Materials List for:

Assessing Myogenic Response and Vasoactivity In Resistance Mesenteric Arteries Using Pressure Myography

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Materials

Name	Company	Catalog Number	Comments
Chemical			
Acetylcholine	Sigma Aldrich	A6625	
Calcium chloride ($CaCl_2$)	Sigma Aldrich	223506	
D-(+)-Glucose	Sigma Aldrich	G5767	
Ethylene glycol-bis(2-aminoethylether)-N,N,N',N'-tetra acetic acid (EGTA)	Sigma Aldrich	E3889	
Ethylene diamine tetra acetic acid (EDTA)	Sigma Aldrich	E9884	
HEPES	Sigma Aldrich	H3784	
Magnesium sulfate ($MgSO_4$)	Sigma Aldrich	M7506	
MOPS	Sigma Aldrich	M5162	
Phenylephrine	Sigma Aldrich	P6126	
Potassium chloride (KCl)	Sigma Aldrich	P3911	
Potassium phosphate (KH_2PO_4)	Sigma Aldrich	P5655	
Sodium bicarbonate ($NaHCO_3$)	Sigma Aldrich	S6014	
Sodium chloride (NaCl)	Sigma Aldrich	S7653	
Sodium hydroxide (NaOH)	Sigma Aldrich	S5881	
Sodium nitroprusside	Sigma Aldrich	13451	
Sodium phosphate monobasic monohydrate (NaH_2PO_4)	Sigma Aldrich	S9638	
Sodium pyruvate	Sigma Aldrich	P8574	

Table 1.

Physiological salt solution (1,000 ml)	mM	
KCl	4.9	0.365 g
NaCl	112	6.545 g
$MgSO_4.7H_2O$	1.2	0.296 g
KH_2PO_4	1.2	0.163 g
Glucose	11.5	2.072 g
$NaHCO_3$	26	2.184 g
HEPES	10	2.383 g
$CaCl_2$	2	2 ml (1M stock)
De-ionized water		998 ml

Ca^{2+} free physiological salt solution (100 ml)	**mM**	
KCl	4.9	0.036 g
NaCl	112	0.645 g
$MgSO_4.7H_2O$	1.2	0.029 g
KH_2PO_4	1.2	0.016 g
Glucose	11.5	0.207 g
$NaHCO_3$	26	0.218 g
HEPES	10	0.238 g
EGTA	0.39	0.015 g
Sodium nitroprusside	0.1	0.0026 g
De-ionized water		100 ml
Dissection solution, stock (500 ml)	**mM**	
NaCl	145	21.18 g
KCl	4.7	0.875 g
$MgSO_4$	1.2	0.739 g
MOPS	2	1.049 g
EDTA	0.02	0.019 g
De-ionized water		500 ml
Working dissection solution (100 ml)	**mM**	
Dissection solution stock	20 ml	
Glucose	1.2	0.091 g
NaH_2PO_4	5	0.016 g
Sodium pyruvate	2	0.022 g
$CaCl_2$	2	0.2 ml (1M stock)
De-ionized water		79.8 ml

Table 2. Composition of Experimetnal solutions

Equipment			
CCD Monochrome Camera	The imaging Source	DMK 21AU04	
Single inline solution heater	Warner Instruments	64-0102	
Thermistor	Warner Instruments	64-0108	
Dual automatic temperature controller	Warner Instruments	TC-344B	
Flaming/Brown micropipette puller	Sutter Instruments	P-97	
Fluorescence System Interface	IonOptix	model FSI-700	
Forceps and scissors	World Precision Instruments		
Ion Wizard-Core and Analysis	IonOptix	Ion Wizard 6.0	
Laboratory tubing	Silastic	508-005	
Male *Sprague Dawley* rat	Harlan Laboratories		
Master flex console drive	Cole-parmer		
Milli-Q Plus Ultrapure Water System	Millipore	ZD5211584	
Ophthalmic monofilament nylon suture	Ethicon	9007G	
Photometry and Dimensioning Microscope	Motic	AE31	

Pressure Servo Controller with peristaltic pump and pressure transducer	Living Systems Instrumentation	PS-200	
Stereomicroscope	Nikon Instruments Inc	SMZ660	
Vessel Chamber	Living Systems Instrumentation	CH-1	
Dissection dish	Living Systems Instrumentation	DD-90-S	
Thin Wall Glass Capillaries	World Precision Instruments	TW120-6	
Microforge	Stoelting	51550	

Table 3.