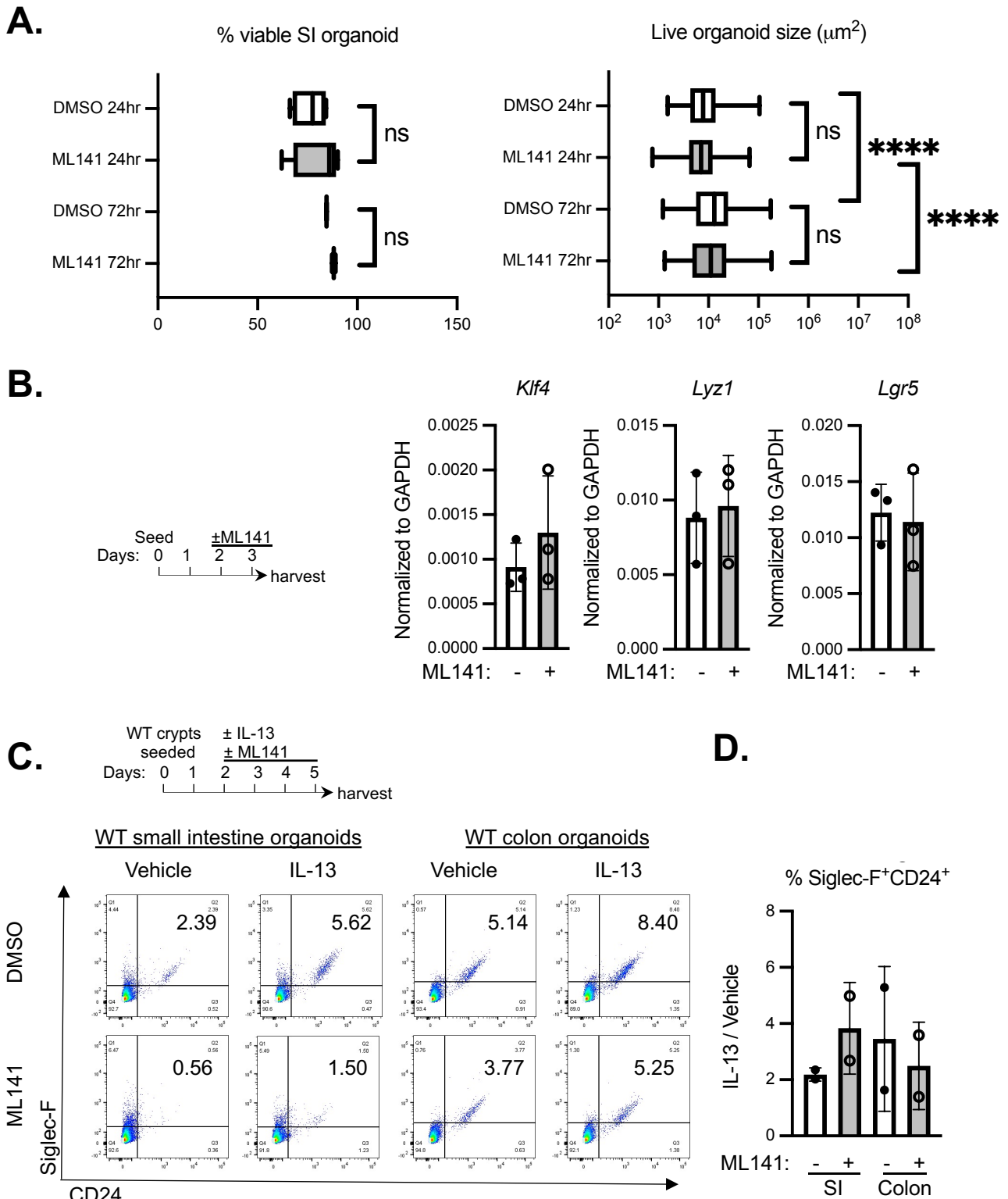
A.



B.

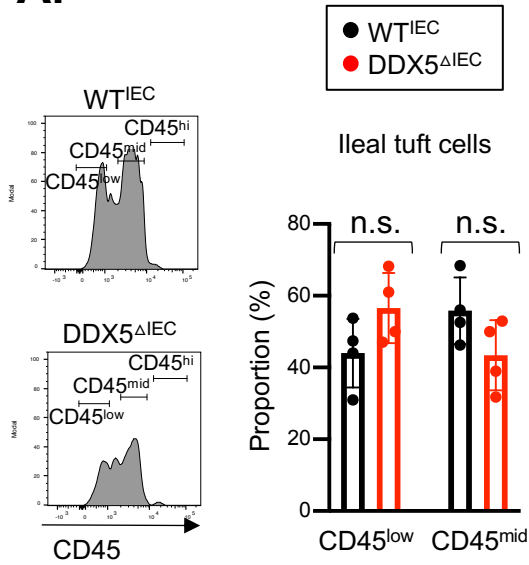


Supplementary figure 9: Transient inhibition of CDC42 activity did not alter wildtype intestinal organoid viability, growth, or response to IL-13 stimulation.

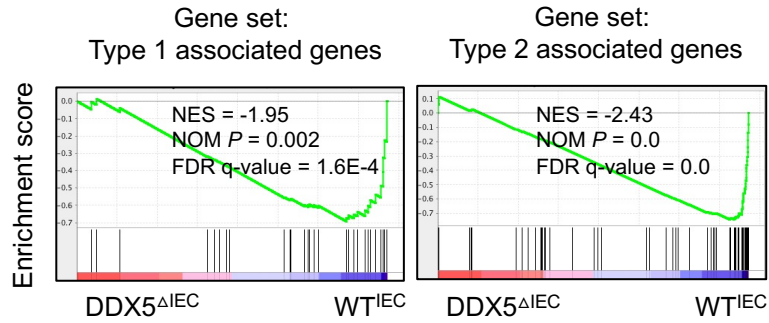


Supplementary figure 10: DDX5 promotes both type 1 and type 2 tuft cell programs in the small intestine.

A.

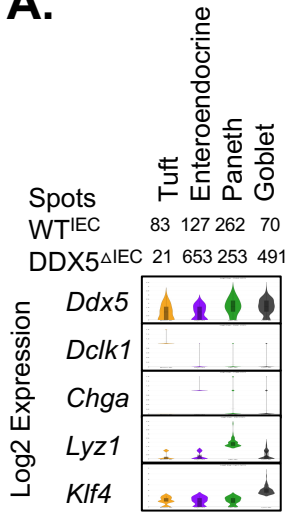


B.



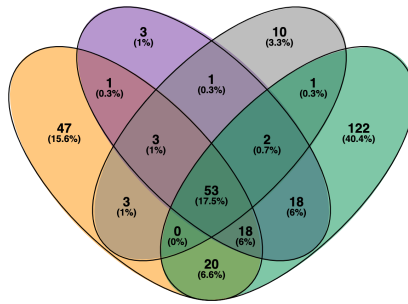
Supplementary figure 11: DDX5-dependent and -independent genes among small intestinal IEC lineages.

A.

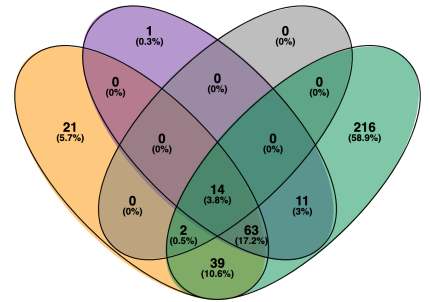


B.

Genes downregulated in DDX5 Δ IEC

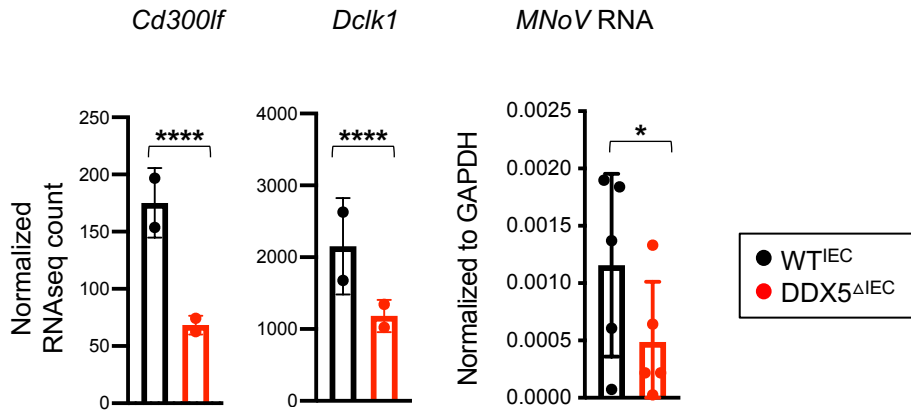


Genes upregulated in DDX5 Δ IEC

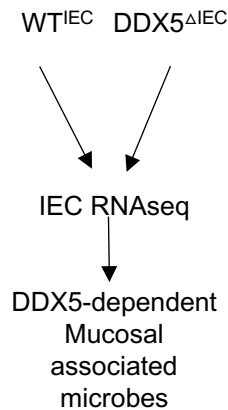


Supplementary figure 12: DDX5-dependent viral and bacterial populations in the murine intestine.

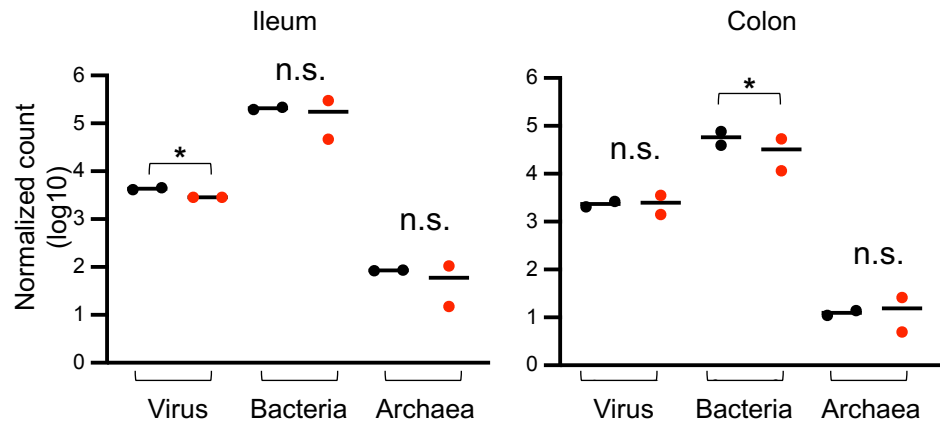
A.



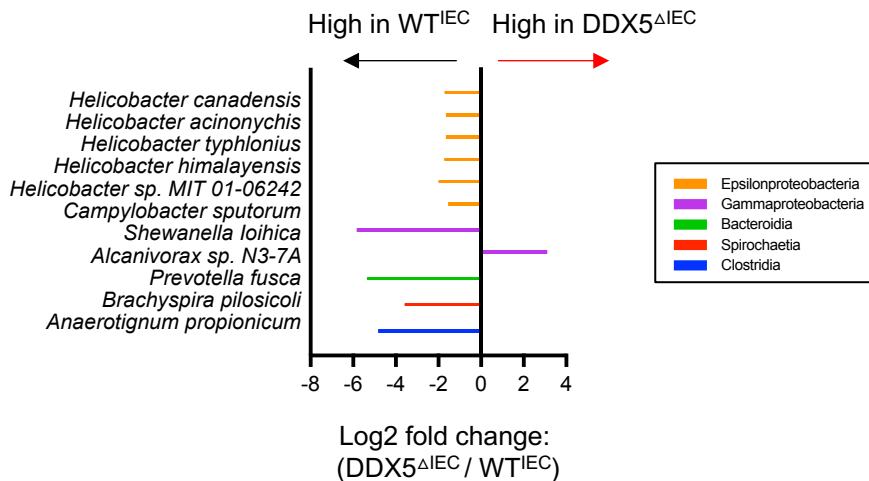
B.



C.

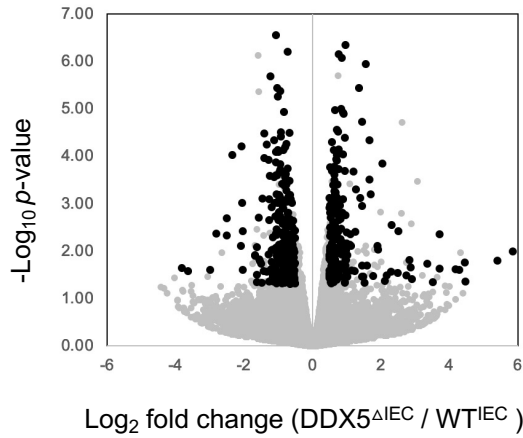


D.

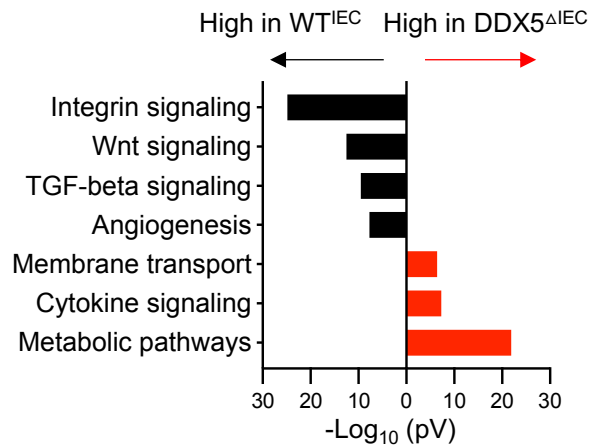


Supplementary figure 13: DDX5-dependent programs in colonic tumors.

A.



B.



C.

