Shipment Protocol Olink Proteomics Services
Reveal

This guide provides instructions for preparing and shipping samples to the Genomics Core Facility at Erasmus MC for Olink Reveal projects. Following these steps ensures smooth processing and high-quality results.

Quick checklist

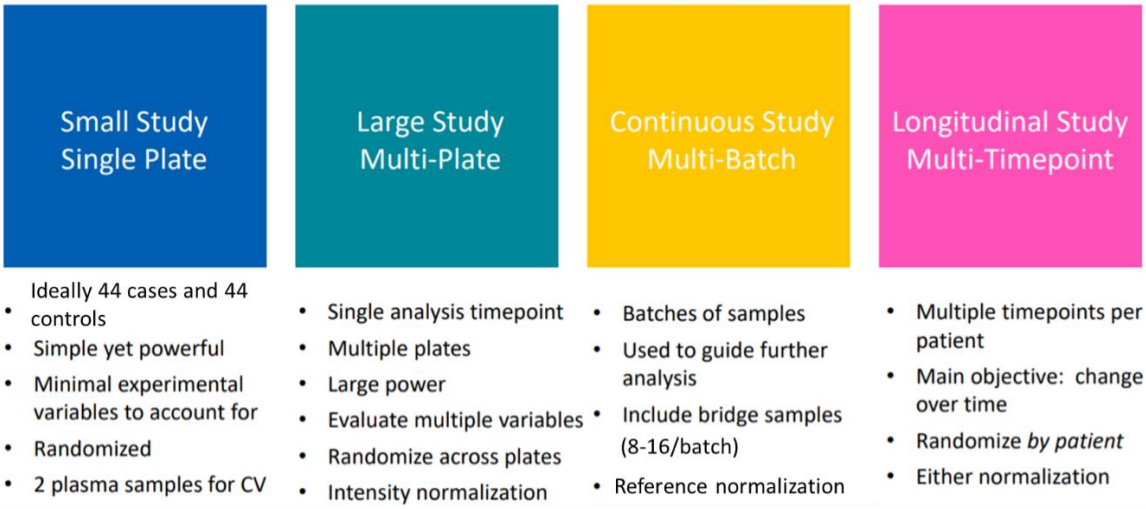
- Project information discussed
- Intake meeting completed (if applicable)
- Study design selected
- Sample selection and matching confirmed
- Bridging sample strategy defined (if needed)
- Randomization completed
- Correct plate layout used (required wells left empty)
- Plates labeled correctly
- Samplesheet_olink.xlsx completed
- Seals checked and plates securely packaged
- Shipment scheduled (Monday or Tuesday)
- Samplesheet should be approved before shipment

Step 1 – Project information

During e-mail correspondence or an intake meeting with dr. Gaby van Dijk, all relevant project information is acquired.

Step 2 - Select your study design

Choose the study design that best fits your project. If you are unsure which design is appropriate, the intake meeting can help clarify the options.



IMPORTANT STUDY DESIGN CONSIDERATIONS

Sample selection

To minimize bias and ensure reliable results:

- Use the same sample type for cases and controls.
- Match controls to cases (age, sex, ethnicity, etc.).
- Minimize handling variation across all samples.
- Use a balanced design wherever possible.

Comparing samples from different runs (bridging samples)

If comparing Olink results from different Reveal studies or time points, include 16-24 bridging samples in each study. Choose samples that represent the diversity of your full cohort. If comparing Olink results from previous Explore studies, include 32-48 bridging samples.

Sample randomisation

Randomise samples across plates to prevent bias. For longitudinal samples, all samples from the same participant should be placed on the same plate (randomised). **Make sure there are no duplicate sampleIDs in your study!**

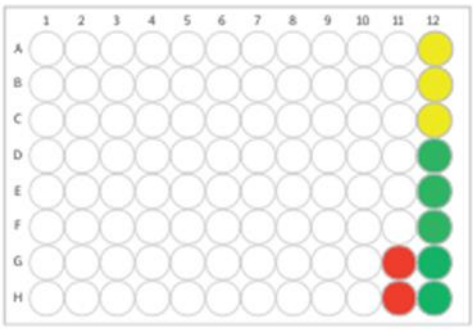
More information about sample randomisation is available on the Olink website (https://cran.r-roject.org/web/packages/OlinkAnalyze/vignettes/plate_randomizer.html).

If questions remain, please contact genomics-proteomics@erasmusmc.nl. Do not forget to mention the project number in your email. We also offer a service to perform the randomization for you.

Step 3 – Prepare samples in plates

One Olink Explore Reveal kit processes 86 samples using a 96-well layout. Leave the following wells empty on each plate. We will use these wells for controls sample.

- Entire Column 12
- Put the negative control (red dots) in different positions on each plate. For example, in plate 1 (A1 and B2), plate 2 (C1 and D1) etc.



Negative Control, Plate Control, and Sample

Provide 40 µl of sample per well using:

- ThermoFisher full-skirt plate (#AB0800)
- ThermoFisher seal (#232698)

Other plate or seal brands have not been validated by Olink. For lysates, ensure equal protein concentration across samples.

Step 4 – Label plates

Use temperature-resistant labels and include:

- Project number
- Plate number

Step 5 - Complete the samplesheet

Fill in the samplesheet_olink.xlsx completely before shipping your samples.

Step 6 - Approval before shipment

Email the completed samplesheet_olink.xlsx to genomics-proteomics@erasmusmc.nl. Do not send samples until we have approved this file.

Step 7 – Package and ship samples

- Ensure plates are sealed properly using the recommended seals; use a roller and press firmly along all edges.
- Add absorbent material in case of leakage.
- Place all plates in a sealed plastic bag.
- Ship on sufficient dry ice.
- Send shipments only on Monday or Tuesday to avoid weekend delays.

You will receive a confirmation email once your samples arrive and pass inspection. Samples are stored at −80 °C.

Shipping address

Erasmus MC
Genomics Core Facility
Attn: Moise Stok / Pascal Arp
Room Ee-575
Westzeedijk 353
3015 AA Rotterdam
The Netherlands
010-7043645 / 010-7043575

General project questions

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).