

Sample Submission Guidelines - RNA Sequencing

- ☐ **Step 1:** Prepare your samples according to one of the tables below. Please contact us at support@cofactorgenomics.com for Custom Project requirements.

Isolated RNA Submission Guidelines

Product Name	Library Type	Minimum Amount of Tissue	Recommended RNA Quantity [‡]	Preferred Concentration (Minimum Concentration)
mRNABLE	Standard mRNA Sequencing (poly-A enrichment)	10-30 mg tissue or 10 ⁶ mammalian cell pellet	≥500 ng	50 ng/μl (5 ng/μl)
Total RNABLE*	Total RNA Sequencing (whole transcriptome/ rRNA depleted)	10-30 mg tissue or 10 ⁶ mammalian cell pellet	≥500 ng	100 ng/μl (15 ng/μl)
picoRNA	Low-input RNA Sequencing (based on Poly-A enrichment)	Contact us	≥100 pg or equivalent cell number (shipped in lysis buffer)	1 ng/μl (100 pg/μl)
FFPEExact*	Fragmented RNA Sequencing (whole transcriptome/ rRNA depleted)	2 x 10 μm FFPE sections [‡]	≥500 ng	100 ng/μl (30 ng/μl)
miRNABLE	miRNA enrichment	10-30 mg tissue, 5 mL bacterial culture pellet, or 10 ⁶ mammalian cell pellet	≥1 μg	100 ng/μl (20 ng/μl)
RNAAccess*	Low-input/Low-quality (targeted) RNA Sequencing	2 x 10 μm FFPE sections [‡] or 5-10 mg tissue	≥40 ng	20 ng/μl (5 ng/μl)

*Total RNABLE and FFPEExact are specifically for RNA derived from human, mouse, and rat samples; RNAAccess is only for human samples. All other products/catalog numbers are amenable to any organism.

- RNA is DNase-treated and is resuspended in nuclease-free water.
- If possible, assess RNA quality on a fragment analyzer (e.g. Agilent bioanalyzer).
- Measure RNA concentration using a fluorescent based method (e.g. Qubit). If using a NanoDrop to assess sample purity, the A260/280 ratio should be >1.9 and A260/230 ratio >2.0

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RNA Extraction Submission Guidelines

Sample Type	Minimum Amount	Maximum Amount	Preferred Buffer Types	Also Acceptable ²	Preferred Container	Shipping Conditions
Cells	5x10 ⁵	1x10 ⁷	RLT buffer	Fresh Frozen or Trizol	1.5mL Eppendorf tubes	Dry Ice
Tissue ¹	5mg	30mg	RNAlater	Fresh Frozen	2mL Eppendorf tubes	Dry Ice
Blood	Contact us	2.5mL per tube	PAXgene Tubes	Contact us	PAXgene Tubes	Dry Ice
FFPE	2 x 10 μm curls	NA	NA	NA	NA	Cold Packs

¹ Some types of tissue such as skin and muscle may require larger amounts

² If the buffer of your choice is not listed above, please inquire with us

For highest yield and quality RNA we recommend the following upon harvest/excision:

- Cells are immediately placed into RLT buffer for shipping.
- Tissue is preserved using RNAlater prior to shipping.
- Blood is collected in PAXgene tubes and allowed to incubate at room temp for at least two hours before stored. If storing at -70°C, first freeze at -20°C for 24 hours.
- For extractions not found above, please inquire with us.

Step 2: Label your samples.

- RNA is submitted in 1.5 ml micro-centrifuge tubes clearly labeled with sample names matching the Sample Requisition Form (below), preferably tubes are sealed with parafilm.
- Each sample sent for RNA extraction needs to have a unique identifier label on the sample container and match the Sample Requisition Form. Preferred containers for each sample type are listed in the "Extraction Submission Guidelines" table. Please ensure vacutainer lids are securely fastened and all containers are sealed with parafilm. For FFPE we suggest removing as much excess block material as possible.

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Step 3: Package your samples.

- Extracted RNA are frozen and will be shipped on plenty of dry ice. We recommend these samples be snap-frozen on dry ice/ethanol or in liquid nitrogen as soon as possible after harvest or excision.
- Please avoid shipping samples on Fridays to keep samples from prolonged exposure to ambient temperature.
- Fresh tissue, cell pellets and vacutainers containing blood are frozen and shipped with plenty of dry ice to prevent thawing in transit. If no stabilizing agent is added (such as RNAlater or RLT buffer), we recommend these samples be snap-frozen on dry ice/ethanol or in liquid nitrogen as soon as possible after harvest or excision.
- Enclose all samples within an interior box to keep them from physical contact with dry ice.

Step 4: Download the RNA Sequencing Sample Requisition Form from: <https://cofactorgenomics.com/sample-submission/>

- Complete this spreadsheet; be sure to include sample groupings required for group-wise analysis.

Step 5: Ship your materials.

Ship packages to:

Cofactor Genomics
Attn: Sample Submission
4044 Clayton Ave.
St. Louis, MO 63110

Step 6: Complete the web form at <https://cofactorgenomics.com/sample-submission/> and upload your Sample Requisition Form at the address above. Please include your shipment's Tracking Information to ensure package monitoring.

International customers please refer to the "Guidelines for International Shipments" document on the sample submission page for additional shipping instructions.