

Materials List for

Direct-Contact Co-culture of Astrocytes and Glioblastoma Cells Patterned using Polyelectrolyte Multilayer Templates

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Materials

Name	Company	Catalog Number	Comments
0.25% Trypsin-EDTA	Fisher Scientific	25200056	
15 ml Nunc Conical Sterile Polypropylene Centrifuge Tubes	Fisher Scientific	12-565-268	
5(6)-Carboxyfluorescein diacetate N-succinimidyl ester	Millipore Sigma	Cat#21888	
50 ml Nunc Conical Sterile Polypropylene Centrifuge Tubes	Fisher Scientific	12-565-270	
A172-MG GBM cell line	ATCC	CRL-1620	
Bright-Line Hemacytometer	Sigma	Z359629	Or other suitable cell counting device
Cell Incubator	N/A	N/A	
Cooled tabletop centrifuge for 15 mL tubes	N/A	N/A	
Dulbecco's Modified Eagle Medium (DMEM)	MP Biomedicals	ICN 1033120	
Expanded Plasma Cleaner	Plasma Harrick	PDC-001-HP	With attached pressurized oxygen tank and PlasmaFlo Gas Mixer (PDC-FMG) accessory
Fetal Bovine Serum (FBS)	Atlanta Biologicals	S11550H	
Fluorosilane	Sigma Aldrich	667420	Full chemical name: 1H,1H,2H,2H-Perfluorooctyltriethoxysilane
Inverted Tabletop Microscope	N/A	N/A	Microscope capable of fluorescent imaging with λ_{ex} = 551 nm; λ_{em} 567 nm [e.g. Rhodamine filter] (PKH26 dye) and λ_{ex} 492 nm; λ_{em} 517 nm [e.g. interference blue filter (IB)] (CFSE dye)
NaCl	Sigma Aldrich	S7653	

NaOH	Sigma Aldrich	567530	
Penicillin-Streptomycin	Fisher Scientific	15140122	
PKH26 Red Fluorescent Cell Linker Mini Kit	Millipore Sigma	Cat#MINI26-1KT	
Poly(diallyldimethylammonium chloride) solution (PDAC)	Sigma Aldrich	409014	20 wt. % in H ₂ O
Poly(sodium 4-styrenesulfonate) (SPS)	Sigma Aldrich	243051	average MW ~70,000
Primary Astrocytes, isolated from Sprague Dawley rats	Charles River	Crl:SD	Rats from Charles River; Lab isolated Cells
Scalpel	N/A	N/A	
Sodium bicarbonate	Sigma Aldrich	S5761	
Sylgard 184 Silicone Elastomer Kit	Dow Chemical	Cat#2646340	
Trypan Blue Stain	Fisher Scientific	15-250-061	
TrypLE	Fisher Scientific	Gibco TrypLE	
U87-MG GBM cell line	ATCC	HTB-14	
Vacuum Desiccator	N/A	N/A	