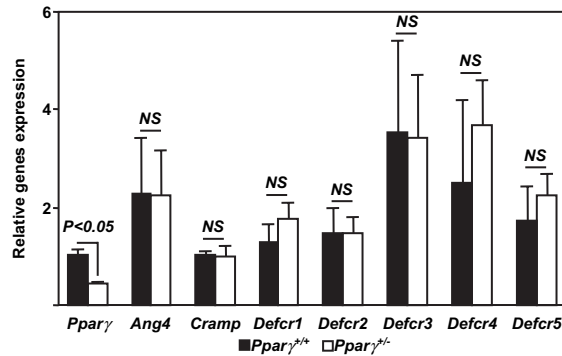
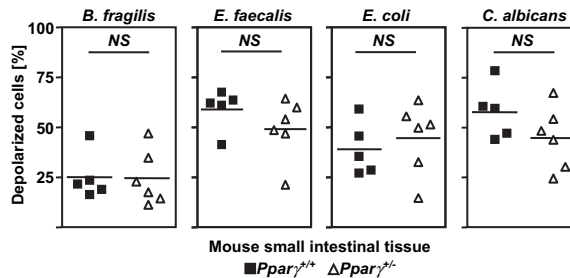


# Supporting Information

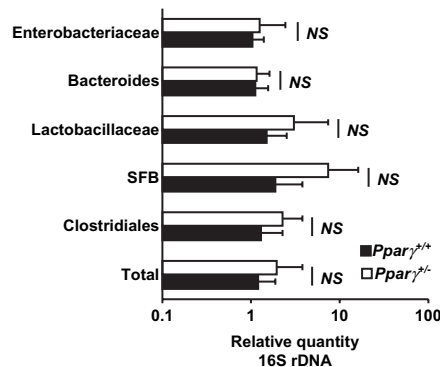
Peyrin-Biroulet et al. 10.1073/pnas.0905745107



**Fig. S1.** PPAR $\gamma$  is dispensable for cryptdins, angiogenin-4, and LL-37 expression in mouse small intestine. To avoid estrus variation, the terminal ileum of 8-week-old *Pparγ* heterozygous males and their WT littermates ( $n = 4$ ) were dissected out, flushed with cold PBS, and processed for gene expression analysis. Values represent the mean of normalized data  $\pm$  SEM, as measured by real-time qPCR. NS, not significant.



**Fig. S2.** PPAR $\gamma$  is dispensable for microbicidal activity in mouse small intestine. Membrane depolarization of *B. fragilis* (ATCC 25285), *E. faecalis* (clinical isolate 404), *E. coli* (clinical isolate 304446), and *C. albicans* (clinical isolate 526) by cationic proteins extracted from ileal mucosal biopsy specimens from *Pparγ*<sup>+/-</sup> mice compared with their WT littermates.  $P$  values were determined by the Mann-Whitney test. NS, not significant.



**Fig. S3.** Composition of the major fecal bacterial communities is unchanged in *Pparγ*<sup>+/-</sup> mice. The relative proportion of the major fecal groups of bacterial commensals was similar in *Pparγ*<sup>+/-</sup> mice and their WT littermates ( $n = 5$  per group), as quantified by real-time qPCR of total bacterial 16S rDNA in feces. The mean of normalized data  $\pm$  SEM are depicted. NS, not significant.

**Table S1. PPAR $\gamma$  potential binding sites within *DEFB1* promoter region identified by Nubiscan (blue), Matinspector (red), or both (green)**

Site	Sequence (5'-3')	Type	Position (5'-3')
Consensus	AGGTCA-AGGTCA		
First	AGGTGCcaCAGTCA	DR2	-150 to -163
Second	CGATTAgAAGTTCA	DR2	-181 to -168
Third	AGGGCa-ATGACA	DR1	-205 to -193
Fourth	AGGCTGaaAGCTAA	DR2	-270 to -257
Fifth	AGGGAgaGGGTGA	DR2	-491 to -478
Sixth	AGGGGAg-AGATGA	DR1	-559 to -547
Seventh	AGGAAAgcTGCTCA	DR2	-841 to -828
Eighth	AGGGAAg-AGTTTA	DR1	-898 to -910
Ninth	AGGATAtcAGGGTT	DR2	-916 to -929

The PPAR $\gamma$  potential binding sites not confirmed by EMSA are in italic type.

**Table S2. PPAR $\gamma$  potential binding sites within the *mDefb10* promoter region identified by Nubiscan (blue), Matinspector (red), or both (green)**

Site	Sequence (5'-3')	Type	Position (5'-3')
Consensus	AGGTCA-AGGTCA		
First	TGGTAGaaAGGGCA	DR2	-4 to -17
Second	CTGTCAa-AGAACA	DR1	-268 to -256
Third	AGAACTg-TGGGCT	DR1	-348 to -336
Fourth	GGGACTg-TGATCA	DR1	-501 to -489
Fifth	ATGTGCTtAGTCt	DR2	-636 to -623
Sixth	GGTCCt-AGTCC	DR1	-773 to -785
Seventh	AGTCAAg-GGGTCA	DR1	-889 to -877

The PPAR $\gamma$  potential binding sites not confirmed by EMSA are in italic type.

**Table S3. Primer sequences for qPCR analysis**

	Forward primer (5'-3')	Backward primer (5'-3')
Mouse gene		
<i>Actb</i>	CCATGTCGTCAGTTGGTAA	GAATGGGTCAGAAGGACTCCTATGT
<i>Ppar-<math>\gamma</math></i>	TTGCTGAACGTGAAGCCATCGAGG	GTCCTGTAGATCTCCTGGAGCAG
<i>Ang-4</i>	CTCTGGCTCAGAATGTAAGGTACGA	GAAATCTTTAAAGGCTCGGTACCC
<i>Cramp</i>	GCTGATTCTTTTGACATCAGCTGTAA	GCCAGCCGGGAAAATTTTCT
<i>Defcr1</i>	TAGTCTTTCATCTGTGTTTGGATAGG	ACTAGTCTCCTCTCTGCCCTTGT
<i>Defcr2</i>	CCAGGCTGATCCTATCCAAA	TCTCTCAACGCGTCACATTC
<i>Defcr3</i>	CCAGGCTGATCCTATCCAAA	GTCCCATTCATGCGTTTCT
<i>Defcr4</i>	TGGCCTCAAAGGAGATAGACA	AGGCTGATCCTATCCAAAACACA
<i>Defcr5</i>	AGGCTGATCCTATCCAAAACAG	TGAAGAGCAGACCTTCTTGGC
<i>Defb10</i>	TTGCTGGTAATAGCAGGTTTATGA	CGGAGATTCTCTGGGTGACAGT
<i>Defb1</i>	TCCTGGTGATGATATGTTTCTTTTCT	TGTTCTTCGTCGAAGACTTGTGA
Human gene		
<i>ACTB</i>	CCTGGCACCCAGCAAT	GCCGATCCACACGGAGTACT
<i>ADRP</i>	TGAGATGGCAGAGAACGGTGTG	GGCATTGGCAACAATCTGAT
<i>DEFB-1</i>	ATACTTCAAAGCAATTTTCTTTAT	TTGTCTGAGATGGCCTCAGGTGGTAA
<i>IL-8</i>	AAGGAACCATCTCACTGTGTAAAC	AAATCAGGAAGGCTGCCAAGA
<i>PPAR<math>\gamma</math></i>	TTCAAGAGTACCAAAGTGCAATCAA	AATAAGGTGGAGATGCAGGCTC
<i>TNF-<math>\alpha</math></i>	GGCATGAATCCTCCTTCGTA	AGCTCTGCAGTTGGGACAGT

**Table S4. Clinical characteristics of the 21 patients with isolated ileal CD (L1 according to the Montreal classification)**

Patient no.	Age, years	Sex	Disease behavior (Montreal classification)	Perianal disease	Disease duration, years	Personal history of intestinal resection	Previous medications	Concomitant medications
1	23	M	B2	No	7	No	5-ASA, steroids	Budesonide, azathioprine
2	31	F	B2	No	6	No	None	None
3	62	M	B2	Yes	15	No	5-ASA, steroids	Budesonide
4	79	F	B2	No	< 1	No	None	None
5	28	M	B2	No	NA	No	None	None
6	43	F	B3	No	10	Yes	Steroids	5-ASA
7	28	F	B2	No	3	No	5-ASA, steroids	Budesonide
8	53	M	B2	No	< 1	No	None	None
9	26	M	B3	Yes	8	No	Steroids	5-ASA
10	26	M	B2	Yes	1	No	Enteral nutrition	None
11	50	M	B2	Yes	22	No	5-ASA, steroids, azathioprine	Azathioprine
12	18	F	B2	No	2	No	None	Budesonide
13	19	M	B1	No	< 1	No	None	None
14	21	F	B2	No	1	No	None	5-ASA, oral steroids, budesonide
15	26	M	B2	No	8	Yes	Azathioprine, Infliximab	None
16	35	M	B2	No	8	No	Azathioprine, 5-ASA	None
17	39	M	B3	Yes	5	Yes	None	None
18	35	M	B2	No	3	No	Steroids	None
19	68	M	B2	No	40	Yes	None	None
20	49	F	B2	No	15	Yes	None	None
21	47	F	B2	No	21	Yes	Steroids	None

**Table S5. Clinical characteristics of the 16 patients with isolated colonic CD (L2 according to the Montreal classification)**

Patient no.	Age, years	Sex	Disease behavior (according to Montreal classification)	Perianal disease	Disease duration, years	Personal history of intestinal resection	Previous medications	Concomitant medications
1	21	M	B3	Yes	<1	No	None	None
2	30	F	B3	Yes	5	Yes	Methotrexate, infliximab	Parenteral nutrition, steroids, thioguanine
3	50	F	B2	Yes	3	Yes	Azathioprine, methotrexate	Aminosalicylates
4	31	M	B1	Yes	3	No	Steroids, 5-ASA, azathioprine, infliximab, parenteral nutrition	Thalidomide
5	50	F	B1	Yes	5	No	Antibiotics, 5-ASA, azathioprine	Infliximab
6	37	F	B3	Yes	22	No	Antibiotics	None
7	59	F	B3	No	33	Yes	Antibiotics, steroids	None
8	23	M	B1	No	6	No	Azathioprine, <i>E. coli</i> Nissle	None
9	25	M	B1	No	5	No	5-ASA	None
10	28	F	B1	Yes	6	No	5-ASA	None
11	35	F	B3	Yes	20	No	None	None
12	45	F	B3	Yes	25	Yes	Steroids, azathioprine	<i>S. cerevisiae</i> orally administered
13	30	F	B1	No	2	No	Steroids, azathioprine, 5-ASA	Infliximab
14	23	F	B2	Yes	2	No	Azathioprine	None
15	42	F	B2	Yes	25	No	Azathioprine	None
16	32	M	B2	Yes	12	Yes	5-ASA, azathioprine	None

**Table S6. Clinical characteristics of the 21 patients with ileocolonic CD (L3 according to the Montreal classification)**

Patient no.	Age, years	Sex	Disease behavior (Montreal classification)	Perianal disease	Disease duration, years	Personal history of intestinal resection	Previous medications	Concomitant medications
1	24	F	B1	No	1	No	5-ASA, steroids	None
2	36	F	NA	No	14	No	5-ASA, azathioprine	Steroids
3	38	F	B2	No	5	No	5-ASA, steroids, azathioprine, infliximab	None
4	81	F	B3	No	23	Yes	5-ASA, steroids	None
5	31	F	B2	Yes	8	No	5-ASA, steroids, infliximab, methotrexate, anti-IFN- $\gamma$	Azathioprine
6	25	F	B1	Yes	5	No	5-ASA, steroids, azathioprine, infliximab, methotrexate, thalidomide, mycophenolate mofetil	Adalimumab
7	27	M	B2	No	< 1	No	Budesonide	None
8	20	F	B1	No	3	No	5-ASA, steroids	None
9	21	F	B3	Yes	15	Yes	5-ASA, azathioprine, infliximab	Steroids
10	22	F	B2	No	6	Yes	Steroids, infliximab	Azathioprine
11	20	F	B1	Yes	5	Yes	Steroids, azathioprine, methotrexate, infliximab	None
12	23	M	B2	Yes	10	No	Steroids, azathioprine, methotrexate	None
13	24	M	B1	Yes	2	No	None	Azathioprine
14	21	F	B1	No	1	No	Steroids	None
15	23	F	B1	No	7	No	5-ASA, budesonide	None
16	55	F	B2	Yes	26	Yes	None	None
17	26	F	B1	No	10	No	Steroids	None
18	69	M	B2	Yes	33	Yes	Azathioprine, 5-ASA, prednisolone, budesonide	None
19	47	F	B1	No	7	No	Methotrexate	None
20	28	M	B1	No	2	No	Steroids, methotrexate	None
21	38	M	B3	Yes	12	Yes	Azathioprine, prednisolone	None