

### **Eurofins Company Profile**

Eurofins is the leading international group of laboratories providing an unparalleled range of testing and support services to the pharmaceutical, food, environmental, and consumer products industries, as well as to governments.

### **Comprehensive Services & Unmatched Expertise**

As a worldwide leader, the breadth and depth of the Eurofins analytical portfolio is notable with over 150,000 reliable analytical methods for characterizing the safety, identity, purity, composition, authenticity and origin of products and biological substances. Through research and development, in-licensing and acquisitions, Eurofins draws on the latest developments in the field of biotechnology and analytical sciences to offer its customers unique testing solutions.

### **A Commitment to Top Quality**

The Eurofins Group of ISO 17025 accredited laboratories is committed to providing the highest quality services with accurate results. Absolute reliability and accuracy of Eurofins data helps customers make appropriate decisions for risk mitigation, ensures the meeting of increasingly stringent quality and safety standards, and exceeds demands of regulatory authorities around the world.

### **Innovation & Support from The Market Leader**

Few testing laboratories can match the level of expertise, technological leadership and attention to quality and customer service that have made Eurofins the global leader in many of the fields where it is active. Large investments in innovation, technology, IT and logistics and very large sample volumes ensure that customers enjoy high standards of quality at competitive prices.

If you have questions or would like additional information about Eurofins genomic services contact us at:

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[www.eurofinsUS.com/biodiagnostics](http://www.eurofinsUS.com/biodiagnostics)

# MICROBIAL GENOMICS & IDENTIFICATION SERVICES



**Bacterial & fungal identification, microbiomics, metagenomics, whole genome sequencing, strain subtyping**

## Genomics Overview

With 30 years in genetic identification testing; Eurofins BioDiagnostics utilizes genomic methodologies to solve complex microbial problems. We offer a suite of genomic services tailored to meet the needs of our clients.

### Genomic Services:

- Antibiotic resistance genes
- Bacterial and fungal identification
- Bioactives exploration
- Gene-probe arrays
- Intestinal microbiota studies
- Metagenomic analysis
- Method development
- Microbiome analysis
- Pathogen similarity
- Probiotic composition
- Probiotic strain verification
- Strain subtyping
- Whole genome sequencing

## Microbial Identification & Bacterial Strain Subtyping

Subtyping allows comparison of two or more different isolates of the same species which may have originated from a single source, time, and location. following services:

- MLST - Multi Locus Sequence Typing
- MLVA - (VNTR) Variable Number of Tandem Repeats
- PLST - Polymorphic Locus Sequence Typing
- RiboPrinting
- Whole genome sequencing (WGS)

## Microbiomics

Microbiome analysis is the process of determining the community of bacteria yeast/mold and microorganisms in a sample using DNA sequencing of signatures for identification and proportions from complex mixed foods, feeds, gut, and environmental samples.

## Metagenomics

Metagenomic sequencing, or shotgun sequencing, is the process of sequencing all of the DNA isolated from samples, equipment, and other sample types. It can identify bacteria, archae, fungi, yeast, plants, animals, viral, bacteriophage, and specific genes such as antibiotic resistance genes.

## Whole Bacterial Genome Sequencing

Whole bacterial genome sequencing (WGS) is state-of-the-art science for comparing isolated strains of bacteria. It can be used for new strain identification or to help develop strain specific assays.

## Problems We Solve with Genomic Tools

### Probiotics and direct fed microbials:

- What is the identification of my species or strain?
- Did my supplier provide the correct blend of organisms?
- How do I verify my probiotic label?
- Can I make a claim linking a probiotic strain to metadata?
- I need consumers to understand the benefit of my strain.
- I want to know the microbial complexity of gut.
- Can we validate our product works as well as an antibiotic or can replace an antibiotic?

### Biological products/biostimulants/bio-pesticides and agriculture:

- Is my product effective?
- I would like to identify a new biological strain in soil.
- Is the macro effect a result of the microbiome and/or biological treatment?
- What is in my soil?
- How do my fields compare or change from year to year?

### Food manufacturers:

- What is causing spoilage?
- How do I prevent spoilage/prolong shelf-life?
- Do I have probiotics in my product I can market?
- How do I validate my sanitation program or sanitizer?
- What is the strain?

## Supported Sample Types & Industries:

- Human probiotics
- Clinical trials
- Direct fed microbials and animal probiotics
- Biological stimulants and biological pesticides
- Food and feed ingredients or investigations
- Biofuel
- Environmental samples
- Agriculture
- Animal health and nutrition models
- Fermented foods, feeds, and silages
- Cultural enrichment

## Contact Eurofins BioDiagnostics for Answers to Your Genomics Services Questions!

Your business can gain an in-depth view of the microbiology of your product, facilities, and fields.

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