

FIGURE S1: Silencing expression of Toll in EBs reduces their number RNAi knockdown of the Toll receptor (*UAS-Toll^{RNAi}*) specifically in EBs (*Su(H)^{ts}>Gal4*) of the adult gut leads to a reduction in cell number and alters their morphology, where the cells generally remain rounded, rarely adopting the characteristic elongated and irregular shape often observed with ISCs / EBs (compare cells marked with white asterisks). CG7923 was randomly chosen and used to control the RNAi effect. EBs marked with GFP (green) and all nuclei stained with DAPI (grey) in 20 day-old flies. Quantification showed a significant difference in the number of EBs between *UAS-CG7923^{RNAi}* and *UAS-TollRNAi* ($P < 0.001$ and 95% confidence interval ($n = 10$ guts)).

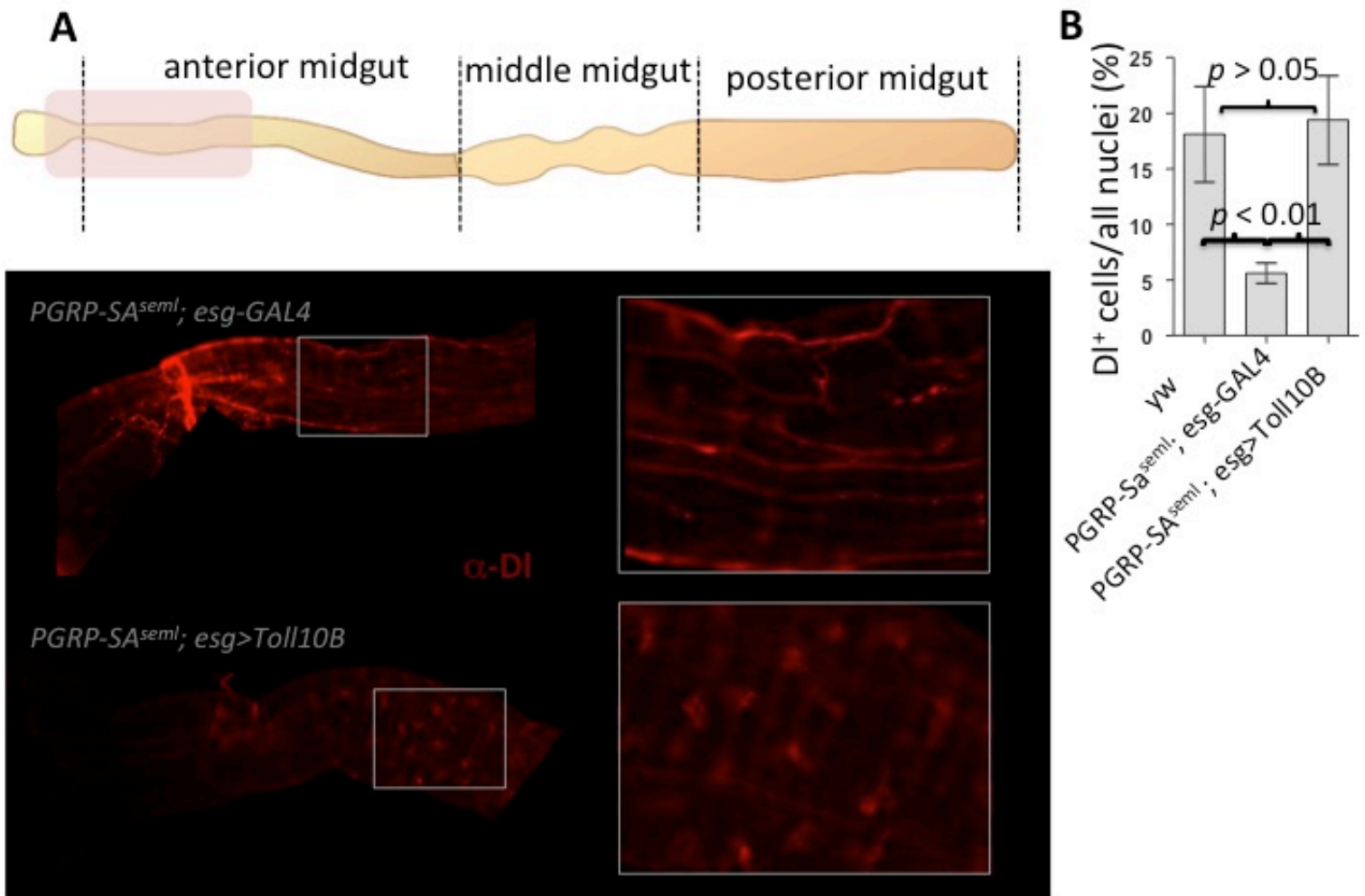


FIGURE S2: Constitutive expression of Toll in progenitor cells rescues ISC numbers. (A) Expression of Toll10B in progenitor cells (*esg^{ts}>GAL4*) in a background mutant for PGRP-SA brings back ISCs (labeled in red) (B) This can be verified comparing to the *yw* genetic background of the *PGRP-SA^{semi}* mutant. ISC numbers in *yw* flies were statistically indistinguishable from *PGRP-SA^{semi}; esg^{ts}>Toll10B*. ISCs were marked with anti-DI in 20 day-old flies.

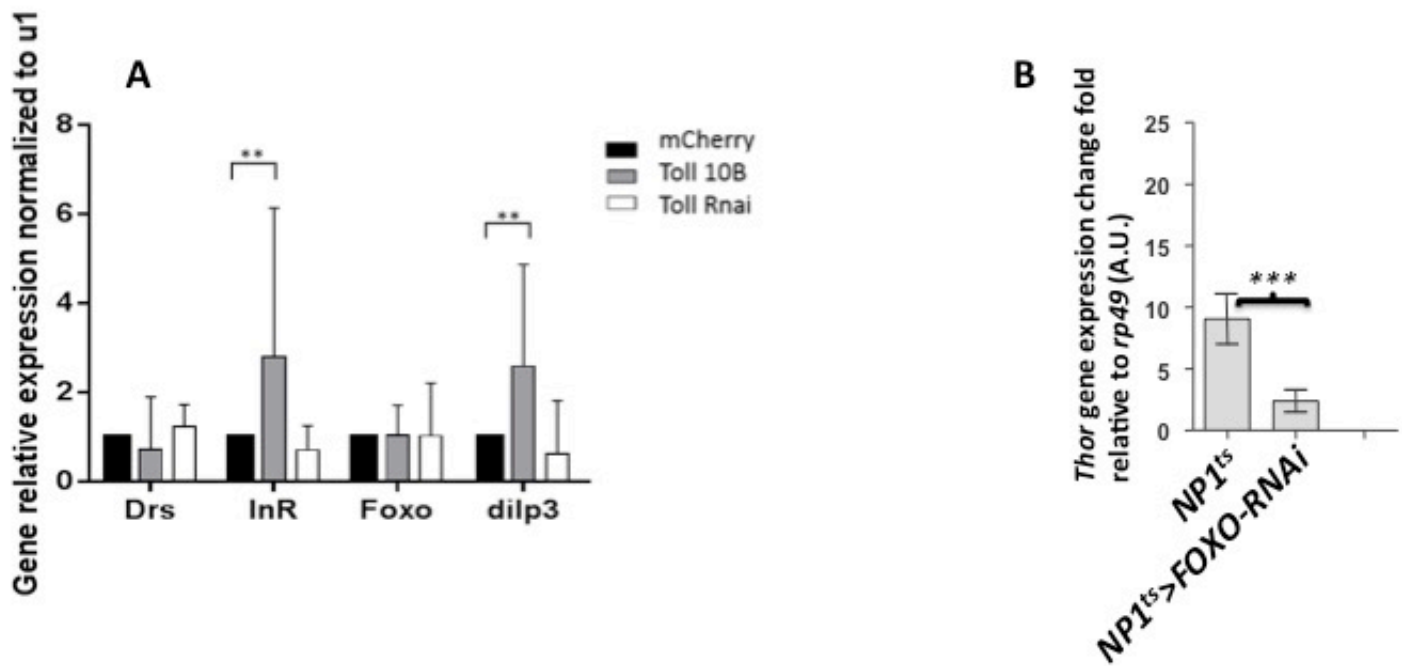


FIGURE S3: Toll regulates FOXO-dependent transcription in the gut. (A) Constitutive expression of Toll (Toll10B) or silencing (Toll RNAI) in progenitor cells expressing also *UAS-mCherry* (*u1*). *InR* and *dilp3* were found to be positively regulated by Toll. **(B)** In addition to these another gene under FOXO control is the fruit fly homologue of 4E-BP (*Thor*). Infection with *C. albicans* when FOXO was knocked-down significantly decreased the levels of *Thor* transcription compared to *ribosomal protein 49* (*rp49* in 20-day old *NP1^{ts}* flies.).