

Materials List for

Split Retina as an Improved Flatmount Preparation for Studying Inner Nuclear Layer Neurons in Vertebrate Retina

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Materials

Name	Company	Catalog Number	Comments
#1.5 glass coverslips	Fisherbrand	12544E	
2 pairs of Dumont #5 forceps	Ted Pella	38125	
25 gauge needle	Becton Dickenson	305122	
470 nm LED	THORLABS	M470L2	
5-306 curved scissors	Miltex	5-306	
9" disposable pasteur pipetes	Fisherbrand	13-678-20D	for constructing custom transfer pipette
Ai80d mouse	Jackson Laboratories	25109	RRID: IMSR_JAX:025109
Ames Medium w/L-Glutamate	US Biological	A1372-25	
amplifier control software	Molecular Devices	Clampex 10.3 software	
anti-calbindin D28K antibody	Invitrogen	PA-5 85669	RRID: AB_2792808, host species = rabbit; 1:100 dilution
anti-CtBP2 antibody	BD Biosciences	612044	RRID: AB_399431, host species = mouse; 1:5000 dilution
anti-GPR179 antibody	NA	NA	gift from Kirill Martemyanov; Scripps Research Institute, Jupiter, FL; host species = sheep; 1:1000 dilution
anti-PKC alpha antibody	Sigma-Aldrich	P4334	RRID: AB_477345, host species = rabbit; 1:5000 dilution
anti-PKC alpha antibody	Santa Cruz Biotechnology	sc8393 AF594	RRID: AB_628142, host species = mouse; 1:1000 dilution
anti-PSD95 antibody	BD Transduction Laboratories	610495	RRID: AB_397862, host species = mouse; 1:1000 dilution
anti-RGS11 antibody	NA	NA	gift from Ted Wensel; Baylor College of Medicine, Houston, TX; host species = rabbit; between 1:1000 and 1:5000 dilution
anti-Synaptophysin P38 antibody	Sigma	S-S5768	RRID: AB_477523, host species = mouse; 1:1000 dilution

Aquamount mounting media	Epredia	13800	slide mounting media
C57BL/6J mouse	Jackson Laboratories	000664	RRID: IMSR_JAX:000664
carbogen tank	Matheson	NA	95% O ₂ and 5% CO ₂
custom transfer pipette	custom build	NA	Instructions: use scissors to cut off the tip of a plastic transfer pipette at the point it begins to taper. Use pliers to safely break off the last 2-3 inches of a glass pasteur pipette. Fit the narrow end of the glass pasteur pipette into the wide tip of the plastic transfer pipette. Wrap parafilm around the joint of the two pieces to enhance the seal.
Digital optical power meter	THORLABS	PM100D	
dissection microscope	Zeiss	Stemi 2000	
electrophysiology amplifier	Molecular Devices	Axopatch 200B	
electrophysiology microscope	Olympus	OLYMPUS, BX50WI	Dot gradient contrast microscopy
Fluoromount-G	SouthernBiotech	0100-01	
HC PL APO CS2 40x/1.3	Leica	506358	
HC PL APO CS2 63x/1.40	Leica	15506350	
Hybridization oven	Robbins Scientific	Model 1000	for RNAscope protocol only
Immedge hydrophobic barrier pen	Vector Laboratories	H-4000	
isoflurane	Piramal Critical Care	66794-017-25	
Kimwipe (delicate task wipe)	Kimtech Science	34155	
Leica HC PL APO CS2 40x/1.3 oil immersion objective	Leica	506358	
Leica HC PL APO CS2 63x/1.40 oil immersion objective	Leica	15506350	
Leica TCS SP8 X confocal microscope	Leica	discontinued	
medium 15 mm petri dish	Corning	25060-60	eyes are kept here during retina dissection
Merit 97-275 steel scissors	Merit	97-275	
Micropipette Puller	Sutter Instrument	p-97	
Mm-Gabrd-C2 mRNA probe	ACD	459481-C2	
mouse euthanasia chamber	NA	NA	custom build; glass petri dish covering a small glass jar.
nitrocellulose membrane filters	GE Healthcare Life Sciences; Whatman	7184-005	0.45 µm pore size
Picospritzer	General Valve Corporation	Picospritzer II	referred to in the text as microcellular injection unit
plastic transfer pipets	Fisherbrand	13-711-7M	for constructing custom transfer pipette
Plastic tubing	Tygon	R-603	for connection to carbogen tank
platinum harp	custom build	NA	for anchoring split retinas within the electrophysiology recording chamber.
size 0 paint brush	generic	NA	for flattening retina during splitting.
SlowFade Gold antifade reagent	Molecular Probes	S36937	referred to in the text as anti-fade mounting media
small 10 mm petri dish	Falcon	353001	eyes are placed here following enucleation
small glass pane (7.5 cm x 5 cm)	generic	NA	isolated retina pieces are placed onto this for the splitting procedure

Superfrost plus microscope slides	Fisherbrand	12-550-15	electrostatically-charged glass microscope slides
Thick-walled borosilicate glass pipettes with filament	Sutter Instrument	BF150-86-10HP	
Vannas Scissors; straight	Titan Medical	TMS121	not brand specific; any comparable scissors will work
vGATFLPo mouse	Jackson Laboratories	29591	RRID: IMSR_JAX:029591
vGlut2Cre mouse	Jackson Laboratories	28863, 016963	RRID: IMSR_JAX:028863, RRID: IMSR_JAX:016963
Zombie NIR Fixable Viability Kit	BioLegend	423105	referred to in the text as MI-NIR