

Video Article

Dissection of Drosophila Ovaries

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URL: <https://www.jove.com/video/52>

DOI: [doi:10.3791/52](https://doi.org/10.3791/52)

Keywords: Neuroscience, Issue 1, Protocol, Stem Cells, Cerebral Cortex, Brain Development, Electroporation, Intra Uterine Injections, transfection

Date Published: 10/19/2006

Citation: Wong, L.C., Schedl, P. Dissection of Drosophila Ovaries. *J. Vis. Exp.* (1), e52, doi:10.3791/52 (2006).

Abstract

Video Link

The video component of this article can be found at <https://www.jove.com/video/52/>

Protocol

Protocol for Drosophila ovary dissection

1. Feed flies with yeast 1-2 days prior to dissecting them to fatten up the ovaries.
2. Anaesthetize flies using carbon dioxide stream.
3. Using a pair of tweezers, select a female fly.
4. Submerge the female fly into 1X PBS.
5. Grab the fly at its lower thorax with a pair of tweezers.
6. Tug gently at the lower abdomen with another pair of tweezers until the internal organs in the abdomen are exposed.
7. Look for the pair of ovaries and detach it from other organs (e.g. the intestines).
8. Tease apart the ovarioles (if ovaries are to be used for immunostaining or in situ hybridization).
9. Keep ovaries in ice-cold 1X PBS while dissecting the next fly.

Discussion

Here we demonstrate a method of dissecting ovaries in Drosophila. As the method of culturing the different cell types that exist in the Drosophila ovary has yet been defined, this is a rapid method to obtain the Drosophila ovarian tissue. Essentially, we show that dissecting Drosophila ovaries involves a simple two- or three-step procedure. Subsequent treatment of these dissected ovaries depend on the downstream experiments that will be performed.

References

1. Costa A et al., The Drosophila fragile X protein functions as a negative regulator in the orb autoregulatory pathway. *Dev Cell.* 8(3):331-42, (2005).
2. Tan L et al., An autoregulatory feedback loop directs the localized expression of the Drosophila CPEB protein Orb in the developing oocyte. *Development.* 128(7):1159-69, (2001).