

Materials List for

# Using Live-Cell Imaging to Measure the Effects of Pathological Proteins on Axonal Transport in Primary Hippocampal Neurons

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jove.com/video/66156

## Materials

Name	Company	Catalog Number	Comments
0.4% Trypan blue	Gibco	15250-061	
1.7 mL microcentrifuge tubes	DOT	RN1700-GMT	
2.5% trypsin	Gibco	15090-046	
3 mL syringe with 21 G needle	Fisher	14-826-84	
10 mL plastic syringe	Fisher	14-823-2A	
14 G needle	Fisher	14-817-203	
15 G needle	Medline	SWD200029Z	
16 G needle	Fisher	14-817-104	
18 G needle	Fisher	14-840-97	
22 G needle	Fisher	14-840-90	
32% paraformaldehyde	Fisher	50-980-495	
AlexaFluor 647 goat anti-rabbit IgG (H+L)	Invitrogen	A21244	RRID:AB_2535813
Amphotericin B	Gibco	15290-026	
Arruga Micro Embryonic Capsule Forceps, Curved; 4"	Roboz	RS-5163	autoclave
B-27 Supplement (50x), serum free	Gibco	A3582801	
BioCoat 24-well Poly D lysine plates	Fisher	08-774-124	
boric acid	Sigma	B6768-1KG	
Calcium chloride	Sigma	C7902	
Castroviejo 3 1/2" Long 8 x 0.15 mm Angle Sharp Scissors	Roboz	RS-5658	autoclave
Cell counting device			automatic or manual
Confocal microscope with live cell chamber attachment			
Confocal imaging software			

D-(+)-glucose	Sigma	G7528	
DNase I (Worthington)	Fisher	NC9185812	
Dulbecco's Phosphate Buffered Saline	Gibco	14200-075	
EGTA	Fisher	O2783-100	
Fatal-Plus Solution	Vortech Pharmaceuticals, LTD	NDC 0298-9373-68	sodium pentobarbital; other approved methods of euthanasia may be used
Fetal bovine serum	Invitrogen	16000044	
Gentamicin Reagent Solution	Gibco	15710-072	
GlutaMAX	Gibco	35050-061	glutamine substitute
Hanks' Balanced Salt Solution	Gibco	24020-117	
ImageJ version 1.51n	ImageJ		Life-Line version 2017 May 30: <a href="https://imagej.net/software/fiji/downloads">https://imagej.net/software/fiji/downloads</a>
KymoAnalyzer (version 1.01)	Encalada Lab		Package includes all 6 macros: <a href="https://www.encalada.scripps.edu/kymoanalyzer">https://www.encalada.scripps.edu/kymoanalyzer</a>
Lipofectamine 3000	Invitrogen	100022050	Use with P3000 transfection enhancer reagent
Magnesium chloride	Fisher	AC223211000	
MES hydrate	Sigma	M8250	
Micro Dissecting Scissors 3.5" Straight Sharp/Sharp	Roboz	RS-5910	autoclave
Neurobasal Plus medium	Gibco	A3582901	
Neurofascin (A12/18) Mouse IgG2a	UC Davis/NIH NeuroMab	75-172	RRID:AB_2282826; 250 ng/mL; Works in rat neurons, NOT in mouse neurons
Neurofascin 186 (D6G60) Rabbit IgG	Cell Signaling	15034	RRID:AB_2773024; 500 ng/mL; Works in mouse neurons, we have not tested in rat neurons
newborn calf serum	Gibco	16010-167	
Opti-MEM	Gibco	31985-062	
P3000	Invitrogen	100022057	
Petri dish, 100 x 10 mm glass	Fisher	08-748B	For dissection; autoclave
Petri dish, 100 x 20 mm glass	Fisher	08-748D	To place uterine horns in; autoclave
Poly-D-lysine	Sigma	P7886-100MG	
Polypropylene conical centrifuge tubes (15 mL)	Fisher	14-955-238	
Polypropylene conical centrifuge tubes (50 mL)	Fisher	14-955-238	
Potassium chloride	Fisher	P217-500	
Sodium acetate	Sigma	S5636	
sodium borate decahydrate	VWR	MK745706	
Straight-Blade Operating Scissors Blunt/Sharp	Fisher	13-810-2	autoclave
Syringe Filters, 0.22 µm	VWR	514-1263	
Thumb dressing forceps, serrated, 4.5"	Roboz	RS-8100	autoclave
µ-Slide 4 Well Glass Bottom	Ibidi	80427	