

Materials List for

Stimulating and Analyzing Adult Neurogenesis in the *Drosophila* Central Brain

Kassi L. Crocker^{1,2,3}, Shawn Ahern-Djamali³, Grace Boekhoff-Falk^{1,3}

¹Genetics Graduate Training Program, University of Wisconsin-Madison, School of Medicine and Public Health ²Science and Medicine Graduate Research Scholars Program, University of Wisconsin-Madison, School of Medicine and Public Health ³Department of Cell and Regenerative Biology, University of Wisconsin-Madison, School of Medicine and Public Health

Corresponding Author

Grace Boekhoff-Falk
grace.boekhoff@wisc.edu

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jove.com/video/63182

Materials

Name	Company	Catalog Number	Comments
#11 disposable scalpels	Santa Cruz Biotechnology	sc-395923	used for separating <i>Drosophila</i> heads from trunks prior to brain dissection
150 mm diameter black Sylgard dishes	Dow	1696157	made in the laboratory with reagents from Dow; used for brain dissection
18 mm coverslips	any		for mounting brains on microscope slides
4',6-Diamidino-2-Phenylindole, Dihydrochloride (DAPI)	ThermoFisher	D1306	for immunohistochemistry
70% Ethanol	made from 95% ethanol sourced variously		
anti-mouse Cy5	Jackson ImmunoResearch	715-175-151	for immunohistochemistry
anti-rabbit 568	ThermoFisher	A11036	for immunohistochemistry
bovine serum albumin (BSA)	Sigma Aldrich	A7030	for immunohistochemistry
Clear nail polish	any		for sealing coverslips
Click-It EdU labeling kit	InVitrogen	C10640	to detect newly synthesized DNA
CO ₂ bubbler	Genesee Scientific	59-181	for anesthesia
CO ₂ pad	Genesee Scientific	59-114	for anesthesia
CO ₂ regulator and supply	any		for anesthesia
Confocal microscope	any		for imaging fixed, stained and mounted brains
cotton plugs	Genesee Scientific	51-101	for EdU labeling
<i>Drosophila</i> vials	Genesee Scientific	32-109	for EdU labeling
Fix buffer (Pipes, EGTA, Magnesium; PEM)	components sourced from various companies		for fixing adult brains; 100 mM piperazine-N,N'-bis(2-ethanesulfonic acid) [PIPES], 1 mM EGTA, 1 mM MgSO ₄ , pH 7.0
Formaldehyde	Sigma Aldrich	252549	for fixing adult brains, added to PEM
Grade 3 round Whatman filters, 23 mm round	Tisch Scientific	1003-323	for EdU labeling

Microfuge tubes	any		for fixing and staining reactions and for storing Minutien pins
Microscope slides	any		for mounting brains
Minutien pins	Fine Science Tools	26002-10	for brain injury; 12.5 μ m diameter tip and 100 μ m diameter rod
mouse anti-Fasiclin II	Developmental Studies Hybridoma Bank	1D4-s	for immunohistochemistry
NIGHTSEA stereo microscope fluorescence adaptor	Electron Microscopy Sciences	SFA-GR	fluorescence setup for dissecting microscope
P20, P200 and P1000 pipettors and tips	any		for measuring solutions
phosphate buffered saline (PBS)	components sourced from various companies		for dissecting brains and making immunohistochemistry blocking and washing solutions; 100 mM of K ₂ HPO ₄ , 140 mM of NaCl, pH 7.0
phosphate buffered saline with 0.1% Triton X-100 (PT)	components sourced from various companies		for washing dissected brains
phosphate buffered saline with 0.1% Triton X-100 + 2% bovine serum albumin (PBT)	components sourced from various companies		blocking solution for immunohistochemistry and for diluting antibodies
rabbit anti-PH3	Santa Cruz Biotechnology, Inc	sc-8656-R	for immunohistochemistry
Reinforcement labels	Avery	5721	to maintain space between the microscope slide and the coverslip
Size 0 paintbrushes	any		to manipulate and stabilize adult <i>Drosophila</i> during injury
Triton X-100	Sigma Aldrich	93443	
Two pair of #5 watchmakers forceps	Fine Science Tools	11255-20	used to hold the Minutien pins and for brain dissections
Vectashield	Vector Laboratories	H-1000	mounting medium for microscope slides