

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 samples should be free of RNA			
DNA			
Whole Genome Sequencing (WGS)	Purified gDNA	With PCR $> 10 \text{ ng}$ PCR free $> 25 \text{ ng}^{**}$	5-50 ng/ μl
ChIP-Seq/Targeted Resequencing	Enriched DNA	With PCR $> 10 \text{ ng}$ PCR free $> 25 \text{ ng}^{**}$	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 (935K)	Purified gDNA	750-1000 ng	75-100 ng/ μl
PacBio Sequencing	Purified gDNA/Amplicon	500 ng - $5 \mu\text{g}^{\#}$	$> 50 \text{ ng}/\mu\text{l}$
Prepared library			
Ready to run Sequencing	Indexed Library	$> 5 \text{ nM}$	3-10 ng/ μl

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

** Higher input is required ($> 100 \text{ ng}$) for deep sequencing

Application dependent

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 samples should be free of DNA					
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 (optimal $> 7^{**}$) RQN ≥ 3 (optimal $> 6^{**}$)
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† (Poly-A selection)	Purified RNA	$> 1 \text{ ng}$	0.01-10 ng	$> 0.1 \text{ ng}/\mu\text{l}$	RIN ≥ 8 RQN ≥ 8
Low Input RNA-Seq† (rRNA reduction)	Purified RNA	$> 1 \text{ ng}$	0.25-10 ng	$> 0.1 \text{ ng}/\mu\text{l}$	DV200 $> 50\%$

* Optimal input and quality (RIN >7) for RNA for high data quality: Data quality is dependent on sample quality, quantity and origin.

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

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

Successful Sample Submission



Project Initiation

Your project will be initiated upon receipt of the completed and signed PO form. Please, do not ship samples before we have confirmed reception of your purchase order (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 plate must be labelled with your GenomeScan project ID. Be sure that the samples 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.

- Ship your samples in (a) sealed 96-well plate(s), (Additional costs will be charged when samples are provided in separate (Eppendorf) tubes.)
- 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.

We are closed on the following generally recognized public holidays: New Year's Day, Easter Monday, Kings Day (27th April), Ascension Day, Whit Monday and Christmas (25th, 26th December). If you are considering delivering your samples in person, please consult our lab team in advance.

About GenomeScan

As an ISO-accredited leading Dutch Next Generation Sequencing service provider, GenomeScan develops customizable NGS solutions for pharmaceutical and biotech companies, healthcare providers and academic institutions. By providing state-of-the-art tools to analyze genetic disorders fast, affordably, and effectively, GenomeScan fosters innovation through partnership with medical centres and research laboratories.

