

Materials List for:

Mouse Fetal Whole Intestine Culture System for *Ex Vivo* Manipulation of Signaling Pathways and Three-dimensional Live Imaging of Villus Development

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Materials

Name	Company	Catalog Number	Comments
Fine dissecting forceps	Fine Science Tools	11254-20	2 pairs
70% Ethanol			
1x sterile Dulbecco's Phosphate-Buffered Saline (DPBS)	Gibco	14040-133	500 ml
6 well plates	Costar	3516	
24 well plates	Costar	3524	
60 x 15 mm petri dishes	Falcon	451007	
Transwell plates, 24 mm inserts, 8.0 mm polycarbonate membranes	Corning Costar	3428	6 inserts per plate
BGJb media	Invitrogen	12591-038	500 ml
PenStrep (10,000U/ml Penicillin; 10,000 mg/ml Streptomycin)	Gibco	15140	
Ascorbic Acid	Sigma	A0278	make 5 mg/ml stock, filter, aliquot and store at -20 °C
Mouth pipet (Drummond 1-15 inch aspirator tube assembly)	Fisher	21-180-10	remove the aspirator assembly and replace it with a 1,000 µl pipet tip which acts as an adaptor to plug in a 6 inch glass Pasteur pipet.
6 inch glass pasteur pipets			
Capillary Tubes	World Precision Instruments	TW100F-4	pull to needles
4% Paraformaldehyde			made in 1 x PBS, pH to 7.3
Culture plates	Falcon	353037	
Fine mesh stainless steel screen	purchase at hardware store		
Polycarbonate membranes	Thomas scientific	4663H25	alternatively, cut Corning Costar 3428 membranes off of transwell supports
Instant glue	purchase at hardware store	gel based preferably	
35 x 10 mm plates	Falcon	351008	
7% agarose	Sigma	A9414	prepare w/v in 1x DPBS, heating to dissolve in a waterbath
minutien pins	Fine Science Tools	26002-20	
Phenol red free media (DMEM)	Gibco	21063-029	
Xylazine (100 mg/ml)	AnaSed	139-236	
Matrigel	BD	356231	basement membrane matrix, growth factor reduced, phenol red-free

3-4% agarose	Sigma	A9414	prepare w/v in 1x DPBS, heating to dissolve in a waterbath
Imaging of fixed intestines			
Name of Material/Equipment	Company	Catalog Number	Comments/Description
vaseline	purchase at pharmacy		used to make VALAP: equal parts vaseline, lanolin, paraffin
lanolin	Sigma	L7387	used to make VALAP: equal parts vaseline, lanolin, paraffin
paraffin	Surgipath	39601006	used to make VALAP: equal parts vaseline, lanolin, paraffin
70% glycerol in 1 x PBS			
Focus clear and Mount Clear	CelExplorer Labs Co.	F101-KIT	
Modeling clay	purchase at art supply store		
double stick tape			
cotton applicator swabs			
plastic molds, 10mm x 10mm x 5 mm)	Tissue Tek	4565	
slides			
coverslips			
lab wipe	Kimberly Clark	34155	lint free delicate task wipe
Theiler staging chart			http://www.emouseatlas.org/emap/ema/theiler_stages/downloads/theiler2.pdf
Leica SP5X confocal microscope	Leica		Used to conduct the live imaging
Leica DMI 6000 stand	Leica		Used to conduct the live imaging
Aqueous mounting medium (Prolong Gold)	Molecular Probes	P36930	
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24 well plate	Costar	3524	
Triton X-100	Sigma	T-8787	used to make Permeabilization solution: 0.5% Triton X-100 in 1 x PBS
Goat serum			used to make Blocking Solution: 4% Goat serum, 0.1% Tween20 in 1x PBS
Tween20	Sigma	P9416	