

Guidelines for sample collection, storage, extraction, and shipping

Maximising sample quality

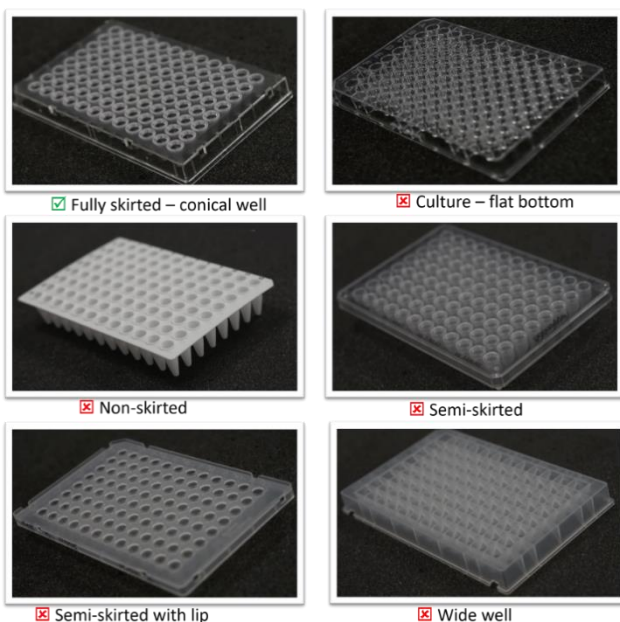
To maximise quality, we recommend carefully considering your sample collection and extraction workflow before attempting to collect any samples. Unfortunately, there is little we can do to improve poor library preparation results associated with the submission of degraded or low-quality nucleic acid samples.

Our general recommendations for storage of nucleic acid samples are as follows:

- DNA samples – store at 4°C short-term or -20°C long-term.
- RNA samples – store at -80°C.
- Prepared amplicons and libraries – store at -20°C.

Avoid subjecting any samples intended for downstream NGS analysis to freeze-thaw cycles.

Sample submission requirements



For projects that involve ≥ 24 samples, we require samples to be submitted in a 96-well, fully-skirted plate. Please arrange your samples down the plate in a column-wise fashion, leaving 2 empty wells per plate so that we can add internal controls, as shown in the diagram below.

Sample position is very important for our workflows. If the submitted samples are not arranged as in the diagram below, you will be charged an additional £50 per plate to cover the cost of re-ordering the samples. It may also take longer for us to complete your project.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Sample 1	Sample 9	Sample 17	Sample 25	Sample 33	Sample 41	Sample 49	Sample 57	Sample 65	Sample 73	Sample 81	Sample 89
B	Sample 2	Sample 10	Sample 18	Sample 26	Sample 34	Sample 42	Sample 50	Sample 58	Sample 66	Sample 74	Sample 82	Sample 90
C	Sample 3	Sample 11	Sample 19	Sample 27	Sample 35	Sample 43	Sample 51	Sample 59	Sample 67	Sample 75	Sample 83	Sample 91
D	Sample 4	Sample 12	Sample 20	Sample 28	Sample 36	Sample 44	Sample 52	Sample 60	Sample 68	Sample 76	Sample 84	Sample 92
E	Sample 5	Sample 13	Sample 21	Sample 29	Sample 37	Sample 45	Sample 53	Sample 61	Sample 69	Sample 77	Sample 85	Sample 93
F	Sample 6	Sample 14	Sample 22	Sample 30	Sample 38	Sample 46	Sample 54	Sample 62	Sample 70	Sample 78	Sample 86	Sample 94
G	Sample 7	Sample 15	Sample 23	Sample 31	Sample 39	Sample 47	Sample 55	Sample 63	Sample 71	Sample 79	Sample 87	Empty
H	Sample 8	Sample 16	Sample 24	Sample 32	Sample 40	Sample 48	Sample 56	Sample 64	Sample 72	Sample 80	Sample 88	Empty

Please pay careful attention to the sealing of 96-well plates: unfortunately, we do occasionally receive poorly sealed plates in which samples have leaked from their wells, leading to cross contamination. We also recommend putting the sample plates inside a sealable bag for shipping.

For projects involving <24 samples, submission in a 96-well, fully-skirted plate is still recommended but we will also accept 1.5 ml tubes. We recommend using tubes with safe-lock lids. We require that samples submitted in tubes are clearly labelled in numerical order for ease of sample identification. Please underline any numbers that could be misread upside-down (e.g. 6/9, 16/91).

Please use a waterproof marker pen and avoid smudging of sample labels. Alternatively, use sticky labels that can withstand freezing. Make sure labels are attached to dry tubes, as moisture will prevent proper attachment.

Please make sure the project ID (starting with "SSP") is clearly visible on sample plates, tubes, bags and boxes. Unfortunately, we do occasionally receive unlabelled samples, which makes it very difficult to identify who submitted such samples and how they should be stored.

Please make sure the sample labels on your submitted tubes/plates matches the sample name submitted in the CGR Samples Submission Portal (SSP).

Sample shipment

Once your project has been submitted in our SSP and the samples are clearly labelled and well-sealed, please send them to:

Anita Lucaci
Centre for Genomic Research
University of Liverpool
The Biosciences Building
Crown Street
Liverpool
L69 7ZB
England

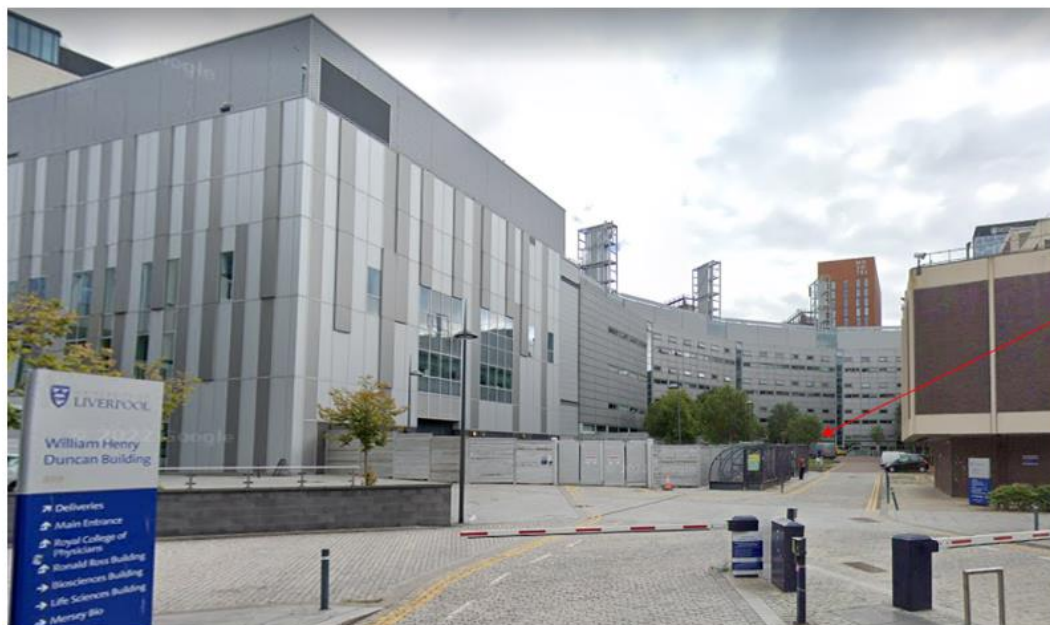
Please make sure your project has been submitted to our SSP prior to shipping the samples, and that your name and project ID are visible for us to identify your samples (inside and/or outside the box).

Please ensure that your samples are protected from damage by using bubble wrap or similar. Use ice packs to keep DNA samples cool. To prevent freezing of high molecular weight DNA, make sure the samples are insulated and not in direct contact with ice packs. Use dry ice if it is essential that samples remain frozen during shipment (this is always recommended for shipping RNA samples). Do not use ice as this will melt during shipment and may contaminate your samples.

We recommend shipping samples no later than Wednesday in any standard week in case there are any delays that may cause samples to be held in a storage depot over the weekend. In non-standard weeks, ship samples at least 2 working days before any closure days.

Sample delivery in person

The CGR is in Lab E on the 2nd floor of the Biosciences Building, Crown Street, L69 7ZB. The Biosciences Building looks like this:



Entrance here

Samples can be brought any weekday between 10am and 3pm.

You will need to call the office number when arriving as you won't have card access to enter the lab: 01517954551.

If you are coming by train, please be aware that you will be walking up a steep hill for around 15 minutes from Lime Street or Liverpool Central Stations.

If you are coming by car, please be aware that there is very little parking available near the CGR. The closest reliable and secure car park is:

Mount Pleasant Car Park
38 Mount Pleasant
Liverpool
L3 5TB

Please be aware that you will be walking up a steep hill for around 10 minutes from Mount Pleasant Car Park.

If you have any questions about the information set out in this document, please contact us at CGR_Lab@liverpool.ac.uk and we will be happy to offer further advice.