

Materials List for:

Patch-clamp Capacitance Measurements and Ca²⁺ Imaging at Single Nerve Terminals in Retinal Slices

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Materials

Name	Company	Catalog Number	Comments
Low gelling-temperature agar	Sigma-Aldrich	A0701	Agarose type VII-A
Patch pipette	World Precision Instruments, Inc.	1B150F-4	Thick-walled (1.5 mm outer diameter) borosilicate glass
Vertical puller	Narishige International	PP830	
Dental wax	Cavex		
Spring scissors	Fine Science Tools	15003-08	
45° angled fine tip forceps	Fine Science Tools	11251-35	
Razor blade	Personna Medical Care		Double-edged, cleaned with 70% ethanol and H ₂ O
Cylindrical tube	Fisher Scientific	03-338-1B	Polyethylene sample vials 2.5 ml
Hyaluronidase	Sigma-Aldrich	H6254	
Vibratome slicer	Leica Microsystems	VT1000S or VT1200S	
Upright microscope	Olympus Corporation	BX51WI	
60x water-immersion objective	Olympus Corporation	LUMPlanFI	NA 0.90
CCD camera	Sony Corporation	XC-75	
Camera controller	Hamamatsu Corp.	C2400	
Monitor	Sony Corporation		13" black and white monitor
Syringe filter	Nalge Nunc international		0.2 μm
Micromanipulator	Sutter Instrument Co.	MPC-200	
Lock-in amplifier	HEKA Instruments		EPC-9/10 amplifiers have software emulation
Spinning disk laser confocal microscope	Yokogawa	CSU-X1	Live cell imaging after patch clamp whole cell recording
Slidebook software	Intelligent Imaging Instruments (3i)		Imaging data acquisition and analysis
Paraformaldehyde	Sigma-Aldrich	P6148	
Phosphate buffer solution	GIBCO, by Life Technologies	70013	
Superfrost slide	Fisher Scientific		Slide glass
Anti-fading agents	Biomeda corp.		
Confocal laser-scanning microscope	Carl Zeiss, Inc.	LSM 710	Imaging of fixed tissue
Spatula	Fisher Scientific	21-401-25B	
Manuel vertical slicer	Narishige International	ST-20	
Oregon Green 488 BAPTA-1	Invitrogen	O-6806	Ca ²⁺ sensitive fluorescent dye
Alexa Fluor 555 Hydrazide	Invitrogen	A-20501MP	Fluorescent dye