Shipment Protocol Telomere Length qPCR Analysis

The following guidelines describe how DNA samples should be prepared, documented, and shipped for telomere length measurement using qPCR. Please follow each step carefully to ensure sample quality and reproducibility.

Sample information

- Use the attached sample sheet to provide all required sample information.
- Use numeric sample IDs only (e.g., 1, 2, 3…).
- Indicate the storage buffer used for each sample.
- Indicate the DNA isolation method used.

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.

DNA Quantification and Quality Control

- Measure DNA concentration using a fluorescence based method such as Qubit.
- Assess DNA purity using NanoDrop. Acceptable ranges:
    - 260/280 ratio: 1.7–1.9
    - 260/230 ratio: 1.9–2.2

- Assess DNA integrity by running a random 10% subset of samples on a TapeStation (or equivalent).
    - Preferred DNA integrity: >50 kbp.

Plate preparation

- Randomize all samples across and within plates to minimize batch effects.
- Aliquot samples into a 96 well plate (PCR plate or 2D tube plate).
- Normalize each sample to ~50 ng/µl in a final volume of 10 µl.
- Leave the last column (column 12) empty; this will be used for control samples.
- Prepare an additional plate containing 10% randomly selected samples for reproducibility assessment.
- In the sample sheet provide a layout for each plate, listing sample ID per well.

Plate Labeling and Sealing

- Clearly label each plate with the contract number and plate number on the side.
- Seal plates securely:
    - PCR plates: aluminum foil seal
    - 2D tube plates: tube caps

Packaging and Shipping

- Before sending samples, please contact our lab and send the samplesheet to: genomics-proteomics@erasmusmc.nl.
- Place each sealed plate in a separate plastic bag to prevent condensation or contamination.
- Ship plates on dry ice in an insulated shipping container.
- Use overnight delivery to ensure samples remain frozen during transit.
- Ship to the following address:

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

Phone: 010-7043575

- Please keep close contact with our lab at (see Contact information) when shipping the samples. Report exact time, date, shipment number etc. before sending the samples. We will notify you upon receiving the samples.

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