

Materials List for:

Measurements of Physiological Stress Responses in *C. Elegans*

Raz Bar-Ziv¹, Ashley E. Frakes¹, Ryo Higuchi-Sanabria¹, Theodore Bolas¹, Phillip A. Frankino¹, Holly K. Gildea¹, Melissa G. Metcalf¹, Andrew Dillin¹

¹Department of Molecular and Cell Biology, University of California, Berkeley

*These authors contributed equally

Correspondence to: Andrew Dillin at dillin@berkeley.edu

URL: <https://www.jove.com/video/61001>

DOI: [doi:10.3791/61001](https://doi.org/10.3791/61001)

Materials

| Name | Company | Catalog Number | Comments |
|--------------------------------|---------------------|----------------|--|
| Antimycin A | Sigma-Aldrich | A8674 | for mitochondrial stress |
| Bacto Peptone | Fisher Scientific | DF0118072 | for NGM plates |
| BD Difco granulated agar | VWR | 90000-782 | for NGM plates |
| Calcium chloride dihydrate | VWR | 97061-904 | for NGM plates |
| Carbenicillin | BioPioneer | C0051-25 | for RNAi |
| Cholesterol | Sigma-Aldrich | 57-88-5 | for NGM plates |
| COPAS Biosorter | Union Biometrica | 350-5000-000 | equipped with a 488 nm light source. |
| COPAS Cleaning Solution | Union Biometrica | 300-5072-000 | to use with COPAS |
| COPAS Sheath Solution | Union Biometrica | 300-5070-100 | to use with COPAS |
| DMSO | Sigma-Aldrich | 472301 | solvent for drugs |
| IPTG dioxane free | Denville Scientific | CI8280-4 | for RNAi |
| LB Broth Miller | Fisher Scientific | BP1426500 | for LB |
| M205FA stereoscope | Leica | 10450040 | equipped with a Leica DFC3000G monochromatic CCD camera, standard Leica GFP filter (ex 395-455, EM 480 LP), and LAS X software |
| Magnesium sulfate heptahydrate | VWR | EM-MX0070-3 | for NGM plates, M9 |
| Paraquat | Sigma-Aldrich | 36541 | for oxidative/mitochondrial stress |
| Potassium Chloride | Fisher | P217-500 | for bleach solution |
| Potassium phosphate dibasic | VWR | EM-PX1570-2 | for NGM plates |
| Potassium phosphate monobasic | VWR | EM-PX1565-5 | for M9 |
| Revolve | ECHO | 75990-514 | equipped with an Olympus 4x Plan Fluorite NA 0.13 objective lens, standard Olympus FITC filter (ex 470/40; em 525/50; DM 560), and an iPad Pro for camera and to drive ECHO software |
| Sodium Azide | Sigma-Aldrich | 71289-50G | for imaging |
| Sodium Chloride | EMD Millipore | SX0420-5 | for NGM plates, M9 |
| Sodium phosphate dibasic | VWR | 71003-472 | for M9 |
| Tert-butyl hydroperoxide | Sigma-Aldrich | 458139 | for oxidative stress |
| Tetracycline hydrochloride | Sigma-Aldrich | T7660-5G | for RNAi |
| Tunicamycin | Sigma-Aldrich | T7765-50MG | for ER stress |