

Bullet Blender™ 50

Homogenization Protocol for Adipose

The protocol described in this document is for the use of the Bullet Blender™ 50 for the homogenization of Fat / Adipose Tissue. 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: lung , Bullet Blender™ 50, homogenization buffer, pipettor, 50mL centrifuge tubes, [3.2mm stainless steel beads \(part number SSB32\)](#).

Instructions

1. Cut adipose into appropriately sized pieces for analysis (0.1g – 3g) and place into a 50mL centrifuge tube.
2. **OPTIONAL:** If desired, wash the tissue 3x with 5mL PBS to remove blood and other contaminants from the tissue.
3. Add two times as much 3.2mm stainless steel beads (by mass) as you have sample (so for 1g sample, add 2g beads). One scoop ≈ 160mg.
4. Add three volumes of buffer per mass of tissue (3mL of buffer per gram of tissue)
5. *Tightly* screw the centrifuge tubes closed.
6. Place tubes into the Bullet Blender™ 50.
7. Set controls for **SPEED 10** and **TIME 9** minutes. Press start.
8. After the run, remove the tubes from the instrument.
9. Inspect samples. Fatty tissue homogenate will be difficult to see through due to the light scattering of lipid micelles formed, so it may be necessary to employ a pipette tip or similar object to check inside the tube for remaining pieces of intact tissue. If homogenization is unsatisfactory, run for another six minutes at **SPEED 10**.
10. Proceed with your downstream application.

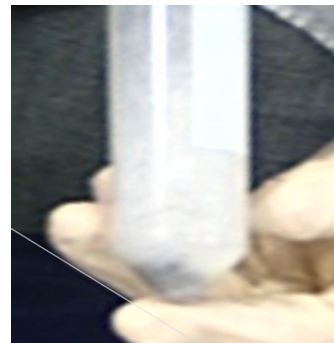
SAFETY NOTE!!!

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

TYPICAL RESULTS



before



after