

Materials List for

Microfluidic Fabrication of Core-Shell Microcapsules carrying Human Pluripotent Stem Cell Spheroids

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Materials

Name	Company	Catalog Number	Comments
0.22 µm Syringe Filters	Genesee Scientific	25-244	
1 ml syringe luer-lock tip	BD	309628	
1x DPBS	Corning	23220003	
4-arm PEG maleimide, 10kDa	Laysan Inc.	164-68	
5 ml syringe luer-lock tip	BD	309646	
6-WELL NON-TREATED PLATE	USA Scientific	CC7672-7506	
Aquapel Applicator Pack	Aquapel Glass Treatment	47100	
CAD software	Autodesk	AutoCAD v2020	
CELL STRAINER 100 µm pore size	cardinal	335583	
Chlorotrimethylsilane	Aldrich	386529-100mL	
Countess II FL Automated Cell Counter	Life technology	A27974	
Digital hot plate	Dataplate		
Digital vortex mixer	Fisher Scientific	215370	
Distilled water	Gibco	15230-162	
Dithiotheritol (DTT)	Sigma	D0632-10G	
DMEM/F12 media	gibco	11320-033	
Falcon 15 mL Conical Centrifuge Tubes	Fisher scientific	14-959-53A	
Fisherbrand accuSpin Micro 17 Microcentrifuge	live	13-100-675	
HERACELL VIOS 160i CO2 Incubator	Thermo Scientific	50144906	
Inverted Fluorescence Motorized Microscope	Olympus	Olympus IX83	
Laurell Spin Coaters	Laurell Technologies	WS-650MZ-23NPPB	
Live/Dead mammalian staining kit	Fisher	L3224	
Magic tape	Staples	483535	

Micro Medical Tubing (0.015" I.D. x 0.043" O.D.)	Scientific Commodities, Inc	BB31695-PE/2	
Micro stir bar	Daigger Scientific	EF3288E	
MilliporeSigma Filter Forceps	Fisher scientific	XX6200006P	
Mineral oil	Sigma	M8410-1L	
mTeSR 1 Basal Medium	STEMCELL TECHNOLOGY	85850	
Needles-Stainless Steel 14 Gauge	CML supply	901-14-025	
Needles-Stainless Steel 15 Gauge	CML supply	901-15-050	
OptiPrep	STEMCELL TECHNOLOGY	7820	
Oven	Thermo Scientific	HERA THERM Oven	
Penicillin:Streptomycin (10,000 U/mL Penicillin G, 10mg/mL Streptomycin)	Gemini	400-109	
Petri Dish 150X20 Sterile Vent	Sarstedt, Inc.	82.1184.500	
Plasma Cleaning System	Yield Engineering System, Inc.	YES-G500	
Pluronic F-127	Sigma	P2443-250G	
Poly(ethylene glycol) 35kDa	Sigma	94646-250G-F	
PrecisionGlide Needle 27G	BD	305109	
Rock inhibitor Y-27632 dihydrochloride	SELLECK CHEM	S1049-10mg	
Silicon wafer 100mm	University Wafer	452	
Slide glass (75mm ´ 25mm)	CardinalHealth	M6146	
Span 80	Sigma	S6760-250ML	
SpeedMixer	Thinky	ARE-310	
Spin-X Centrifuge Tube Filter (0.22 µm)	Costar	8160	
SU-8 2025	Kayaku Advanced Materials	Y111069 0500L1GL	
SU-8 developer	Kayaku Advanced Materials	Y020100 4000L1PE	
Surgical Design Royaltex Stainless Steel Surgical Scalpel Blades	fisher scientific	22-079-684	
SYLGARD TM 184 Silicone Elastomer Kit (PDMS)	Dow Corning	2065622	
Syringe pump	New Era Pump System, Inc	NE-4000	
Triethanolamine	Sigma-aldrich	T58300-25G	
TrypLE Express	Gibco	12604-013	
Tygon Tubing (0.02" I.D. x 0.06" O.D.)	Cole-Parmer	06419-01	
Tygon Tubing (0.04" I.D. x 0.07" O.D.)	Cole-Parmer	06419-04	
Ultrasonic cleaner FS20D	Fisher Scientific	CPN-962-152R	
Vacuum desiccator	Bel-Art	F42025-0000	
Zeiss Stemi DV4 Stereo Microscope 8x-32x	ZEISS	435421-0000-000	
µPG 101 laser writer	Heidelberg Instruments	HI 1128	