

Sample Submission Guide

Application	Input material	Optimal amount (per sample)	Concentration range
All samples should be submitted in $\geq 20 \mu\text{l}$ with an OD260/280 $\sim 1.8-2.0$ and OD260/230 $\sim 2.0-2.2$			
DNA			
Whole Genome Sequencing (WGS)	Purified gDNA	With PCR $> 10 \text{ ng}$ PCR free $> 100 \text{ ng}$	5-50 ng/ μl
ChIP-Seq/Targeted Resequencing	Enriched DNA	With PCR $> 10 \text{ ng}$ PCR free $> 100 \text{ ng}$	5-50 ng/ μl
Whole Exome Sequencing (WES)	Purified gDNA	50-500 ng	25-200 ng/ μl
Whole Genome Bisulfite Sequencing (WGBS)	Purified gDNA	100 ng	5-50 ng/ μl
16S V4 Microbiome Sequencing*	Purified gDNA	$> 5-100 \text{ ng}$	5-50 ng/ μl
Whole Microbiome Sequencing (shotgun Seq)	Purified gDNA	50-500 ng	5-50 ng/ μl
Methylation EPIC BeadChip (850K)	Purified gDNA	750-1000 ng	75-100 ng/ μl
PacBio Sequencing	Purified gDNA/Amplicon	500 ng - 5 μg	$> 50 \text{ ng}/\mu\text{l}$
Prepared library			
Ready to run Sequencing	Indexed Library	$> 5 \text{ nM}$	3-10 ng/ μl

Application	Input material	Optimal amount (per sample)	Validated input range	Concentration range	Quality
All samples should be submitted in $\geq 20 \mu\text{l}$ with an OD260/280 $\sim 1.9-2.1$ and OD260/230 $\sim 2.0-2.2$					
RNA					
RNA-Seq using Poly-A selection** (Gene-expression profiling)	Purified RNA	$> 250 \text{ ng}$	25-1000 ng	10-250 ng/ μl	RIN ≥ 7 RQN ≥ 6
RNA-Seq using rRNA reduction** (Total transcriptome)	Purified RNA***	$> 250 \text{ ng}$	10-1000 ng	10-250 ng/ μl	RIN ≥ 3 RQN ≥ 3
Small RNA (Purified RNA)	Purified RNA	$> 250 \text{ ng}$	—	10-250 ng/ μl	RIN ≥ 7 RQN ≥ 6
Small RNA (Enriched small RNA)†	Enriched RNA	$> 2 \text{ ng}$	—	$> 0.1 \text{ ng}/\mu\text{l}$	N/A
Low Input RNA-Seq†	Purified RNA	$> 1 \text{ ng}$	0.01-10 ng	$> 0.1 \text{ ng}/\mu\text{l}$	RIN ≥ 8 RQN $\geq 8^\ddagger$

* If sample concentration below 5 ng, continuation is at customer's risk

** Optimal input for RNA-Seq, based on $\sim 30\%$ duplicate reads

*** Input criteria do not apply to FFPE material, recommended DV200 should be $> 20\%$

† No measurable concentrations results in continuation at the customer's risk

‡ For low quality low input RNA other solutions can be discussed

Successful Sample Submission

To optimize sample transfer and prevent any delays in shipment, please consider our checklist.



Project Initiation

Your project will be initiated upon receipt of the completed and signed purchase order (PO) form. Please, do not ship samples before we have confirmed reception of your PO via email.



Sample Submission Form

After your project is initiated you will receive a confirmation email with a project number and a Sample Submission Form (SSF). Return the fully completed form by email and include a copy in your sample shipment.



Sample Identification

Each sample must be labelled with a unique GenomeScan code (GS_ID) as indicated in the SSF. When using 96-well plates, be sure that the labels associated with positions A1-H12 correspond to the sample ID as indicated on the SSF.



Biological Contaminants

Samples shipped to GenomeScan need to be free of biological contaminants. Our laboratory operates in compliance with BSL-1 and BSL-2 requirements and cannot handle potential hazardous materials. In general, RNA/DNA samples extracted from cells or tissue do not represent a biological threat.



Shipment of samples

Shipping address:

GenomeScan
Plesmanlaan 1d, 4th floor
2333 BZ LEIDEN
The Netherlands

Samples can be shipped in a sealed bag or box in a polystyrene container.

- Preferably deliver your samples in 96-well plates.
- To ensure optimal preservation of the sample, we recommend shipment of (g)DNA using ice packs.
- Use dry ice for sending RNA samples.

Remember that international shipment may take longer than expected. Make sure that your package contains sufficient cooling materials to preserve the quality of your samples during transport. Avoid shipment of samples on days that will require transit on a weekend or over a holiday period.

About GenomeScan

As an ISO-accredited leading Dutch Next Generation Sequencing service provider, GenomeScan develops customizable NGS solutions for pharmaceutical and biotech companies, health care providers and academic institutions. By providing new tools to analyze genetic disorders quicker, affordably and effectively, GenomeScan fosters innovation through partnership with medical centers and research laboratories.

