

Materials List for:

Engineering a Bilayered Hydrogel to Control ASC Differentiation

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Materials

Name	Company	Catalog Number	Comments
Hanks Balanced Salt Solution (HBSS)	GIBCO, by Life Technologies	14175	Consumable
Fetal Bovine Serum	Hyclone	SH30071.03	Consumable
Collagenase Type II	Sigma-Aldrich	C6685	Consumable
70-µm Nylon Mesh Filter	BD Biosciences	352350	Consumable
100-µm Nylon Mesh Filter	BD Biosciences	352360	Consumable
MesenPRO Growth Medium System	Invitrogen	12746-012	Consumable
L-Glutamine	GIBCO, by Life Technologies	25030	Consumable
CaCl ₂ ·2H ₂ O	Sigma-Aldrich	C8106	Consumable
T75 Tissue Culture Flask	BD Biosciences	137787	Consumable
Chitosan	Sigma-Aldrich	448869	Consumable
Acetic Acid	Sigma-Aldrich	320099	Consumable
N-Octanol	Acros Organics	150630025	Consumable
Sorbitan-Mono-Oleate	Sigma-Aldrich	S6760	Consumable
Potassium Hydroxide	Sigma-Aldrich	P1767	Consumable
Acetone	Fisher Scientific	L-4859	Consumable
Ethanol	Sigma-Aldrich	270741	Consumable
Trinitro Benzenesulfonic Acid	Sigma-Aldrich	P2297	Consumable
Hydrochloric Acid	Sigma-Aldrich	320331	Consumable
Ethyl Ether	Sigma-Aldrich	472-484	Consumable
8-µm Tissue Culture Plate Inserts	BD Biosciences	353097	Consumable
1.5-ml Microcentrifuge Tubes	Fisher Scientific	05-408-129	Consumable
MTT Reagent	Invitrogen	M6494	Consumable
Dimethyl Sulfoxide	Sigma-Aldrich	D8779	Consumable
Qtracker Cell Labeling Kit(Q Tracker 655)	Molecular Probes, Life Technologies	Q2502PMP	Consumable
Type 1 Collagen	Travigen	3447-020-01	Consumable
Sodium Hydroxide	Sigma-Aldrich	S8045	Consumable
12-Well Tissue Culture Plates	BD Biosciences	353043	Consumable
Fibrinogen	Sigma-Aldrich	F3879	Consumable
Thrombin	Sigma-Aldrich	T6884	Consumable
Benzotriazole Derivative of Polyethylene	Sunbio	DE-034GS	Consumable
Tris Buffer Tablet (pH 7.6)	Sigma-Aldrich	T5030	Consumable

Centrifuge	Eppendorf	5417R	Equipment
Orbital Shaker	New Brunswick Scientific	C24	Equipment
Humidified Incubator with Air-5% CO ₂	Thermo Fisher Scientific, Inc.	Model 370	Equipment
Overhead Stirrer	IKA	Visc6000	Equipment
Magnetic Stirrer	Corning	PC-210	Equipment
Vacuum Desiccator	-	-	Equipment
Particle Size Analyzer	Malvern Instruments	STP2000 Spraytec	Equipment
Water Bath	Fisher Scientific	Isotemp210	Equipment
Spectrophotometer	Beckman Coulter Inc.	Beckman Coulter DU 800UV/ Visible Spectrophotometer	Equipment
Vortex	Diagger	3030a	Equipment
Microplate Reader	Molecular Devices	SpectraMax M2	Equipment
Light/Fluorescence Microscope	Olympus Corporation	IX71	Equipment
Confocal Microscope	Olympus Corporation	FV-500 Laser Scanning Confocal Microscope	Equipment
Scanning Electron Microscope	Carl Zeiss, Inc.	Leo 435 VP	Equipment
Transmission Electron Microscope	JEOL	JEOL 1230	Equipment