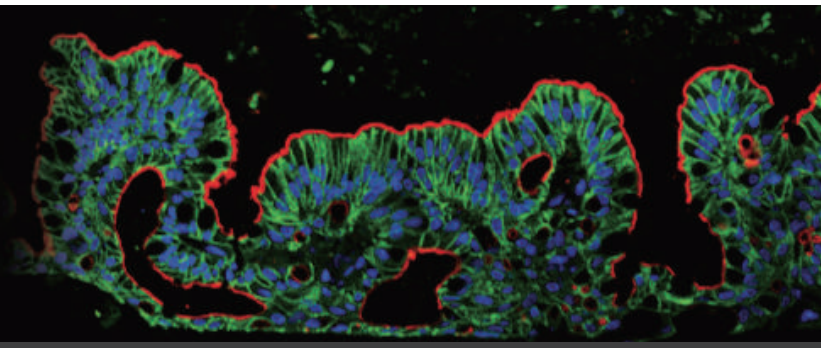
R&D SYSTEMS a bio-techne brand

3-D Gastro. Tissue Culture

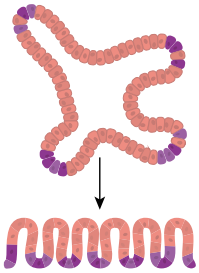
MimEX™ GI

TISSUE MODEL SYSTEMS



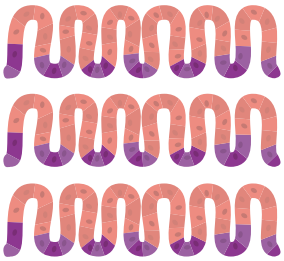
- Disease 모델 구현
- 약물독성, 흡수 및 신진대사 연구
- 크론병, 과민성 장 증후군, Microbiome, Gastrointestinal cancer, Metastasis 연구

01 Benefits of MimEX™ GI



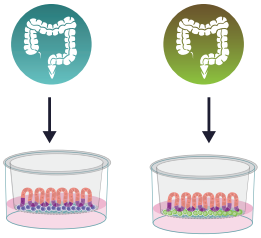
Organoid Tissue

intestinal epithelium의 재현



Tissue Consistency

3D gastrointestinal tissue
의 size와 shape을 control



Clonal Expansion and Gene Editing

Disease 모델 구현으로 Biomarker 발굴,
Drugscreening, Toxicology test 가능

Preservation of Diseased Tissue

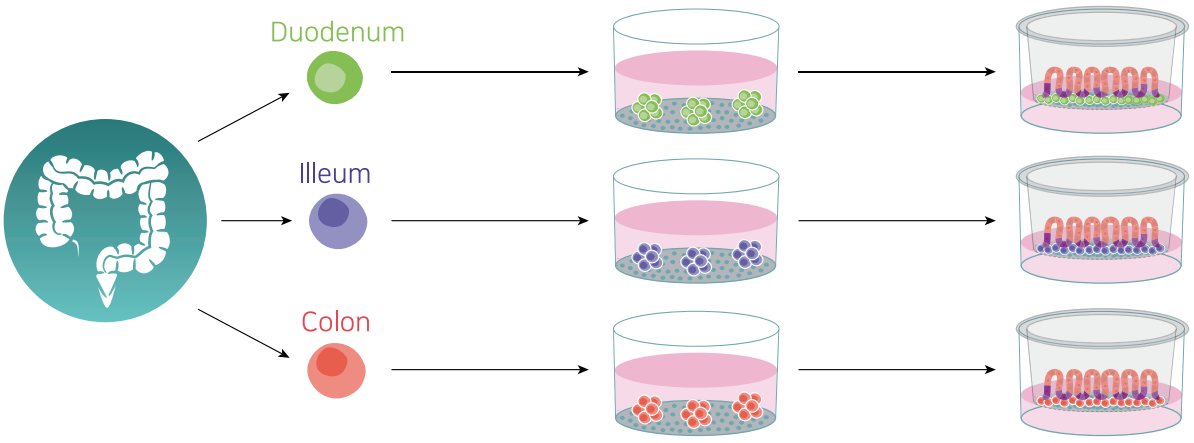
CRISPR-Cas9 같은 gene editing
모델 가능

02 Overview

Isolate Adult GI Stem Cells
using the MimEX™ Tissue Processing Kit ORz start directly with MimEX™ GI Stem Cells.

Expand Adult GI Stem Cells
in a 2-D culture using MimEXTM GI Expansion Media.

Differentiate Adult GI Stem Cells into 3-D Gastrointestinal Tissue
using MimEX™ GI Differentiation Media and an air-liquid culture system.

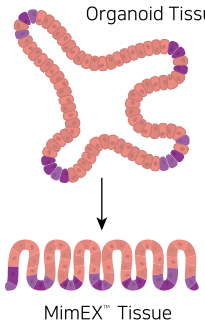
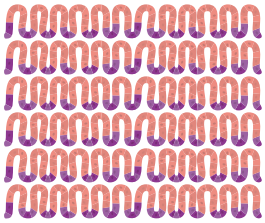
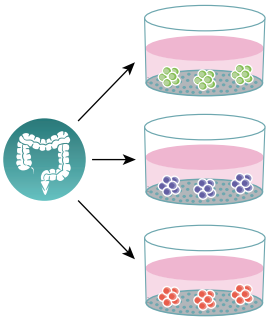
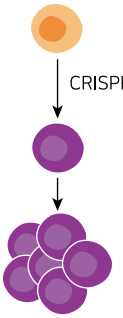


제품 상담 및 문의: 02-881-5432 techserv@woongbee.com

웅비메디텍

MimEX™ GI

03 Benefits

Organoids Unfolded	Tissue Consistency	Regional Specificity	Memory of Diseased State	Clonal Expansion and Gene Editing
MimEX™ GI generates 3-D gastrointestinal tissue on a 2-D surface. These open-faced organoids make the epithelial tissue accessible for experimentation.	MimEX™ GI provides greater control over the size and shape of 3-D gastrointestinal tissue, which can be variable in other 3-D cell culture models.	The MimEX™ GI System can be used to generate tissue from specific regions of the gastrointestinal tract, including the esophagus, stomach, and specific regions of the small and large intestines.	Adult gastrointestinal stem cells retain memory of diseased tissue and can be used to study a range of intestinal diseases and conditions.	Individual cells can be isolated and robustly expanded using the MimEX™ GI System. Gene editing techniques, such as CRISPR/Cas9, can be used on Adult gastrointestinal stem cells.
			 Crohn's Disease Irritable Bowel Disease Celiac Disease Colon Cancer	

04 Media and Reagents

	MimEX™ GI Starter Kit	MimEX™ GI Expansion Media	MimEX™ GI Differentiation Media	MimEX™ Irradiated Fibroblast Kit	MimEX™ Human Descending Colon Adult Stem Cells	MimEX™ Tissue Processing Kit
						
Description	Contains all of the necessary reagents for the expansion and differentiation of adult gastrointestinal epithelial stem cells.	Media for the expansion of adult stem cells from the gastrointestinal tract.	Media to differentiate gastrointestinal stem cells into 3-D tissue.	Irradiated fibroblasts that support the expansion and differentiation of gastrointestinal stem cells.	Adult gastrointestinal stem cells for use with MimEX™ GI Reagents.	Reagents for the processing of tissue samples for isolation of adult epithelial stem cells.
Catalog #	MIM002	MIM003	MIM004	MIM005	MIM006	MIM001

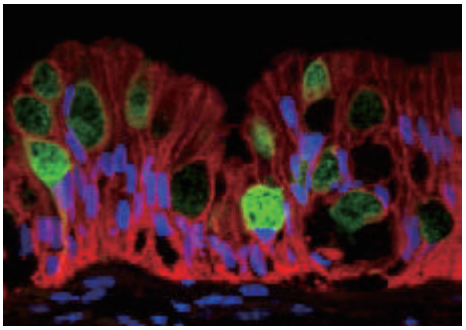
05 MimEX™ GI Starter Kit

R&D SYSTEMS™ a bio-techne brand

- **Gastraintestinal tract를 위한 분화 및 expansion media 포함**
- **Stem cell 에 특화된 BME 포함**

Kit Contents

- 250 mL of MimEX™ GI Expansion Media
- 100 mL of MimEX™ GI Differentiation Media
- 12 vials of MimEX™ Irradiated Fibroblasts
- 100 mL of MimEX™ Fibroblast Media
- 1.5 mL of Cultrex® Stem Cell Qualified RGF Basement Membrane Extract, Pathclear®
- 24-well plate containing 12 transwell inserts



Human Descending Colon Adult Stem Cells Differentiate into Descending Colon Tissue using reagents in the MimEX™ GI Starter Kit. Descending colon tissue generated using MimEX™ GI media and reagents was immersion-fixed, paraffin-embedded, and sections were stained with Mouse Anti-Human/Mouse/Rat Intelectin-1/2 Monoclonal Antibody (green; R&D Systems; Catalog # MAB42542) and Goat Anti-Human A33 Antigen Affinity-purified Polyclonal Antibody (red; R&D Systems; Catalog # AF3030). The tissue was counterstained with DAPI (blue; Tocris; Catalog # 5748). A33 staining was detected in cellular membranes throughout the epithelial layer while Intelectin-1/2 staining was localized specifically to Goblet cells.

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