

Materials List for

# Quantifying Spontaneous Ca<sup>2+</sup> Fluxes and their Downstream Effects in Primary Mouse Midbrain Neurons

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jove.com/video/61481

## Materials

Name	Company	Catalog Number	Comments
10% Formalin/PBS	VWR	100496-506	
10X NA 0.3 water-immersion objective	Olympus	UMPLFLN10XW	
12 mm circular cover glass No. 1	Phenix Research Products	MS20-121	
20X NA 0.85 oil-immersion objective	Olympus	UPLSAPO20XO	
35 mm uncoated plastic cell culture dishes	VWR	25382-348	
40X NA 0.3 water-immersion objective	Olympus	LUMPLFLN40XW	
60X NA 1.35 oil-immersion objective	Olympus	UPLSAPO60XO	
Ampicillin (sodium)	Gold Bio	A-301-25	
B-27 supplement	ThermoFisher	17504044	50x stock
Binocular Microscope	Kent Scientific	KSCXTS-1121	
Bovine serum albumin (BSA)	Sigma-Aldrich	A7030	
Calcium Chloride (CaCl <sub>2</sub> ), anhydrous	Sigma-Aldrich	746495	
Chicken polyclonal anti-Tyrosine Hydroxylase	Abcam	ab76442	
Deoxyribonuclease I (DNase)	Sigma-Aldrich	DN25	
D-glucose, anhydrous	Sigma-Aldrich	RDD016	
DMEM + GlutaMAX medium	ThermoFisher	10569010	500 mL
Equine serum	ThermoFisher	26050088	heat-inactivated
Fiber Optic Illuminator, 100V	Kent Scientific	KSC5410	
Filter System, PES 22UM 250ML	VWR	28199-764	
Fluoview 1000 confocal microscope	Olympus		
Fluoview 1200 confocal microscope	Olympus		
GlutaMAX supplement	ThermoFisher	35050061	
Goat polyclonal anti-chicken Alexa Fluor 594	Abcam	ab150176	

Goat polyclonal anti-rabbit Alexa Fluor 594	Abcam	ab150077	
Hanks-balanced Salt Solution (HBSS) 1x	ThermoFisher	14175095	500 mL
HEPES	VWR	101170-478	
HeraCell 150 CO <sub>2</sub> incubator	Heraeus (ThermoFisher)		
ImageJ v1.52e	NIH		
IRIS-Fine Scissors (Round Type)-S/S Str/31*8mm/13cm	RWD	S12014-13	
Kanamycin monosulfate	Gold Bio	K-120-25	
Laminin	Sigma-Aldrich	L2020	
L-Ascorbic acid	Sigma-Aldrich	A7506	
L-glutamic acid	VWR	97061-634	
Magnesium Chloride (MgCl <sub>2</sub> ), anhydrous	Sigma-Aldrich	M8266	
MPII Mini-Peristaltic Pump, 115/230 VAC, 50/60 Hz	Harvard Apparatus	70-2027	
MULLER Micro Forceps-Str, 0.15mm Tips, 11cm	RWD	F11014-11	
NBQX	Hello Bio	HB0443	
Neurobasal medium	ThermoFisher	21103049	500 mL
Normal goat serum (NGS)	Abcam	ab7481	
Origin 2020	OriginLab		
pAAV.Syn.GCaMP6f.WPRE.SV40	Addgene	100837-AAV1	Titer: 1.00E+13 gc/ml
Papain	Worthington Biomedical Corporation	LS003126	
Penicillin streptomycin	ThermoFisher	15140122	10,000 U/mL
Phosphate-buffered saline (PBS) 1x	ThermoFisher	10010049	500 mL
Poly-L-lysine	Sigma-Aldrich	P4832	
Poly-L-ornithine	Sigma-Aldrich	P4957	
Potassium Chloride (KCl), anhydrous	Sigma-Aldrich	746436	
Pump Head Tubing Pieces For MPII	Harvard Apparatus	55-4148	
Rabbit monoclonal anti-caspase-3	Abcam	ab32351	
Sodium Chloride (NaCl), anhydrous	Sigma-Aldrich	746398	
Sucrose	Sigma-Aldrich	S7903	BioXtra, ≥99.5% (GC)
Time-pregnant female C57BL/6 mice	Texas A&M Institute for Genomic Medicine		
Triton X-100	Sigma-Aldrich	X100	500 mL
Wide-bore blue pipette tips P1000	VWR	83007-380	