

Sample Submission and Preparation for 2-D Electrophoresis

Sample Submission

Samples for 2D-gel electrophoresis may be submitted:

- ◆ In Solution (acceptable solvents are listed below)

Water

Urea

Thiourea

Non-ionic or zwitterionic detergents (e.g. CHAPS, NP-40, Triton X-100)

Tris base

Reducing agents (e.g. DTT, TBP)

- ◆ Lyophilized

Contaminants (see list below) should be removed from the sample prior to submission.

Protein Amounts: must be specified; maximum of 1 mg protein per sample.

Radioactively labeled samples cannot be processed.

The sample should NOT contain:

Salts

Buffers other than Tris

Other small ionic molecules

Ionic detergents (e.g. SDS)

Nucleic acids

Polysaccharides

Lipids

Phenolic compounds

Lipids

Insoluble material

General Hints for Sample Preparation

- ◆ Add protease inhibitor immediately after or during cell lysis.

- ◆ In case protein extraction requires components not compatible with 2D electrophoresis, remove these components prior to submission e.g. by precipitating and re-dissolving in lysis solution (see summary on removal techniques).
- ◆ SDS containing samples must be diluted to a final concentration of 0.25% SDS or less. Adjust the protein concentration accordingly.