

Materials List for:

Spatial and Temporal Analysis of Active ERK in the *C. elegans* Germline

Amanda L. Gervaise¹, Swathi Arur^{1,2}

¹Program in Developmental Biology, Baylor College of Medicine

²Department of Genetics, UT MD Anderson Cancer Center

Correspondence to: Swathi Arur at SArur@mdanderson.org

URL: <https://www.jove.com/video/54901>

DOI: [doi:10.3791/54901](https://doi.org/10.3791/54901)

Materials

Name	Company	Catalog Number	Comments
Agarose	Sigma Inc.	A9539	Dissolve 2 g in 100 mL to make the 2% solution
Flat bottom glass watch dish	Agar Scientific	AGL4161	We use glass because dissected gonads often stick to plastic
25 G needles	BD PrecisionGlide	305122	
Syringes (could be 1 or 5 mL)	BD Syringes	1 mL: BD 309659	
Microscope slides (25 x 75 x 1.0 mm)	Fisherbrand	12-550-343	
Coverslips (24 x 50 mm)	Corning	2935-245	
5 mL glass conical tube	Corning	8060-5	
9" disposable Pasteur pipette	Fisherbrand	13-678-20D	
Clinical bench top centrifuge			
Glass tubes (6 x 50 mm)	Fisherbrand	14-958-A	
*M9 solution			
Levamisole	Sigma	L9756	
3% Paraformaldehyde (PFA)	Electron microscopy services	17500	Obtained as 16% solution in ampoules, and diluted to 3% in Potassium Phosphate Buffer
1x PBS-T	1x PBS with 0.1% Tween 20		
Methanol	Electron microscopy services	18510	
Normal goat serum (NGS)	Cell Signaling	5425	Diluted to 30% in 1x PBS-T
MAPKYT (dpERK) antibody	Sigma Inc.	M9692	Dilution 1:400 in 30% NGS
Secondary antibody	Invitrogen	A-11005	Dilution 1:500 in 30% NGS
DAPI	Sigma	D9542	
Vectashield	Vector Labs	H-1000	
*M9 Buffer Recipe			3 g KH ₂ PO ₄ , 6 g Na ₂ HPO ₄ , 5 g NaCl, 1 mL 1 M MgSO ₄ , H ₂ O to 1 L.
**PBS (1x)			8 g NaCl, 0.2 g KCl, 1.44 g Na ₂ HPO ₄ , 0.24 g KH ₂ PO ₄ , 0.133 g CaCl ₂ , 0.10 g MgCl ₂ , H ₂ O to 1 L
Nematode Growth Medium (NGM)			3 g NaCl, 17 g Agar, 2.5 g Peptone, 975 mL of water in 2 L Erlenmayer Flask. Autoclave for 50 min. Cool, and add 1 mL of 1 M CaCl ₂ , 1 mL of 5 mg/mL cholesterol, 1 mL of 1 M MgSO ₄ and 25 mL of 1 M KPO ₄ .