

## Guidance on sample tubes and plates as well as sample labelling, storage, delivery and shipment

### Projects with fewer than 25 samples

Please submit samples in labelled 1.5 ml tubes with safe-lock lids (rather than tubes wrapped in parafilm).

Alternatively, please submit your samples in a well-sealed and labelled 96-well plate (see more information further down the document).

Unless your samples are for Bioanalyzer assessment *only* (i.e., no quantification or other QC steps), please do *not* submit your samples in 0.2 ml PCR tubes.

### Projects with more than 24 samples

Please submit your samples in a well-sealed and labelled 96-well plate (see more information further down the document).

### Tube and plate labelling

**Tubes:** To avoid mix-up of samples, please label tubes simply 1, 2, 3 etc. and make sure that numbers, which can be read upside-down (6 - 9 and 12 - 21, for example) are underscored to identify the tubes correctly.

Make sure you use a waterproof marker pen and write on the frosted writing area or the lid of the tube to prevent smudging.

Alternatively, use sticky labels that are proven to withstand freezing. Make sure the label is attached on a dry tube, as moisture will prevent proper attachment. Make sure the label is not in direct contact with dry ice during shipment, as this is likely to detach the label (i.e., place tubes inside a bag or box).

**Plates:** Label plates with the LIMS project ID (if available at the time) and/or your name as well as the plate number (if submitting more than one plate). Make sure you use a waterproof marker pen and write on the side of the plate rather than the seal.

**Sample names on LIMS order form:** Please make sure the sample name in the online sample information table matches the label on the tube. Currently, this means that you may have to combine a number (1, 2, 3 etc.) with a sample name of your choice in a single field on the form (1\_Sample X; 2\_Sample Y, for example). New online order forms, which will be made available soon, will contain separate columns for tube label (1, 2, 3 etc.) and sample name.

### Plates and plate seals

We do not recommend a specific brand of plates or seals.

Ensure the seal is completely attached along the four sides and around each well to prevent contamination of and between samples as well as evaporation.

If you use a non-skirted plate, please place the plate in the insert from a tip box to prevent distortion, which can detach the seal (see illustration below, although this displays a semi-skirted PCR plate):



Prevent damage of individual wells by use of protective wrapping or place the plate within box.

### Sample storage before submission

**DNA samples in general:** Please store samples short-term at 4 °C or longer term at minus 20 °C.

**DNA samples for PacBio and 10x Chromium applications:** Please store samples short-term at 4 °C or, if necessary, longer term at minus 20 °C. Avoid repeated thaw-freeze cycles.

**RNA samples:** Please store samples at minus 70-80 °C and avoid repeated thaw-freeze cycles.

**Prepared amplicons and libraries:** Please store samples at minus 20 °C and minimize thaw-freeze cycles.

### Sample shipment

Shipment address:

FAO: Pia Koldkjær  
Centre for Genomic Research  
University of Liverpool  
The Biosciences Building  
Crown Street  
Liverpool L69 7ZB  
England

Ensure the parcel contains a document with the **LIMS project ID and your name**, so we can correctly identify the shipment. The document should be stored in a sealed plastic bag if the parcel contains dry ice or frozen ice packs.

Ensure that sample tubes and plates are protected from damage by use of bubble wrap or similar.

Do not use frozen ice, as this will melt during shipment and possibly contaminate the sample tubes/plates.

Use frozen ice pack(s) to keep samples cool. To prevent freezing of DNA samples that were stored at 4 °C for PacBio or Chromium 10x applications, make sure the samples are insulated and not in direct contact with the frozen ice packs.

Use dry ice if it is essential that samples remain frozen during shipment (this always applies to RNA samples).

We recommend that you ship samples **no later than Wednesday** in any standard week, in case the courier is delayed and unable to deliver the samples before the weekend (i.e., allow 2 working days before any University closed days).

### Sample delivery in person

Arrange delivery outside the building or at the CGR beforehand by emailing lab manager, Anita Lucaci ([anita@liv.ac.uk](mailto:anita@liv.ac.uk)), or Pia Koldkjær ([piak@liv.ac.uk](mailto:piak@liv.ac.uk)).

Make sure the box or bag is labelled with **LIMS project ID and your name** for correct identification in the lab.