

Shipment Protocol Sequencing Services Twist Exome

It is important to follow the criteria summarized below when sending DNA samples for Twist exome Sequencing services to the Genomics Core Facility at Erasmus MC.

DNA Purity, Format and Quality Guidelines

1. The DNA concentration should be measured with fluorescence.
2. The Nanodrop purity $A_{260/280}$ should be between 1.7 - 2.0.
3. Please mention what type of material the samples have been extracted from (whole blood, saliva, FFPE, etc)
4. Please mention what DNA isolation technique was used.
5. Please mention what type of DNA resuspension buffer was used. It is important the DNA resuspension buffer is free of cations and chelators (for example EDTA). Very low concentrations are accepted (see step 9).
6. To assess the integrity of the DNA samples, pictures of the DNA samples on an agarose gel or Tapestation should be made and provided. This can be done on a random selection of 5% of the samples.
7. If your study design is a case control design or a follow up study, the samples should be randomized over the plates to minimize batch effect. More in general, for population studies we advise to randomize the samples over the plates as much as possible.
8. DNA samples should be aspirated columnwise in a skirted 96-well PCR plate. Seal the plates with an aluminum seal from Thermo (232698) or a similar product. **Be sure the plate are tightly sealed!**
9. We would like to receive 100 ng DNA (quantified with fluorescence) in 80 ul milli-Q. **Please be sure the EDTA concentration is below 0.1 mM as it can inhibit enzymatic reactions.**

Sample ID Information File

An Excel file (see Exome.xlsx) should be filled in that provides sample information (tab 1) and plate layouts (tab 2). **Please save the file with your project number (example: S-2025-451.xlsx)**

Important considerations for sample IDs

For efficient processing of your samples, we recommend you to keep a few guidelines in mind concerning sample IDs. Most genetic software are unable to handle sample IDs including these features and will generate errors. Also tracking systems and Excel might recode sample IDs with these features. It is fixable post data-generation but this is error prone. When making your sample IDs please avoid the following:

- Special characters in sample IDs (e.g., 12.34 or 12,34 or 12_34 should be 1234)
- Spaces in sample IDs (e.g., 12 34 should be 1234)
- Number IDs starting with one or multiple '0's (e.g., 01234 should be either 1234 or a01234)
- Duplicate IDs. If a sample has been run twice please add an addition to the IDs (e.g., 1234a and 1234b)

In general we advise to use a combination of numbers and letters, and avoid special characters, symbols and spaces.

Sample Shipping Guidelines

1. Before sending samples, first send the files above to genomics-sequencing@erasmusmc.nl. Only send samples to the Genomics Core Facility, when we have approved all files.
2. Clearly label the plates. Please use stickers for this and add the following information:
 - Contract number
 - Plate number
 - Research Centre / study name
3. DNA samples should be **securely sealed, wrapped and shipped on dry ice** by overnight courier. Do not ship samples on a Thursday, Friday or Saturday. Only ship samples after our lab has agreed on the moment of shipping.
4. Ship to the following address:

Erasmus MC
Genomics Core Facility
Att: Pascal Arp / Mila Jhamai
Room Ee 575
Westzeedijk 353
3015 AA Rotterdam
The Netherlands



5. Please keep close contact with our lab when shipping the samples. Report exact time, date, shipment number etc. before sending the samples. We will notify you upon receiving the samples.

Contact information

Mila Jhamai (Lab manager)

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genomics-sequencing@erasmusmc.nl

For general questions regarding projects, please contact the contract- and project manager dr. Gaby van Dijk (g.m.vandijk@erasmusmc.nl or genomics@erasmusmc.nl).