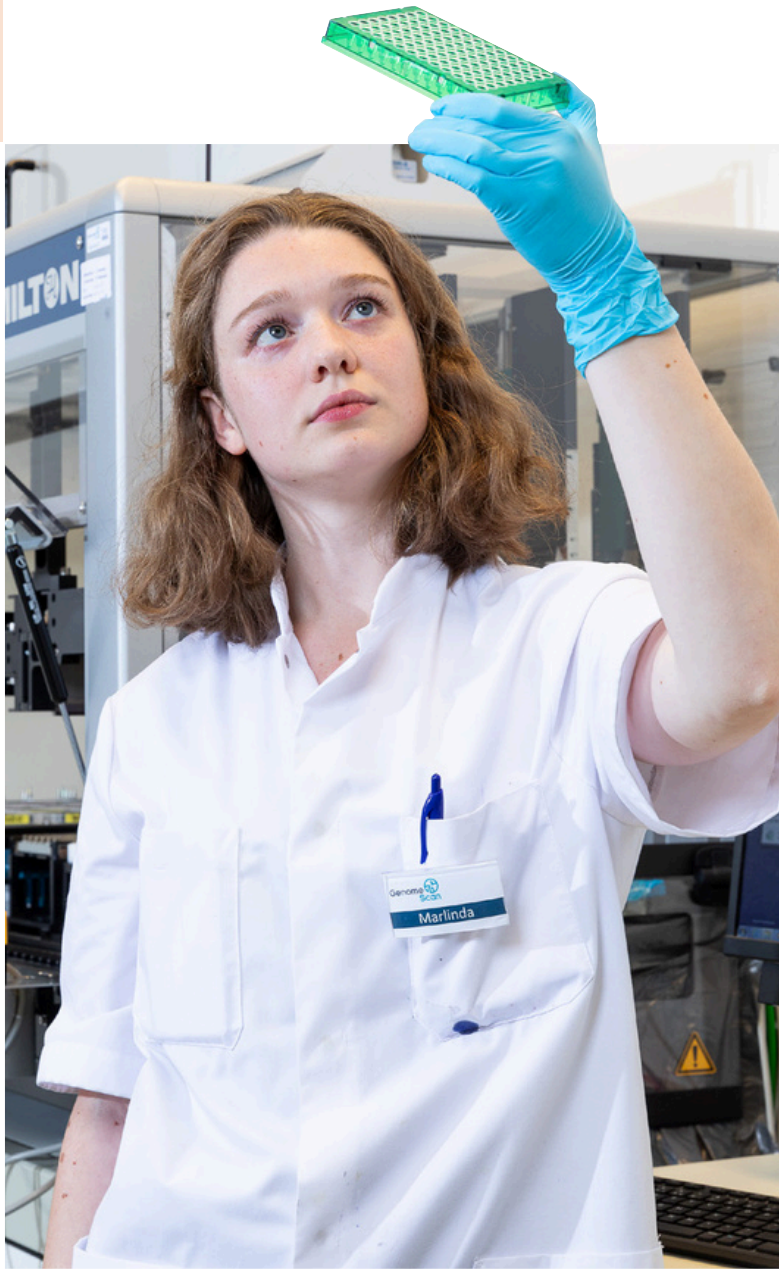
Genome Scan

Frequently Asked Questions



This document provides clear and straightforward answers to the most common questions we receive. Our goal is to help you quickly find the information you need, whether it's about our services, our processes, your project, or your samples.

If you don't see your question here or need further assistance, please reach out to our support team—we're always happy to help.

Company Services

Which services do you offer?

GenomeScan offers a comprehensive portfolio of DNA and RNA sequencing services, including Whole Genome Sequencing (WGS), transcriptomics, and methylation profiling. In addition to these core services, we also offer optional support with DNA/RNA isolation and bioinformatics analysis.

For a detailed overview of our services and sample requirements, please check our Sample Submission Guide.

Can you provide proof of competence?

GenomeScan is accredited by the Dutch Accreditation Council (RvA) for both diagnostic and research activities.

- **ISO15189 (M309)** for diagnostic Whole Exome Sequencing (WES) and Whole Genome Sequencing (WGS)
- **ISO/IEC17025 (L518)** for research-based sequencing and bioinformatics services
  Our laboratory undergoes regular audits to ensure compliance with international standards.

Our certificates of these accreditations can be found here.

Are you a certified service provider (e.g. Illumina, PacBio, Oxford Nanopore Technologies?

GenomeScan is an accredited sequencing provider, certified by independent regulatory bodies rather than instrument manufacturers.

We work with platforms such as Illumina, PacBio, and Oxford Nanopore Technologies (ONT), and hold ISO15189 and ISO/IEC17025 accreditations, which reflect internationally recognized standards for quality and reliability.

For more information, please contact info@genomescan.nl

What is the price of your services?

Every project is unique and necessitates our full attention. Price greatly depends on number of samples, desired turnaround time, scope of your project and the sequencing strategy adopted to match your requirements. Whenever possible, we prefer to discuss the details of your project first and then provide you with the accurate, competitive pricing.

Company Services

Do you offer DNA/RNA extraction services?

Yes, GenomeScan offers DNA and RNA extraction for selected sample types, including saliva, blood, and bacterial cultures. **We do not perform extractions from genetically modified organisms (GMOs)** due to regulatory and technical constraints.

Please contact us to confirm eligibility and discuss your project.

How should I acknowledge the contribution of GS in publications?

For standard services, we appreciate being mentioned in the acknowledgments section, e.g. "We would like to thank GenomeScan for performing the NGS experiments."

For projects involving protocol development, custom bioinformatics, or deeper collaboration, co-authorship may be appropriate and can be discussed during the initial planning or at later stages of the project, whenever applicable.

Are the Terms and Conditions available online?

Absolutely! We aim to match your expectations by clearly describing how we interact with you. Please read our Terms and Conditions.

Project Submission

Do I need a quote?

Yes, each sequencing project is tailored to your specific needs. Our team will discuss your project in detail and provide you with a personal quotation. For long-term agreements to efficiently process batches of samples on regular basis, we provide the option for initiation of a Standing Order or Service Level Agreement (SLAs).

Who owns the intellectual properties of my project?

You do. GenomeScan acts solely as a service provider and does not claim intellectual property rights over the data generated for your project.

Sample Delivery

Where should I send my samples?

Please include a completed ***Sample Submission Form*** when shipping samples to our lab.

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

You will receive instructions for sample shipment at the start of your project.

Can I bring my sample to GenomeScan?

Yes. If you are considering delivering your samples in person, please consult our lab team in advance at laboratory@genomescan.nl. You may deliver your samples in person from Monday to Friday, between 09:00 and 16:00.
Please bring the completed Sample Submission Form. A technician will confirm receipt.
Ensure your samples are stored and transported at the correct temperature. For more information check our Sample Submission Guide.

How should I prepare my samples?

View our Sample Submission Guide for instructions on preparing and sending samples. You can ship your samples directly to our laboratory in Leiden in the appropriate conditions. The shipping address is listed on the sample submission guide and on the packing list you will receive at the start of your project.

What if I cannot match the quantity and/or quality requirements?

If your sample does not meet the recommended specifications, we encourage you to contact Customer Support or your Project Manager. They can advise on alternative protocols or help assess sample suitability for your project.

Sample Delivery

How do I pack and ship my samples?

For extracted DNA/RNA,
Ship your samples in (a) sealed 96-well (semi) skirted PCR plate(s) (preferably Eppendorf Twin.tec PCR Plate 96). If this is not feasible, inform us before proceeding to sample shipment. Please be aware that additional charges will be applied if samples are provided in individual (Eppendorf) tubes.

- Ship DNA with ice packs
- Ship RNA on dry ice

For complete shipping guidelines, please consult our Sample Submission Guide.

What type of DNA do you accept?

We accept non-hazardous DNA extracts from a wide range of sources, including human, animal, plant, and microbial samples.
Whether your material is high-quality or degraded, it must meet the minimum requirements outlined in our Sample Submission Guide.
If your sample falls outside these specifications, please contact our Customer Support or your Project Manager to explore your options.

What type of RNA do you accept?

We recommend submitting total RNA for our sequencing services. Specific input requirements, including concentration and quality, are detailed in our Sample Submission Guide. If you're working with specialized RNA types, please contact our team to confirm compatibility.

Do you accept self-prepared libraries?

Yes, we do. We have a service with the title 'Ready to run (RTR) sequencing'. You should provide GenomeScan with a minimum concentration of [5 nM], estimates of the library size and an overview of the indexes you used (if any).

Do you perform any quality controls to my samples?

Yes, we do. Once your samples are received, our lab team performs an Entry QC to assess their integrity and quality. Our equipment provides detailed analysis of nucleic acid concentration, fragment size distribution, and overall integrity.

Sample Delivery

Do you use RIN scores to assess RNA integrity?

No, we don't. RNA integrity is evaluated using RIS (RNA Integrity Score).

Can I rely on RIS scores for all RNA types?

No, because the RIS scores are reliable only for samples containing 18S and 28S rRNA. For other RNA types, visual inspection from the profiles is needed.

What happens if my samples do not pass the Entry QC test?

No worries, in case your samples do not meet the Entry QC requirements outlined in our Sample Submission Guide, your Project Manager will inform you about the available options, which may include:

- Submitting replacement sample(s)
- Excluding the failed sample(s)
- Proceeding with the failed sample(s) at your ''own risk''

You're always welcome to discuss the next steps with Customer Support or your Project Manager.

What does it mean ''own risk'' after Entry QC test?

It means that the samples did not pass Entry QC, but we can still give it a try. In this case, no guarantees are made regarding library preparation or sequencing outcomes. Failed preparations will not be repeated, and sequencing will be attempted only once, even if the desired yield or data quality is not achieved. Even if the sequencing itself is successful, it may not yield the desired data quality.

Delivery Times

What is the turnaround time for your NGS services?

Turnaround times vary depending on the scope and complexity of your project.Our standard workflow includes sample QC, library preparation, library QC, sequencing, data QC, and reporting. Each project is unique, and we always strive to deliver the expected results within the agreed timeline. Please contact our customer support team via to learn more about project specific timelines.

Sequencing Platforms

Which sequencing platform do you use?

GenomeScan uses a range of high-performance sequencing platforms, including: Illumina NovaSeq, PacBio Revio, IonTorrent, GeneStudio S5 prime and Oxford Nanopore Technologies.

Which sequencing primers do you use?

GenomeScan typically uses standard Illumina primer sets for library preparation and sequencing. If your project requires custom primers, please contact us to discuss feasibility and design options.

Which factors can impact the quality of my data?

The quality of your sequencing data directly reflects the quality of your DNA/RNA samples. However, several factors are critical to the quality of your data:

- The quality and the buffers in which samples are delivered can have a (strong) negative impact on both the quantity and quality of the resulting data.
- Proper storage conditions will reduce nucleic acid degradation
- Shipping conditions will affect the integrity and quality of your sample
- Sequencing depth will improve the sensitivity
- Read length will determine the specificity
- Number of replicates will increase the confidence

Sequencing Platforms

What is the expected quality of the sequencing data?

When sequencing human samples in 150 bp paired-end mode, GenomeScan regularly achieves over 80% of base calls (Illumina threshold) with a quality value significantly higher than Q30 (>99.9% accurate).

How do you determine the sequencing depth/coverage?

Sample type	Project type	Recommended depth/coverage
DNA	WGS	x30
	WES	x150
	Panel	x400
RNA	Transcript	30 M reads
	Expression	20 M reads
	Ultra-low input	30 M reads

To define the optimal coverage for your sample, we suggest you build on our existing experience and discuss this with our bioinformatics team.

Why are you using Unique Molecular Identifiers (UMIs)?

UMIs are used to identify and correct for PCR duplicates, improving the accuracy of sequencing data.

In DNA-based studies (from single-gene panels to Whole Exome Sequencing (WES)), UMIs help reduce false positives and enable error correction. They also enhance the detection of low-frequency variants, which is especially valuable in clinical applications such as oncology.

When used in data analysis pipelines, UMIs contribute to more reliable detection of Copy Number Variations (CNVs) and improve both sensitivity and specificity of NGS-based methods.

Sequencing Platforms

How do you prevent excessive numbers of PCR duplicates?

PCR duplicate rates are influenced by the quality and quantity of the starting material.
GenomeScan uses a proprietary library preparation protocol that minimizes the number of PCR cycles while maximizing library complexity.
The integration of UMIs allows us to detect and correct for duplicates during data analysis, ensuring high-quality results.

What happens when sequencing of my samples fails?

To minimize the risk of sequencing failure, we perform quality control checks after every major step in the workflow.
In rare cases where sequencing fails, due to instrument issues, technical errors, or sample-related problems, we assess the cause.
If the failure is determined to be on our side, we will repeat the analysis at no additional cost.

Data Delivery

How does GenomeScan deliver the data?

All raw data (FASTQ files) as well as the analyzed and assembled data i.e. VCF files, can be downloaded 24/7 via your secure web-portal account "My Project". Other delivery options can be discussed with your assigned Project Manager.

How can I monitor the progress of my project?

We provide you with an easy monitoring of your NGS project progress and secure access to the result data through our secure web-portal "My Project". This online portal is available 24/7 and continuously supported by our team.

Data Delivery

How many people can have access to the GenomeScan web-portal "My Project"?

When starting your project, you receive a personal login and password. Upon your request, we can authorize other member(s) of your team or your lab to view your project(s). Please, contact your Project Manager or our Bioinformatic team to grant access to the new users.

Whom can I contact during the course of my project?

Your sequencing project is assigned to a Project Manager (Principal Investigator) as single point of contact. The Project Manager closely monitors the progress of your project and will contact you if needed. If you have questions, please do not hesitate to get in touch with your assigned Project Manager anytime.

How long is the data available on the GenomeScan web portal?

You will be able to access your project data on the GenomeScan web portal for 4 weeks after the project is finalized.

Is it still possible to get the data of my project after the 4 weeks?

Yes, it is. However, data retrieval only would be possible upon request, and this service has an additional cost. If you have any questions or would like to explore this option, feel free to contact our Customer Support team or your assigned Project Manager.

Why did I receive more than one FASTQ file for some of my samples?

Despite of our efforts to get your data in one unique run, in some cases cannot be achieved. Therefore, a second run is performed to obtain enough reads. This means that for some samples, multiple sequencing runs, and thus multiple FASTQ file sets are generated.

How do I download my data using the command line?

In our web-portal, you can find a step-by-step overview on how to do a command line-based download of your data can be found here.

Bioinformatics & Privacy

What kind of Bioinformatic services do you offer?

GenomeScan provides services and expertise to assist scientists in and experimental planning and data analysis. Since NGS technologies change quite rapidly, we recommend that our customers discuss the project prior to start with our bioinformaticians.

Do I need specific software to view my data?

You will receive a file containing your sequencing data. You can view and analyze the data using a genome browser (we recommend using Interactive Genome Viewer – IGV).

Which pipeline do you use for the analysis?

We use the state-of-the-art and industry-compliant software tools (commercial, FOSS, and in-house developed tools) to deploy our validated as well as custom workflows. Each tool has been evaluated and thoroughly validated. Tools and their functions are documented in a comprehensive data analysis report.

Should I provide a reference genome for data analysis?

For human genomes, the reference is defined in consultation with the customer, as additional annotations of a reference genome allows deeper analysis. For other species, you may provide (a link to) the appropriate reference.

How long do you store the data?

To maintain a WGBO-compliant data policy, your raw sequencing data are archived for a period of 20 years free of charge. After expiration of this period your data are permanently deleted. If you require a longer storage, please contact your Project Manager. During the 20-year retention period, the data will be kept safely in compliance with GDPR and NEN 7510 regulations and Good Laboratory Practice.

How do you ensure the security of the data?

Data is physically located within our facility or externally stored at a certified archive facility. All systems are backed up daily. All data is kept safely in compliance with NEN 7510 regulations.

Bioinformatics & Privacy

How do you guarantee the privacy of my data?

GenomeScan is committed to protecting your privacy. Any information you provide to us is subjected to the European directives on personal data protection and privacy (GDPR). If you have questions or doubts related to privacy, please contact our Data Protection Officer at dpo@genomescan.nl.

Whom do I contact if I have additional questions or need software support?

Your assigned Project Manager is your point of contact at GenomeScan and can be contacted via email, phone, or chat. He or she drives your project forward will be happy to address all your questions.

Genome Scan

Scientific innovations for faster, better and affordable healthcare

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