

Materials List for:

Proprioception and Tension Receptors in Crab Limbs: Student Laboratory Exercises

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URL: <https://www.jove.com/video/51050>

DOI: [doi:10.3791/51050](https://doi.org/10.3791/51050)

Materials

Name	Company	Catalog Number	Comments
Sylgard	Dow Corning	182 silicone kit	
NaCl	Sigma-Aldrich	S7653	
KCl	Sigma-Aldrich	P9333	
CaCl ₂	Sigma-Aldrich	C5670	
HEPES acid	Sigma	3375	Free acid, crystalline
HEPES base	Sigma		
D-Glucose	Sigma	G7021	
MgSO ₄ •7H ₂ O	Sigma	M2643	
Na ₂ SO ₄ •10H ₂ O	Sigma	246980	
Bouin's solution fixative	Sigma	HT10-1-32	Caution: Hazardous material (Special shipping cost required)
CoCl ₂	Sigma		Caution: Hazardous material. Please follow proper disposal according to local and federal regulations.
Methylene blue chloride	Matheson Co., Inc	Basic Blue 9, C.I. 52015	
4-Di-2-ASP	Molecular Probes		4-(4-diethylaminostyryl)-N-methylpyridinium iodide
Bleach	Sigma-Aldrich		To chloride silver wire
NaOH	Sigma-Aldrich	221465	To adjust pH
HCl	Sigma-Aldrich	H1758	To adjust pH
Materials			
Dissecting tools	World Precision Instruments	assortment	
Intracellular electrode probe			
Faraday cage			
Insect Pins	Fine Science Tools, Inc	26001-60	
Dissecting microscope (100X)			
Fiber optic lamp			
Small adjustable mirror			To direct light beam toward the preparation.
Glass electrodes	Sigma-Aldrich	CLS7095B5X	Box of 200, suction electrodes
Micromanipulator	World Precision Instruments	MD4-M3-R	Can fix for base or on a metal rod
Raised preparation stand			
Silver wire (10/1,000 inch)	A-M Systems	782500	

Computer	Any company		
AC/DC differential amplifier	A-M Systems	Model 3000	
PowerLab 26T	AD Instruments	27T	
Force transducer	AD Instruments	0-50g	MLTF050/ST
Head stage	AD Instruments		Comes with AC/DC amplifier
LabChart7	AD Instruments		
Electrical leads	Any company		
Glass tools	Make yourself		For manipulating nerves
Cable and connectors	Any company		
Pipettes with bulbs	Fisher Scientific	13-711-7	Box of 500
Beakers	Any company		
Wax or modeling clay	Any company or local stores		
Stimulator	Grass Instruments	SD9 or S88	
Plastic tip for suction electrode	Local hardware store (Watt's brand)	¼ inch OD x 0.170 inch ID	Cut in small pieces. Pull out over a flame and cut back the tip to the correct size