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🌐 SOP52v1_TGD_IIDP-HIGISampleProcessing_Public

🍴 **Forked from** [SOP52v1_TGD_IIDP-HIGISampleProcessing](#)

This protocol is a draft, published without a DOI.

Varsha Rajesh[1]

[1]Stanford University

Swaraj Thaman
LSRP1, Stanford University

OPEN 🔓 ACCESS

Protocol status: Working
We use this protocol and it's working

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Abstract

This protocol details the workflow to process pancreatic tissues (received from the Integrated Islet Distribution Program's distribution centers) for genotyping at the Translational Genomics of Diabetes Lab at Stanford University.

Receiving Samples

1   When acinar samples are received from the various isolation centers, match what is physically sent with sample info list sent with package and make sure all samples are accounted for. Take note of the condition of the samples.

2   Let isolation center know samples were received and in what condition.

3   Print QR barcodes for the acinar samples in this format and tape onto the tubes.

   HIGI#ACIN (# being the next sequential number)

4   Store tubes in Yalow -80°C freezer in "IIDP - HIGI Acinar Samples" box.

Extracting DNA

5   Thaw acinar tubes on ice.

6   Use DNA extraction protocol for DNeasy Blood & Tissue Kit (https://protocols.io/view/dna-extraction-qiagen-dneasy-blood-amp-tissue-kit-bjngkmbw).

QC

7   After extraction, measure the concentration by nanodrop, taking account of A260/280 and A260/230 values as well. A260/280 value should be close to 1.8 and A260/230 should be around 1.8-2.0.

8   Take a portion of the sample to measure concentration by Qubit. Protocol can be found here: https://protocols.io/view/qubit-dsdna-assays-bnstmeen. For genotyping, Qubit concentration should be above 50 ng/uL and total DNA should be above 750 ng.

9   Create QR codes that include sample name in this format: HIGI#DNA. Label should also include nanodrop concentration and QC info.

Genotyping

10 Record sample info, nanodrop QC and Qubit information in genotyping QC spreadsheet, which will be sent to the SFGF core whenever the entire genotyping batch is ready (follow this protocol: https://www.protocols.io/edit/sop54v1-tgd-genotypingsubmissionforcollaborators-b8jaruie).

11   As of 2023-12-01, samples were sent to be genotyped on Illumina's Infinium Omni Exome 2.5 arrays.
      As of 2024-10-31, samples were sent to be genotyped on Illumina's Infinium Global Diversity Array-8+ v1.0   Omni2.5-Exome-8v1.6 arrays.