

Materials List for:

Electroretinogram Recording in Larval Zebrafish using A Novel Cone-Shaped Sponge-tip Electrode

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Materials

Name	Company	Catalog Number	Comments
0.22 µm filter	Millex GP	SLGP033RS	Filters the 10× goldfish ringer's buffer for sterilization
1 mL syringe	Terumo	DVR-5175	With a 30G × ½" needle to add drops of saline to the electrode sponge tip to prevent drying and increased noise in the ERG signals.
30 G × ½" needle	Terumo	NN*3013R	For adding saline to the sponge tip electrode.
Bioamplifier	ADInstruments	ML135	For amplifying ERG signals.
Bleach solution	King White	9333441000973	For an alternative method of silver electrode chlorination. Active ingredient: 42 g/L sodium hypochlorite.
Circulation water bath	Lauda-Ko'nigshoffen	MGW Lauda	Used to make the water-heated platform.
Electrode lead	Grass Telefactor	F-E2-30	Platinum cables for connecting silver wire electrodes to the amplifier.
Faraday Cage	Photometric Solution International		For maintaining dark adaptation and enclosing the Ganzfeld setup to improve signal-to-noise ratio.
Ganzfeld Bowl	Photometric Solution International		Custom designed light stimulator: 36 mm diameter, 13 cm aperture size.
Luxeon LEDs	Phillips Light Co.		For light stimulation twenty 5W and one 1W LEDs.
Micromanipulator	Harvard Apparatus	BS4 50-2625	Holds the recording electrode during experiments.
Microsoft Office Excel	Microsoft	version 2010	Spreadsheet software for data analysis.
Moisturizing eye gel	GenTeal Gel	9319099315560	Used to cover zebrafish larvae during recordings to avoid dehydration. Active ingredient: 0.3 % Hypromellose and 0.22 % carbomer 980.
Pasteur pipette	Copan	200C	Used to carefully transfer larval zebrafish.
Powerlab data acquisition system	ADInstruments	ML785	Controls the LEDs to generate stimuli.

PVA sponge	MeiCheLe	R-1675	For the placement of larval zebrafish and making the cone-shaped electrode ti
Saline solution	Aaxis Pacific	13317002	For electroplating silver wire electrode.
Scope Software	ADInstruments	version 3.7.6	Simultaneously triggers the stimulus through the Powerlab system and collects data
Silver (fine round wire)	A&E metal	0.3 mm	Used to make recording and reference ERG electrodes.
Stereo microscope	Leica	M80	Used to shape and measure the cone-shaped sponge apex (with scale bar on eyepiece). Positioned in the Faraday cage for electrode placement.
Tricaine	Sigma-aldrich	E10521-50G	For anaesthetizing larval zebrafish.
Water-heated platform	custom-made		For maintianing the temperature of the sponge platform and the larval body during ERG recordings