NEXT ADVANCE

Bullet Blender Protocol

Tomato (root)

- Extract molecules (DNA, RNA, protein, chemicals)
- Wet final product
- Sample sizes: up to 200 mg.

Notes on the protocol: 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

One of these Bullet Blenders

- **Bullet Blender** (BBX24)
- **Bullet Blender Blue** (BBX24B)
- **Bullet Blender Storm 24** (BBY24M)
- **Bullet Blender 24 Gold** (BB24-AU)

Reagents

Homogenization buffer
2 x volume of sample

PBS (optional)
2 x volume of sample

Bead choices

- **NAVY bead lysis kit** (NAVY) (for samples up to 200 mg.)

Procedure

1. Wash the sample 3x with 1/2 tube volume of PBS to remove surface contaminants.
2. Cut the sample into appropriately sized pieces. For larger samples, we recommend cutting the material into long, thin strips for faster homogenization.
3. Place the sample in the tube with the beads.
4. Close the tubes tightly and place them in the Bullet Blender.
5. Set the controls for Speed 12 and Time 3. Press Start.
6. After the run, remove the tubes from the instrument. Add a volume of buffer that is twice the volume of the sample.
7. Return the tubes to the Bullet Blender.
8. Set the controls for Speed 10 and Time 3. Press Start.
9. After the run, remove the tubes from the instrument and visually inspect the samples. If homogenization is incomplete, repeat the homogenization step at a higher speed.
10. Proceed with your downstream application.