

Materials List for:

Measuring Sperm Guidance and Motility within the *Caenorhabditis elegans* Hermaphrodite Reproductive Tract

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Materials

Name	Company	Catalog Number	Comments
Reagents and Material			
60 mm x 15 mm Petri dish	Fisher	FB0875713A	
Agar	Fisher	BP1423-500	
Sodium Chloride	Fisher	S671-3	
Peptone	Fisher	BP1420-500	
Cholesterol	Sigma-Aldrich	C8667	
LB broth, Miller	Fisher	1426-2	
<i>Escherichia coli</i> strain NA22	Caenorhabditis Genetics Center (CGC)	NA22	Either this or OP50 <i>E. coli</i> can be used for <i>C. elegans</i> maintenance and assay. Both may be purchased at the CGC
N2	CGC	N2	
<i>fog-2(q71)</i>	CGC	CB4108	
Platinum wire 0.25 mm dia	Alfa Aesar	10288	
5 3/4" Disposable Pasteur pipet	Fisher	13-678-20A	
Watch glass	Fisher	02-612A	
5 mm Dia. Glass rod	Fisher	50-121-5269	
MitoTracker CMXRos (Mito-dye)	Fisher	M7512	Shield from light, store at -20 °C
Monopotassium phosphate	Fisher	P285-500	
Disodium phosphate	Fisher	S374-1	
Magnesium sulfate	Fisher	M63-500	
Dimethyl sulfoxide	Fisher	BP231-1	DMSO
Aluminum foil	Fisher	01-213-102	
Ethyl 3-aminobenzoate methanesulfonate	Sigma	E10521-10G	Tricaine is the common name. Store in aliquotes at -20 °C.
Tetramisole hydrochloride	Sigma	L9756-5G	Store in aliquotes at -20 °C
Agarose	Fisher	BP1356-100	
Coverslips	Fisher	12-548-A	18 x 18-1
Frosted microscope slides	Fisher	12-552-3	
Equipment			
16 °C and 20 °C incubators	Fisher	97-990E	Same model, set at different temperatures.
Upright Microscope with epi-fluorescence illuminator, camera, and 10x and 60x objectives	Nikon		

Software with image acquisition and tracking capabilities	Nikon	NIS-elements AR	
Stereo-microscope	Nikon	SMZ800N	Any stereo-microscope that can be used to visualize <i>C. elegans</i> may be used with this protocol