

## UMGC's Nucleic Acid Extraction Sample Submission Guidelines

1. Submitting Samples:
  - a. When submitting samples for extraction, we recommend roughly:
    - ~30 mg lyophilized or ~50 mg fresh-frozen plant tissue is acceptable. Submitted in Qiagen Collection Microtubes or 2 ml tubes with sample duplicates or triplicates if desired.
    - ~25 - 30 mg human or animal tissue for standard extractions. For high molecular weight DNA applications (e.g. PacBio), ~50 - 100 mg is recommended.
    - ~1x10<sup>6</sup> cells. We have tried fewer cells in the past with mixed results (and never gotten acceptable results below 3,000).
    - ~8 pieces of 10 µm thick sections of FFPE tissue with a tissue surface area between 0.5-1 cm<sup>2</sup>.
    - ~250 mg stool or soil submitted in 1.5 or 2.0 ml tubes.
    - ~500 µl - 15 ml human blood treated with an anticoagulant, preferably EDTA. Animal blood we recommend 200 µl.

*These are suggested amounts, we can extract other smaller and larger amounts.*
2. **DNA Extractions:**
  - a. Please follow instructions on the submission form and fill it out carefully.
  - b. Standard processing for fecal samples for 16s is to remove extra liquid. If you want liquid material included in the extraction, please notify staff at the e-mail below.
3. **RNA Extractions:**
  - a. Samples sent for RNA extraction should be preserved using RNAlater (preferred), a similar product, or flash frozen.

NOTE: Waxy plant tissue can sometimes resist penetration by RNAlater.  
Samples should be shipped on dry ice, and we consider it best practice to ship early in the week.  
Samples are retained at -80 until we are ready to extract.
4. Quality control required for all submissions:

Nanodrop and Picogreen for DNA.  
Nanodrop and Ribogreen (usually with Sizing) for RNA.
5. **Prior to submitting samples, complete the sample Submission Form and send an electronic copy to [extract@umn.edu](mailto:extract@umn.edu).** In the email, also provide the shipment's tracking number or chosen UMGC drop-off location. UMGC drop-off locations, hours, and phone numbers can be found on our website: <https://genomics.umn.edu/hours-locations>.
6. *Please give advance notice of submission date, time and location so staff can receive samples. Preferably at LEAST 24 hours.*
7. Include a hard copy of the Submission Form with your samples. Ship to the following address:

**U of M Genomics Center  
ATTN: Jerry Daniel / Veronica Tonnell  
3510 Hopkins Place N.  
Building 4 Suite E445A  
Oakdale, MN 55128  
651-374-1227 (ext. 5)**

**Incorrect submissions will delay your project.**