# Bullet Blender® 50
# Homogenization Protocol for Saccharomyces

The protocol described in this document is for the use of the Bullet Blender® 50 for the homogenization of *Saccharomyces* cultures (*cerevisiae*, *pombe*, etc.). 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:** yeast, Bullet Blender® 50, homogenization buffer, pipettor, 50mL skirted centrifuge tubes (Axygen® or Corning® brand), 0.5mm zirconium oxide beads (part number ZROB05).

**Instructions**

1. Pour yeast culture into 50mL centrifuge tube.
2. Centrifuge culture (2000g for one minute) to yield a cell pellet. Pellet should 3mL or less to achieve efficient homogenization.
3. Completely aspirate supernatant liquid. Place tube on ice.
4. Add a volume of beads to the tube approximately equal to the volume of the pellet.
5. Add 0.2 mL to 6mL buffer (2 volumes of buffer for every volume of sample).
6. Screw caps onto centrifuge tubes **TIGHTLY**.
7. Place tubes into the Bullet Blender® 50.
8. Set controls for **SPEED 9** and **TIME 15** minutes.
9. Remove tubes from the instrument.
10. Visually inspect samples, if homogenization is unsatisfactory, run for another six minutes at the **SPEED 10**.
11. 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.**

Date 05/06/2011