

Materials List for:

A Simple and Reproducible Method to Prepare Membrane Samples from Freshly Isolated Rat Brain Microvessels

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Materials

Name	Company	Catalog Number	Comments
Protease Inhibitor Cocktail	Sigma-Aldrich	#P8340	Component of brain microvessel buffer
D-mannitol	Sigma-Aldrich	#M4125	Component of brain microvessel buffer
EGTA	Sigma-Aldrich	#E3889	Component of brain microvessel buffer
Trizma Base	Sigma-Aldrich	#T1503	Component of brain microvessel buffer
Dextran (MW 75,000)	Spectrum Chemical Mftg Corp	#DE125	Dextran used in centrifugation steps to separate microvessels from brain parenchyma
Zetamine	MWI Animal Health	#501072	General anesthetic
Xylazine	Western Medical Supply	#5530	General anesthetic
0.9% saline solution	Western Medical Supply	N/A	General anesthetic diluent
Filter Paper (12.5 cm diameter)	VWR	#28320-100	Used for removal of meninges from brain tissue
Centrifuge Tubes	Sarstedt	#60.540.386	Disposable tubes used for dextran centrifugation steps
Pierce™ Coomassie Plus (Bradford) Assay	ThermoFisher Scientific	#23236	Measurement of protein concentration in membrane preparations
Wheaton Overhead Power Homogenizer	DWK Life Sciences	#903475	Required for homogenization of samples
10.0ml glass mortar and pestle tissue grinder	DWK Life Sciences	#358039	Required for homogenization of samples
Hydrochloric Acid	Sigma-Aldrich	#H1758	Required for pH adjustment of buffers
Bovine Serum Albumin	ThermoFisher Scientific	#23210	Protein standard for Bradford Assay
Standard Forceps	Fine Science Tools	#91100-12	Used for dissection of brain tissue
Friedman-Pearson Rongeurs	Fine Science Tools	#16020-14	Used for opening skull to isolate brain
50 ml conical centrifuge tubes	ThermoFisher Scientific	#352070	Used for collection of brain tissue following isolation
Glass Pasteur Pipets	ThermoFisher Scientific	#13-678-20C	Used for aspiration of cellular debris following dextran spins
Ethanol, anhydrous	Sigma-Aldrich	#459836	Used for cleaning tissue grinder; diluted to 70% with distilled water

Ultracentrifuge tubes	Beckman-Coulter	#41121703	Used for ultracentrifugation of samples
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