

Materials List for:

Efficient Generation of Pancreas/Duodenum Homeobox Protein 1⁺ Posterior Foregut/Pancreatic Progenitors from hPSCs in Adhesion Cultures

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Materials

Name	Company	Catalog Number	Comments
3-Keto-N-aminoethyl-N'-aminocaproyldihydrocinnamoyl cyclopamine	Toronto Research Chemicals	K171000	CYC
4-[(E)-2-(5,6,7,8-Tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl)-1-propenyl]-benzoic acid	Santa Cruz Biotechnology	SC-203303	TTNPB
50 mL Conical Sterile Polypropylene Centrifuge Tubes	Thermo Fisher Scientific	339652	
Anti-CDX2 antibody [EPR2764Y]	Abcam	Ab76541	Anti-CDX2, × 1/1000 dilution
B-27 Supplement (50 ×)	Thermo Fisher Scientific	17504-044	Serum-free supplement
BD FACSAria II Cell Sorter	BD Biosciences		For flow cytometry
Biomedical freezer	SANYO	MDF-U538	For -30 °C storing
Cell Counting Slides for TC10/TC20 Cell Counter, Dual-Chamber	BIO-RAD	1450011	Counting slide glass
CELL CULTURE MULTIWELL PLATE, 6 WELL, PS, CLEAR	Greiner bio-one	657165	For differentiation culture/6-well plate
Centrifuge	TOMY	AX-310	For cell culturing
Centrifuge	TOMY	MX-305	For RT-qPCR
CHIR99021	Axon Medchem	Axon 1386	
CLEAN BENCH	SHOWA KAGAKU	S-1601PRV	Clean bench
Corning CellBIND 6-well plate	Corning	3335	For feeder-free culture of hPSCs/6-well plate
Corning Matrigel Basement Membrane Matrix Growth Factor Reduced	Corning	354230	Basement membrane matrix
Corning Synthemax II-SC Substrate	Corning	3535	For feeder-free culture of hPSCs/ synthetic surface material for hPSCs
Cryostat	Leica	Leica CM1510 S	For immunostaining of aggregates.
Cytofix/Cytoperm Kit	Becton Dickinson	554714	Perm/Wash buffer is Permeabilization/Wash buffer. Cytofix/Cytoperm buffer is fixation and permeabilization buffer.
Dako pen	Dako	S2002	For immunostaining of aggregates
dNTP mix (10 mM)	Thermo Fisher Scientific	18427-088	For RT-qPCR
Donkey anti-Goat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor 488	Thermo Fisher Scientific	A11055	Secondary antibody, × 1/500 dilution

Donkey anti-Mouse IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor 546	Thermo Fisher Scientific	A10036	Secondary antibody, × 1/500 dilution
Donkey anti-Rabbit IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor 546	Thermo Fisher Scientific	A10040	Secondary antibody, × 1/500 dilution
Donkey Serum	Merck Millipore	S30	Donkey serum
D-PBS(-) without Ca or Mg	Nacalai tesque	14249-95	DPBS
Essential 8 Medium	Thermo Fisher Scientific	A1517001	For feeder-free culture of hPSCs/ hPSC maintenance medium
Falcon 5 mL Round Bottom Polystyrene Test Tube, with Cell Strainer Snap Cap	Corning	352235	5 mL round bottom polystyrene tube with cell strainer
Filter Tip, 1,000 µL	Watson	124-1000S	Use together with pipettes
Filter Tip, 20 µL	Watson	124-P20S	Use together with pipettes
Filter Tip, 200 µL	Watson	124-P200S	Use together with pipettes
Fluorescence Microscope	Keyence	BZ-X700	For immunostaining
Forma Steri-Cycle CO ₂ incubator	Thermo Fisher Scientific	370A	Incubator
HNF-1β Antibody (C-20)	Santa Cruz Biotechnology	sc-7411	Anti-HNF1β, × 1/200 dilution
HNF-4α Antibody (H-171)	Santa Cruz Biotechnology	sc-8987	Anti-HNF4α, × 1/200 dilution
Hoechst 33342	Thermo Fisher Scientific	H3570	For nucleus staining, × 1/200 dilution
Human Pancreas Total RNA	Ambion	AM7954	For RT-qPCR
Human PDX-1/IPF1 Antibody	R&D Systems	AF2419	Anti-PDX1, goat IgG, × 1/200 dilution
Human SOX17 Antibody	R&D Systems	AF1924	Anti-SOX17, × 1/200 dilution
Improved MEM Zinc Option medium	Thermo Fisher Scientific	10373-017	iMEM
Incubation chamber	Cosmo Bio	10DO	For immunostaining of aggregates
Latex Examination Gloves	Adachi		
MAS coated slide glass	Matsunami Glass	83-1881	For immunostaining of aggregates
MicroAmp Fast 96-well Reaction Plate	Applied Biosystems/Thermo Fisher Scientific	4346907	For RT-qPCR
Microscope	Olympus	CKX41N-31PHP	For cell culturing
Microtube	Watson	131-515CS	
Monoclonal Anti-α-Fetoprotein	SIGMA	A8452	Anti-AFP, × 1/200 dilution
Nanodrop 8000	Thermo Fisher Scientific		For RT-qPCR
Oligo dT	FASMAC	Custom made Oligo	For RT-qPCR of sequence is "TTTTTTTTTTTTTTTTTTTTT"
Paraformaldehyde, powder	Nacalai tesque	26126-54	PFA, fixative, diluted in DPBS
Pharmaceutical refrigerator	SANYO	MPR-514	For 4 °C storing
PIPETMAN P	GILSON		Pipette
Recombinant Human KGF/FGF-7	R&D Systems	251-KG	KGF
Recombinant Human Noggin	PeptideTech	120-10C	NOGGIN
Recombinant Human/Mouse/Rat Activin A	R&D Systems	338-AC	Activin A
ReverTra Ace (100 U/µL)	TOYOBO	TRT-101	For RT-qPCR
RNase-free DNase Set (50)	QIAGEN	79254	For RT-qPCR
RNeasy Mini Kit	QIAGEN	74104	For RT-qPCR
RPMI 1640 with L-Gln	Nacalai tesque	30264-85	RPMI 1640

Sealing Film for Real Time	Takara	NJ500	For RT-qPCR
Serological pipettes 10 mL	Costar/Corning	4488	For cell culturing
Serological pipettes 25 mL	Costar/Corning	4489	For cell culturing
Serological pipettes 5 mL	Costar/Corning	4487	For cell culturing
Sox2 (D6D9) XP Rabbit mAb	Cell signaling	3579S	Anti-SOX2, × 1/200 dilution
StepOnePlus	Applied Biosystems/Thermo Fisher Scientific		For RT-qPCR
Sucrose	Nacalai tesque	30406-25	For immunostaining of aggregates
TB Green Premix Ex Taq II	Takara	RR820B	For RT-qPCR
TC20 Automated Cell Counter	BIO-RAD	1450101J1	Automatic cell counter
Tissue-Tek OCT compound 4583	Sakura Finetechnical	4583	For immunostaining of aggregates
Tissue-Tek Cryomold Molds/Adapters	Sakura Finetechnical	4566	For immunostaining of aggregates
Triton X-100	Nacalai tesque	35501-15	
Trypan Blue	BIO-RAD	1450021	
Ultracold freezer	SANYO	MDF-U33V	For -80 °C storing
UltraPure 0.5M EDTA, pH 8.0	Thermo Fisher Scientific	15575-038	Dilute with DPBS to prepare 0.5 mM EDTA
Veriti Thermal Cycler	Applied Biosystems/Thermo Fisher Scientific		For RT-qPCR
Y-27632	Wako	251-00514	