

Materials List for:

Design of a Biaxial Mechanical Loading Bioreactor for Tissue Engineering

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Materials

Name	Company	Catalog Number	Comments
REAGENTS			
DMEM, High glucose, pyruvate	Invitrogen	11995	
Agarose Type II	Sigma	CAS 39346-81-1	
Penicillin Streptomycin Glutamine 100X	Invitrogen	10378-016	
ITS+ Premix	BD Biosciences	354352	
Pen Strep Glutamine	Invitrogen	10378-016	
Amphotericin B	Invitrogen	041-95780	
Ascorbic Acid	Sigma	A-2218	
Nonessential Amino Acid Solution 100x	Sigma	M-7145	
L-proline	Sigma	P-5607	
Dexamethasone	Sigma	D-2915	
Recombinant Human Transforming Growth Factor β 1	R&D Systems	240-B-010	
EQUIPMENT			
Model 31 Load Cell (1000 g)	Honeywell	AL311	
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Single Channel Display	Honeywell	SC500	
50 mm Linear Encoded Travelmax Stage with Stepper Actuator	Thorlabs	LNR50SE/M	
Two Channel Stepper Motor Controller	Thorlabs	BSC102	
50 mm Trapezoidal Stepper Motor Drive (2)	Thorlabs	DRV014	
Adjustable Kinematic Locator (4)	Thorlabs	KL02	
Precision Right Angle Plate	Thorlabs	AP90/M	
Vertical Mounting Bracket	Thorlabs	LNR50P2/M	
Solid Aluminum Breadboard	Thorlabs	MB3030/M	
Gel Casting System with 1.5 mm and 0.75 mm spacer plates	BioRad	#1653312 and #1653310	
Disposable Biopsy Punch, 5 mm	Miltex, Inc.	33-35	
16 mm hollow punch	Neiko Tools		
Non-Tissue Culture Treated Plates, 24 Well, Flat Bottom	BD Biosciences	351147	

Ultra-Moisture-Resistant Polysulfone sheet for loading platens	McMaster-Carr	86735k19	Custom-machined
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