

Large-Scale Gravitaxis Assay of *Caenorhabditis* Dauer Larvae

Caroline Ackley¹, Lindsey Washiashi¹, Ruchira Krishnamurthy¹, Joel H. Rothman¹

¹Molecular Cellular and Developmental Biology, University of California

Corresponding Author

Caroline Ackley
carolineackley@ucsb.edu

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Materials

Name	Company	Catalog Number	Comments
1% Sodium Dodecyl Sulfate solution			From stock 10% (w/v) SDS in DI water
15 mL Centrifuge tubes	Falcon	14-959-53A	
3 mm Hex key			Other similar sized metal tools may be used
4% Agar in Normal Growth Medium (NGM) - 1 L			Prior to autoclaving: 3 g NaCl, 40 g Agar, 2.5 g Peptone, 2 g Dextrose, 10 mL Uracil (2 mg/mL), 500 µL Cholesterol (10 mg/mL), 1 mL CaCl ₂ , 962 mL DI water; After autoclaving: 24.5 mL Phosphate Buffer, 1 mL 1 MgSO ₄ (1 M), 1 mL Streptomycin (200 mg/mL)
5 mL Serological pipettes	Fisherbrand	S68228C	Polystyrene, not borosilicate glass
60% Cold sucrose solution			60% sucrose (w/v) in DI water; sterilize by filtration (0.45 µm filter). Keep at 4 °C
AF16 <i>C. briggsae</i> or other experimental strain			Available from the CGC (Caenorhabditis Genetics Center)
Bunsen burner			
Cling-wrap	Fisherbrand	22-305654	
Clinical centrifuge			
Disposable razor blades	Fisherbrand	12-640	
Faraday cage			Can be constructed using cardboard and aluminum foil; 30" L x 6" W x 26" H or larger
Ink markers			Sharpie or other brand for marking on plastic
Labeling tape	Carolina	215620	
M9 buffer			22 mM KH ₂ PO ₄ , 42 mM Na ₂ HPO ₄ , 86 mM NaCl
N2 <i>C. elegans</i> strain			Available from the CGC (Caenorhabditis Genetics Center)

NGM plates with OP50			1.7% (w/v) agar in NGM (see description: 4% agar in NGM). Seed with OP50
Paraffin film	Bemis	13-374-10	
Plastic cutting board			
Pliers			
Rotating vertical mixer	BTLab SYSTEMS	BT913	With 22 x 15 mL tube bar
Serological pipettor	Corning	357469	
Stereo Microscope	Laxco	S2103LS100	
Tally counter	ULINE	H-7350	
Thick NGM/agar plate media - 1 L			See 4% Agar in NGM recipe; replace 40 g Agar with 20 g Agar
Tweezers			