

Materials List for:

Probing Nicotinic Acetylcholine Receptor Function in Mouse Brain Slices Via Laser Flash Photolysis of Photoactivatable Nicotine

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URL: <https://www.jove.com/video/58873>

DOI: [doi:10.3791/58873](https://doi.org/10.3791/58873)

Materials

Name	Company	Catalog Number	Comments
Instruments, Consumables, and Miscellaneous Chemicals			
Multiclamp 700B	Molecular Devices Corp.		Patch clamp amplifier
Pneumatic Picopump	World Precision Instruments	PV820	
Micropipette puller	Sutter Instrument Co	P-97	
Temperature Controller	Warner Instruments	TC-324C	
Vibrating blade microtome	Leica Biosystems	VT1200S	
Ultrafree-MC Centrifugal Filter	MilliporeSigma	UFC30GV0S	internal solution filter
Borosilicate Glass Capillaries	World Precision Instruments	1B150F-4	patch and local application pipette
(-)-Nicotine hydrogen tartrate salt	Glenthams	GL9693	nicotine salt
7-carboxymethylamino-4-methyl coumarin	Janelia Research Campus		PA-Nic by-product
1-[7-[bis(carboxymethyl)-amino]coumarin-4-yl]methyl-nicotine	Janelia Research Campus		PA-Nic
Euthasol (Pentobarbital Sodium and Phenytoin Sodium)	Virbac	ANADA #200-071	
Alexa Fluor™ 488 Hydrazide	ThermoFisher	A10436	green fill dye
Alexa Fluor™ 568 Hydrazide	ThermoFisher	A10437	red fill dye
6-carboxy-AF594 (Alexa Fluor 594)	Janelia Research Campus		red fill dye
QX 314 chloride	Tocris	2313	voltage-gated sodium channel blocker
Power Meter	ThorLabs	S120C	
Name	Company	Catalog Number	Comments
Chemicals for Solutions			
N-Methyl-D-glucamine	Sigma	M2004	
Potassium chloride	Sigma	P3911	
Sodium phosphate monobasic monohydrate	Sigma	S9638	
Sodium bicarbonate	Sigma	S6014	
HEPES	Sigma	H3375	
D-(+)-Glucose	Sigma	G5767	
(+)-Sodium L-ascorbate	Sigma	A4034	
Thiourea	Sigma	T8656	
Sodium pyruvate	Sigma	P2256	

Magnesium sulfate heptahydrate	Sigma	230391	
Calcium chloride dihydrate	Sigma	223506	
Sodium chloride	Sigma	S9625	
Ethylene glycol-bis(2-aminoethylether)-N,N,N',N'-tetraacetic acid	Sigma	E3889	
Adenosine 5'-triphosphate magnesium salt	Sigma	A9187	
Guanosine 5'-triphosphate sodium salt hydrate	Sigma	G8877	
Name	Company	Catalog Number	Comments
Components of 2-Photon Microscope			
Ultima Laser Scanner for Olympus BX51 Microscope	Bruker Nano, Inc.		imaging software and galvos
Imaging X-Y galvanometers	Cambridge Technology		
Mai Tai HP1040	Spectra-Physics		Tuneable IR laser
Pockels cell M350-80-02-BK with M302RM Driver	Conoptics, Inc.		for IR laser attenuation
Integrating Sphere Photodiode Power Sensor	Thorlabs, Inc		laser power pick-off photodiode
Uncaging X-Y galvanometers	Cambridge Technology		
Helios 2-Line Laser Launch	Bruker Nano, Inc.		uncaging laser components
OBIS LX/LS 405 nm (100 mW)	Coherent, Inc.		
OBIS LX/LS 473 nm (75 mW)	Coherent, Inc.		
Point-Photoactivation / Fiber Input Module for Limo Sidecar - Uncaging	Bruker Nano, Inc.		
Name	Company	Catalog Number	Comments
Upright Microscope			
Upright Microscope	Olympus	BX51WIF	Upright microscope chassis
Objective: Olympus M Plan FL 10x; NA 0.3 WD 11 mm	Olympus		10x objective
Objective: Olympus M Plan Fluorite 60x/1.0 WD=2mm NIR	Olympus		60x water-dipping objective
X-Cite 110, four-LED LLG coupled epi-fluorescence light source	Excelitas Technologies		LED Light Source
Epi-Fluorescence Filter: ET-GFP (FITC/CY2) for Epi-Turret	Chroma Technologies		LED Filter for blue light excitation
Epi-Fluorescence Filter: ET-DsRed (TRITC/CY3) for Epi-Turret	Chroma Technologies		LED Filter for green light excitation
B&W CCD camera; Watec, 0.5in B/W CCD	Watec Co., LTD.		CCD camera for patch clamp recording
Name	Company	Catalog Number	Comments
External Detectors - Dual Reflected Emission - Olympus Upright (Multi-Alkali, GaAsP)			
Multi-alkali side-on PMT	Hamamatsu	R3896	red channel PMT
595/50m	Chroma Technologies		red channel emission filter
565lpxr	Chroma Technologies		dichroic beam splitter
GaAsP end-on PMT	Hamamatsu	7422PA-40	green channel PMT

525/70m	Chroma Technologies		green channel emission filter
High-Speed Shutter for Hamamatsu H7422 PMT	Vincent Associates / Bruker	517329	PMT shutter mount
Name	Company	Catalog Number	Comments
Dot Gradient Contrast Transmission Detection Module	Bruker Nano, Inc.		
Multi-alkali side-on PMT	Hamamatsu	R3896	Dot PMT