

Materials List for:

Electrospinning Growth Factor Releasing Microspheres into Fibrous Scaffolds

Tonya J. Whitehead¹, Harini G. Sundararaghavan¹

¹Biomedical Engineering, Wayne State University

Correspondence to: Harini G. Sundararaghavan at hsundara@wayne.edu

URL: <https://www.jove.com/video/51517>

DOI: [doi:10.3791/51517](https://doi.org/10.3791/51517)

Materials

Name	Company	Catalog Number	Comments
DAPI	Invitrogen	D1306	
Irgacure 2959	BASF	24650-42-8	Protect from light
PEO 900 kDa	Sigma-Aldrich	189456	
Methacryloxyethyl thiocarbamoyl rhodamine B	Polysciences, Inc.	23591-100	Prepare stock solution in DMSO
Syringe Pump	KD Scientific	KDS100	
Power Source	Gamma High Voltage	ES30P-5W	
Motor	Triem Electric Motors, Inc	0132022-15	Must attach to a custom built mandrel
Tachometer	Network Tool Warehouse	ESI-330	Use to monitor mandrel speed
Omniculture UV Spot Cure System with collimating adapter	EXFO	S1000	
Needles	Fisher Scientific	14-825-16H	
Coverslips	Fisher Scientific	12-545-81	
Polyvinyl Alcohol	Sigma-Aldrich	P8136-250G	
Isopropyl Alcohol	Sigma-Aldrich	I9030-500mL	
Bovine Serum Albumin (BSA)	Fisher Scientific	BP9703-100	
BSA-FITC	Sigma-Aldrich	080M7400	
β-Nerve Growth Factor (NGF)	R&D Systems	1156-NG	
65:35 Poly-Lactic-Glycolic-Acid (PLGA)	Sigma-Aldrich	1001554270	
Dichloromethane	Sigma-Aldrich	34856-2L	
Coomassie (Bradford) Protein Assay	Thermo Scientific	1856209	
3-(Trimethoxysilyl)propyl methacrylate	Sigma-Aldrich	1001558456	
Fibronectin	Sigma-Aldrich	F2006	
DMEM	Lonza	12-604F	
FBS	Atlanta Biologicals	S11150	
PBS	Hyclone	SH30256.01	
Glutamine	Fisher Scientific	G7513	
Pen-Strep	Sigma-Aldrich	P4333	
Paraformaldehyde	Alfa Aesar	A11313	