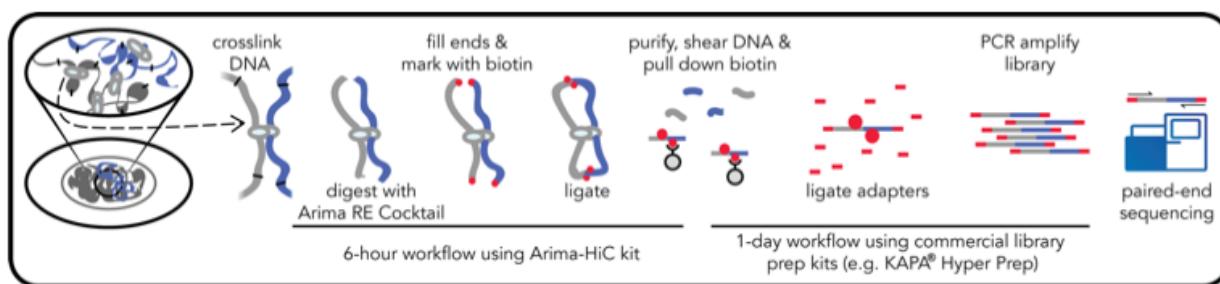


HiC Scaffolding Sequencing Services

This document provides general information on the HiC for genome scaffolding sequencing services offered by the Advanced Genomics Technologies (AGT) Laboratory under the direction of Professor Ioannis Ragoussis (ioannis.ragoussis@mcgill.ca) at the McGill Genome Centre.

Using the Arima HiC kits, we offer

- HiC library preparation adapted for genome scaffolding.
- MGI or Illumina short reads sequencing services are offered at the center.



We understand that different projects have specific needs. For any questions regarding this service please contact pm.genome@mcgill.ca.

Make a service request

First create a user account on our website (hercules.genome.mcgill.ca) and follow the instructions for the service request. Our team of project managers will evaluate the pricing and feasibility of your project and will contact you to proceed with the project.

Preparation of samples

The goal for HiC sequencing is to preserve native chromatin 3D structure in the nucleus. When **submitting samples** for HiC, it is recommended to:

- For large animals Muscle or Liver tissue gives best results.
- ASAP after death or biopsy
- Store a small aliquot (50-200mg) of tissue per screw cap tube
- Do not use snap cap tubes
- Immediately flash freeze in liquid N₂
- Alternative in the field: EtOH (or 86% MeOH) bath dry ice cold
- Ensure your labelling will resist EtOH
- Ship on dry ice

Liquid bath	Combined with	Temperature (degC)
Liquid N ₂		-196
Methanol 86%	Dry-ice	-128
Ethanol 100%	Dry-ice	-78

HiC on culture cells.

1. Harvest cells from cell culture using standard protocols and pellet cells by centrifugation (recommend centrifuging for 5 min at 500 x G)
2. Resuspend in cell culture media, obtain a cell count by hemocytometer or automated cell counting methods.
3. Transfer 5-10 million cells to be crosslinked into a new 15mL conical tube, pellet cells by centrifugation and remove supernatant (5 min at 500g).
4. Resuspend cells in 5mL of RT 1X PBS.
5. we will provide compatible 1.5ml tube for you to snap freeze (in N2)

Sending/delivering the samples

Samples for HiC must be delivered frozen on dry ice. Samples can be brought directly to the McGill Genome Centre, such shipments must be coordinated with authorized personnel (listed below) prior to delivery.

Cryopreserved samples must be transported either on dry ice in an appropriate container (Styrofoam insulating box) or in a cryogenic cylinder for transport in liquid nitrogen. If shipping, make sure the package bears the Class 9 mark and the total weight of dry ice contained in the cooler according to the regulations for the transportation of dangerous goods in Canada.

The shipment should be organized so that reception takes place during working days to ensure that the integrity of the sample is preserved.

Samples should be sent to the following address:

**McGill Genome Centre
740 Avenue du Dr. Penfield, Montréal (Québec), H3A 0G1
AGT Nanopore Dept. Lab 5300
Tel: (514) 398-3311 ext. 00318**

Transport costs are the responsibility of the customer and the tracking number provided by the transport company must be communicated to us by email at the following addresses:

haig.djambazian@mcgill.ca
pierre.berube@mcgill.ca

Confirmation of receipt will be sent to you mentioning the condition of the package on arrival.

Document to be attached to samples

Your shipment must be accompanied by the following sample manifest document (available at <https://www.mcgillgenomecentre.ca/hercules-resources/>), filled with all the information related to your samples. You can contact us if you need to provide more specifications than the model allows. (See contact persons below)

This completed document must be returned to us by email at the same addresses as for the tracking number and a hard copy must be included in your package.

A valid purchase order (PO) corresponding to the statement of work (SOW) must also be received prior to starting the processing of your samples.

For more information

For more questions, please contact us by email: pm.genome@mcgill.ca

Laboratory Contacts:

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