Date 08/04/2009

Protocol for Kidney Tissue Homogenization in the Bullet Blender™

The protocol described in this document is for the use of the Bullet Blender™ for the homogenization of kidney from a variety of animals. Note that the time and speed settings may differ due to the variation in consistency/texture of tissue from species to species. 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.).

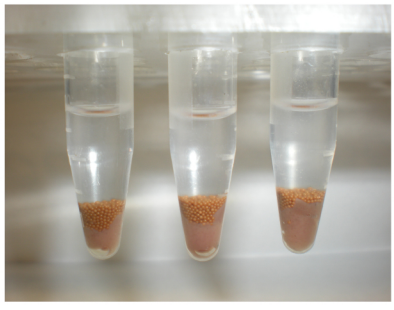
Materials Required: kidney tissue, saline, aspirator, Bullet Blender™, homogenization buffer, pipettor, microcentrifuge tubes, zirconium oxide beads (0.5mm) (part number ZROB05)

Instructions

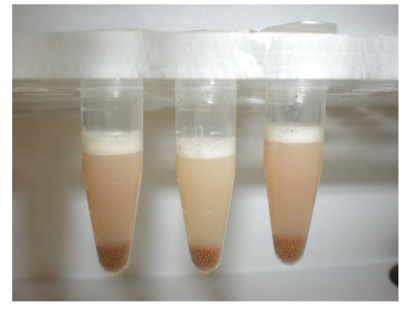
1. Cut kidney into appropriately sized pieces for analysis (50mg-300mg) and place into microcentrifuge tube.
2. **OPTIONAL:** Wash tissue 3x with ~1mL PBS. Aspirate. **NOTE:** This step removes some external contaminants (blood, etc.).
3. Add a mass of the zirconium oxide beads (0.5mm) equal to 1.5X the mass of tissue. One scoop of beads ≈ 190mg.
4. Add 0.2ml to 0.6ml buffer, i.e. 2 volumes of buffer to the tube for every mass of sample.
5. Close the microcentrifuge tubes.
6. Place tubes into the Bullet Blender™.
7. Set controls for **SPEED 8** and **TIME 4** minutes. Press **Start**.
8. After the run, remove tubes from the instrument.
9. Visually inspect samples. If homogenization is unsatisfactory, run for another three minutes at the **SPEED 10.**
10. Remove sample tubes from the Bullet Blender™ and 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.



before



after

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