

Materials List for:

Combining Optogenetics with Artificial microRNAs to Characterize the Effects of Gene Knockdown on Presynaptic Function within Intact Neuronal Circuits

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Materials

Name	Company	Catalog Number	Comments
Acrylamide	Sigma	Acrylamide/Bis-acrylamide, 30% solution	Toxic
Animal Temperature Controller with heat pad	WPI	ATC2000	
BCA protein assay kit	ThermoFisher Scientific	23225	
BLOCK-iT Pol II miR RNAi Expression Vector kit	ThermoFisher Scientific	K4936-00	
Brain slices Prechamber	Harvard Apparatus	BSC-PC	
CCD camera-based imager	Bio-Rad	ChemiDoc™ MP	
Cell Culture reagents	Life Technologies		
Chemiluminescent substrate	GE Healthcare	ECL Western Blotting Reagents, RPN2106	
Chloroform	Sigma	C2432	Toxic
Cytosine β-D-arabinofuranoside	Sigma	C6645	
Drill	Foredom	K.1030	
EGTA	Sigma	E4378	
Gentamicin ointment	Local pharmacy		
Glucose	Sigma	G7021	
Hepes	Sigma	54459	
Injection micropipettes	Narishige	GD1	
Inorganic salts & detergents	Sigma		
K ₂ -creatine phosphate	Calbiochem	237911	
KGluconate	Fluka	60245	
Laser	Laserglow Technologies	LRS-0473-GFM-00100-03	
Membrane	Amersham	Protran™ 0.2 μm NC	
MgATP	Sigma	A9187	
Micropipette holder	Narishige	IM-H1	
Micropipette puller	Narishige	PC-100	
Na ₃ GTP	Sigma	G8877	
NaPyruvate	Sigma	P5280	
Ocular lubricant	Local pharmacy	Lacrigel	
Phosphate inhibitors	Sigma	P0044, P5726	
Protease inhibitors	Sigma	cOmplete™, EDTA-free Protease Inhibitor Cocktail	
Protein gel electrophoresis and blotting devices	Bio-Rad	Mini-Protean III Cell	

Providone iodine	Local pharmacy	Betadine	
Qiazol Lysis Reagent	Qiagen	79306	Toxic
QuantiTect Reverse Transcription Kit	Qiagen	205311	
RNeasy Micro Kit	Qiagen	74004	
Spectrophotometer	ThermoFisher Scientific	Nanodrop 2000	
Stereotactic apparatus	WPI		
Tetrodotoxin	Tocris	1069	Toxic
Vibratome	Leica	VT1200S	