

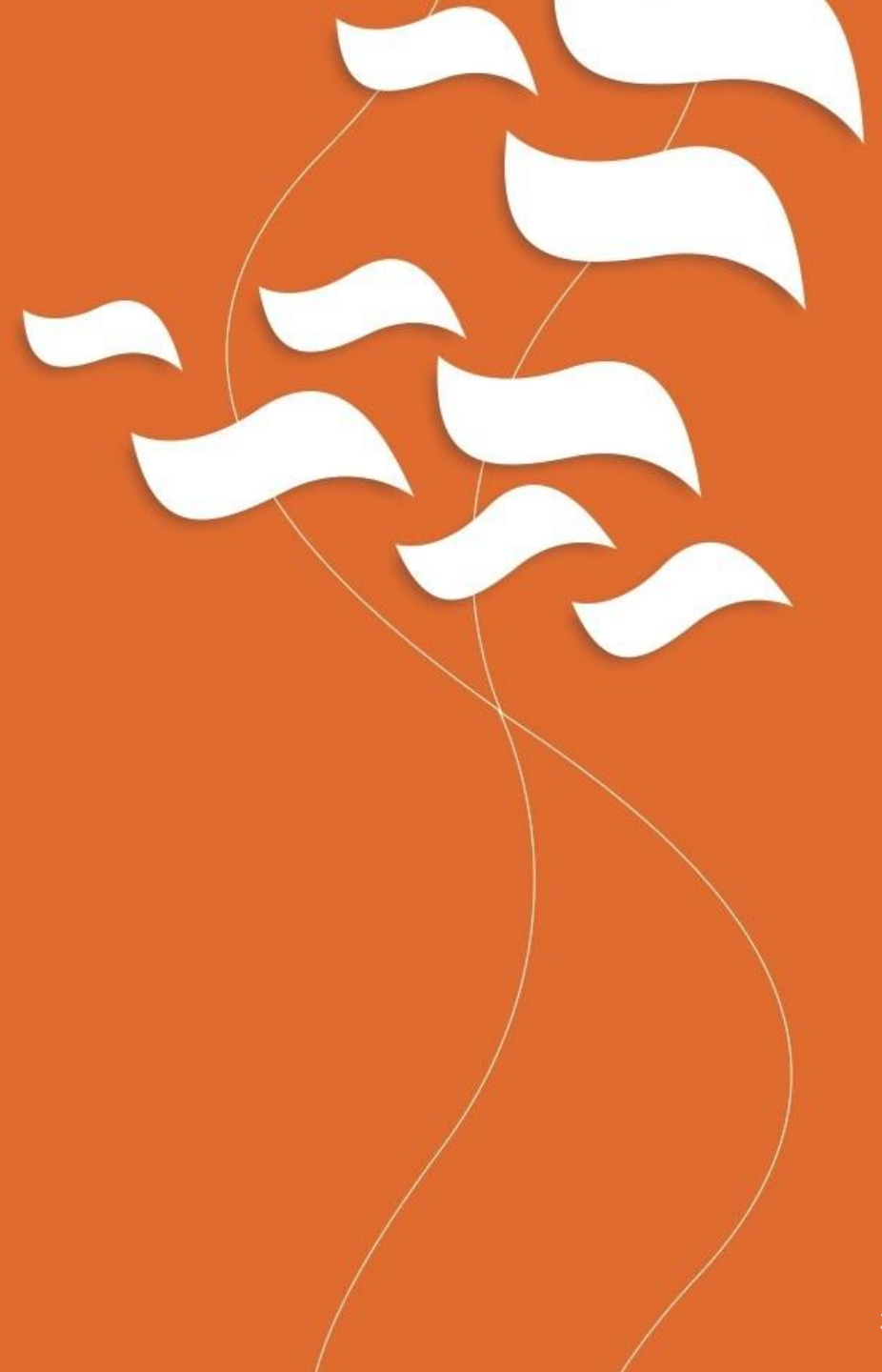


# BIOPHARMA SERVICES SAMPLE SUBMISSION GUIDELINE

PLEASE NOTE:  
We do not, at present,  
handle COVID-19 or  
related patient  
samples.

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## Extraction Submission Guidelines

Sample Type	Quantity Requested	Shipment Method	Notes
Blood in EDTA Tube - Fresh	2 mL - 10 mL tubes	Blue Ice or Room Temperature (Up to 24 hours)	Cover with Parafilm for shipping
Blood in EDTA Tube - Frozen	2 mL - 10 mL tubes	Dry Ice	Cover with Parafilm for shipping
Whole Blood – Fresh	2 mL - 10 mL tubes	Room Temperature (Up to 30 Hours)	Cover with Parafilm for shipping
Whole Blood – Frozen	2 mL - 10 mL tubes	Dry Ice	Cover with Parafilm for shipping
PAXgene – Frozen	2 mL - 10 mL tubes (2.5mL blood draw volume)	Dry Ice	Invert 20 times and leave at room temperature 2 hours prior to freezing
FFPE – Slides	4 Slides at 10 µm per slide	Room Temperature	Total tissue thickness ≥ 40 µm; Unstained; No Coverslip
FFPE – Curls	Send in 1.5mL lo-bind tubes	Room Temperature	Please skip collection of the first few curls from the block
Tissues	30 mg Snap Frozen	Dry Ice	
Cells	Library Preparation Dependent – See <a href="#">Cell Submission Guidelines</a>		
Cell Pellet For RNA/DNA Extraction	50K – 500K Cells in QIAgen Cell Protect or Flash Frozen	Dry Ice	Yields are roughly 10-30 pg/cell for RNA & Yields are roughly 5-10 pg/cell for DNA

## RNA Submission Guidelines

Sample Type	Library Preparation	Quantity Required*	Quality	Buffer; Shipment Method	Notes & Recommendations
Total RNA – RNAseq / Transcriptomics	PolyA or smRNA	200 ng – 1 µg	RIN: ≥ 7	RNase Free Water; Dry Ice	Highest Recommended
	Low Input PolyA	50 pg – 200 ng	RIN: ≥ 7	RNase Free Water; Dry Ice	Low Input smRNA Available
	rRNA Depletion	200 ng – 1 µg	RIN: ≥ 2	RNase Free Water; Dry Ice	Recommended for FFPE samples
	Low Input rRNA	250 pg – 100 ng		RNase Free Water; Dry Ice	Recommended for FFPE samples
	Iso-Seq PacBio	300 ng – 3 µg	RIN: ≥ 7	RNase Free Water; Dry Ice	
Purified Small RNA – smRNAseq / miRNAseq	Standard Input	200 ng – 1 µg	RIN: ≥ 7	RNase Free Water; Dry Ice	
	Low Input	1 ng – 100 ng	RIN: ≥ 7	RNase Free Water; Dry Ice	

## DNA Submission Guidelines

Sample Type	Library Preparation	Quantity Required*	Concentration Required	Buffer; Shipment Method	Notes & Recommendations
Genomic DNA – WGS/WES/Custom Panel Metagenomics/Amplicon	Standard Input	> 500 ng	> 30 ng/μL	1X TE; Blue Ice or Dry Ice	TE Buffer: 10 mM Tris pH 8.0
	Low Input	500 pg – 400 ng	> 0.1 ng/μL	1X TE; Blue Ice or Dry Ice	Please inquire about Low Input library preparation.
Genomic DNA – RADseq/ddRADseq	Standard Input	500 ng – 1 μg	> 5 ng/μL	1X TE; Blue Ice or Dry Ice	
Genomic DNA – 16S/ITS	Standard input	1 ng – 50 ng	> 0.2 ng/μL	1X TE; Blue Ice or Dry Ice	
Genomic DNA – WGBS	Standard Input	100 ng – 1 μg	> 5 ng/μL	1X TE; Blue Ice or Dry Ice	We recommend sending non-bisulfite treated samples.
Immunoprecipitated DNA	ChIP-Seq	> 500 pg	> 0.1 ng/μL	1X TE; Dry Ice	
HMW DNA	HiFi / CLR PacBio	10 μg	> 0.1 ng/μL	1X TE; Blue Ice or Dry Ice	

## Cell Submission Guidelines

Sample Type	Library Preparation	Quantity Requested	Buffer; Shipment Method	Notes/ Recommendations
Cell	ATAC-Seq	1M Cells – see Notes/Recommendations	Sorted Cryopreserved Cells in Single Cell Suspension; Dry Ice	Dead Cell Removal Available
	Hi-C <i>Require Replicate Tubes Per Sample</i>	5M Crosslinked Cells, in duplicate	Sorted Cryopreserved Cells in Single Cell Suspension; Dry Ice	
	10X	<a href="#">Refer to 10X submission guidelines</a> or <a href="#">10X Cell Prep Guidelines</a>		
	Bulk single cell RNAseq	1-100 Cells in 12.5 µL per well	SMARTSeq HT Buffer; Dry Ice	Not 10X Chromium Pipeline
	Bulk RNAseq	200-500 cells per sample	10X Lysis Buffer*; Dry Ice	

\*Please inquire with our Project Management team [custom-services@admerahealth.com](mailto:custom-services@admerahealth.com)

## 10X Submission Guidelines - Cell

Sample Type	Quantity	Quality	Shipping Method	Dead Cell Removal Guide	
Cell	<b>Live</b> <u>Recommended</u> > 1M cells / sample, in duplicate  <u>Minimum</u> 200K cells / sample, in duplicate	<u>Recommended</u> >90% viability  <u>Acceptable</u> 70-90% viability  For cell viability <70%, dead cell removal is recommended	<u>Fresh cell</u> Courier service within 4 hour driving distance*  <u>Cryopreserved cell</u> Dry ice	Quantity & Quality	Note
				> 70% viability	 Pass QC
	<b>Cryopreserved</b> <u>Recommended</u> > 1M cells / sample, in duplicate  <u>Minimum</u> 500K cells / sample, in duplicate			≥ 300K cells & ≥ 50% viability  ≤ 300K cells & < 50% viability	 Perform dead cell removal   Fail QC

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## 10X Submission Guidelines - Tissue

Sample Type		Quantity	Quality	Shipping Method	Notes & Recommendations
Tissue	Single Cell RNASeq	<p><u>Fresh tissue</u> &gt; 100mg / sample</p> <p><u>Cryopreserved tissue*</u> <i>Please contact <a href="#">Project Management team</a> for more information</i></p>	<p><u>Recommended</u> &gt; 90% viability</p> <p><u>Acceptable</u> 70-90% viability</p> <p>For cell viability &lt;70%, dead cell removal is recommended</p>	<p><u>Fresh tissue</u> Stored in MACS tissue storage buffer and send with ice pack</p> <p>See for more details <a href="#">here</a></p> <p><u>Cryopreserved tissue</u> Dry ice</p>	Post tissue dissociation, refer to <a href="#">cell quantity/quality requirements</a>
	Single Nuclei RNASeq	<p><u>Fresh tissue</u> &gt; 100mg / sample</p> <p><u>Flash-frozen tissue</u> 30mg / sample, 3 tubes / sample</p> <p><u>Cryopreserved tissue*</u> <i>Please contact <a href="#">Project Management team</a> for more information</i></p>	NA	<p><u>Fresh tissue</u> Stored in MACS tissue storage buffer and send with ice pack</p> <p>See for more details <a href="#">here</a></p> <p><u>Cryopreserved tissue</u> Dry ice</p> <p><u>Flash frozen tissue</u> Dry ice</p>	Pilot using Chromium Next GEM Single Cell 3' LT for single nuclei RNAseq

\*Please inquire with our Project Management team [custom-services@admerahealth.com](mailto:custom-services@admerahealth.com)



## Sequencing Only Submission Guidelines

Illumina Sequencer	Quantity Required*	Volume	Sample Type
HiSeq	4nM	≥ 10 ul	Library
NovaSeq	3nM	≥ 30ul per lane OR ≥ 400ul per FlowCell	Library
MiSeq	4nM	≥ 10 ul	Library
NextSeq	4nM	≥ 10 ul	Library
Custom Primers	100uM	≥ 20 ul	Custom Primers* <i>Please contact <a href="#">Project Management team</a> for more information</i>

# SHIPPING INSTRUCTIONS: FRESH TISSUE

## Recommendations:

- Admera Health recommends sending a mock shipment of samples to ensure cell viability.
- Please notify the Project Management team at [custom-services@admerahealth.com](mailto:custom-services@admerahealth.com) at least one week prior to sample delivery.
- Samples should be shipped for arrival at facility on Monday – Wednesday.

## Preparing Shipment

1. We suggest to start with 100mg of tissue and always keep your sample on ice during the process.
2. Upon dissection, transfer the tissue to a 2mL or 5mL Eppendorf tube and fill up the tube with [MACS Tissue Storage Solution](#). Ensure that the tissue is fully submerged in the solution. Put the sample on ice from now on.  
\*MACS tissue buffer helps to maintain cell viability for up to 48 hrs.
3. Wrap the tube with paraffin and wrap the tube in absorbent paper towels and place them in separate sealed plastic bags. Wrap each bag in bubble wrap.
4. Print and complete shipping form.
5. Place completed form in a sealed plastic bag and include in the shipment container.
6. Place sample tubes and shipping forms in polystyrene box with **enough ice pack** and fill empty space within the box with bubble wrap or packing material to ensure that materials do not move during shipping.
7. Place the polystyrene box into a slightly larger cardboard box and seal with packing tape.
8. Ship package with Next-Day delivery service (e.g., FedEx Priority Overnight or UPS Next Day Air).
9. Email completed sample submission form and tracking number to [custom-services@admerahealth.com](mailto:custom-services@admerahealth.com)

# SHIPPING INSTRUCTIONS: FROZEN CELL LINES

## Recommendations:

- Admera Health recommends sending a mock shipment of samples to ensure cell viability.
- Please notify the Project Management team at [custom-services@admerahealth.com](mailto:custom-services@admerahealth.com) at least one week prior to sample delivery.
- Only one aliquot per sample is required; however, we recommend sending a second as backup.
- It is highly recommended to count the cells before freezing using hemocytometer or another cell counting device.

## Freezing Cells

1. Ensure that there are enough cells to maintain backups at your facility.
2. Calculate the total number of cells and prepare 1 million viable cells for shipment.
  - a. Flasks of cells may be pooled if necessary.
3. Split 1 million viable cells into 2 tubes
4. Centrifuge for 10 minutes at 120 x g (860 rpm in GH 3.8A rotor) at 4°C.
5. Resuspend the pellet in freezing media at  $0.5 \times 10^6$  cells/mL.

### Examples of Freezing Media:

- a. RPMI 1640
  - b. 20% FBS
  - c. 6% DMSO
6. Make 1mL aliquots of at least 0.5 Million cells in each cryovial.
  7. Freeze overnight at -1°C/min in -80°C freezer using the freezing chamber containing fresh isopropanol.
  8. Transfer the cryovials to liquid nitrogen tank for storage.

## Prepare Shipment

1. Place the cryovials inside a 50mL conical tube.
2. Print and complete the shipping form.
3. Place the completed form in a sealed plastic bag and include it in the shipment container.
4. Ship the materials in a polystyrene box with at least 1" thick walls and minimal dimensions of 8"x6"x4".  
Include at least 5lbs of dry ice for each day of transit.
5. Ensure that there is a Dry Ice label on the outside of the shipment.
6. Ship package with Next-Day delivery service (e.g., FedEx Priority Overnight or UPS Next Day Air).
7. Email the completed sample submission form and tracking number to [custom-services@admerahealth.com](mailto:custom-services@admerahealth.com).

# SHIPPING INSTRUCTIONS: LIVE CELL LINES

## Recommendations:

- Admera Health recommends sending a mock shipment of samples to ensure cell viability.
- Please notify the Project Management team at [custom-services@admerahealth.com](mailto:custom-services@admerahealth.com) at least one week prior to sample delivery.
- Samples should be shipped for arrival at facility on Monday – Wednesday.

## Preparing Shipment

1. Seed cells into one T25 flask.
2. Prepare to ship the samples on Day 2 or 3 after passage or seed the culture with 600,000 to 800,000 cells. Cultures must be actively dividing when shipped (log phase).
3. Fill the T25 flask to capacity with warmed media, tighten the cap, and seal it with parafilm.
  - a. Use plug-seal caps only. Do Not use vented caps.
4. Print and complete shipping form.
5. Place completed form in a sealed plastic bag and include it in the shipment container.
6. Wrap the T25 flask and media tube in absorbent paper towels and place them in separate sealed plastic bags. Wrap each bag in bubble wrap.
7. Place the culture flasks and shipping forms in the polystyrene box.
  - a. Fill empty space within the box with bubble wrap or packing material to ensure that materials do not move during shipping.
  - b. If shipping in colder climates, adding a temperature control packaging (e.g., Saf-T-Pak Phase Control Material) can stabilize the culture temperature during transit.
8. Place the polystyrene box into a slightly larger cardboard box and seal with packing tape. Ship it at Room Temperature.
9. Ship package with Next-Day delivery service (e.g., FedEx Priority Overnight or UPS Next Day Air).
10. Email completed sample submission form and tracking number to [custom-services@admerahealth.com](mailto:custom-services@admerahealth.com).

# SHIPPING GUIDELINES

Please ship samples to:

Admera Health, LLC  
126 Corporate Blvd  
South Plainfield, NJ 07080  
Attn: BioPharma Services

Please follow these instructions when shipping your samples:

1. Include the Admera Health Quote # on your shipment package.
2. Complete and send electronic Sample Submission Form to [custom-services@admerahealth.com](mailto:custom-services@admerahealth.com).
3. Ensure your samples arrive between Monday and Friday to avoid samples sitting over the weekend.

For cells: please ensure that you notify the Project Management team one week ahead of sample arrival and arrange for samples to arrive between Monday and Wednesday.

\*Unless otherwise specified, clients are responsible for all shipping charges.