

Supplementary Material

A Collagen Hydrogel-Based Intestinal Model Enabling Physiological Epithelial-Immune Cell Interactions in Host- Microbe Studies

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Table S1 RT-qPCR primer sequences

Primers	Sequences 5' – 3'	Reference
<i>ACTB</i> (F)	TTGTTACAGGAAGTCCCTTGCC	[64-67]
<i>ACTB</i> (R)	ATGCTATCACCTCCCCTGTGTG	
<i>KRT20</i> (F)	TGTCCTGCAAATTGATAATGCT	[68-70]
<i>KRT20</i> (R)	AGACGTATTCCTCTCTCAGTCTCATA	
<i>VIL1</i> (F)	AGCCAGATCACTGCTGAGGT	[71-75]
<i>VIL1</i> (R)	TGGACAGGTGTTCCCTCCTTC	
<i>CLDN1</i> (F)	TGAGGATGGCTGTCATTGGG	[76-78]
<i>CLDN1</i> (R)	AAAGTAGGGCACCTCCCAGA	
<i>MUC2</i> (F)	CAGCACCGATTGCTGAGTTG	[79-83]
<i>MUC2</i> (R)	GCTGGTCATCTCAATGGCAG	
<i>ALPI</i> (F)	CATACCTGGCTCTGTCCAAGA	[84-88]
<i>ALPI</i> (R)	GTCTGGAAGTTGGCCTTGAC	
<i>hBD1</i> (F)	CCTACCTTCTGCTGTTTACTC	[89, 90]
<i>hBD1</i> (R)	ACTTGGCCTTCCCTCTGTAAC	
<i>hBD2</i> (F)	CCAGCCATCAGCCATGAGGGT	[89, 91-93]
<i>hBD2</i> (R)	GGAGCCCTTTCTGAATCCGCA	

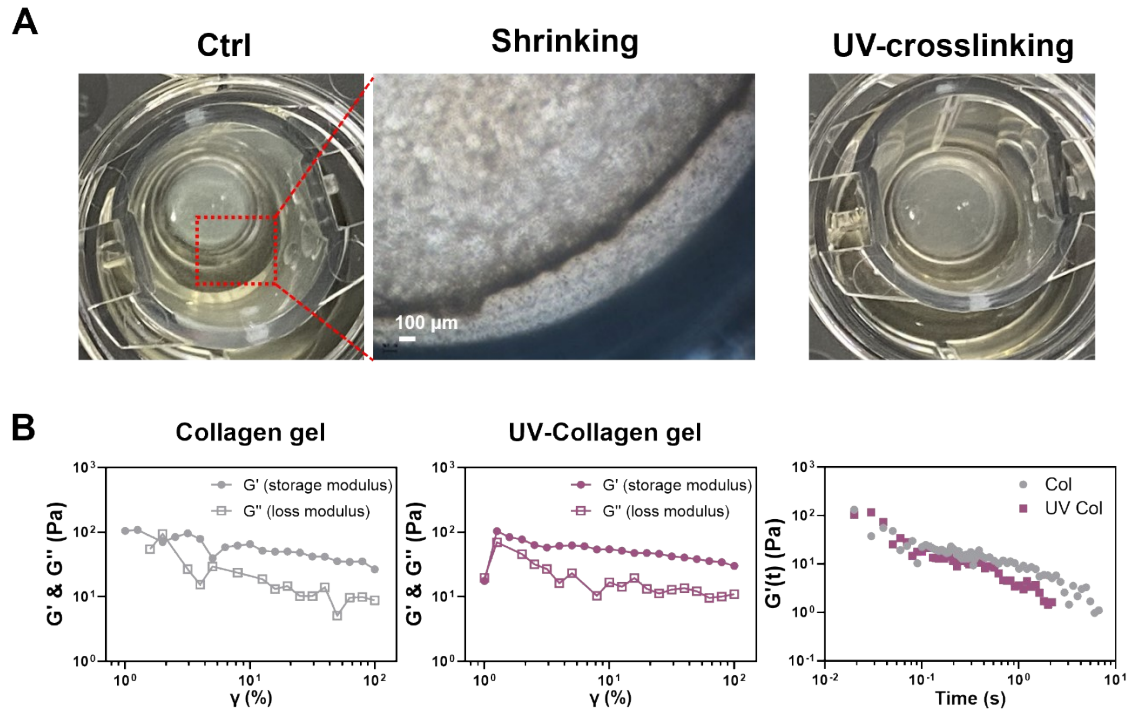


Figure S1. Morphological and rheological properties of collagen hydrogels. (A) Morphology of collagen hydrogels and UV-irradiated collagen hydrogels after long-term cell culture. Collagen hydrogels without crosslinking experience shrinking during long-term cell culture, the shape of the gel is maintained even during long-term culture under UV irradiation. (B) Rheological properties of the hydrogel.

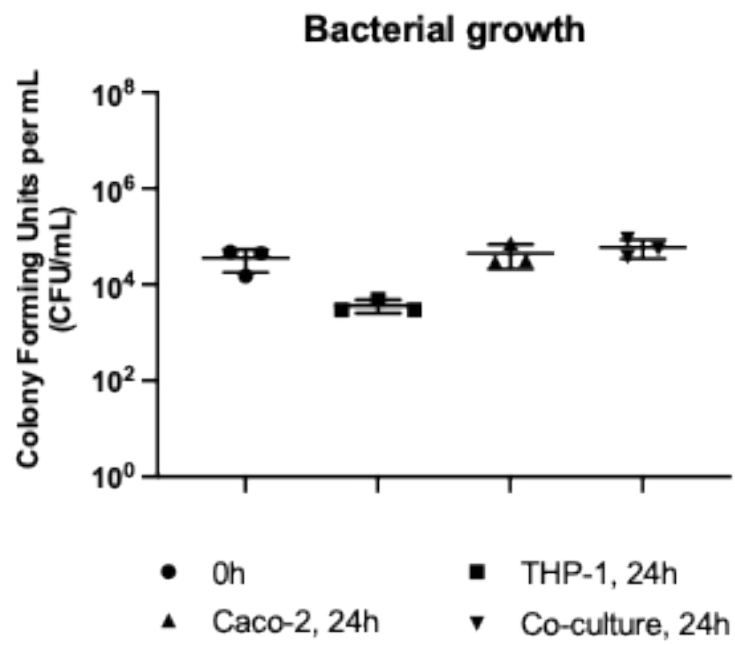


Figure S2. The concentration of *L. rhamnosus* collected from the apical side of each culture model immediately after inoculation (0 h) and 24 h.

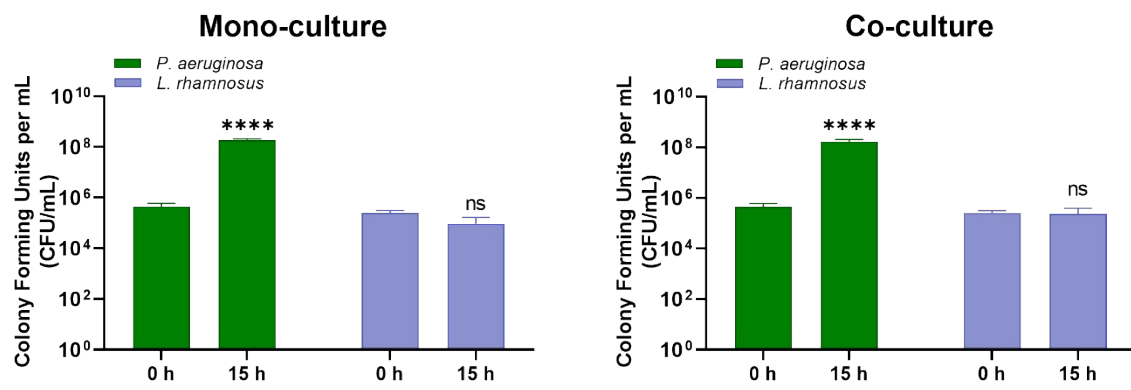


Figure S3. Bacterial cell counts before and after the coculture with InTRIC-M2 in CFU/mL.