

PMF Metabolomics Sample Preparation Guidelines

Please use the following as guidelines for submission of metabolomics samples. If you have a unique sample set that may require special preparation, please contact us directly with questions.

- Freeze samples as quickly as possible after harvesting. This halts the metabolic processes in the tissue, preventing significant change to the metabolite composition of the sample.
- Weigh out the appropriate amount of tissue for each sample, and send the sample names and exact weights with your submission form (Excel file).
 - 80-100 mg of plant tissue (fresh weight) is sufficient for analysis in most cases.
 - 50-70 mg of plant tissue (lyophilized) is also suitable for analysis.
 - Crushing from frozen can be done quickly at room temperature using an instrument like a tissue lyser and steel beads, or with mortar/pestle using liquid nitrogen.
 - If using a tissue lyser, the tissue can be weighed before or after crushing. If the sample is weighed before, the beads can be left in with the sample to prevent any sample loss.
 - If using nitrogen, make sure all of the liquid is evaporated prior to transferring into the weighing tube. Any remaining liquid nitrogen will make the weight inaccurate and can cause gas to build up in the tube.
- If the sample is liquid rather than solid, provide the exact volume instead of the weight.
- Please provide your weighed samples in 2mL microfuge tubes (preferably with snap-lock top; ex Eppendorf Tube Catalog # 022363352). DO NOT USE TUBES WITH A CONICAL END or SCREW TOP LIDS.
- Make sure your sample tubes are clearly labeled with your initials and the sample name. The samples may also be numbered. The sample names or numbers must be provided in the excel file with the weights.
- Store samples at -80°C prior to submission. Send frozen samples with sufficient dry ice, to ensure they remain frozen in transit to the facility.
- Additional sample preparation time will be charged to the customer if the sample needs to be crushed, weighed or transferred to the correct tube. Sample prep rates can be found on the PMF website.