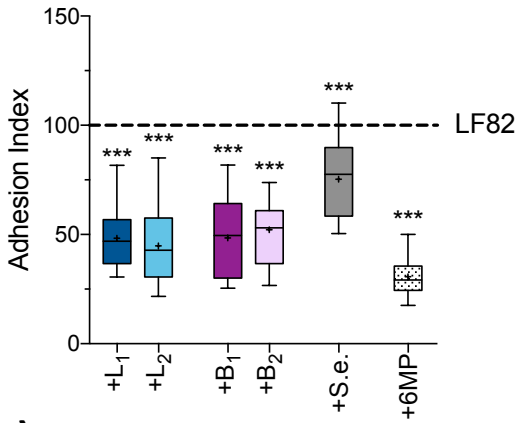


Figure S1

A)



B)

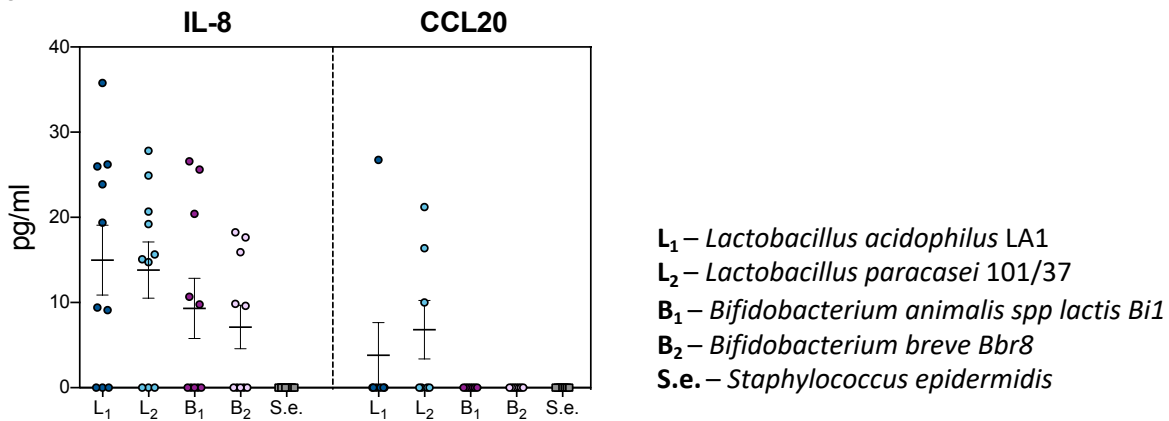


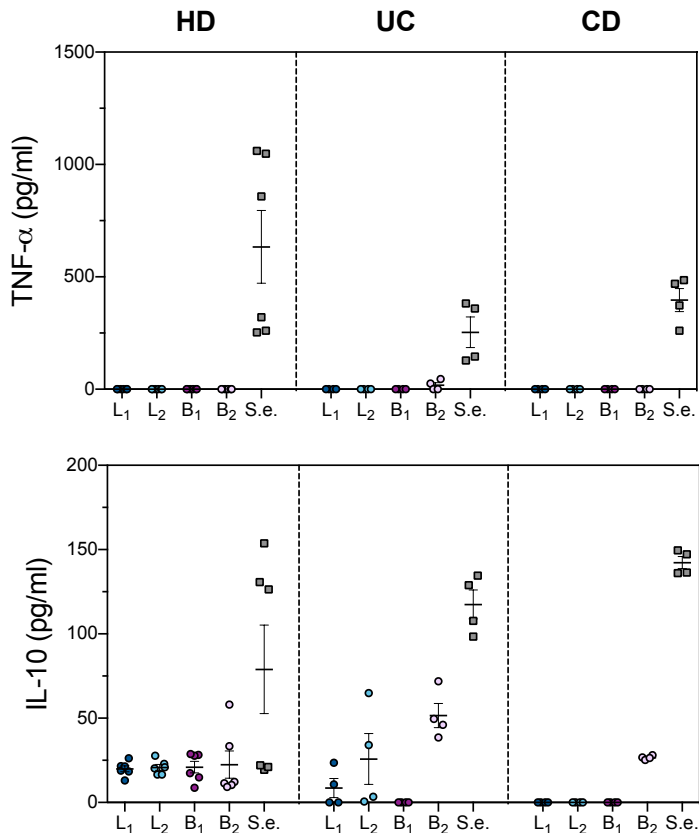
Figure S1: Biofilm formation in the presence of probiotic strains and cytokine secretion by HT29 cells infected with probiotic strains alone.

(A) Adhesion to abiotic surface of AIEC-LF82 alone (taken as 100%), or in the presence of *Lactobacillus acidophilus* LA1 (+L₁), *Lactobacillus paracasei* 101/37 (+L₂), *Bifidobacterium animalis* spp lactis Bi1 (+B₁), *Bifidobacterium breve* Bbr8 (+B₂), *S. epidermidis* ATCC-155 (+S.e.) at 1:1 ratio, or in the presence of 6-mercaptopurine (+6MP, 2 µg/ml).

Data are represented with Box-plots showing the median, range and upper and lower quartiles of at least three independent experiments. Means are represented as black cross (+), median as horizontal lines, and outliers are marked as dots. Statistical significance for each condition compared to AIEC-LF82 alone (taken as 100%) was reported (*p < 0.05, **p < 0.01, ***p < 0.001).

(B) IL-8 and CCL20 secretion by HT29 cell monolayers infected with *Lactobacillus* strains (L₁, L₂), or *Bifidobacterium* strains (B₁, B₂), or *S. epidermidis* ATCC-155 (S.e.) was quantified by ELISA. Data are represented as mean ± SEM of at least three independent experiments.

Figure S2



L₁ – *Lactobacillus acidophilus* LA1
L₂ – *Lactobacillus paracasei* 101/37
B₁ – *Bifidobacterium animalis* spp lactis Bi1
B₂ – *Bifidobacterium breve* Bbr8
S.e. – *Staphylococcus epidermidis*

Figure S2: Cytokine secretion by MDM infected with probiotic strains alone.

TNF-α and IL-10 secretion by MDM derived from HD, UC or CD patients infected with *Lactobacillus* strains (L₁, L₂), or *Bifidobacterium* strains (B₁, B₂), or *S. epidermidis* ATCC-155 (S.e.) was quantified by ELISA. Data are represented as mean ± SEM of at least three independent experiments.

Figure S3

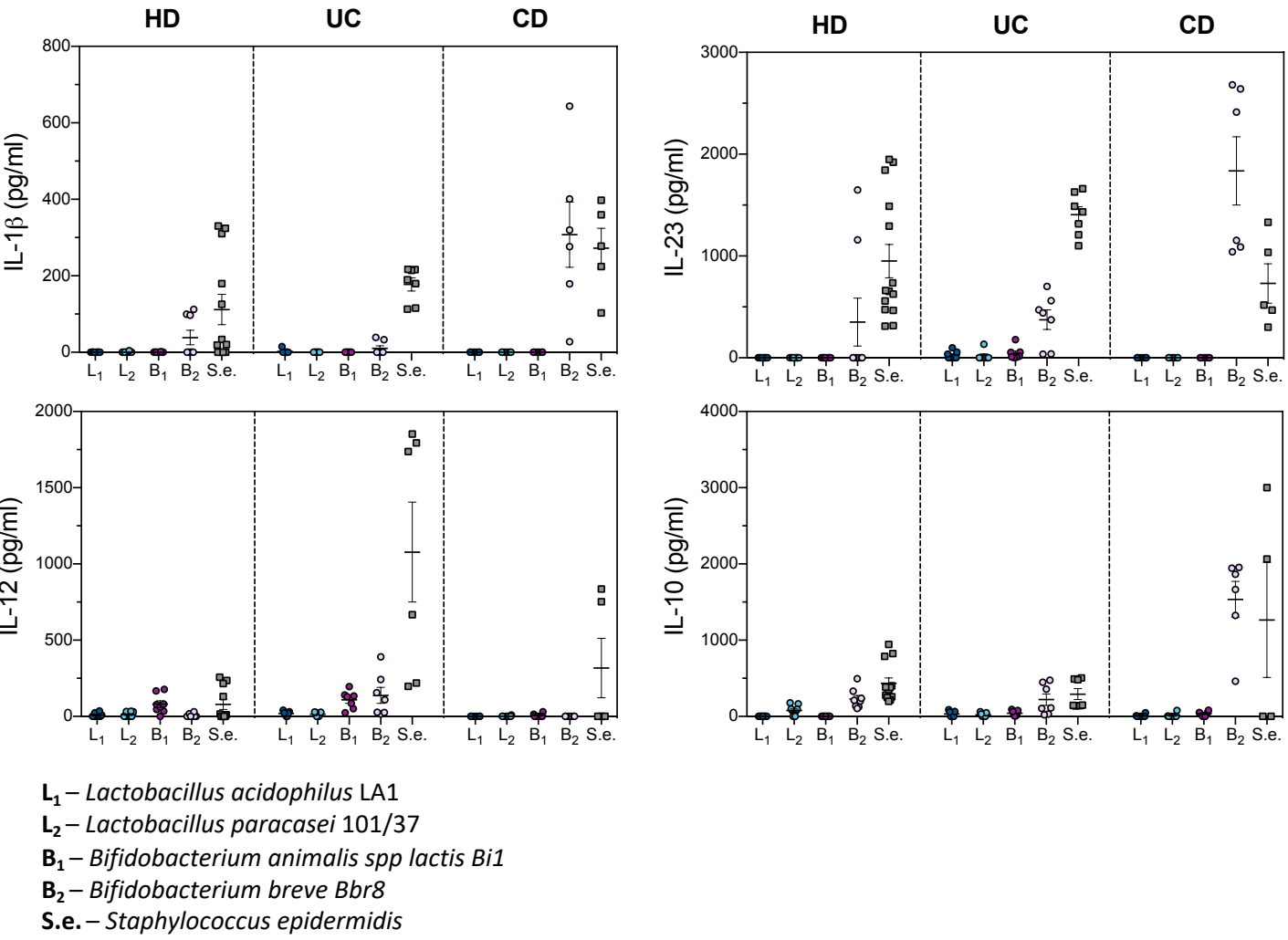


Figure S3: Cytokine secretion by MoDC infected with probiotic strains alone.

Secretion of IL-1 β , IL-23, IL-12 and IL-10 by MoDC derived from HD, UC or CD patients after 24 hours of infection was quantified by ELISA. MoDC were infected with *Lactobacillus* strains (L₁, L₂), or *Bifidobacterium* strains (B₁, B₂), or *S. epidermidis* ATCC-155 (S.e.) alone. Data are represented as mean \pm SEM of at least three independent experiments.

Table S1: Clinical characteristics of Crohn's disease (CD), Ulcerative colitis (UC) patients and healthy subjects (HD) included in the study.

CHARACTERISTICS	Healthy Donors (HD)	Ulcerative colitis (UC)	Crohn's disease (CD)
- Male n (%)	- 4 (40 %)	- 7 (63.6 %)	- 4 (50 %)
- Female n (%)	- 6 (60 %)	- 4 (36.4 %)	- 4 (50 %)
Age year (mean±SEM)	46.40 ± 3.51	51.36 ± 5.02	48.22 ± 5.41
Mean age at diagnosis (mean±SEM)	-	35.82 ± 4.74	28.89 ± 5.67
Mean duration of disease (mean±SEM)	-	15.64 ± 3.66	20 ± 3.70
Former smokers (n, %)	4 (40%)	2 (18.18%)	0 (0%)
Previous surgery n (%)	-	0 (0%)	6 (75%)
Medical treatment			
- none (n, %)	-	- 1 (9.09%)	- 2 (9.09%)
- 5ASA (n, %)	-	- 8 (72.72%)	- 6 (72.72%)
- steroids (n, %)	-	- 2 (18.18%)	- 0 (0%)
- antibiotics (n, %)	-	- 0 (0%)	- 0 (0%)

Table S2: Phagocytosis and survival of AIEC-LF82 within MDM obtained from HD, UC and CD patients.

LF82 (CFU/ml)	HD (mean \pm SEM) $\times 10^3$	UC (mean \pm SEM) $\times 10^3$	CD (mean \pm SEM) $\times 10^3$
1h (phagocytosis)	208.1 \pm 19.28	197.4 \pm 20.72	82.7 \pm 7.21 (** p=0.0011 vs HD) (** p=0.0012 vs UC)
8h post-infection	175 \pm 2.48	112.4 \pm 16.84 (** p=0.0071 vs HD)	94.53 \pm 8.49 (** p=0.0094 vs HD)

The numbers of LF82 cells internalized within MDM were determined after 1h (phagocytosis) or after 8h of infection, and expressed as numbers of CFU/ml (mean \pm SEM). Data were analyzed by One-way Anova (Dunnett's multiple comparisons):

*p<0.05, **p<0.01, ***p<0.001.

Table S3: Phagocytosis and survival of AIEC-LF82 within MoDC derived from HD, UC and CD patients.

LF82 (CFU/ml)	HD (mean \pm SEM) $\times 10^3$	UC (mean \pm SEM) $\times 10^3$	CD (mean \pm SEM) $\times 10^3$
1h (phagocytosis)	436.9 \pm 48.1	228.4 \pm 20.7 (* p=0.0152 vs HD)	300.5 \pm 47.9
8h post-infection	391.5 \pm 39.8	219.1 \pm 29.7 (** p=0.0325 vs HD)	141.5 \pm 28.4 (*** p<0.0001 vs HD)
24h post-infection	144.8 \pm 11.6	92.3 \pm 14.7	72.51 \pm 19.3 (** p=0.0025 vs HD)

The numbers of LF82 cells internalized within MoDC were determined after 1h (phagocytosis), 8h and after 24h of infection, and expressed as numbers of CFU/ml (mean \pm SEM). Data were analyzed by One-way Anova (Dunnett's multiple comparisons):
*p<0.05, **p<0.01, ***p<0.001.