

Arbor Biosciences – myReads Sample Preparation Guide

*****NEVER SHIP IRREPLACEABLE MATERIALS*****

1. Sample quality requirements*

While we cannot guarantee performance, following the guidelines ensures the best chances for success. It is possible to work with lower quantities/qualities of samples, but the chances for sample/target drop-out are much higher.

DNA - Illumina/Ion Torrent platforms

Extracts	Libraries
Minimum 1 µg DNA, measured with spectofluorometry (intercalating dye)	Minimum 1 µg DNA, measured with spectofluorometry (intercalating dye)
High molecular weight: minimum 10kbp modal length	Unique indexes/barcodes already incorporated
EDTA 2 mM maximum concentration	Bioanalyzer (or similar) electrophoretic image
UV spectrometry 260:280 ratio of 1.7-1.9	

**We recognize that degraded/ancient DNA samples may not meet quality requirements*

DNA - PacBio platform

Extracts
Minimum 5 µg DNA, measured with spectofluorometry (intercalating dye)
High molecular weight: minimum 10kbp modal length
Electrophoretic image showing sample morphology
EDTA 2 mM maximum concentration
UV spectrometry 260:280 ratio of 1.7-1.9

RNA – Illumina platform

Standard applications	rRNA and/or globin depletion
Minimum 250 ng RNA, measured with spectofluorometry in a minimum of 25 µL	Minimum 2.5 µg RNA, measured with spectofluorometry in a minimum of 25 µL
Bioanalyzer (or similar) trace showing morphology for at least 25% of samples	
EDTA 2 mM maximum concentration	
UV spectrometry 260:280 ratio of 1.9-2.1	

***** If you cannot meet these requirements, we will perform a mandatory RNA clean-up on your samples for an additional charge*****

2. Preparation and packaging

- Preferred format for all samples:
 - Dried down fully
 - Placed in adhesive-sealed, colorless, 96-well plate.
 - Protect in a covered plate rack, if possible
 - Ship at room temperature (no ice needed)
- For <48 samples, you may ship in liquid form:
 - 100 μ L volume
 - Parafilm-sealed, colorless, 1.5-mL or 1.7-mL snap-cap tubes
 - Protect in a closed box or tube rack, if possible
 - For overnight shipment use blue ice in styrofoam
 - For multi-day shipments use dry ice in styrofoam
- Make sure to:
 - Clearly label all samples in black marker on the lid and side
 - Indicate well-positions (if in plate) on Sample Submission form
 - Package materials so that seals cannot be pierced and wells/tubes cannot be crushed in transit (e.g. wrap in bubble wrap or similar cushioning).
 - Include a signed and dated copy of the Sample Submission sheet
 - Write your myReads project ID on the outside of the box

Samples not packaged in this fashion will be shipped back to the return address

3. Documentation and shipping

- Include a printed and signed copy of the Sample Submission form
- International shippers (outside of USA):
 - Indicate “non-hazardous” as well as the type of ice used in both the item description and the Proforma Invoice
 - On institutional letterhead, include a document containing the following text (modify where appropriate):

“Non-hazardous, sterile DNA from {species}{common name}, suspended in {solution type} in plastic tubes. For scientific analysis only. NON-INFECTIOUS, NON-HAZARDOUS, NOT PATHOGENIC, NOT AN ETIOLOGIC AGENT. Contain no known pathogens or viruses and are not hazardous to human health. Not a biohazard and in case of damage will not affect other organisms. Safe for air transport and all substances comply with applicable regulations. End use for laboratory research purposes only. No monetary value.”

- Failure to include these descriptions can result in unexpected and harmful delays in Customs.
- Ship to:

NGS Division
Arbor Biosciences
5840 Interface Drive, Suite 101
Ann Arbor, MI, 48103
USA

Thank you for choosing Arbor Biosciences!