

Drosophila Embryo Microinjection

Kevin Lee's Method

11/19/2001

1. Allow cage to lay for 1 hour
2. Change plate
3. Wash embryos off of plate with distilled water. Collected embryos into basket, using a funnel to rinse all embryos off of plate
4. Prepare a small beaker with 50% bleach. Place embryos in basket into beaker; use enough bleach to cover embryos. Permit dechoriation to proceed for the minimum time necessary to allow for complete chorion removal, monitoring progress under the dissection microscope. Aim for the shortest possible time to prevent damage to the embryos: one to two minutes should be sufficient.
5. Remove embryos basket from bleach and rinse COPIOUSLY under running distilled water, making sure to remove all traces of bleach from inside the basket, outside the basket, on the bottom of the basket. Rinsing this thoroughly will require at least THREE MINUTES.
6. Use a wet brush to transfer embryos to charcoal agar. You will have many more embryos in a one hour collection than you can use for injection!
7. Line up 50 embryos, transfer to glass slide with double stick tape.
8. Dessicate for an appropriate time in dessicator.
9. Cover with oil and leave slide at 18 degrees Celsius.
10. Repeat steps 7-9 until you have three slides of 50 embryos. Discard extra embryos not lined up on the three slides—they will be too old for further use!
11. When all three slides are prepared, inject 3 X 50 embryos with DNA.
12. Make a note of embryos not injected because too old, or damaged, and kill these before placing in humidified box.
13. Repeat steps 2-12. If it takes more than one hour to go through one cycle, line up and inject fewer embryos per slide, or prepare only two slides.
- 14.