**Supplementary Table 1. Real time PCR primers.**

<table>
<thead>
<tr>
<th>Mouse Gene</th>
<th>Size (bp)</th>
<th>Forward Primer</th>
<th>Reverse Primer</th>
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<tr>
<td>Adam8</td>
<td>400</td>
<td>TGTCCTGGAGAGGGAACAGAAG</td>
<td>AACCCTGTTGACATCCTGGAAC</td>
</tr>
<tr>
<td>Adam9</td>
<td>127</td>
<td>CCAGACCGAGGGGATGTTGAAT</td>
<td>GCCATGACATTTTTTCCTGGA</td>
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<tr>
<td>Adam10</td>
<td>203</td>
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<td>TCAACTTCCATGAGCAAACG</td>
</tr>
<tr>
<td>Adam12</td>
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<td>Adam15</td>
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<td>ATGTCATGTGTGAGGCAACTGC</td>
<td>CCTCGAGAGGCCGATCTTG</td>
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<tr>
<td>Adam17</td>
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<tr>
<td>Adam19</td>
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<td>GCAAAAGGTTGCTGCTTTCC</td>
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<tr>
<td>IL-12 p35</td>
<td>218</td>
<td>ACGGCCAGGAAAAACTGAA</td>
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<tr>
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<td>IL-10</td>
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<tr>
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<td>β-Actin</td>
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<td>ATGGAGCGGAGGACGAAAGGC</td>
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</table>

*Primer sequences used for baseline experiments shown in Figure 1.*
SUPPLEMENTARY FIGURES.

Supplementary Figure 1. ADAM17 loss restores HB-EGF and NRG4 mRNA expression in mucosal extracts upon TPN treatment. Real-time PCR analysis of ErbB ligand mRNA expression in scraped mucosa (n=5-8 per group). Only Hbegf and Nrg4 mRNA levels are elevated in TPN-treated IEC-Adam17<sup>−/−</sup> mice compared TPN-treated WT genotype control mice. Under both sham and TPN conditions, Areg, Btc, Egf, Ereg, Nrg1, Nrg2, Nrg3 and Tgfα mRNA levels in IEC-Adam17<sup>−/−</sup> mice are similar to WT control mice (n=5-6 per group). *p<0.05, **p<0.01, ***p<0.001, ****p<0.0001, ns, not significant.

Supplementary Figure 2. Etanercept increases ErbB ligand expression in TPN-treated WT mice. Real-time PCR analysis of ErbB ligand mRNA expression in scraped mucosa (n=5-8 per group). In TPN-treated WT mice, Etanercept treatment increased Egf, Hbegf, Nrg1, Nrg2, Nrg3 and Nrg4 mRNA levels compared vehicle treated control group. No statistical difference in Areg, Btc, Ereg and Tgfa mRNA levels was observed (data not shown) (n=5-6 per group). *p<0.05, **p<0.01, ****p<0.0001, ns, not significant.
Supplemental Figure 2.

- **EGF mRNA**
  - Vehicle
  - Etanercept

- **HB-EGF mRNA**
  - Vehicle
  - Etanercept

- **NRG1 mRNA**
  - Vehicle
  - Etanercept

- **NRG2 mRNA**
  - Vehicle
  - Etanercept

- **NRG3 mRNA**
  - Vehicle
  - Etanercept

- **NRG4 mRNA**
  - Vehicle
  - Etanercept

- **AREG mRNA**
  - Vehicle
  - Etanercept

- **BTC mRNA**
  - Vehicle
  - Etanercept

- **EREG mRNA**
  - Vehicle
  - Etanercept

- **TGFα mRNA**
  - Vehicle
  - Etanercept