Recommended Tissue Homogenization Protocol for Lipid Analysis

Lipidomics Core Facility Stony Brook University

Homogenizations buffer: 20mM Tris pH7.8 with protease and phosphatase inhibitors added.

Procedure: Frozen tissue samples were thawed on ice.

- For brain (soft tissue) - use the auto homogenizer,
- For bone, skin (hard tissue) - use a ground glass homogenizer. Do 60-80 strokes.

Once processed, centrifuge all tissue for 5 min at 300xg to remove all unhomogenized tissue.

Transfer the supernatants to fresh tubes and process for protein estimation by a Bradford assay.

For Lipid analysis you will need about 1mg protein. Add 2 – 300 ul of the supernatant directly to 2ml of extraction buffer and vortex well or submit directly about 1mg protein to the Core Facility. In either case the samples should be in 15 ml conical plastic tubes (polypropylene). Store the samples in -80 Freezer.