

Materials List for:

Using an Adapted Microfluidic Olfactory Chip for the Imaging of Neuronal Activity in Response to Pheromones in Male *C. Elegans* Head Neurons

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URL: <https://www.jove.com/video/56026>

DOI: [doi:10.3791/56026](https://doi.org/10.3791/56026)

Materials

Name	Company	Catalog Number	Comments
Silicon Wafer	University Wafer	452	
SU-8 2035	MicroChem	Y111070-0500L1GL	
Developer	MicroChem	Y020100-4000L1PE	
Wafer Mask	Cad/Art Services	-	Custom order. Printed at 25,000 dpi.
Sylgard-184	Ellsworth Adhesives	184 SIL ELAST KIT 0.5KG	
1.0 mm Dermal Punches	Acuderm Inc.	P150	
Soft Tubing	Cole-Palmer	EW-06419-01	
Hard Tubing	IDEX Health & Science	1622	
Pins	New England Small Tube	NE-1027-12	
Blocking Pins	New England Small Tube	0.415/0.425" OD x .500 Long	Batch PB07027
3 mL syringes	BD	309657	
30 mL syringes	Vitality Medical	302832	Used as buffer reservoirs.
Stainless Steel Blunt Needle 23 Gauge, Polypropylene Luer	Component Supply Company	NE-231PL-50	
Stopcocks with Luer connections; 3-way; male lock; 5 flow pattern; non-sterile	Cole-Palmer	EW-30600-07	
Fisherfinest Premium Cover Glass	Fisher Scientific	12-548-5M	
Mercator Control System LF-5 Plasma System	Mercator	LF-5	
Scotch Tape	Scotch	BSN43575	
Series 20 Chamber	Warner Instruments	P-2	
Vacuum Desiccator	Bel-Art Scienceware	420250000	24 cm inner diameter.
Weigh Boats	Cole-Palmer	EW-01017-27	
Classic Plus Balance	Mettler Toledo	PB1501-S/FACT	
Glass Pasteur Pipettes	Cole-Palmer	EW-25554-06	
Transfer pipettes	Genesee Scientific	30-202	
Oven	Sheldon Manufacturing Inc	9120993	Model Number: 1500E.
60 mm, non-vented, sharp edge Petri dishes	TriTech Research	T3308	
Zeiss Axio Observer.A1	Zeiss	-	
Hamamatsu Orca Flash 4.0 Digital CMOS	Hamamatsu	C11440-22CU	
Blue Fluorescent Light	Lumencor	SOLA SM6-LCR-SA	24-30V/7.9A DC.

Illumination Adaptor	Zeiss	423302-0000	
Series 1 and 2 Miniature Inert PTFE Isolation Valve	Parker	001-0017-900	3-way valve for controlling flow.
ValveLink8.2®	AutoMate Scientific	01-18	Flow Switch Controller
Micro Manager	Micro-Manager	-	Free software, can be downloaded at: https://www.micro-manager.org/wiki/Download_Micro-Manager_Latest_Release
ImageJ	ImageJ	-	Free software, can be downloaded at: https://imagej.nih.gov/ij/download.html
Agar, Bacteriological Grade	Apex	9012-36-6	
Peptone	Apex	20-260	
CaCl ₂	VWR	BDH0224-1KG	
MgSO ₄	Sigma-Aldrich	230391-1kg	
Cholesterol	Alfa Aesar	A11470	
Ethanol	Sigma-Aldrich	270741-4L	
Tetramisole	Sigma-Aldrich	L9756-10(G)	Store at 4 °C.
Fluorescein	Sigma-Aldrich	FD2000S-250mg	Light Sensitive. Store in photoprotective vials.
Glycerol	Sigma-Aldrich	G6279-1L	
Ascaroside #3	-	-	Synthesized in the Schroeder Lab (Cornell University).
NaCl	Genesee Scientific	18-215	
KH ₂ PO ₄	BDH	BDH9268.25	
K ₂ HPO ₄	J.T. Baker	3252-025	
ASH GCaMP3 line	-	-	CX10979 (KyEx2865 [psra-6::GCaMP3 @ 100 ng/uL]). Developed in Bargmann lab. Provided from Albrecht Lab library.
CEM GCaMP6 line	-	-	JSR49 (FkEx98[ppkd-2::GCaMP::SL2::dsRED + pBX-1]; pha-1(e2123ts); him-5(e1490); lite-1(ce314)). Developed by Robyn Lints. Provided from Srinivasan Lab library.
<i>E. coli</i> (OP50)	<i>Caenorhabditis</i> Genetics Center	OP50	
"Reservoir"	-	-	To create a Reservoir: A "30 mL syringe", is connected to a "Stopcock with Luer connections; 3-way; male lock; 5 flow pattern; non-sterile", which is connected to a "3 mL syringe" and a "Stainless Steel Blunt Needle 23 Gauge, Polypropylene Luer". The "Stainless Steel Blunt Needle 23 Gauge, Polypropylene Luer" is then inserted into "Soft Tubing" approximately 1/3 of the way down the needle.