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).

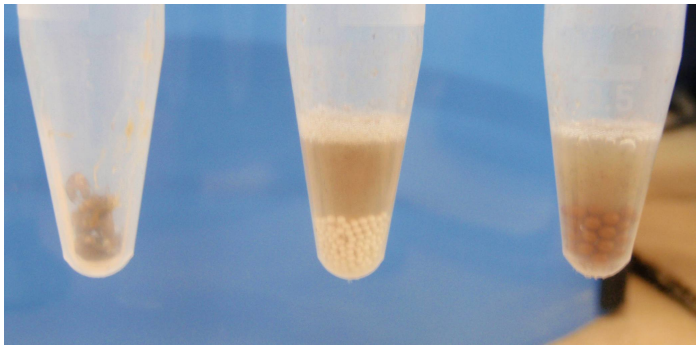
Instructions

1. Place 10-300mg of flies into microcentrifuge tubes.
2. Add a volume of beads equal to the mass of tissue. **NOTE:** 100mg ≅ 100µL.
3. Add 0.2mL to 2.0mL buffer (2 volumes of buffer for every volume of sample).
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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