

Materials List for

Microgel-Extracellular Matrix Composite Support for the Embedded 3D Printing of Human Neural Constructs

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jove.com/video/65158

Materials

Name	Company	Catalog Number	Comments
1 mL Gastight Syringe 1001 TLL	Hamilton	81320	
3DDiscovery 3D bioprinter	RegenHU		
Acetic acid	Sigma-Aldrich	A6283	
AlbuMAX	ThermoFisher	11020021	
Alexa Fluor 488 secondary antibody	ThermoFisher	A-11001	Goat anti-Mouse
Blunt Needle, Sterican (21 G)	Braun	9180109	
Blunt Needle (27 G)	Cellink	NZ5270505001	
BioCAD software	SolidWorks		
Calcein AM	ThermoFisher	65-0853-39	
Calcium carbonate	Sigma-Aldrich	C5929	
Dibutyl- γ -cAMP sodium salt	Sigma-Aldrich	D0627	
Cultrex Rat Collagen I (5 mg/mL)	R&D Systems	3440-100-01	
DAPI	ThermoFisher	62248	
DMEM/F-12, GlutaMAX	ThermoFisher	10565018	
Donkey serum	Sigma-Aldrich	D9663	
DPBS	ThermoFisher	14190094	
EGF	R&D Systems	236-EG	
FGF	R&D Systems	3718-FB	
Formaldehyde solution 4%, buffered, pH 6.9	Sigma-Aldrich	100496	
GDNF	R&D Systems	212-GD	
Geltrex	ThermoFisher	A1569601	
Glucose	Sigma-Aldrich	G7021	
HEPES Buffer (1 M)	ThermoFisher	15630080	
L-Alanine	Sigma-Aldrich	5129	
L-Asparagine monohydrate	Sigma-Aldrich	A4284	
L-Aspartic acid	Sigma-Aldrich	A9256	

L-Glutamic acid	Sigma-Aldrich	G1251	
L-Proline	Sigma-Aldrich	P0380	
Magnetic stirrer RET basic	IKA	3622000	
N-2 Supplement	ThermoFisher	17502048	
Penicillin-Streptomycin	ThermoFisher	15140122	
S25N-10G dispersing tool	IKA	4447100	
Sodium Alginate (80-120 cP)	FUJIFILM Wako	194-13321	
Sodium azide	Sigma-Aldrich	S2002	
Sodium bicarbonate	Sigma-Aldrich	S5761	
Sodium hydroxide	Sigma-Aldrich	S5881	
T18 Digital ULTRA-TURAX homogenizer	IKA	3720000	
Triton X-100	Sigma-Aldrich	X100	
Trypsin/EDTA Solution	ThermoFisher	R001100	
TUBB3 antibody	BioLegend	801213	Mouse
Xanthan gum	Sigma-Aldrich	G1253	