

Materials List for:

# Simultaneous Measurements of Intracellular Calcium and Membrane Potential in Freshly Isolated and Intact Mouse Cerebral Endothelium

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## Materials

Name	Company	Catalog Number	Comments
Glucose	Sigma-Aldrich (St. Louis, MO, USA)	G7021	
NaCl	Sigma	S7653	
MgCl <sub>2</sub>	Sigma	M2670	
CaCl <sub>2</sub>	Sigma	223506	
HEPES	Sigma	H4034	
KCl	Sigma	P9541	
NaOH	Sigma	S8045	
ATP	Sigma	A2383	
HCl	ThermoFisher Scientific (Pittsburgh, PA, USA)	A466250	
Collagenase (Type H Blend)	Sigma	C8051	
Dithioerythritol	Sigma	D8255	
Papain	Sigma	P4762	
Elastase	Sigma	E7885	
BSA	Sigma	A7906	
Propidium iodide	Sigma	P4170	
DMSO	Sigma	D8418	
Fura-2 AM dye	Invitrogen, Carlsbad, CA, USA	F14185	
Recirculating chiller (Isotemp 500LCU)	ThermoFisher Scientific	13874647	
Plexiglas superfusion chamber	Warner Instruments, Camden, CT, USA	RC-27	
Glass coverslip bottom (2.4 × 5.0 cm)	ThermoFisher Scientific	12-548-5M	
Anodized aluminum platform (diameter: 7.8 cm)	Warner Instruments	PM6 or PH6	
Compact aluminum stage	Siskiyou, Grants Pass, OR, USA	8090P	
Micromanipulator	Siskiyou	MX10	
Stereomicroscopes	Zeiss, NY, USA	Stemi 2000 & 2000-C	
Fiber optic light sources	Schott, Mainz, Germany & KL200, Zeiss	Fostec 8375	
Nikon inverted microscope	Nikon Instruments Inc, Melville, NY, USA	Ts2	
Phase contrast objectives	Nikon Instruments Inc	(Ph1 DL; 10X & 20X)	
Fluorescent objectives	Nikon Instruments Inc	20X (S-Fluor), and 40X (Plan Fluor)	

Nikon inverted microscope	Nikon Instruments Inc	Eclipse TS100	
Microsyringe pump controller (Micro4 )	World Precision Instruments (WPI), Sarasota, FL, USA	SYS-MICRO4	
Vibration isolation table	Technical Manufacturing, Peabody, MA, USA	Micro-g	
Amplifiers	Molecular Devices, Sunnyvale, CA, USA	Axoclamp 2B & Axoclamp 900A	
Headstages	Molecular Devices	HS-2A & HS-9A	
Function generator	EZ Digital, Seoul, South Korea	FG-8002	
Data Acquisition System	Molecular Devices, Sunnyvale, CA, USA	Digidata 1550A	
Audible Baseline Monitors	Ampol US LLC, Sarasota, FL, USA	BM-A-TM	
Digital Storage Oscilloscope	Tektronix, Beaverton, Oregon, USA	TDS 2024B	
Fluorescence System Interface, ARC Lamp + Power Supply, Hyperswitch, PMT	Molecular Devices, Sunnyvale, CA, USA	IonOptix Systems	
Temperature Controller	Warner Instruments	TC-344B or C	
Inline Heater	Warner Instruments	SH- 27B	
Valve Controller	Warner Instruments	VC-6	
Inline Flow Control Valve	Warner Instruments	FR-50	
Electronic Puller	Sutter Instruments, Novato, CA, USA	P-97 or P-1000	
Microforge	Narishige, East Meadow, NY, USA	MF-900	
Borosilicate Glass Tubes (Trituration)	World Precision Instruments (WPI), Sarasota, FL, USA	1B100-4	
Borosilicate Glass Tubes (Pinning)	Warner Instruments	G150T-6	
Borosilicate Glass Tubes (Sharp Electrodes)	Warner Instruments	GC100F-10	
Syringe Filter (0.22 µm)	ThermoFisher Scientific	722-2520	
Glass Petri Dish + Charcoal Sylgard	Living Systems Instrumentation, St. Albans City, VT, USA	DD-90-S-BLK	
Vannas Style Scissors (3 mm & 9.5 mm)	World Precision Instruments	555640S, 14364	
Scissors 3 & 7 mm blades	Fine Science Tools (or FST), Foster City, CA, USA	Moria MC52 & 15000-00	
Sharpened fine-tipped forceps	FST	Dumont #5 & Dumont #55	