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A method for the permeabilization of live *Drosophila melanogaster* larvae to small molecules and cryoprotectants V.1

Forked from [A method for the permeabilization of live *Drosophila melanogaster* larvae to small molecules and cryoprotectants](#)[Alex Murray](#)¹, Daniel Palmer¹, Daimark Bennett², Venkata Dwarampudi³, João Pedro de Magalhães¹¹Institute of Ageing & Chronic Disease, University of Liverpool, L7 8TX, Liverpool, United Kingdom,²Institute of Integrative Biology, University of Liverpool, L7 8TX, Liverpool, United Kingdom, ³Division of Biomedical and Life Sciences, Lancaster University, Lancaster LA1 4YQ, United Kingdom **1** Works for me dx.doi.org/10.17504/protocols.io.75xhq7n **Alex Murray** 

ABSTRACT

The larvae of *Drosophila melanogaster* is a model organism used to study the muscular and nervous systems. *Drosophila* larvae are surrounded by a waxy cuticle that prevents permeation by most substances. Here we develop a method to remove this layer, rendering the larvae permeable to small molecules. Permeability is assessed using fluorescein diacetate dye uptake, and mortality upon exposure to toxic levels of ethylene glycol and DMSO. Potential uses for this method include drug delivery, toxicity assays, cryopreservation, staining, and fixation.

□
Permeabilization
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