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# Protocol for *D. melanogaster* Adults Homogenization in the Bullet Blender™

The protocol described in this document is for the use of the Bullet Blender™ for the homogenization of *Drosophila melanogaster* adults. This protocol does not specify a particular buffer - you may choose which is most appropriate for your downstream application (nucleic acid isolation, protein extraction, etc.).

**Materials Required:** adult *Drosophila*, Bullet Blender™, homogenization buffer, pipettor, microcentrifuge tubes, and Zirconium Oxide beads (0.5mm or 1.0mm) or Zirconium Silicate beads (0.5mm).

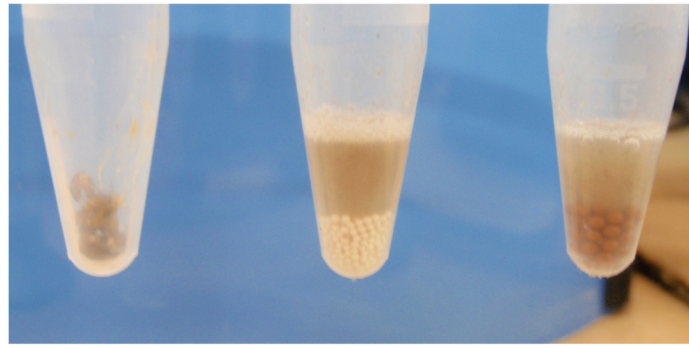
**Instructions**

1. Place 10-300mg of flies into microcentrifuge tubes.
2. Add an 1.5x to 2x the mass of sample in beads (0.5mm or 1.0mm zirconium oxide, or 0.5mm zirconium silicate) to each tube. One scoop of zirconium oxide beads ≈ 180mg. One scoop of zirconium silicate beads ≈ 110mg.
3. Add 2 volumes of buffer for every mass of flies (for example, with 100mg of flies use 200µl of buffer).
4. Close the microcentrifuge tubes.
5. Place tubes into the Bullet Blender™.
6. Set controls for **SPEED 8** and **TIME 3** minutes.
7. Remove tubes from the instrument.
8. Visually inspect samples, if homogenization is unsatisfactory, run for another two minutes at the **SPEED 10.**
9. Proceed with your downstream application.

## SAFETY NOTE!!!

**When using a centrifuge to separate your homogenate from the debris and beads, make sure your tubes are balanced.**

## TYPICAL RESULTS



**before (flies only)** **after (ZrSiO beads)** **after (ZrO beads)**

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