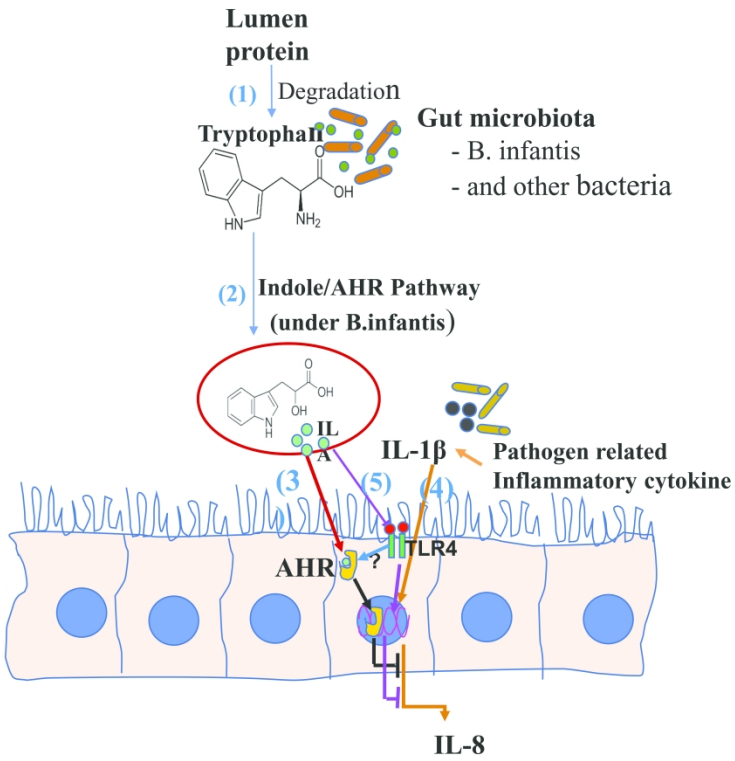

Supplemental Figure S1:Cartoon of the suggested mechanism of the anti-inflammatory effect of ILA in B.infantis secretions on an intestinal epithelial cell
(1) Degradation of lumen protein leads to the release of tryptophan **(Trp)**. Under the influence of the gut microbiota, Trp is converted to (2) indole-3-lactic acid **(ILA)** by the indole/AHR pathways. ILA acts on the aryl hydrocarbon receptor **(AHR)** found in fetal enterocytes (3) thereby affecting the innate immune response in a ligand - specific fashion suppressing a pathogen-mediated inflammatory cytokine IL-1β-induced IL-8 secretion (4). TLR4 is required for ILA anti-inflammation in immature enterocyte with the unknown mechanism (5).

AHR: aryl hydrocarbon receptor
ILA: indole-3-lactic acid

127x164mm (1000 x 1000 DPI)

Ingredients	Amount	Final ConCen
OptiMem media	1000 ml	
Sodium Acetate	5g	5g/L= 60 mM
L-Cysteine	0.5g	0.5g/L
Album	1g	1g/L
Yest extract	5g	5g/L
Sodium Selenite	60µl of 1mM	60 nM
Vitamine A	5µl of 5µg/µl stock	25 µg/L
Holo transferin	60 µl of 5mg/ml stock	(0.3 µg/ml)
Inulin	100mg	0.1mg/ml
BPE	200ul of 25mg/ml stock	5 µg/ml
MEMNEAA	10 ml	1x
Glutamite	10 ml	2 mM
Hepes	10 ml	10 mM
BHI	8 ml of 0.5g/ml Stock (autocleaved)	4g/L

Supplemental Table S1. *B. Infantis* culture media. The table shows the ingredients of the B.*infantis* culture media, which is a modification of the combination of the intestinal epithelial cell culture media and the *B.infantis* culture media. **Abbreviation:** MEMNEAA- MEM non-essential amino acids, BPE- Bovine pituitary extract, BHI- Brain and heart infusion broth.