

Materials List for:

Electroretinogram Analysis of the Visual Response in Zebrafish Larvae

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Materials

Name	Company	Catalog Number	Comments
Faraday cage	80/20 Inc	custom	Custom designed aluminum "Industrial Erector Set" for Cage framework
PVA sponge	Amazon	B000ZOWG1C	Provides a soft, moist platform for placement of zebrafish larvae
150 ml Sterile Filter systems	Corning	431154	Filtering solutions to prevent small articulates from blocking micropipettes
Espion E2	Diagnosys, LLC	contact	Modular electrophysiology system capable of generating visual stimuli for any stimulator and digital recording and analysis of responses using proprietary software, more information at http://www.diagnosysllc.com
Colordome	Diagnosys, LLC	contact	Light stimulator with RGB LED and Xenon light sources for Ganzfeld ERG, more information at http://www.diagnosysllc.com
Micromanipulator	Drummond	3-000-024-R	Holding and positioning the recording microelectrode
Magnetic ring stand	Drummond	3-000-025-MB	Holding and positioning of the camera and reference electrode
Lead extensions	Grass Technologies	F-LX	Spare female to male 1.5 mm lead cables for connecting electrodes
Male Pin to Female SAFELEAD Adaptor	Grass Technologies	DF-215/10	Connecting 2 mm pins to 1.5 headboard pins
Window screen frame (metal) and spline	Lowe's or Home Depot	various	For attaching copper mesh to Faraday cage framework
Steriflip 50 ml filters	Millipore	SCGP00525	Filtering solutions to prevent small articulates from blocking micropipettes
BNC adaptor	Monoprice	4127	Connecting camera to BNC cable
BNC cable	Monoprice	626	Connecting camera to video adaptor
Camera lens	Navitar	1582232	Visualizing the positioning of the recording microelectrode onto the larval cornea
Camera coupler	Navitar	1501149	Visualizing the positioning of the recording microelectrode onto the larval cornea
Luna BNC to VGA + HDMI Converter	Sewell	SW-29297-PRO	BNC to VGA adaptor allowing camera image to project on computer monitor

APB	Sigma	A1910	mGluR6 agonist, blocks b-wave allowing analysis of the isolated cone mass receptor potential
Borosilicate glass	Sutter	BF-150-86-10	Fire- polished borosilicate glass (melting temperature = 821°C) with filament and dimensions of 1.5mm x 0.86 mm (outer diameter by inner diameter)
P97 Flaming/Brown puller	Sutter	P97	For pulling glass micropipettes
Sorbothane sheet	Thorlabs	SB12A	Synthetic viscoelastic urethane polymer, placed under Passive Isolation Mounts and ERG platform to absorb shock and prevent slipping, can be cut to size
Breadboard	Thorlabs	B2436F	Vibration isolation platform for ERG stimulator and zebrafish specimen
Passive Isolation Mounts	Thorlabs	PWA074	Provides vibration isolation to breadboard
Copper mesh	TWP	022X022C0150W36T	To line Faraday Cage
Pipette pump	VWR	53502-233	Used with Pasteur pipettes to carefully transfer zebrafish larvae
Pasteur pipettes	VWR	14672-608	Used with Pipette pump to carefully transfer zebrafish larvae
Camera	Watec	WAT-902B	Visualizing the positioning of the recording microelectrode onto the larval cornea
Tricaine (MS-222)	Western Chemical	Tricaine-S	Pharmaceutical-grade anesthetic,
Micro-fil	WPI	MF28G-5	Filling microelectrode holder and microelectrode glass
Microelectrode holder	WPI	MEH2SW15	Holds glass microelectrode, connects to ERG equipment
Reference Electrode	WPI	DRIREF-5SH	Carefully break off last centimeter of casing to drain electrolyte and expose sintered Ag/AgCl pellet electrode
Reference Electrode (alternative)	WPI	EP1	Alternative to DRIREF-5SH. Ag/AgCl electrode that must be wired/soldered to connecting lead
Low-noise cable for Microelectrode holder	WPI	13620	Connecting recording microelectrode holder to adaptor/headboard