

Materials List for

Characterizing RNA Modifications in Single Neurons Using Mass Spectrometry

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jove.com/video/63940

Materials

Name	Company	Catalog Number	Comments
Animals			
<i>Aplysia californica</i>	National Resource for Aplysia (Miami, FL)		150–250 g (adult)
Benchtop equipment			
Glass capillary puller	Sutter	P-97	
Milli-Q water purification system	Millipore		
Minicentrifuge for PCR tubes	LW Scientific	ZS-1	
Optical Microscope	Zeiss	Stemi 2000C	
Thermocycler	Techne	EW-93945-01	
HPLC column and consumables			
Acclaim RSLC 120 C18 column	Thermo Scientific	71399	
Autosampler vials	Thermo Scientific	C4011-13	
LC and MS Instrumentation and Software			
DataAnalysis 4.4 software	Bruker		
Dionex Ultimate 3000 nanoLC	Thermo Scientific		Equipped with online degasser, autosampler, and thermostatted column compartment
Impact HD UHR QqTOF mass spectrometer	Bruker		Equipped with ESI source
RStudio	RStudio		
Microdissection tools			
Microscissors extra fine vannas 3.5"	Roboz	RS-5640	
Tungsten needles	Roboz	RS-6065	
Reagents/Materials			
4-(2-hydroxyethyl)-1-piperazineethane-sulfonic acid (HEPES)	Fisher Scientific	H3375	
Alkaline phosphatase	Worthington Biochemical Corp.	LS004081	
Ammonium acetate	Honeywell	17836	

Benzonase (endonuclease from <i>S. marcescens</i>)	EMD Millipore	70746-4	
Bovine serum albumin	Sigma-Aldrich	A2153	
Calcium chloride	Sigma-Aldrich	C4901	
Gentamycin sulfate	Fisher Scientific	G1264	
Magnesium chloride	Sigma-Aldrich	M9272	
Magnesium sulfate	Sigma-Aldrich	208094	
Nucleosides test mix	Sigma-Aldrich	47310-U	
Penicillin G	Sigma-Aldrich	P7794	
Pentostatin	Sigma-Aldrich	SML0508	
Phosphodiesterase I	Worthington Biochemical Corp.	LS003926	
Protease type XIV from <i>Streptomyces griseus</i>	Sigma-Aldrich	P5147	
Sodium chloride	Sigma-Aldrich	S9888	
Standard glass capillaries	A-M Systems	626000	1 mm o.d., 0.5 mm i.d., 4 in
Streptomycin sulfate	Sigma-Aldrich	S9137	