



Sample Submission Procedure for Protein Identification Analysis by LC-MS/MS (using a UPLC-Qtof-premier instrument)

1) You must consult with the facility BEFORE preparing your sample for submission.

We will provide important, project specific information on sample preparation and handling as well as determination of protein amounts. Samples submitted for protein ID without prior consultation cannot be accepted. To arrange for a consult, please contact: hremmer@umich.edu.

2) **Commit as much protein as possible for this analysis.** The techniques used are **mole-based**, not mass based, i.e. with same staining intensity a 100kD protein contains **10x less** protein than a 10kD protein. The **minimum protein amount necessary is 1-5 pmol of the protein of interest (not the total protein) in one band on the gel.** This would be 0.1-0.5 ug(100-500ng) of a 100kD protein or 0.01-0.05ug (10-50ng) of a 10kD protein.

3) **Submit your sample ready for SDS-PAGE** (in solution; sufficient total protein to have **1-5pmol of your protein of interest** in 20 microliter). Samples will be separated by SDS-PAGE at the Protein Core prior to in-gel digestion. A reference standard of 1-5 pmol BSA will be applied to the same gel to provide an estimate of the protein amount submitted. Samples containing insufficient protein will not be processed. Fees for SDS-PAGE analysis will apply.

In certain cases you may submit your protein in-gel (if approved by facility director). For submission you must:

- Follow the provided sample preparation guidelines for SDS-PAGE precisely to minimize keratin contamination and maximize success of analysis
- Use the reference protein, staining and destaining solutions and container provided by the facility
- Submit sample and blank separately in clear microcentrifuge tubes, gel pieces moist but without any excess liquid
- Provide a photo of your the gel showing the stained sample and the reference protein

Samples submitted without complete sample documentation will not be accepted.

Questions? contact Henriette Remmer, Ph.D. (hremmer@umich.edu) or
Amber Peariso, M.S. (amberpea@umich.edu)