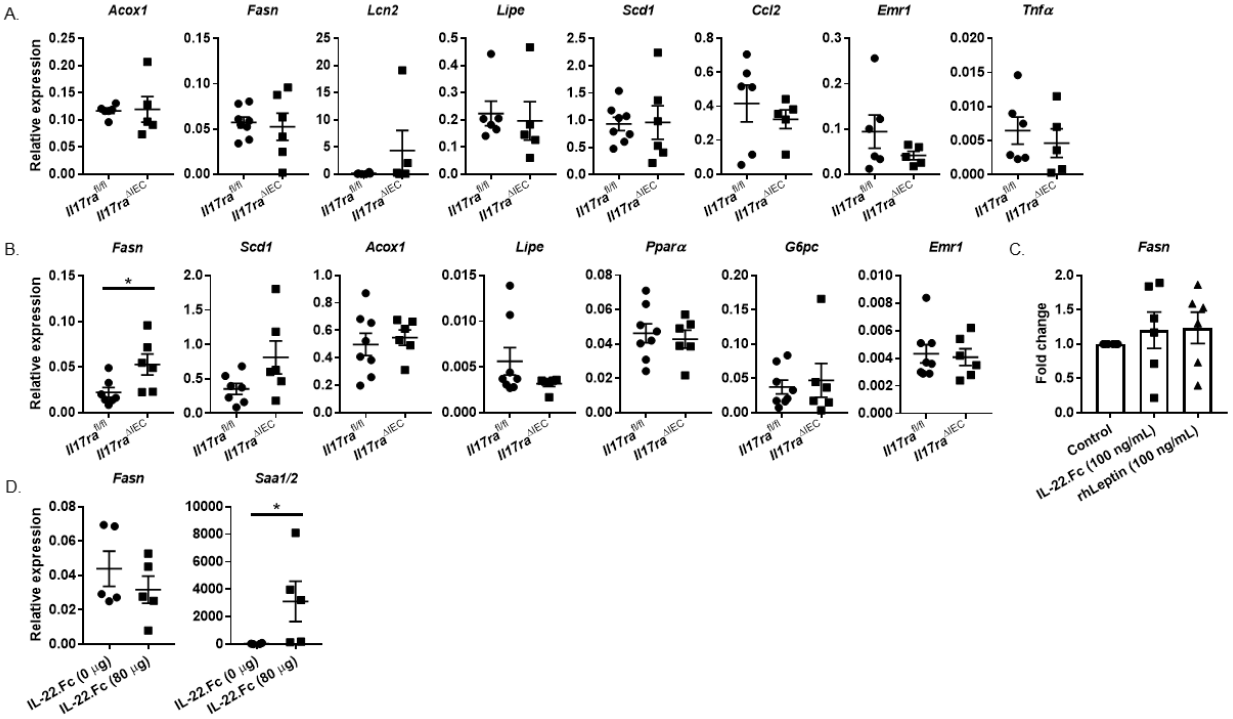
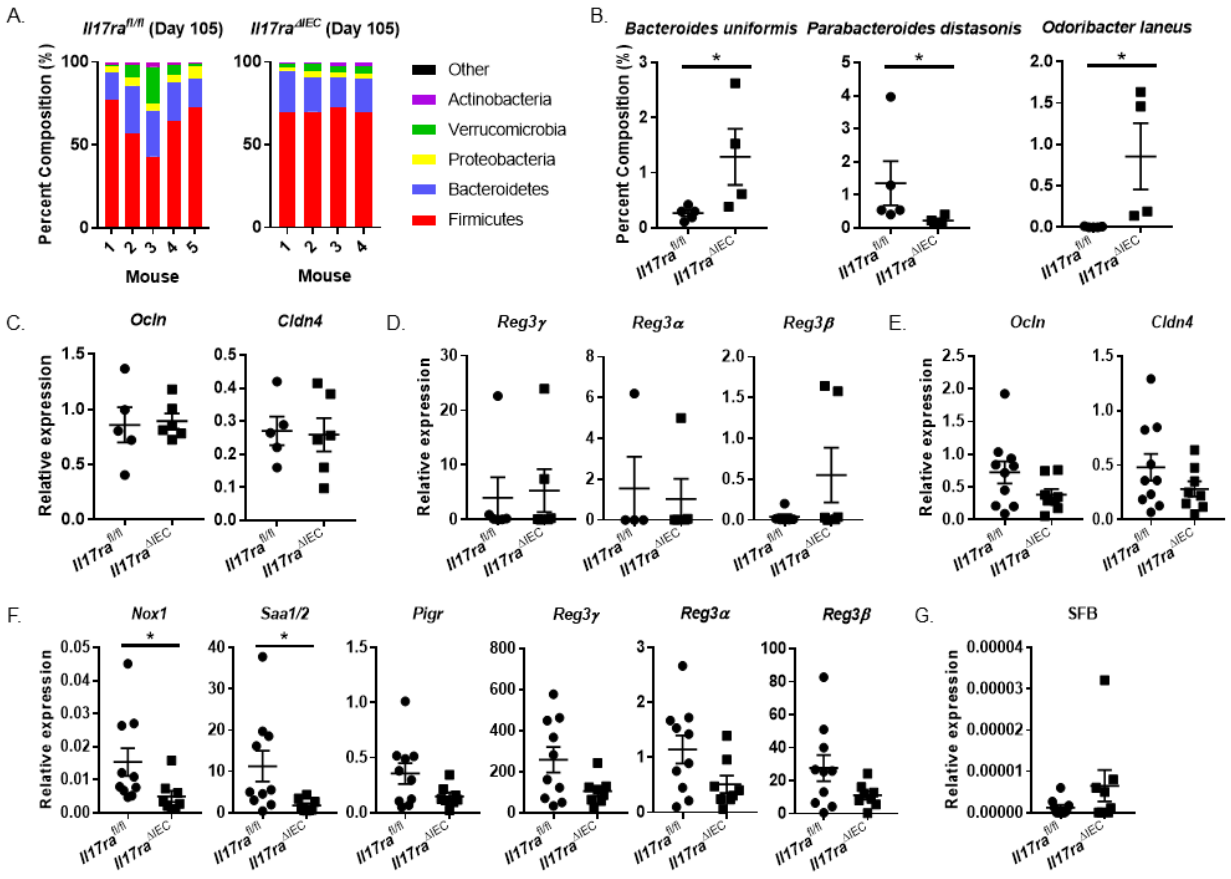
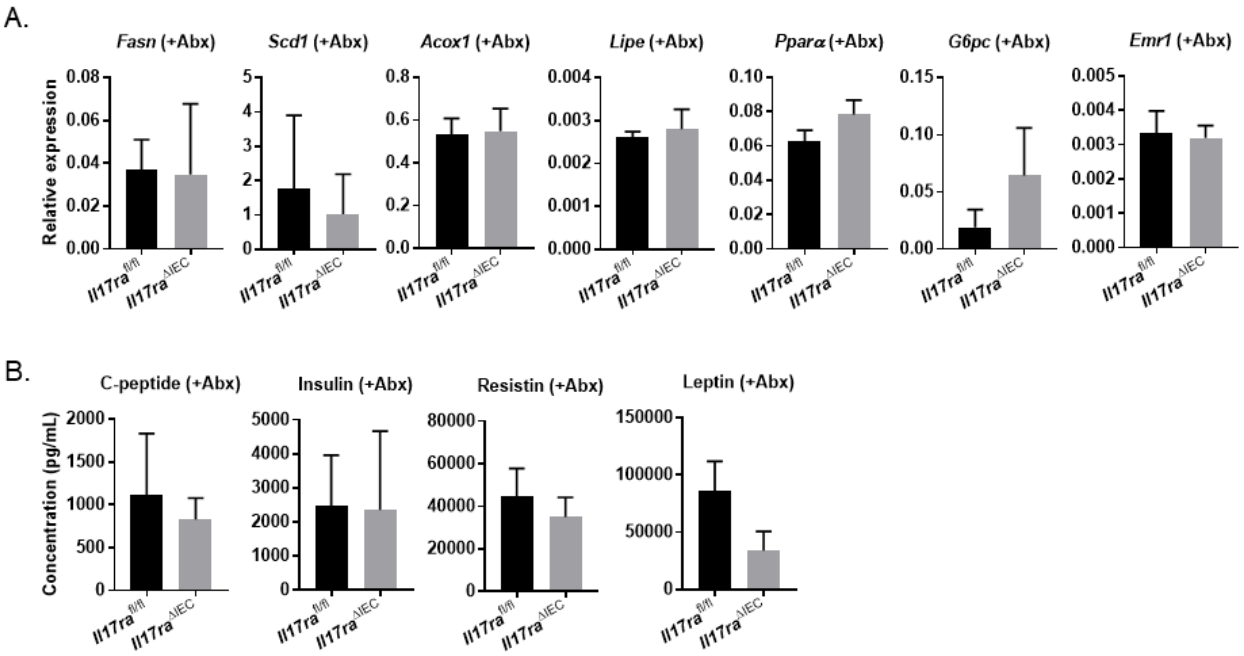


Supplemental Figure 1. Analysis of extra-intestinal metabolic and inflammatory genes from *Il17ra*$^{fl/fl}$ and *Il17ra*$^{\Delta IEC}$ mice. A) RT-PCR data from eWAT of HFD-fed mice. B) RT-PCR data from liver tissues of HFD-fed mice. C) RT-PCR analysis from HepG2 cells treated with nothing, 100 ng/mL IL-22.Fc, or 100 ng/mL rhLeptin for 28 hours. D) RT-PCR analysis of liver tissues collected from C57BL/6J mice 24 hours after intraperitoneal injection with pure PBS or 80 μg of IL-22.Fc. All data is based on results obtained from at least two separate experiments. For all graphs, error bars depict the mean ± SEM. Whitney test Two-tailed, Two-way ANOVA, *$p < 0.05$.



Supplemental Figure 2. Analysis of intestinal microbiota composition and gene expression from *Il17ra*$^{fl/fl}$ and *Il17ra*$^{\Delta IEC}$ mice. A) Phyla and species-level 16s rRNA sequencing data collected from fecal samples. RT-PCR analysis of B) tight junction and C) antimicrobial genes from the distal colon of mice fed 16 weeks of HFD. RT-PCR analysis of D) tight junction and E) antimicrobial genes and F) SFB levels from the terminal ileum of mice fed 1 week of HFD. All data is based on results obtained from at least two separate experiments. For all graphs, error bars depict the mean ± SEM. Mann Whitney test Two-tailed, *$p < 0.05$.

Supplemental Figure 3



Supplemental Figure 3. Effects of intestinal microbiota depletion in *Il17ra*$^{fl/fl}$ and *Il17ra*$^{\Delta IEC}$ mice. A) RT-PCR analysis of the expression of hepatic genes and B) Luminex analysis of serum hormone levels from mice treated with 16 weeks of HFD and an antibiotic cocktail starting on week 12. Error bars depict the mean ± SD. Mann Whitney test Two-tailed.

Supplemental Table 1

Vendor	Gene	Code/ Primer Sequence
Applied Biosystem	*Hprt*	Mm00446968_m1
	Cldn4	Mm00515514_s1
	Ocln	Mm00500912_m1
	Reg3α	Mm01181787_m1
	Reg3γ	Mm.PT.58.1275735
	Saa1/2	Mm04208126_mH
	Tnfα	Mm.PT.58.12575861
Integrated DNA Technologies	*Gapdh*	Forward: 5'-TCATCAACGGGAAGCCCATCAC-3' Reverse: 5'-AGACTCCACGACATACTCAGCACCG-3'
	Acox1	Forward: 5'-CGCACATCTTGGATGGTAGT-3' Reverse: 5'-GGCTTCGAGTGAGGAAGTTATAG-3'
	Emr1	Forward: 5'-CCCCAGTGTCCTTACAGAGTG-3' Reverse: 5'-GTGCCCAGAGTGGATGTCT-3'
	Fasn	Forward: 5'-AGCGGCCATTTCCATTGCCC-3' Reverse: 5'-CCATGCCCAGAGGGTGGTTG-3'
	G6pc	Forward: 5'-TCTGTCCCGGATCTACCTTG-3' Reverse: 5'-GCTGGCAAAGGGTGTAGTGT-3'
	Lcn2	Forward: 5'-GGGAAATATGCACAGGTATCCTC-3' Reverse: 5'-CATGGCGAACTGGTTGTAGTC-3'
	Lipe	Forward: 5'-CATCAACCACTGTGAGGGTAAG-3' Reverse: 5'-AAGGGAGGTGAGATGGTAACT-3'
	Pparα	Forward: 5'-TTTCGGCGAACTATTCGGCTG-3' Reverse: 5'-GGCATTTGTTCCGGTTCTTCTT-3'
	Pparγ	Forward: 5'-AGGCGAGGGCGATCTTGACAG-3' Reverse: 5'-AATTCGGATGGCCACCTCTTTG-3'
	Reg3β	Forward: 5'-GTGTCCTCCAGGCCTCTTT-3' Reverse: 5'-ATGGCTCCTACTGCTATGCC-3'
	Scd1	Forward: 5'-GAGGCCTGTACGGGATCATA-3' Reverse: 5'-TGAGAGAAGAAGAAGCCACGG-3'
	Eubacteria	Forward: 5'-ACTCCTACGGGAGGCAGCAGT-3' Reverse: 5'-ATTACCGCGGCTGCTGGC-3'
	SFB	Forward: 5'-GACGCTGAGGCATGAGAGCAT-3' Reverse: 5'- GACGGCACGGATTGTTATTCA-3'

Supplemental Table 1. List of RT-PCR primers utilized.