

Materials List for

High-Throughput Contractile Measurements of Hydrogel-Embedded Intact Mouse Muscle Fibers Using an Optics-Based System

Leander A. Vonk^{*1}, Osman Esen^{*1}, Michaela Yuen^{1,4}, Tyler J. Kirby^{1,2,3}

¹Department of Physiology, Amsterdam UMC ²Amsterdam Cardiovascular Sciences, Heart Failures and Arrhythmias, Amsterdam UMC ³Amsterdam Movement Sciences, Tissue Function and Regeneration, Amsterdam UMC ⁴Discipline of Child and Adolescent Health, Faculty of Health and Medicine, University of Sydney

* These authors contributed equally

Corresponding Author

Tyler J. Kirby

t.kirby@amsterdamumc.nl

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Materials

Name	Company	Catalog Number	Comments
Aprotinin, from Bovine Lung	Thermo Scientific	AAJ63039MC	100 mM stock solution in PBS can be stored at -20 °C. Sterilize stock solution using a 0.22 µm filter.
Collagenase type 2	Worthington	77336	10% (w/v) stock solution can be stored at -20 °C. Weighing collagenase should be done in a safety cabinet as inhalation is dangerous.
Fetal Bovine Serum	Thermo Fisher	10500064	
Fibrinogen from Bovine Plasma	Sigma Aldrich	50-176-5054	20 mg/mL stock solution in PBS can be stored at -80 °C. Sterilize stock solution using a 0.22 µm filter.
Geltrex LDEV-Free Reduced Growth Factor Basement Membrane Matrix	Thermo Fisher	A1413201	4 mg/mL stock solution is prepared in MEM and stored at -20 °C.
Gibco MEM High glucose + pyruvate	Thermo Fisher	11095080	
Horse serum	Thermo Fisher	H1270	
Matrigel GFR Membrane Matrix	Corning	CB-40230	4 mg/mL stock solution is prepared in MEM and stored at -20 °C.
Penicillin/Streptomycin	Sigma Aldrich	P4333	
Serum Replacement 2 (50x)	Sigma Aldrich	S9388	
Thrombin, Bovine Plasma	Thermo Scientific	AAJ63383EXP	125 U/mL stock in PBS can be stored at -20 °C. Sterilize stock solution using a 0.22 µm filter.
Tranexamic Acid	Thermo Scientific	AC228042500	80 mM stock solution in PBS can be stored at -20 °C. Sterilize stock solution using a 0.22 µm filter.
Equipment			
24-well electrical stimulator	IonOptix	N/a	

Dumont #55 Forceps	Fine Science Tools	11295-51	
Extra Fine Bonn Scissors	Fine Science Tools	14084-08	
MultiCell Cytocypher	IonOptix	N/a	
MyoCam-S3	IonOptix	N/a	
MyoPacer	IonOptix	N/a	
SYLGARD 184 silicone elastomer, Base & Curing Agent	Dow corning	N/a	
Vannas Spring Scissor - 25 mm Cutting Edge	Fine Science Tools	15002-08	
Software			
CytoSolver	IonOptix	N/a	
IonWizard	IonOptix	N/a	