

Materials List for:

Optogenetic Activation of Zebrafish Somatosensory Neurons using ChEF-tdTomato

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Materials

Name	Company	Catalog Number	Comments
Materials			
Glass Pasteur pipette	Fisher	1367820B	or equivalent (10-15 mm diameter)
200 µm optic fiber	ThorLabs	AFS200/220Y-CUSTOM	Patch Cord, Length: 3 m, End A: FC/PC, End B: FC/PC, Jacket: FT030
50 µm optic fiber	ThorLabs	AFS50/125Y-CUSTOM	Patch Cord, Length: 3 m, End A: FC/PC, End B: FC/PC, Jacket: FT030
Adjustable Stripping Tool	ThorLabs	AFS900	or Three-Hole Stripping Tool (FTS4)
Diamond Wedge scribe	ThorLabs	S90W	
Flaming/Brown Micropipette Puller	Sutter Instruments	P-97	or equivalent
Borosilicate glass tubing with filament	Sutter Instruments	BF-100-78-10	
Injection mold	n/a	n/a	Figure 5
1.5 ml centrifuge tubes	Any	Any	
Petri dish (100x15 mm)	Any	Any	
Petri dish (60x15 mm)	Any	Any	
Pressure injector	ASI	MPPI-3	or equivalent
Micromanipulator and metal stand	Narashige	M152	or equivalent
Disposable plastic pipettes	Fisherbrand	13-711-7	or equivalent
Poker (Pin holder and Insect pin)	Fine Science Tools, Inc.	26018-17 and 26000-70	or equivalent
Forceps	Fine Science Tools, Inc.	11255-20	or equivalent
Microloader pipette tips	Eppendorf	9300001007	
28.5 °C incubator	any	any	
42 °C heat block	Any	Any	
Non-Sterile scalpel blades #11	Fine Scientific Tools, Inc.	10011-00	or equivalent
Dissecting scope	Zeiss	Stemi	or equivalent
Fluorescent dissection scope with standard filter	Any	any	or equivalent
Confocal microscope	Zeiss	LSM 510 or 710	or equivalent with lasers for GFP and RFP, and 10x, 20x and 40x objectives
High speed camera	AOS Technologies, Inc.	X-PRI (130025-10)	or equivalent
473 nm portable laser	Crystal lasers	CL-473-050	or higher power, with TTL option
S48 Stimulator	Astro-Med, Inc. Grass Instrument division	S48K	or equivalent

FC/PC to FC/PC mating sleeve	ThorLabs	ADAFC1	May need for optic cable connection
Laser Safety Glasses	ThorLabs	LG10	or equivalent
24 culture plates	Genesee	25-102	or equivalent
Single depression slides	Fisher	S175201	Or equivalent
Reagent			
Instant ocean	Aquatic Ecosystems	IS50	
Methylene blue	Fisher	S71325	
Phenol red	Sigma	P4758	
Agarose	EMD	2125	or equivalent
Low Melt agarose	Sigma	A9045	or equivalent
PTU	Sigma	P7629	
Tricaine	Sigma	A5040	
blue/embryo water			10 L ddH ₂ O 0.6 g Instant Ocean 6 drops methylene blue
phenol red			(5 mg/ml in 0.2 M KCl)
100x PTU			0.150 g PTU 50 ml ddH ₂ O dissolve at 70 °C, shake often aliquot and store at -20 °C
1x PTU			1 ml 100x PTU 99 ml blue/fish water
Tricaine stock solution			400 mg tricaine 97.9 ddH ₂ O
~2.1 ml 1M Tris, pH9.0			adjust pH to ~7.0 store in 4 °C or -20 °C for long term storage