

Materials List for

# An Efficient Method for Directed Hepatocyte-Like Cell Induction from Human Embryonic Stem Cells

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## Citation

Zhou, Q., Xie, X., Zhong, Z., Sun, P., Zhou, X. An Efficient Method for Directed Hepatocyte-Like Cell Induction from Human Embryonic Stem Cells. *J. Vis. Exp.* (171), e62654, doi:10.3791/62654 (2021).

## Date Published

May 6, 2021

## DOI

10.3791/62654

## URL

jove.com/video/62654

## Materials

Name	Company	Catalog Number	Comments
2-Mercaptoethanol	Sigma	M7522	For hepatic progenitor differentiation
488 labeled goat against mouse IgG	ZSGB-BIO	ZF-0512	For IF, second antibody
488 labeled goat against Rabbit IgG	ZSGB-BIO	ZF-0516	For IF, second antibody
Accutase	Stem Cell Technologies	7920	For cell passage
Activin A	peproTech	120-14E	For definitive endoderm formation
Anti - Albumin (ALB)	Sigma-Aldrich	A6684	For IF and WB, primary antibody
Anti - Human Oct4	Abcam	Ab19587	For IF, primary antibody
Anti - $\alpha$ -Fetoprotein (AFP)	Sigma-Aldrich	A8452	For IF and WB, primary antibody
Anti -SOX17	Abcam	ab224637	For IF, primary antibody
Anti-Hepatocyte Nuclear Factor 4 alpha (HNF4 $\alpha$ )	Sigma-Aldrich	SAB1412164	For IF, primary antibody
B-27 Supplement	Gibco	17504-044	For definitive endoderm formation
BSA	Beyotime	ST023-200g	For cell blocking
CHIR99021	Sigma-Aldrich	SML1046	For definitive endoderm formation
DAPI	Beyotime	C1006	For nuclear staining
DEPC-water	Beyotime	R0021	For RNA dissolution
DM3189	MCE	HY-12071	For definitive endoderm formation
DMEM/F12	Gibco	11320-033	For cell culture
DMSO	Sigma-Aldrich	D5879	For hepatic progenitor differentiation
DPBS	Gibco	14190-144	For cell culture
GlutaMAX	Gibco	35050-061	For hepatic progenitor differentiation
H&E staining kit	Beyotime	C0105S	For H&E staining
Hepatocyte growth factor (HGF)	peproTech	100-39	For hepatocyte differentiation
HepatoZYME-SFM (HZM)	Gibco	17705-021	For hepatocyte differentiation
Hydrocortisone-21-hemisuccinate	Sigma-Aldrich	H4881	For hepatocyte differentiation
Indocyanine	Sangon Biotech	A606326	For Indocyanine staining

Knock Out DMEM	Gibco	10829-018	For hepatic progenitor differentiation
Knock Out SR Multi-Species	Gibco	A31815-02	For hepatic progenitor differentiation
Matrigel hESC-qualified	Corning	354277	For cell culture
MEM NeAA	Gibco	11140-050	For hepatic progenitor differentiation
mTesR 5X Supplement	Stem Cell Technologies	85852	For cell culture
mTesR Basal Medium	Stem Cell Technologies	85851	For cell culture
Oncostatin (OSM)	peproTech	300-10	For hepatocyte differentiation
P450 - CYP3A4 (Luciferin - PFBE)	Promega	V8901	For CYP450 activity
PAS staining kit	Solarbio	G1281	For PAS staining
Pen/Strep	Gibco	15140-122	For cell differentiation
Peroxidase-Conjugated Goat anti-Mouse IgG	ZSGB-BIO	ZB-2305	For WB,second antibody
Primary Antibody Dilution Buffer for Western Blot	Beyotime	P0256	For primary antibody dilution
ReverTraAce qPCR RT Kit	TOYOBO	FSQ-101	For cDNA Synthesis
RNAiso Plus	TaKaRa	9109	For RNA Isolation
RPMI 1640	Gibco	11875093	For definitive endoderm formation
Skim milk	Sangon Biotech	A600669	For second antibody preparation
SYBR Green Master Mix	Thermo Fisher Scientific	A25742	For RT-PCR Analysis
Torin2	MCE	HY-13002	For definitive endoderm formation
Tween	Sigma-Aldrich	WXBB7485V	For washing buffer preparation