

Materials List for:

A Low-Cost, Odor-Reward Association Task for Tests of Learning and Memory

Abduselam K. Awol¹, Michelle T. Tong^{1,2}

¹Neuroscience Program, Earlham College

²Neuroscience Program & Department of Biology, University of St. Thomas

Correspondence to: Michelle T. Tong at mtong@stthomas.edu

URL: <https://www.jove.com/video/59756>

DOI: [doi:10.3791/59756](https://doi.org/10.3791/59756)

Materials

Name	Company	Catalog Number	Comments
Double guide cannula	PlasticsOne	C235GS-5-1.5/SPC	Custom order
(-)-limonene	Sigma-Aldrich	218367-50G	
(+)-limonene	Sigma-Aldrich	183164-100ML	
2-hetanone	Sigma-Aldrich	537683	
2-octanone	Sigma-Aldrich	O4709	
5mg sucrose pellets	Test Diet	1811560	Custom size. Used for rewards
Butanoic acid	Sigma-Aldrich	B103500	
butyl acetate	Sigma-Aldrich	402842	
Dental Cement Powder (Coral)	A-M Systems	525000	
Dental Cement Solvent	A-M Systems	526000	
Double connector assembly	PlasticsOne	C232C	
Double dummy cannula	PlasticsOne	C235DCS-5/SPC dummy dbl	Custom order
Double injector	PlasticsOne	C235IS-5/SPC	Custom order
Drill	Kopf Instruments	Model 1474 High Speed Stereotaxic Drill	This drill requires an additional "adaptor" piece in order to fit certain drill bits. We get by this problem by wrapping the drill bit with lab tape to increase the circumference of the drill it to fit. This may not be an option for surgeries requiring sterile technique.
Eye Ointment			Purchase from local pharmacy
Figure 1 illustration software	BioRender		
heptanal	Sigma-Aldrich	W254002	
hexanal	Sigma-Aldrich	115606	
hexanol	Sigma-Aldrich	H13303	
Infusion pump model 11	Harvard Apparatus	4169D	Used pumps available via American Instrument Exchange
Isoflurane	Santa Cruz Animal Health	sc-363629Rx	Vet prescription needed for order
K252a	Sigma-Aldrich	K2015	Mixed to 50uM in DMSO (5%)
Ketoprofen	Allivet	25920	Vet prescription needed for order
Lidocaine	Aspercreme		Purchased from Amazon
Mounting Screws	PlasticsOne	00-96 X 3/32	
Mouse Anesthesia Mask	Kopf Instruments	Model 907 Mouse Anesthesia Mask	Used with the stereotaxic to allow oxygen and anesthesia while mouse in stereotax

Mouse Nose Adaptor	Kopf Instruments	Model 926 Mouse Adaptor	Used with the stereotaxic to allow for head of mouse to be secured.
Novalsan	Jeffers	41375	
Pentanoic acid	Sigma-Aldrich	240370	
pentanol	Sigma-Aldrich	138975	
Petri dish glass bottoms	VWR	10754-804	
Polycarbonate Café bottoms	Ancare	N10PCSEC	Use normal housing cages and custom fit a track in the middle to act as the track for an opaque plexiglass divider
propyl acetate	Sigma-Aldrich	537438	
Quikrete Premium Play Sand			Purchase from local hardware store
Saline	Insight Needles	N/A	Sterile saline for drug mixing
Stereotaxic apparatus	Kopf Instruments	Model 902 Small Animal Stereotaxic Instrument	
Testing chamber	Ancare	N10PCSEC	Our testing chambers are modified using the regular mouse housing cage. The manuscript details what was done.
Vetbond Tissue Adhesive	3M		Purchased from Amazon