

Materials List for

Establishing Organoids from Human Tooth as a Powerful Tool Toward Mechanistic Research and Regenerative Therapy

Lara Hemeryck¹, Ivo Lambrichts², Annelies Bronckaers², Hugo Vankelecom¹

¹Laboratory of Tissue Plasticity in Health and Disease, Cluster of Stem Cell and Developmental Biology, Department of Development and Regeneration, Leuven Stem Cell Institute, KU Leuven (University of Leuven) ²Biomedical Research Institute (BIOMED), UHasselt, Hasselt University

Corresponding Author

Hugo Vankelecom

hugo.vankelecom@kuleuven.be

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Materials

Name	Company	Catalog Number	Comments
1.5 mL Microcentrifuge tube	Eppendorf	30120.086	
15 mL Centrifuge tube	Corning	430052	
2-Mercaptoethanol	Sigma-Aldrich	M-6250	
48-well flat bottom plates	Corning	3548	
50 mL Centrifuge tube	Corning	430290	
A83-01	Sigma-Aldrich	SML0788	
Agarose	Lonza	50004	
Albumin Bovine (cell culture grade)	Serva	47330.03	
AMELX antibody	Santa Cruz	sc-365284	
Amphotericin B	Gibco	15200018	
B27 (without vitamin A)	Gibco	12587-010	
Cassette	VWR	7202191	
Catalase from bovine liver	Sigma-Aldrich	C100	
CD44 antibody	Abcam	ab34485	
Cell strainer, 40 µm	Falcon	352340	
Cholera Toxin	Sigma-Aldrich	C8052	
Citric acid	Sigma-Aldrich	C0759	
CK14 antibody	Thermo Fisher Scientific	MA5-11599	
Collagenase IV	Gibco	17104-019	
Cover glass	VWR	6310146	
Cryobox	Thermo Scientific	5100-0001	
Cryovial	Thermo Fisher Scientific	375353	
Dimethylsulfoxide (DMSO)	Sigma-Aldrich	D2650	
Dispase II	Sigma-Aldrich	D4693	
DMEM 1:1 F12 without Fe	Invitrogen	074-90715A	

DMEM powder high glucose	Gibco	52100039	
Dnase	Sigma-Aldrich	D5025-15KU	
Donkey serum	Sigma-Aldrich	D9663 - 10ML	
Embedding workstation, 220 to 240 Vac	Thermo Fisher Scientific	12587976	
Ethanol absolute, ≥99.8% (EtOH)	Fisher Chemical	E/0650DF/15	
Fetal bovine serum (FBS)	Sigma-Aldrich	F7524	
FGF10	Peprotech	100-26	
FGF2 (= basic FGF)	R&D Systems	234-FSE-025	
FGF8	Peprotech	AF-100-25	
GenElute Mammalian Total RNA Miniprep Kit	Sigma-Aldrich	RTN350-1KT	Includes 1% β-mercaptoethanol dissolved in lysis buffer
Glass Pasteur pipette	Niko Mechanisms	170-40050	
Glycine	VWR	101194M	
HEPES	Sigma-Aldrich	H4034	
IGF-1	Peprotech	100-11	
InSolution Y-27632 (ROCK inhibitor, RI)	Sigma-Aldrich	688001	
Insulin from bovine pancreas	Sigma-Aldrich	I6634	
ITGA6 antibody	Sigma-Aldrich	HPA012696	
L-Glutamine	Gibco	25030024	
Matrigel (growth factor-reduced; phenol red-free)	Corning	15505739	
Microscope slide	Thermo Fisher Scientific	J1800AMNZ	
Millex-GV Syringe Filter Unit, 0.22 μm	Millipore	SLGV033R	
Minimum essential medium eagle (αMEM)	Sigma-Aldrich	M4526	
mouse IgG (Alexa 555) secondary antibody	Thermo Fisher Scientific	A-31570	
N2	Gibco	17502-048	
N-acetyl L-cysteine	Sigma-Aldrich	A7250	
Nicotinamide	Sigma-Aldrich	N0636	
Noggin	Peprotech	120-10C	
P63 antibody	Abcam	ab124762	
Pap Pen	Sigma-Aldrich	Z377821-1EA	Marking pen
Paraformaldehyde (PFA), 16%	Merck	8.18715	
Penicillin G sodium salt	Sigma-Aldrich	P3032	
Penicillin-streptomycin (Pen/Strep)	Gibco	15140-122	
Petri dish	Corning	353002	
Phosphate buffered saline (PBS)	Gibco	10010-015	
Pipette (P20, P200, P1000)	Eppendorf or others	2231300006	
Plastic transfer pipette (3.5 mL)	Sarstedt	86.1171.001	
Rabbit IgG (Alexa 488) secondary antibody	Thermo Fisher Scientific	A21206	
RSPO1	Peprotech	120-38	
SB202190 (p38i)	Biotechne (Tocris)	1264	
Scalpel (surgical blade)	Swann-Morton	207	
SHH	R&D Systems	464-SH-200	
Silicone molds (Heating block)	VWR	720-1918	

Sodium Chloride (NaCl)	BDH	102415K	
Sodium Hydrogen Carbonate (NaHCO ₃)	Merck	106329	
Sodium-pyruvate (C ₃ H ₃ NaO ₃)	Sigma-Aldrich	P-5280	
SOX2 antibody	Abcam	ab92494	
StepOnePlus	Thermo Fisher Scientific		Real-Time PCR System
Stericup-GP, 0.22 µm	Millipore	SCGPU02RE	
Steriflip-GP Sterile Centrifuge Tube Top Filter Unit, 0.22 µm	Millipore	SCGP00525	
Sterile 1000 µL pipette tips with filter	Greiner	740288	
Sterile 20 µL pipette tips with filter	Greiner	774288	
Sterile 200 µL pipette tips with and without filter	Greiner	739288	
Sterile H ₂ O	Fresenius	B230531	
Streptomycin sulfate salt	Sigma-Aldrich	S6501	
Superscript III first-strand synthesis supermix	Invitrogen	11752-050	Reverse transcription kit
Tissue processor	Thermo Scientific	12505356	
Transferrin	Serva	36760.01	
Triton X-100	Sigma	T8787-50ML	
TrypLE express	Gibco	12605-010	
Vectashield mounting medium+DAPI	Labconsult NV	H-1200	Antifade mounting medium with DAPI
WNT3a	Biotechne (Tocris)	5036-WN-500	
Xylenes, 99%, for biochemistry and histology	VWR	2,89,75,325	