

Materials List for:

# Experimental Protocol for Examining Behavioral Response Profiles in Larval Fish: Application to the Neuro-stimulant Caffeine

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## Materials

Name	Company	Catalog Number	Comments
ViewPoint ZebraBox	ViewPoint		ZebraLab and ZebraLab platform for automated behavioral observations
Caffeine	Sigma-Aldrich	C0750-100G	Study chemical
Incubator	VWR	9110589	Maintains light/dark cycle and temperature for fathead minnow experiments
Incubator	Thermo Fisher Scientific	35824-636	Maintains light/dark cycle and temperature for zebrafish experiments
100 mL glass beakers	VWR	89000-200	Zebrafish exposure chambers
500 mL glass beakers	Pyrex	EW-34502-03	Fathead minnow exposure chambers
5,000 µL auto-pipette	Eppendorf	Research 5000	Used to fill individual wells in well plates
Transfer Pipettes	VWR	414-004-004	Used to transfer study organisms
48-well plates	Fisher Scientific	08-772-52	Larval zebrafish behavioral recording chambers
24-well plates	VWR	10062-896	Larval fathead minnow behavioral recording chambers
Calcium sulfate dihydrate	Sigma-Aldrich	C3771	For reconstituted hard water
Magnesium Sulfate	Sigma-Aldrich	M7506	For reconstituted hard water
Sodium Bicarbonate	Sigma-Aldrich	S5761	For reconstituted hard water
Potassium Chloride	Sigma-Aldrich	P9333	For reconstituted hard water
z-mod recirculating system	Marine Biotech Systems		Recirculating system to maintain zebrafish cultures
Statistical analysis software	Sigma Plot	Version 13.0	Used to analyze behavioral data and produce figures
Statistical analysis software	Graphpad Prism	Prism 5	Used to produce figures
Autosampler/quaternary pumping system	Agilent Technologies	Infinity 1260 model	Analytical verification of caffeine treatment levels
Jet stream thermal gradient electrospray ionization source	Agilent Technologies		Analytical verification of caffeine treatment levels
Triple quadrupole mass analyzer	Agilent Technologies	Model 6420	Analytical verification of caffeine treatment levels
10 cm × 2.1 mm Poroshell 120 SB-AQ column (120Å, 2.7)	Agilent Technologies	685775-914T	Caffeine chromatography
MassHunter Optimizer Software	Agilent Technologies		Determine the ionization mode, monitored transitions,

		and instrumental parameters for caffeine/caffeine-d9 and paraxanthine/paraxanthine-d6
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