NEXTADVANCE

Protocol for Sugar Cane Homogenization in the Bullet Blender®

The protocol described in this document is for the use of the Bullet Blender® for the homogenization of the pulpous matter in the center of sugar canes. Please be aware that the highly fibrous outer sections of the cane are extremely tough and will be extremely difficult to homogenize. 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.).

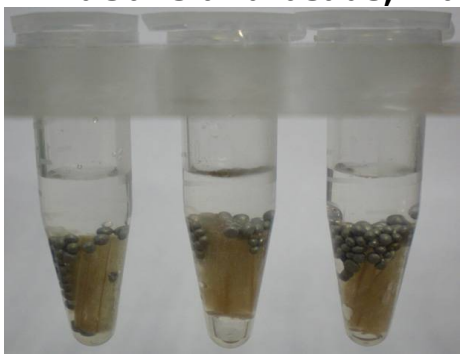
Materials Required: Sugar cane, Bullet Blender®, homogenization buffer, pipettor, microcentrifuge tubes, and 1.0mm zirconium oxide beads or 0.9-2.0mm stainless steel bead blend (part number ZrOB10 or SSB14B)

Instructions

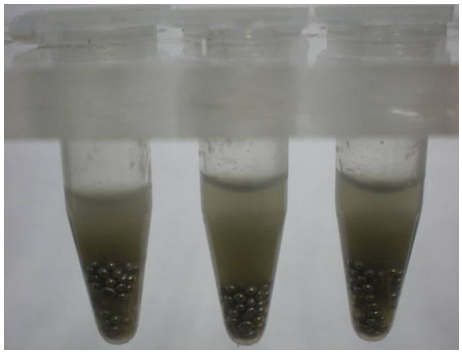
1. Place up to 300mg of sugar cane pulp into microcentrifuge tubes.
2. Add a volume of beads equal to the mass of the sample.
3. Add 2 volumes of buffer to the tube for every mass of sample (ex. for 100 mg sugar cane, add 200μL buffer)
4. Close the microcentrifuge tubes and place them into the Bullet Blender®.
5. Set controls for **SPEED 9** and **TIME 3** minutes. Press **Start**.
6. After the run, remove tubes from the instrument.
7. Visually inspect samples. If homogenization is unsatisfactory, run for another two minutes at speed 10.
8. 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

Date 05/06/2011

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