

Generation and Manipulation of Rat Intestinal Organoids

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Materials

Name	Company	Catalog Number	Comments
3-D Culture Matrix Rat Collagen I	Cultrex/R&D Systems	3447-020-01	
70 µm cell strainer	Corning/Falcon	352350	
Advanced DMEM/F12	Gibco/Thermo Fisher	12634010	
Amphotericin B	Sigma Aldrich	A2942-20ML	
B-27 Supplement (50X), serum free	Thermo Fisher	17504044	
CHIR99021	Cayman Chemical	13122	
CryoStor	Stem Cell Technologies	100-1061	
Cultrex HA-Rspondin1-Fc 293T cells	R & D Systems	3710-001-01	
FBS	Gibco/Thermo Fisher	16-000-044	
Gastrin I (human)	Sigma Aldrich	G9145	
Gentle Cell Dissociation Reagent	Stem Cell Technologies	100-0485	
Glutamax	Thermo Fisher	35-050-061	
Growth factor-reduced Matrigel, phenol red-free	Corning	356231	
HEPES	AmericanBio	AB06021	
Lanolin	Beantown Chemical	144255-250G	
L-glutamine	Gibco/Thermo Fisher	A2916801	
L-Wnt3a cells	ATCC	CRL-2647	
N-2 Supplement (100X)	Thermo Fisher	17502-048	
N-acetylcysteine	Sigma Aldrich	A9165-5G	
Nicotinamide	Sigma Aldrich	N0636	
Opti-MEM I Reduced Serum Medium	Gibco/Thermo Fisher	31985070	
Paraffin	Fisher Scientific	P31-500	
Parafilm	Sigma Aldrich	P7793	transparent film
PBS	Thermo Fisher	10010023	
Penicillin/Streptomycin	Gibco/Thermo Fisher	15140122	
pLJM1-EGFP	Addgene	19319	

Polybrene	Millipore	TR-1003-G	
Polyethylenimine hydrochloride (PEI)	Sigma Aldrich	764965	
p-phenylenediamine	Acros Organics/Thermo Fisher	417481000	
Puromycin	VWR	J593-25mg	
Recombinant human FGF2 protein	Peprtech	100-18B-250ug	
Recombinant human IGF-1 protein	Biologend	B356441	
Recombinant human Noggin protein	R & D Systems	6057-NG-100	
Recombinant mouse EGF protein	Thermo Fisher	PMG8041	
Sprague Dawley rat	Charles River Laboratories	Strain 001	
Triton X-100	American Bioanalytical	AB02025-00500	
TrypLE Express Enzyme	Gibco/Thermo Fisher	12604013	
Y27632 dihydrochloride	Sigma Aldrich	Y0503	