

Materials List for:

# Functional and Morphological Assessment of Diaphragm Innervation by Phrenic Motor Neurons

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URL: <https://www.jove.com/video/52605>

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## Materials

Name	Company	Catalog Number	Comments
Paraformaldehyde	Fisher	T353-500	Make 10% solution first in de-ionized distilled water; make 4% with 1x PBS, adjust pH to 7.4
1x Phosphate buffered saline, pH 7.4	Invitrogen	10010049	
2% Bovine serum albumin (2% BSA)	Sigma-Aldrich	A3059-100g	Dissolve 2 g BSA into 100 ml of 1x PBS
0.2% Triton X100 in 2% BSA/PBS (blocking buffer)	Sigma-Aldrich	T9284-100mL	Dissolve 0.2 ml/100 ml 2% BSA/PBS
0.1 M Glycine	Sigma-Aldrich	G-7126	Add 0.185 g to 25 ml of 2% BSA/PBS
α-bungarotoxin	Invitrogen	T1175	Concentration 1:400
SMI-312	Sternberger Monoclonals	SMI312	Concentration 1:1,000
SV2	Developmental Studies Hybridoma Bank	SV2-Supernatant	Concentration 1:10
FITC goat anti-mouse IgG1	Roche	3117731001	Concentration 1:100
Silicone rubber	Sylgard, Dow Corning	Part # 184	Follow instructions that come with kit: can use multiple sized culture dish (30 mm, 60 mm, 100 mm) depending on needs
Vectashield fluorescent mounting medium	Vector laboratories	H-1000	This is not a hard-set medium. You will need to secure the cover slip with clear nail polish.
Small spring scissors	Fine Science Tools	15002-08	
Dissection forceps	Fine Science Tools	11295-51	
Software for CMAP recordings	Scope 3.5.6; ADI		
Disk surface electrodes	Natus neurology	019-409000	
Subdermal needle electrodes	Natus neurology	019-453100	
Conductive gel	Aquasonic	122-73720	
Stimulator/recording system for CMAP recordings	ADI Powerlab 8SP stimulator		
Amplifier for CMAP recordings	BioAMP		