



Genomics

## NEXT GENERATION SEQUENCING

High Throughput Sequencing Powered By Innovation & Expertise.

# Illumina HiSeq 2500 / MiSeq

Re-sequencing & Sequence Capture

Amplicons & Exomes

# PacBio RS II

Transcriptomes

16S Microbiome Testing

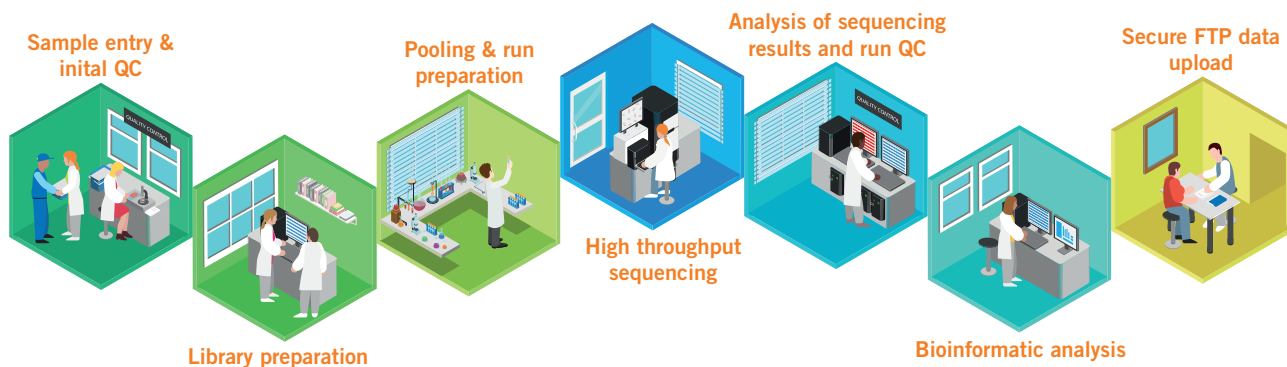
# ISO 17025 & GLP

# NGS Favourites – Online Ordering

[eurofinsgenomics.com](http://eurofinsgenomics.com)

# Applications & Workflow.

In December 2006 Eurofins Genomics became the first Service provider in Europe to offer NGS services using the Roche 454 GS20. Since then, innovation and expertise has allowed us to further extend our portfolio.



## Genome sequencing

- "De novo" sequencing of unknown genomes (where no reference sequence is available) or genomes with large genomic re-arrangements or InDels
- Re-sequencing of genomes if a good reference sequence is available

## Amplicon sequencing

Analyse phylogenetic diversity in any population or study rare mutations by ultra deep sequencing of PCR products. Eurofins Genomics offers flexible workflow solutions tailored to specific customer needs.

## Transcriptome sequencing

- De novo transcriptome sequencing to find out which genes are expressed at a given time and their physiological background
- Differential expression analysis for comparison of expression levels of transcripts

## Re-sequencing with sequence capture

Focus on exomes or specific genomic regions of interest using state of the art sequence capture designs such as:

- NimbleGen SeqCap custom capture - design your own layout and benefit from an easy-to-scale workflow with multiplexing possibilities of up to 940 samples
- Human exome sequencing from various sample material (incl. FFPE) using Illumina or Agilent exome kits

## Bioinformatics

Our bioinformatics experts have developed optimised pipelines for differential expression analysis, variant detection, genome and transcriptome assembly and 16S Microbiome profiling.

We also provide customised solutions on request for example, integration site detection or adventitious virus testing analysis.

	APPLICATION	HISEQ 2500	MISEQ	PACBIO RS II
GENOME SEQ	De novo sequencing of bacterial & fungal genomes	✓✓	✓✓✓	✓✓✓
	De novo sequencing of higher eukaryotic genomes	✓✓✓		✓✓✓
	Re-sequencing of genomes	✓✓✓	✓✓✓	
TRANSCRIPTOME SEQ	De novo transcriptome sequencing	✓✓✓	✓	✓
	Expression profiling	✓✓✓	✓	
SEQUENCE CAPTURE & AMPLICONS	Ultra deep amplicon sequencing	✓	✓✓✓	✓✓
	Exome sequencing	✓✓✓	✓✓	
	Customised sequence capture	✓✓✓	✓✓	

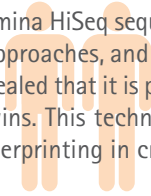
Our ratings are based on factors such as data output, read length, turnaround time, data quality and cost efficiency.

# Next Generation Sequencing – Innovation & Expertise.

Our portfolio enables us to tailor our services to your specific project needs, as per the following examples:

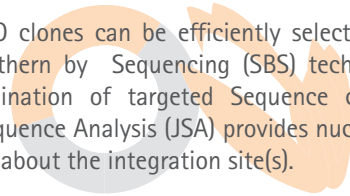
## Differentiating identical twins

A combination of Illumina HiSeq sequencing, the latest bio-informatic analysis approaches, and Sanger sequencing for SNP confirmation revealed that it is possible to differentiate between identical twins. This technique can now be used for forensic DNA fingerprinting in criminal cases or paternity testing.



## Southern by Sequencing

Perfect GMO clones can be efficiently selected with our newest Southern by Sequencing (SBS) technology. This novel combination of targeted Sequence capture and Junction Sequence Analysis (JSA) provides nucleotide level information about the integration site(s).



We constantly optimise our services to meet the most ambitious customer requirements as well as satisfying market demands for cutting-edge applications.

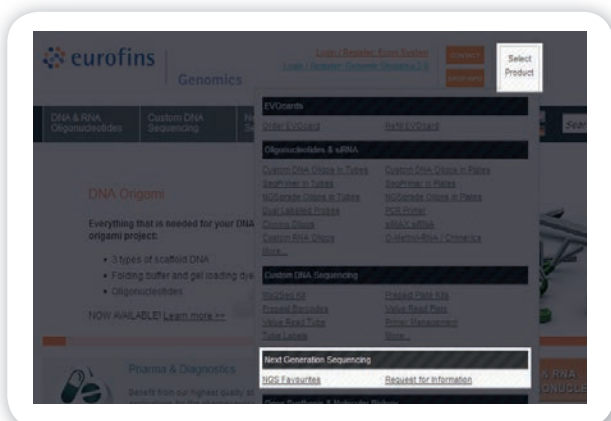
- State-of-the-art lab equipment for DNA or RNA extraction from difficult input sample like FFPE material or environment samples
- Industry-leading quality standards including GLP, ISO 9001 certification and ISO 17025 accreditation for our NGS labs
- Extensive experience with large multinational projects such as listeria outbreak testing

## How To Order NGS Projects.

### Project consultation and quote request

You are only four steps away from your NGS project with Eurofins Genomics

- Visit our website and click on Request for Information in the select product menu at the top of the page
- Enter your project information
- Login to our online shop (using your existing Ecom credentials) or register and submit your request
- Our NGS expert team will contact you ASAP to discuss your project



### Online ordering of predefined NGS Favourites

Years of experience with next generation sequencing have inspired us to create standard packages for a variety of next generation sequencing applications.

#### Advantages

- Highest quality – the NGS Favourites are based on our superior in-house techniques and ensure premium data quality
- Economic prices – expertise combined with excellent prices
- Straightforward solutions – save time and effort by choosing a best practice approach that includes all steps to successfully complete your project
- 24/7 online ordering

#### Example Package

16S Microbiome Profiling on MiSeq from only 6 samples.

Experience The Power Of DNA.

## Why Choose Eurofins Genomics For Your Upcoming NGS Project?

Founded in 1990, Eurofins Genomics is part of the Eurofins Scientific Group with laboratories across 39 countries and more than 22,000 employees.

### Global network

Eurofins Genomics has a strong global presence enforced by its 600 highly skilled employees, production facilities and service centres based in Europe, USA, Japan and India.

### Customers & markets

Eurofins Genomics supplies thousands of customers in various different markets. Our services are tailored for **pharma, diagnostics, agriculture, food, biotechnology and research applications** worldwide.

### Combined expertise

Eurofins Genomics' European site in Germany uses state-of-the-art technology from all areas related to DNA applications, testing, analysis and research.

### Quality management

Our QM/QA-System is ISO 9001 and ISO 13485 (medical devices requirements) certified. As a DNA-testing labora-

tory we are ISO 17025 accredited, and also offer testing services that are compliant to the principles of Good Laboratory Practice (GLP) and Good Clinical Practice (GCP).

### Service offerings

We offer a wide-range of genomic services based on the core business lines:

- DNA & RNA Oligonucleotides
- Genotyping & Gene Expression
- Custom DNA Sequencing
- Gene Synthesis & Molecular Biology
- Next Generation Sequencing

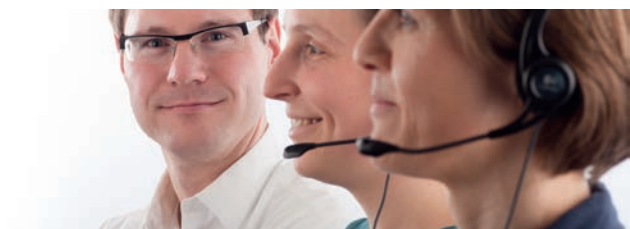
### Confidentiality

Strict confidentiality is guaranteed with every project we complete. The excellence of our service is overseen by a quality management procedure.

### Superior sample preparation

Our applied genetics division is renowned for its vast range of DNA preparation products, from food, animals and forensic samples. If you work with bespoke samples, we have the expertise to help you achieve optimum results.

## Service Is More Than Just A Word For Us.



Our mission is to deliver first class products together with professional, fast and competent customer support whenever you need it. Find your customer service contact number for your country below:

#### Email:

genseq-eu@eurofins.com

#### Phone:

+49 8092 8289-77

#### Official business hours:

8 a.m. – 6 p.m. CET

#### Toll free phone numbers in Europe:

Austria	0800 296 562	Luxemburg	8002 6418
Belgium	0800 77862	Netherlands	0800 0226215
Denmark	8088 1262	Norway	800 138 44
Finland	0800 112 744	Sweden	020 798 148
France	0800 903 807	Switzerland	0800 562 013
Ireland	1800 555 056	UK	0800 0323 135
Italy	800 785 950		

Feel free to contact us via email and a member of our customer support team will be happy to assist you. To contact **Eurofins Genomics' headquarters** in **USA, Japan, India** or to locate a **distributor in your area**, please have a look on our website: [eurofinsgenomics.com](http://eurofinsgenomics.com)

