

Materials List for:

A Temperature Gradient Assay to Determine Thermal Preferences of *Drosophila* Larvae

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Materials

Name	Company	Catalog Number	Comments
Gradient assay apparatus			
PolyScience 9106, Refrigerated/Heated 6L Circulating Bath	Thomas Scientific	9106	This model is discontinued. Updated replacement models include: 1186R00 and 1197U04 for 120 V, 60 Hz, or 1184L08 and 1197U04 for 240 V, 50 Hz.
Aluminum assay plate (for single directional gradient)			Outer size: 14 x 10.1 x 0.9 cm, inner size: 12.9 x 8.7 x 0.8 cm, black anodized.
Aluminum plate (for bidirectional gradient)			25 x 22 x 0.2 cm, black anodized.
Aluminum block			Outer size: 25.5 x 5 x 1.4 cm, parameters of inner channels are shown in Figure 1D.
Connector for aluminum blocks and tubing	McMaster-Carr	91355K82	
Tygon Sanitary Silicone Tubing	Tygon	57296	1/4" ID x 3/8" OD x 1/16" wall
Name	Company	Catalog Number	Comments
Items and reagents for assay			
Pestle	USA Scientific	17361	Pestle for 1.5 mL microcentrifuge tubes
Thermometer	Fluke	51II	
Thermocouple	Fluke	K type	
Universal microplate lid	Corning	6980A77	
35 mm dish	Corning	9380D40	
Labeling tape (for bidirectional gradient)	Fisher Scientific	15-951	Fisherbrand labeling tape 2 in x 14 yds
Agarose	Invitrogen	16500500	Prepare 1% solution
Sucrose	Sigma	S0389-5KG	Prepare 18% solution right before starting assay
Paint brush	Fisher Scientific	11860	
50 mL centrifuge tubes	Denville	C1062-P	
Scoopula	Fisher Scientific	14-357Q	
500 mL round wide-mouth bottle	Pyrex	1395-500	
Cell strainer (300 mm pore)	PluriSelect	43-50300	Optional item for larvae washing
Cardboard box (vial tray)	Genesee Scientific	FS32-124	

Name	Company	Catalog Number	Comments
<i>Drosophila</i> food			
Distilled water			22,400 mL
Cornmeal, yellow (extra fine mesh, flocked) 20 kg	LabScientific Inc.	NC0535320	1,609 g
Brewers yeast 100 lbs	MP Biomedicals	ICN90331280	379 g
NutriSoy® Soy Flour (10 kg/unit)	Genesee Scientific	62-115	221 g
<i>Drosophila</i> Agar, Type II (5 kg)	Genesee Scientific	66-103	190 g
Karo light corn syrup	Karo		1,700 mL
Methyl 4-hydroxybenzoate (suspend in 200 proof ethanol)	Sigma Aldrich	H5501-5KG	72 g/240 mL
Propionic acid puriss. p.a., >99.5% (GC)	Sigma Aldrich	81910-1 L	108 mL
Phosphoric acid ACS reagent, ≥85 wt. % in H ₂ O	Sigma Aldrich	438081-500 mL	8.5 mL