

Materials List for:

Assay for Blood-Brain Barrier Integrity in *Drosophila Melanogaster*

Matthew J. Davis¹, Danielle Talbot¹, Jennifer Jemc¹

¹Department of Biology, Loyola University Chicago

Correspondence to: Jennifer Jemc at jmierisch@luc.edu

URL: <https://www.jove.com/video/60233>

DOI: [doi:10.3791/60233](https://doi.org/10.3791/60233)

Materials

Name	Company	Catalog Number	Comments
10 kDa sulforhodamine 101 acid chloride (Texas Red) Dextran	ThermoFisher Scientific	D1863	Dextran should be diluted in autoclaved ddH ₂ O to a concentration of 25 mg/mL.
20 µL Gel-Loading Pipette Tips	Eppendorf	22351656	
100% Ethanol (200 proof)	Pharmco-Aaper	11000200	
Active Dry Yeast	Red Star		
Agar	Fisher Scientific	BP1423	
Agarose	Fisher Scientific	BP160-500	
Air Compressor	DeWalt	D55140	
Apple Juice	Mott's Natural Apple Juice		
Bleach	Household Bleach		1-5% Hypochlorite
Borosilicate Glass Capillaries	World Precision Instruments	1B100F-4	
Bottle Plugs	Fisher Scientific	AS-277	
Cell Strainers	BD Falcon	352350	
Confocal Microscope	Olympus	FV1000	Samples imaged using 20x objective (UPlanSApo 20x/ 0.75)
Cotton-Tipped Applicator	Puritan	19-062614	
Double-Sided Tape 1/2"	Scotch		
Dumont Tweezers; Pattern #5; .05 X .01mm Tip	Roboz	RS-5015	
Fly Food Bottles	Fisher Scientific	AS-355	
Fly Food Vials	Fisher Scientific	AS-515	
Foot Pedal	Treadlite II	T-91-S	
Gel Caster	Bio-Rad	1704422	
Gel Tray	Bio-Rad	1704436	
Glass Pipette	VWR	14673-010	
Glycerol	Fisher Scientific	BP229-1	
Granulated sugar			Purchased from grocery store.
Halocarbon Oil	Lab Scientific, Inc.	FLY-7000	
Light Source	Schott	Ace I	
Manipulator Stand	World Precision Instruments	M10	
Micromanipulator	World Precision Instruments	KITE-R	
Micropipette Puller	Sutter Instrument Co.	P-97	
Needle Holder	World Precision Instruments	MPH310	
Nightsea Filter Sets	Electron Microscopy Science	SFA-LFS-CY	For visualization of YFP
Nightsea Full Adapter System w/ Royal Blue Color Light Head	Electron Microscopy Science	SFA-RB	For visualization of GFP

Paintbrush	Simply Simmons	Chisel Blender #6	
Pipetter	Fisher Scientific	13-683C	
Pneumatic Pump	World Precision Instruments	PV830	This is also referred to as a microinjector or pressure regulator. Since the model used in our study is no longer available this is one alternative.
Potassium Chloride	Fisher Scientific	BP366-500	
Potassium Phosphate Dibasic	Fisher Scientific	BP363-500	
Small Embryo Collection Cages	Genesee Scientific	59-100	
Sodium Chloride	Fisher Scientific	BP358-212	
Sodium Phosphate Dibasic Anhydrous	Fisher Scientific	BP332-500	
Steel Base Plate	World Precision Instruments	5052	
Stereomicroscope	Carl Zeiss	Stemi 2000	Used for tissue dissection.
Stereomicroscope with transmitted light source	Baytronix		Used for injection.
Tegosept (p-hydroxybenzoic acid, methyl ester)	Genesee Scientific	20-258	
Triton X-100	Fisher Scientific	BP151-500	Nonionic surfactant
Vial Plugs	Fisher Scientific	AS-273	