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Supplemental Information

A Simple System for Differentiation of Functional Intestinal Stem Cell-like Cells from Bone Marrow Mesenchymal Stem Cells

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Supplementary Information

A simple system for differentiation of functional intestinal stem cell-like cells from bone marrow mesenchymal stem cells

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Figure S1. Systemic inflammatory response as reflected by plasma cytokine levels measured by ELISA. Data are shown as the mean±standard error of the mean; n=5, * P<0.05, and ** P<0.01. INF-γ, interferon gamma; IL, interleukin; TNF-a, tumournecrosis factor alpha.

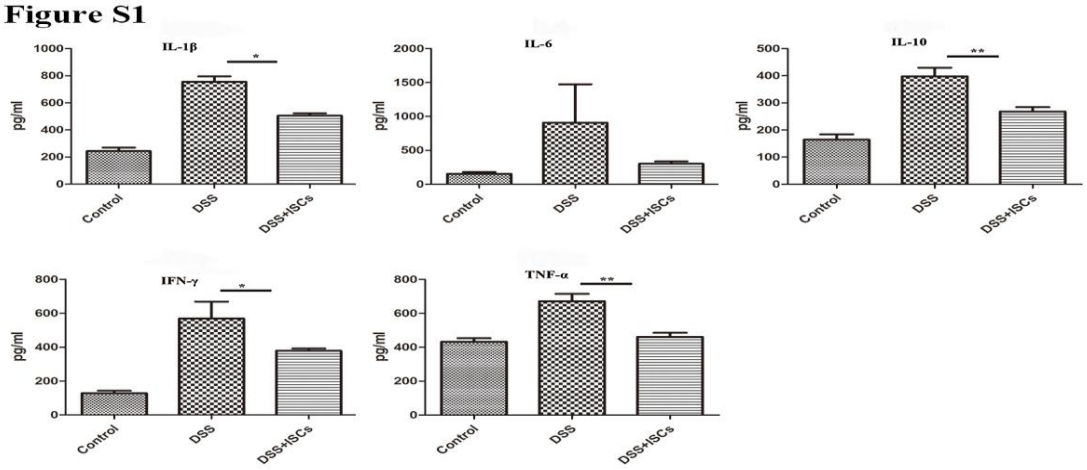


Figure S2. Seven days after transplantation, the colon swiss roll technique showed that the GFP$^+$ area was concentrated in the middle and lower parts of the colon. Nuclei were stained with DAPI. Scale bar: 12.5μm.

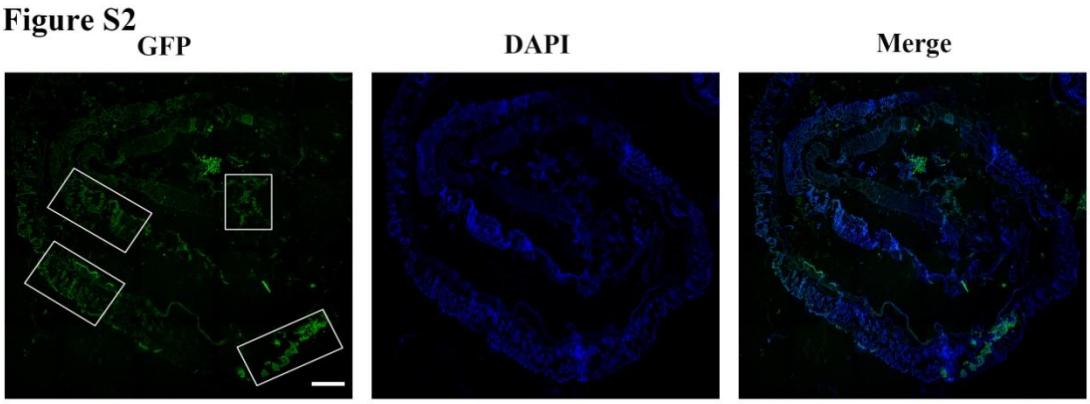


Figure S3. High-powered views of the GFP^{+} cystic structures. Nuclei were stained with DAPI. Scale bar: 50μm.

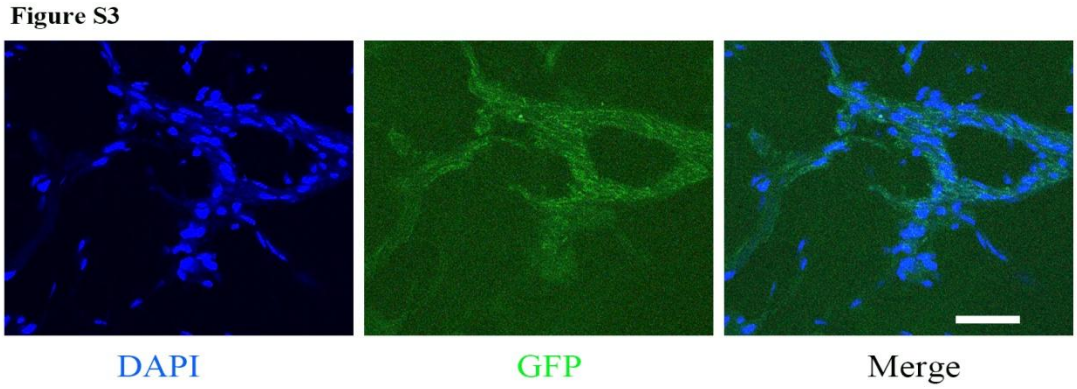
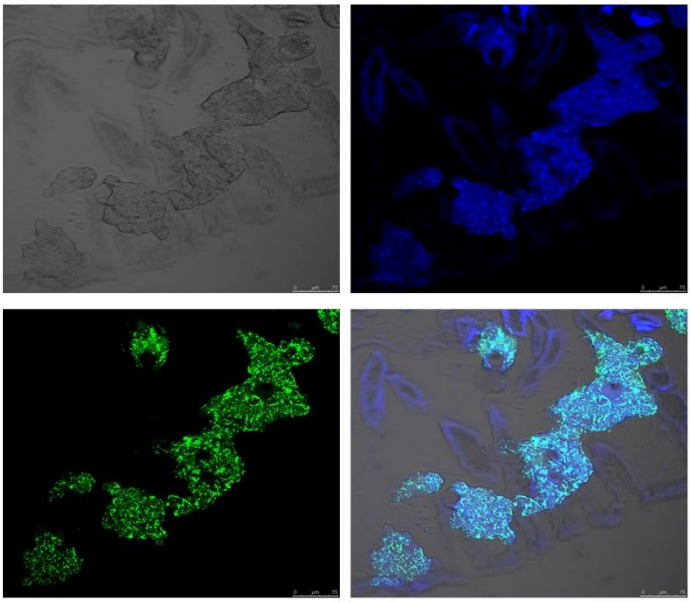


Figure S4. The migration process of the engrafted cells. Nuclei were stained with DAPI. Scale bar: 75μm.

Figure S4



Supplementary Table 1 Primers used in the study

Name	Sequence 5'—3'
Sox17-F	TCTGACGGTTGCCGATTT
Sox17-R	CTGGACAGTGATGGTGGG
Foxa2-F	CAGTGGCGGAGGCAAGAAGAC
Foxa2-R	CTCAGCGCAGAGGCAGGTGTT
Lgr5-F	AATGCCATACGCTTACCA
Lgr5-R	TCTTCAAGGTCCCGCTCA
Musashi-1-F	TACAGCCATCCCTCTCACTG
Musashi-1-R	GCTGGGAGTAGAACCTGGAG
(rat)GAPDH-F	CCTGGAGAAACCTGCCAG
(rat)GAPDH-R	CACAGGAGACAACCTGGTCC
WIF1-F	TGGCATGGGAGACACTGCAA
WIF1-R	AGGCTGTGAACTCGGCGTAA
E2F1-F	CTCTGAAGCAAGGGCAGGGT
E2F1-R	ATCAGCCAAGGCCCTCACTC
β-catenin-F	TACCGAGCCTGCCATCTGTG
β-catenin-R	TTTGCTGGGCAAAGGGCAAG
ISX-F	TACCCAGAGCTTGCCATTA
ISX-R	CATCCCAGCCCTTAGTCA
Villin 1-F	AAAGCCAAGCAGTACCCACCTAG
Villin 1-R	CATCAAACTTCACCTGTTCCACC
DDP4-F	CGGAATAAATGACTGGG
DDP4-R	TTGCATGGGAATCGTAG
IFN-γ-F	GGATGGTGACATGAAAATCCTGC
IFN-γ-R	TGCTGATGGCCTGATTGTCTT
IL-10-F	GCTCTTACTGACTGGCATGAG
IL-10-R	CGCAGCTCTAGGAGCATGTG
IL-6-F	TAGTCCTTCCTACCCCAATTTCC
IL-6-R	TTGGTCCTTAGCCACTCCTTC
TNF-a-F	CCCTCACACTCAGATCATCTTCT
TNF-a-R	GCTACGACGTGGGCTACAG
(mouse)GAPDH-F	AGGTCGGTGTGAACGGATTTG
(mouse)GAPDH-R	TGTAGACCATGTAGTTGAGGTCA

Supplementary Table 2 Primary antibodies used in the study

Primary antibodies for Western blot

Name	Company	Catalog no.	Dilution
Sox17	Abcam	ab191699	1:1000
Foxa2	CST	8186p	1:1000
Lgr5	Abcam	ab75850	1:1000
Musashi-1	Novus	NB100-1759	1:500
WIF1	absin	abs116623	1:1000
E2F1	Abcam	ab179445	1:1000
β -catenin	CST	8480p	1:1000
β -catenin(phospho Y142)	Abcam	ab27798	1:1000
GAPDH	Santa Cruz	sc32233	1:2000

Primary antibodies for immunofluorescence assay

Name	Company	Catalog no.	Dilution
Sox17	Abcam	ab191699	1:50
Foxa2	Abcam	ab108396	1:100
Lgr5	absin	abs106134	1:50
Musashi-1	Novus	NB100-1759	1:20
E-cadherin	Abcam	ab40772	1:100
MUC2	Abcam	ab76774	1:300
CK-18	Abcam	ab133263	1:100
Phalloidin	Yeasen	40735ES75	1:200