Bullet Blender® 50
Homogenization Protocol for Shellfish

The protocol described in this document is for the use of the Bullet Blender® 50 for the homogenization of shellfish. This protocol was created using Mahogany clam tissue. Other types of shellfish (mussels, clams, scallops, etc.) may require a slightly modified homogenization 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: shellfish , Bullet Blender® 50, homogenization buffer, pipettor, 50mL centrifuge tubes, 4.8mm stainless steel beads (part number SSB48).

Instructions

1. Break the shell of the animal in a clean dissection area. Remove fragments of shell from the soft tissue.
2. If desired, wash the soft tissue with saline to remove any sand or shell fragments.
3. Blot excess liquid from the soft tissue using a Kimwipe® or other lint free cloth.
4. Cut the tissue into appropriately sized pieces (up to 9g).
5. Place tissue into a 50mL skirted conical centrifuge tube (Axygen® or Corning®).
6. Add a mass of stainless steel beads (4.8mm) to the tube equal to approximately 3x the mass of your sample.
7. Add 4-7mL buffer.
8. Screw caps onto centrifuge tubes TIGHTLY.
9. Place tubes into the Bullet Blender® 50.
10. Set controls for SPEED 10 and TIME 12 minutes.
11. Remove tubes from the instrument.
12. Visually inspect samples, if homogenization is unsatisfactory, run for another six minutes at the SPEED 10.
13. 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 06 / 18 / 2012