



Differential Gel Electrophoresis Sample Preparation Guidelines

Sample Preparation

Sample solubilisation

- Extracted proteins (from either cells or tissues) OR lyophilised culture supernatant should be solubilised (at the final step) in 7 M urea, 2M Thiourea and 4% CHAPS solution (pH 8.5, adjust with Tris-base, typically 30 mM Tris).
- Conductivity of the sample should be ~ 300 μ S. If the sample has to be initially prepared (extracted from plant or animal sources) other than the above-mentioned sample solubilisation solution, it would be necessary to do a buffer exchange with the recommended solubilising solution.
- Ensure that the protein concentration remains within 5-10mg/ml.

Critical Issues

- pH should be within 8 to 9, 8.5 is recommended.
- **NO** primary amines (e.g. phamalytes or Biolytes) and **NO** Thiols (e.g. DTT) should be in the sample prior to labelling. Reduction and alkylation **SHOULD** be carried out after labelling proteins with the CyDyes.

Pathogenicity

Biological samples coming into APAF should be accompanied by documentation of potential pathogenicity or pathogen free status otherwise APAF will presume all samples from human and animal origin are potential pathogens and will be treated accordingly.

How do I send samples from Overseas to APAF?

For guidelines and documentation required visit our [Quarantine guidelines](#).