



Sample preparation for UOW Low and High Resolution Mass Spectral Service

For MS analysis, samples must be prepared as follows:

FOR LOW RES SAMPLES

- The compound must be dissolved in a solvent where it is **FULLY** soluble (methanol or acetonitrile preferably) - **use HPLC grades (or higher purity) solvents only.**
- If needed Dichloromethane or Chloroform can be added (up to 50% of solvent volume) – Solvents need to be HPLC grade as well!
- Solution must be FREE of precipitate and “fluff” (floating particles such as lint)
- For **ESI-MS** the compound must be prepared at a concentration of **0.01mg/mL** (=10µg/ml) – which can be obtained by a 1:100 dilution from a 1 mg/mL solution.
- For **EI-MS** use a concentration of **1 mg/mL** solution in HPLC grade solvent
- Prepare a volume of about 500 µL - 1 ml.
- If the sample is submitted in a **dry form**, ~ **1mg** of compound is required (for both EI or ESI) with the exact mass of solid provided clearly indicated on submission the form and/or on the vial.

FOR HIGH RES SAMPLES

- The compound must be dissolved in a solvent where it is FULLY soluble (methanol or acetonitrile preferably) - **use HPLC grade (or higher purity) solvents only.**
- If needed Dichloromethane or Chloroform can be added (up to 50% of solvent volume) – Solvents need to be HPLC grade as well!
- Solution must be FREE of precipitate and “fluff” (floating particles such as lint)
- For **ESI-MS** or ASAP-MS (EI equivalent) the compound concentration must be 10 µg/mL using HPLC-grade or higher solvent(s).
- Prepare a volume of about 500 µL - 1 ml.
- If the sample is submitted in a **dry form**, ~ **1mg** of compound is required (for both ASAP or ESI) with the exact mass of solid provided clearly indicated on submission the form and/or on the vial.

In all cases

- Sample must be placed in a SCREW CAP vial.
- **Depending on the requested analysis, make sure that the appropriate sample(s) concentrations are provided. If more than one sample is provided (several dilutions) for one analysis, clearly label each vial.**
- For high or low resolution analysis: form must be filled IN DETAIL (all fields required) for **EACH submitted sample.**
- For a High Resolution analysis request a low res spectra SHOWING the ion(s) of interest *must be* stapled to the HRMS form.
- Don't forget to indicate the compound's molecular formula and all required info on the form
- For a High Resolution analysis request, select only ONE ionisation mode: the low res analysis will tell you if + or – is best for your compound.

To ensure an efficient service please adhere to the above rules
– *especially concentration and solvent purity* –
otherwise we will ask that users reprepare/resubmit their samples.