

Materials List for

Establishment and Genetic Manipulation of Murine Hepatocyte Organoids

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Materials

Name	Company	Catalog Number	Comments
Perfusion Buffer			
EGTA	Sangon Bitech	A600077-0100	3.50 g/L
Glucose	Sangon Bitech	A100188-0500	9.00 g/L
KCl	Sangon Bitech	A100395-0500	4.00 g/L
Na ₂ HPO ₄ ·12H ₂ O	Sangon Bitech	A501727-0500	1.51 g/L
NaCl	Sangon Bitech	A501218-0001	80.0 g/L
NaH ₂ PO ₄ ·2H ₂ O	Sangon Bitech	A610404-0500	0.78 g/L
NaHCO ₃	Sangon Bitech	A500873-0500	3.50 g/L
Phenol Red	Sangon Bitech	A100882-0025	0.06 g/L
Digestion Buffer			
CaCl ₂	Sangon Bitech	A501330-0005	0.50 M
Collagenase IV	Sigma	C1639	0.10 mg/mL
HEPES	Sangon Bitech	C621110-0010	23.80 g/L
KCl	Sangon Bitech	A100395-0500	4.00 g/L
Na ₂ HPO ₄ ·12H ₂ O	Sangon Bitech	A501727-0500	1.51 g/L
NaCl	Sangon Bitech	A501218-0001	80.0 g/L
NaH ₂ PO ₄ ·2H ₂ O	Sangon Bitech	A610404-0500	0.78 g/L
NaHCO ₃	Sangon Bitech	A500873-0500	3.50 g/L
Tip-wash Buffer			
Fetal Bovine Serum	Gibco	10091148	stored at 4 °C
DPBS	Gibco	C14190500BT0	stored at 4 °C
Wash Medium			
Advanced DMEM/F12	Invitrogen	12634-010	stored at 4 °C
GlutaMAX	Gibco	35050-061	100 X
HEPES	Gibco	15630-080	100 X

Penicillin/streptomycin	Sangon Bitech	A600135-0025	100 X
Culture Medium			
A83-01	Tocris	2939	Stock concentration 500 μ M, final concentration 2 μ M
Advanced DMEM/F12	Invitrogen	12634-010	stored at 4 °C
B-27 supplement 50x, minus vitamin A	Gibco	1704-044	50 X
Chir 99021	Tocris	4423	Stock concentration 30 mM, final concentration 3 μ M
DMEM/F12	Gibco	11330032	stored at 4 °C
Gastrin I	Tocris	3006	Stock concentration 100 mM, final concentration 10 nM
GlutaMAX	Gibco	35050-061	100 X
HEPES	Gibco	15630-080	100 X
Matrigel matrx	BD	356231	stored at -20 °C
N-acetylcysteine	Sigma Aldrich	A9165	Stock concentration 500 mM, final concentration 1 mM
Nictinamide	Sigma Aldrich	N0636	Stock concentration 1 M, final concentration 3 mM
Penicillin/streptomycin	Sangon Bitech	A600135-0025	100 X
Recombinant human EGF	Peprtech	AF-100-15	Stock concentration 100 μ g/ml, final concentration 50 ng/ml
Recombinant human FGF10	Peprtech	100-26	Stock concentration 100 μ g/ml, final concentration 100 ng/ml
Recombinant human HGF	Peprtech	100-39	Stock concentration 100 μ g/ml, final concentration 25 ng/ml
Recombinant Human TGF- α	Peprtech	100-16A	Stock concentration 100 μ g/ml, final concentration 100 ng/ml
Recombinant Human TNF- α	Origene	TP750007-1000	Stock concentration 100 μ g/ml, final concentration 100 ng/ml
Rho kinase inhibitor Y-27632	Abmole Bioscience	Y-27632 dihydrochloride	Stock concentration 10 mM, final concentration 10 μ M
Rspodin-1conditioned medium			Stable cell line generated in the Hu Lab. Final concentration 15%.
Others			
0.22 μ m filter	Millipore	SCGPT01RE	
16 # silicone tube	LangerPump		
24 well, suspension	Greiner bio-one	GN662102-100EA	
37 °C Water Bath			
70 μ m filter	BD	352350	
Accutase	stemcell	AT-104	stored at 4 °C
Anti-CTNNB1	BD	610154	Mouse
Anti-GAPDH	CST	5174S	Rabbit
Anti-HDAC7	Abcam	ab50212	Mouse
Anti-KI67	Abcam	ab15580	Rabbit
Biological safety cabinet	ESCO	CCL-170B-8	
Cell Recovery Solution	Corning	354253	stored at 4 °C
Centrifuge 5430	eppendorf	542700097	
CO ₂ incubator	ESCO	AC2-4S1	
DMSO	Sangon Bitech	A100231	stored at RT
EVOS FL Color Imaging Systems	Invitrogen	AME4300	
Hdac3 siRNA	Guangzhou RiboBio Co., Ltd.	siG2003180909192555	stored at -20 °C

Hdac7 lentivirus	ShanghaiGenePharmaCo.,Ltd	LV2020-2364	stored at -80 °C
Hitrans G A	Shanghai Genechem Co.,Ltd.	REVG004	Increased virus infection efficiency
Image Pro Plus software	Media Cybernetics, Bethesda, MD, USA	version 6.0	
Lipofectamin RNAiMAX Transfection Reagent	Invitrogen	13778150	Increased virus infection efficiency
Live cell dye	Luna	F23001	stored at 4 °C
Low-speed desktop centrifuge	cence	TD5A-WS/TD5AWS	
Nucleofactor-α 2b Device	Lonza		
Opti-MEM	Gibco	31985070	stored at 4 °C
Pasteur pipette	Sangon Bitech	F621006-0001	
Peristaltic pump	LangerPump	BT100-2J	
PVDF membrane	Millipore	IPVH00010	Activate with methanol
PX458	Addgene	48138	stored at -80 °C
Refrigerated centrifuge	Thermo Scientific Heraeus	Labofuge 400	
RSL3	MCE	HY-100218A	Stock concentration 10 mM, final concentration 4 μM
Trypsin/EDTA	Gibco	25200072	stored at 4 °C
Wee1 siRNA	Guangzhou RiboBio Co., Ltd.	siG2003180909205971	stored at -20 °C