

TCA precipitation of proteins

Protocol prepared by Lori Kohlstaedt, June 2006; revised April 2008.

1. Add 100% (w/v) TCA (trichloro acetic acid, see preparation method below) to the sample to bring the TCA concentration to 20%.
2. Incubate on ice for at least 1 hr. Dilute samples may be left overnight.
3. Spin at maximum speed at 4 degrees in a microcentrifuge for 10 min.
4. Wash the pellet 3X with a solution of ice cold 0.01 M HCl / 90% acetone.
5. Allow the pellet to air dry.

The pellet can then be resuspended directly in 100 mM tris, pH 8.5, 8 M urea for enzymatic digestion for mass spectrometry

Preparation of 100% TCA:

(Don't try to weigh out TCA; it's too hygroscopic)

1. Obtain a fresh bottle of crystalline TCA.
2. Read the weight in the container from the label.
3. Add distilled water to give a 100 g / 100 ml solution at final volume.
Store the solution in an acid compatible container.