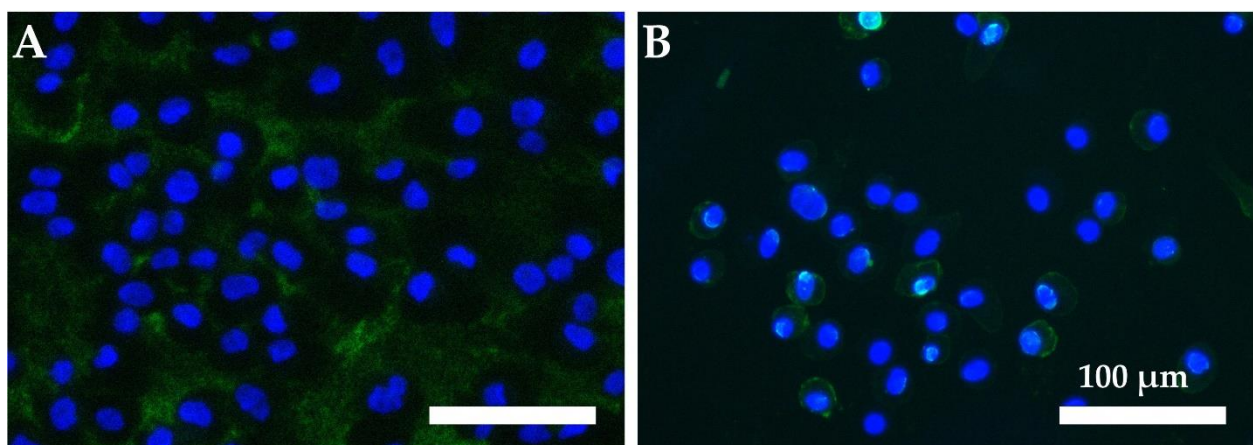


Supplemental Figure S1. Immunofluorescence images showing Muc5B expression (top row), α SMA (middle row) or ZO-1 (bottom row) in monolayers of primary colonic epithelial cells and hMSC-derived myofibroblasts. The cell nuclei were counterstained with DAPI as a visual aid.



Supplemental Figure S2. Immunofluorescence images showing Gb3 expression (green) in monolayers of (A) primary colonic epithelial cells and (B) primary colonic microvascular endothelial cells. The cell nuclei were counterstained with DAPI as a visual aid.

Supplementary Table S1: Gene names and primer sequences for all genes evaluated with RT-qPCR

Epithelial Genes			
Gene	Official Name	Forward Primer Sequence (5'--3')	Reverse Primer Sequence (5'--3')
ACTB	Beta Actin	CACCATTGGCAATGAGCGGTTTC	AGGTCCTTTGCGGATGTCCACGT
GB3	Globotriaosylceramide	ACTTCATTGTTGATCTTGATG	CGACGAATTCCCAGCTAAAC
CDH1	Cadherin 1	GACCGGTGCAATCTTCAAA	TTGACGCCGAGAGCTACAC
CKB	Creatine Kinase B	CCCACACCAGGAAGGTCTTA	CCTCTTCGACAAGCCCGT
FXD3	FXD domain containing ion transport regulator 3	AGGGTCACCTTCTGCATGTC	CTTCGGATAAACGCAGGACT
GATA4	GATA binding protein 4	TAGCCCCACAGTTGACACAC	GTCCTGCACAGCCTGCC
HOXA13	Homeobox A 13	GCACCTTGGTATAAGGCACG	CCTCTGGAAGTCCACTCTGC
HOXB13	Homeobox B 13	GCTGTACGGAATGCGTTTCT	AACCCACCAGGTCCCTTTT
HOXD13	Homeobox D 13	CCTCTTCGGTAGACGCACAT	CAGGTGTACTGCACCAAGGA
INSL5	Insulin like 5	GAAGGTTTTCGCTGGATT	GATCCCTCAAGCTCAGCAAG
MSX2	Msh Homeobox 2	GGTCTTGTGTTTCTCAGGG	AAATTCAGAAGATGGAGCGG
MUC2	Mucin 2	TGTAGGCATCGCTCTTCTCA	GACACCATCTACCTCACCCG
ONECUT1	One Cut Homeobox 1	TTTTTGGGTGTGTTGCCTCT	AGACCTTCCGGAGGATGTG
PDX1	Pancreatic and Duodenal Homeobox 1	CGTCCGCTTGTCTCCTC	CCTTTCCCATGGATGAAGTC
PPIA (CPHA)	Peptidylprolyl Isomerase A	CCCACCGTGTCTTCGACATT	GGACCCGTATGCTTTAGGATGA
SATB2	SATB Homeobox 2	CCACCTTCCCAGCTTGATT	TTAGCCAGCTGGTGGAGACT
MUC5B	Mucin 5b	GCCTACGAGGACTTCAACGTC	CCTTGATGACAACACGGGTGA
NEUROG3	Neurogenin 3	CTAAGAGCGAGTTGGCACTGA	GAGGTTGTGATTTCGATTGCG
VIL1	Villin 1	CTGAGCGCCCAAGTCAAAG	AGCAGTCACCATCGAAGAAGC
CD326/EPCAM	Epithelial Cell Adhesion Molecule	TGATCCTGACTGCGATGAGAG	CTTGTCTGTTCTTCTGACCCC

E-Cadherin/CDH1	Cadherin 1, E-cadherin	CGAGAGCTACACGTTACGG	GGGTGTCGAGGGAAAAATAGG
Myofibroblast Genes			
Gene	Official Name	Forward Primer Sequence (5'--3')	Reverse Primer Sequence (5'--3')
ACTB	Beta Actin	CACCATTGGCAATGAGCGGTC	AGGTCTTTGCGGATGTCCACGT
GB3	Globotriaosylceramide	ACTTCATTGTTGATCTTGCATG	CGACGAATTCCCAGCTAAAC
SM22/TAGLN	Spicule Matrix Protein 22, Transgelin	CCGTGGAGATCCCAACTGG	CCATCTGAAGGCCAATGACAT
FN1	Fibronectin 1	CGGTGGCTGTCAGTCAAAG	AAACCTCGGCTTCCTCCATAA
ELN	Elastin	GCAGGAGTTAAGCCCAAGG	TGTAGGGCAGTCCATAGCCA
COL1A1	Collagen Type 1, α 1 chain	GAGGGCCAAGACGAAGACATC	CAGATCACGTCATCGCACAAC
COL1A2	Collagen Type 1, α 2 chain	GAGCGGTAACAAGGGTGAGC	CTTCCCCATTAGGGCCTCTC
alpha SMA (ACTA2)	Actin α 2, smooth muscle	AAAAGACAGCTACGTGGTGA	GCCATGTTCTATCGGGTACTTC
Endothelial Genes			
Gene	Official Name	Primer Sequence (5'--3')	Reverse Primer Sequence (5'--3')
ACTB	Beta Actin	CACCATTGGCAATGAGCGGTC	AGGTCTTTGCGGATGTCCACGT
GB3	Globotriaosylceramide	ACTTCATTGTTGATCTTGCATG	CGACGAATTCCCAGCTAAAC
VE-Cadherin/CDH5	Cadherin 5, VE-Cadherin	TTGGAACCAGATGCACATTGAT	TCTTGCGACTCACGCTTGAC
CD31/PECAM1	Platelet and Endothelial Cell Adhesion Molecule	AACAGTGTTGACATGAAGAGCC	TGTAAAACAGCACGTCATCCTT
ZO-1/TJP1	Zonula Occludin 1	CAACATACAGTGACGCTTCACA	CACTATTGACGTTTCCCCACTC
Claudin 5/CLDN5	Claudin 5	CTCTGCTGGTTCCGCAACAT	CAGCTCGTACTTCTGCGACA

Supplementary Table S2: Immunofluorescence antibody sources and dilutions

<u>Primary Antibody</u>	<u>Source</u>	<u>Dilution</u>
Mucin 5b -- Mouse	Santa Cruz	1:100
Anti- α -SMA -- Mouse	Sigma	1:200
Anti-ZO1 -- Rabbit	Invitrogen	1:50
DAPI	Invitrogen	300 nM
Anti-CD77 -- Mouse	BD Biosciences	1:1000
<u>Secondary Antibody</u>	<u>Source</u>	<u>Dilution</u>
Goat anti-mouse Alexa Fluor 488	Invitrogen	1:500
Goat anti-rabbit Alexa Fluor 488	Invitrogen	1:500
Donkey anti-rabbit Alexa Fluor 555	Invitrogen	1:500

Donkey anti-mouse Alexa Fluor 555	Invitrogen	1:500
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