

Materials List for:

Mixed Primary Cultures of Murine Small Intestine Intended for the Study of Gut Hormone Secretion and Live Cell Imaging of Enteroendocrine Cells

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Materials

Name	Company	Catalog Number	Comments
24-well plates	Costar	3524	For secretion experiments
Bombesin	Sigma-Aldrich	B4272	Positive control (calcium imaging experiment)
Centrifuge tubes, 15 mL, sterile	Greiner bio-one	188261	For tissue preparation/digestion
Centrifuge tubes, 50 mL, sterile	Corning	430828	For tissue preparation/ digestion
Collagenase XI (Crude)	Sigma-Aldrich	C9407	For making up digestion medium
Dichroic mirror	Cairn Research	-	For imaging experiments
DMEM High glucose (4500 mg)	Sigma-Aldrich	D6546	For dissolving matrigel (keep at 4 °C). For making up digestion medium, pre-warm to 37 °C.
Emission Filter (Bandwidth 510-560 nm)	Cairn Research	-	For imaging experiments
Foetal Bovine Serum	Sigma-Aldrich	F7524	For making up culture medium
Forceps/Tweezers	Agar Scientific	AGT520	For dissection/removal of intestine
Forskolin	Sigma-Aldrich	F6886	Positive control (secretion experiment)
Glass-bottomed dishes (35 mm)	MatTek	P35G-0-14-C	For imaging experiments
High precision tweezer (110 mm)	IDEAL-TEK	3480641 (5 SA)	For removing muscle layer
High resolution digital CCD camera	Hamamatsu	ORCA-ER	For imaging experiments
3-Isobutyl-1-methylxanthine	Sigma-Aldrich	I7018	Positive control (secretion experiment)
L-15 Medium (Leibovitz)	Sigma-Aldrich	L1518	For collecting tissue, keep on ice
L-glutamine	Sigma-Aldrich	G7513	For making up culture medium
Matrigel	Corning	354234	Basement Membrane Matrix, for coating plates and dishes
MetaFluor	Molecular Devices (supplied by Cairn Research)	-	Fluorescence ratio imaging software
Mice (C57BL6)	Charles River Laboratories	C57BL/6J	Background mice used for breeding. Can also be used for secretion experiments
Mice (GLU-cre x ROSA26 GCaMP3)	in house	-	For calcium imaging and secretion experiments
Microscope (EVOS XL Core)	Thermo Fisher Scientific	AMEX1000	For photomicrographs of cultures
Microscope	Olympus	IX71	Inverted microscope with 40X oil objective used for imaging experiments
Monochromator	Cairn Research	-	For imaging experiments

Pasteur pipettes	Alpha Laboratories	LW4234	For cleaning tissue
PBS containing Ca^{2+} and Mg^{2+}	Sigma-Aldrich	D8662	For washing tissue, keep on ice
Penicillin & Streptomycin	Sigma-Aldrich	P0781	For making up culture medium
Petri dishes (100 mm x 20 mm)	Corning	CLS430167	For cleaning tissue and removing muscle layer
Potassium chloride	Fisher Scientific	P/4280/53	Positive control (calcium imaging experiment)
Scissors	Agar Scientific	AGT554	For dissection/removal of intestine
Sterile cell strainer 100 μm	Fisher Scientific	22363549	For filtering crypt cell suspension prior to plating
Surgical scalpel blade No.22 (sterile, stainless)	Swann Morton	0308	For dicing tissue
Syringe filters, Minisart NML (0.2 μm pore size)	Sartorius	16534-K	For filter-sterilising collagenase solution (digestion medium)
Syringes, 20 mL, disposable, sterile, Luer slip	BD	300613	For filter-sterilising collagenase solution (digestion medium)
Xenon arc lamp 75W	Cairn Research	-	For imaging experiments
Y-27632 dihydrochloride	Tocris	1254	ROCK inhibitor, prepare 10 mM stock solution in sterile water (use 1:1,000 in final culture medium)