

Sample Submission Guidelines for RRBS

Contact: services@diagenode.com

Website: <https://www.diagenode.com/en/p/rrbs-service>

1. Isolation of genomic DNA

- The quality of the DNA to be used in RRBS is very important, we therefore highly recommend the following products for DNA extraction :
 - **Cells, blood and tissue samples:** DNeasy Blood & Tissue Kits (Qiagen)
- Do not use Trizol during your DNA extraction as it inhibits the enzymatic digestion.
- Genomic DNA must be free of protein and RNA. Regardless the choice of DNA extraction protocol, **proteinase K digestion and RNase treatment** followed by DNA purification on column (Diapure (Diagenode, C03040001)) (not with beads-based techniques e.g. AMPure beads) **are thus mandatory**.
- Do not vortex high molecular weight DNA as this might lead to fragmentation, but mix by pipetting.

2. Genomic DNA quantification and preparation

- The concentration of double-stranded DNA must be quantified using a fluorescence-based assay such as Invitrogen's Qubit dsDNA High Sensitivity kit.
Photospectrometric techniques like Nanodrop cannot be used as they tend to overestimate the concentration of double-stranded genomic DNA.
- We recommend to check for genomic degradation by analysis of a small aliquot of each sample on a 0.8% agarose gel.
- **For RRBS, we require at least 150 ng of genomic DNA, quantified in a fluorescence-based assay.**
- **The DNA concentration must be higher than 5 ng/μL and the volume higher than 30 μL.**
- Preferably, all samples should be adjusted to a uniform concentration.
- For projects with < 24 samples Prepare the samples in 1.5 mL tubes and label them carefully.
- For projects with ≥ 24 samples, it's mandatory to provide the samples in a 96-wells plate. Carefully identify the position of each sample in the ID sheet.

3. Shipment Instructions

- Always send the samples on dry ice and make sure you supply sufficient dry ice for the whole transport and unexpected delays.
- Fill the **002_xxxx_sample_ID.xlsx** and the **002_xxxx_biosafety_form.doc** files with all relevant information and send them by email to services@diagenode.com.
- Print the **002_xxxx_sample_ID.xlsx** and the **002_xxxx_biosafety_form.doc** files and include it in your package when shipping the samples.
- Attach a Dry Ice Sticker with the net weight (see below) on the outside of the parcel. Please send the parcel at the beginning of the week so it gets to us before the weekend.



- Please contact your courier (DHL, TNT, Fedex, UPS, etc) to arrange the shipment of the samples to the following address:

Catherine Creppe
Diagenode
RRBS service
Liège Science Park
Rue du Bois Saint-Jean, 3
4102 Seraing (Ougrée)
Belgium

- Communicate the tracking number to Diagenode (services@diagenode.com)