The Sequencing Center

HLA Sample Submission Guidelines

Version 1.10

June 2, 2021

Sample Type	Min. Volume	Recommended Container Type	Special Requirements
Buccal Swab	N/A	1 buccal swab in sealed tube	None
Blood (whole blood)	500uL	1mL - 2mL tubes	Collection tubes should not contain: EDTA, Heparin, anti-coagulants. We do not recommend blood be stored in Zymo DNA Shield tubes.
Cell Pellet	≤ 3mL	1mL - 2mL tubes	5M cells ** See important note below
DNA	≥ 60uL	1mL - 2mL tubes	Concentration ≥ 30ng/uL ** See important note below
Nasal Swab	Not applicable	1 nasal swab in sealed tube	None
PBMC (peripheral blood mononuclear cell)	200uL	1mL - 2mL tubes	Cell concentration = 5M cells/mL
Saliva	1mL	1mL - 2mL tubes	None
Tissue	1g	1mL - 2mL tubes	None

Important Notes:

** Cell Pellets: The DNA extraction kit we use for cell pellets requires the sample to contain at least 5M cells (5,000,000; 5x10^6) in order to yield the minimum required DNA concentration for library prep. If the sample does not contain 5M cells, The Sequencing Center cannot guarantee the extraction will meet the minimum concentration requirement. You may send multiple vials in order to meet the 5M cells requirement.

** DNA: It is essential that the DNA concentration be at least 30ng/uL. HLA results will often be incomplete if the minimum concentration is not met. The Sequencing Center uses and recommends using **fluorometric methods** for DNA quantitation (i.e. Qubit). If you must use a spectrophotometer for quantitation, please provide samples that exceed the minimum concentration since spectrophotometry often registers higher DNA concentrations than fluorometry.

Shipping Address

The Sequencing Center
1020 Luke Street
Suite D
Fort Collins, CO 80524
USA

Packaging Guidelines for Primary Sample Container (vials)

1. Clearly label each sample container.
2. Wrap the lid of each sample tube with parafilm.
3. Place sample tubes in a hard protective container so that tubes will not move during transit.

Packaging Guidelines for Secondary Container

Include a packing list in the secondary container with the following info:

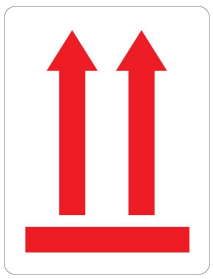
- List of the sample ids that identify each sample container (i.e. labels on each vial/tube)
- Approximate amount of liquid (mL) in each vial/tube, if applicable
- Email a digital copy of the packing list to dcasey@thesequencingcenter.com

Use a leak proof styrofoam container. Tape the lid securely to prevent it opening.

If you are shipping samples with dry ice please see our Guidelines for Shipping Refrigerated Samples section below.

Packaging Guidelines for Outer Container

Use a durable outer container (i.e. cardboard shipping box) to protect the inner containers. We discourage using flat shipping envelopes designed for shipping paper documents.



If sample orientation is important, please affix a universally recognized “double up arrows” sticker.

If possible, ship samples by overnight express, or no longer than 2-3 day express to prevent sample degradation. Avoid weekend and holiday deliveries.

Guidelines for Shipping Refrigerated Samples

Due to continuing changes in state and federal regulations, clients should always check with their shipping department to ensure regulatory compliance.

1. Place samples in a Styrofoam cooler with cold packs/blue ice or dry ice. **Do not** use wet ice to ship your samples.
2. Place enough cushioning material (e.g. paper towels) around your samples to prevent damage from movement within the Styrofoam cooler.
3. Place the Styrofoam cooler inside a cardboard box to ensure acceptance by the carrier.
    a. A new outer box without any other labels or excess tape works best. If you must re-use a box, then make sure to either remove or blackout any other pre-existing labels on the shipping box.
4. Packages shipped with dry ice must permit the release of carbon dioxide gas. If you are submitting samples with dry ice, the outer cardboard box must have the following:
    a. A Miscellaneous Dangerous Goods #9 hazard label fixed to the outside of the package
    b. A label indicating “Carbon Dioxide, solid UN1845” on the outside of the package
    c. A label with the net weight of dry ice on the outside of the package
    d. An air waybill with the following information:
        i. Classification (i.e. Carbon Dioxide, solid, 9, UN1845)
        ii. The number of packages
        iii. The net quantity of dry ice per package

Questions?

Getting quality results starts with quality samples and we’re here to help.

Email our lab manager at dcasey@thesequencingcenter.com