

# Biolog for Optimal Outsourcing

Get Microbial Identification with Biolog Lab Services

# Multimic Microbial Identification Services

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Traditional single-omics approaches may provide limited insights into microbial behavior and characteristics. With multimic identification you can get more accurate identifications with more insights into genetic makeup, protein expression profiles, and phenotypic traits.

## GENOTYPIC IDENTIFICATION

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### Advantages of Sanger Sequencing

- High accuracy in base calling: Known for its high accuracy in determining DNA sequences, making it suitable for precise microbial identification.
- Ability to sequence various DNA fragments: Unlike other sequencing methods, can reliably sequence long DNA fragments, enabling the identification of specific genomic regions.
- Well-established and widely used method in microbial genomics: Has been a cornerstone of microbial genomics research for decades and is called the "Golden Standard."

## PROTEOTYPIC IDENTIFICATION

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### Advantages of MALDI

- Rapid and high-throughput protein profiling: Enables the rapid analysis of protein samples, making it suitable for high-throughput proteomic studies.
- Identification via protein biomarkers: Can identify microbial species by analyzing protein biomarkers.
- Compatible with various sample types: purified proteins, cell lysates, and microbial colonies offering flexibility in experimental design.

## PHENOTYPIC IDENTIFICATION

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### Advantages of Phenotyping

- Accurate microbial identification via phenotypic profiling: Odin enables the simultaneous assessment of multiple phenotypic traits, including metabolic activities, growth kinetics, and environmental responses.
- High sensitivity and specificity: Odin's sensitive detection method allows for the accurate measurement of subtle phenotypic differences between microbial strains.

# Applications



## CSPs

Compounding sterile preparations must be in compliance with USP <797> standards. We help you ensure you maintain compliance.



## Food & Beverage

We help you maintain your quality control standards and give you the confidence of knowing exactly what is in your processes.



## Brewing

Our routine lab testing services ensure your brewing area is clear of contaminants that may foul your final product.



## Pharmaceuticals

Whether you are working with finished drugs or raw materials, quality verification testing is your strongest asset in establishing product quality and consistency. Enumeration and identification services are available for establishing comparison and quality benchmarks.



## Probiotics

For QC control, our lab enumeration services help you confirm consistency of your probiotics from lot to lot. Monitor microbial communities, or try our phenotyping services to optimize your final product.



## Cosmetics

Protect your products, protect your brand by identifying microbial contaminants.

## Trusted Results

ISO 17025: 2017 accredited and validated testing services. Registered with the FDA, GDUFA, and cGMP compliant.

## Best in Class

- Fastest standard turnaround service
- Unparalleled turnaround times: 3 days standard
  - Same-day results available Monday through Friday
  - Fast and concise reports

## Personal Service

Technical experts are always on hand to answer questions

Quick answers means less time waiting.

Bulk, and standing order pricing available for our most popular services.

# Genotypic Services for the “Gold Standard” in ID

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## DNA Sequencing

- Reliable results, your way: Choose turnaround time - same day, next day, two days, or standard 3-day.
- Matched to perfection: Sequences aligned to our proprietary libraries for accurate identity matching.
- Accuracy guaranteed: Extensive analysis software ensures precise species identification.
- Streamlined process: Universal domain-level primers eliminate upfront optimization hassles.
- Objective insights: DNA-based analysis for bacteria, yeast, and fungal identification based on clear, objective criteria

Organism	What we sequence	Choose this option for:
Bacteria	16S partial gene (500BP)	Quick and convenient ID
Bacteria	16S full gene (1500BP)	Discrete differences within entire gene
Fungi	D2 gene (300BP)	Quick and convenient ID

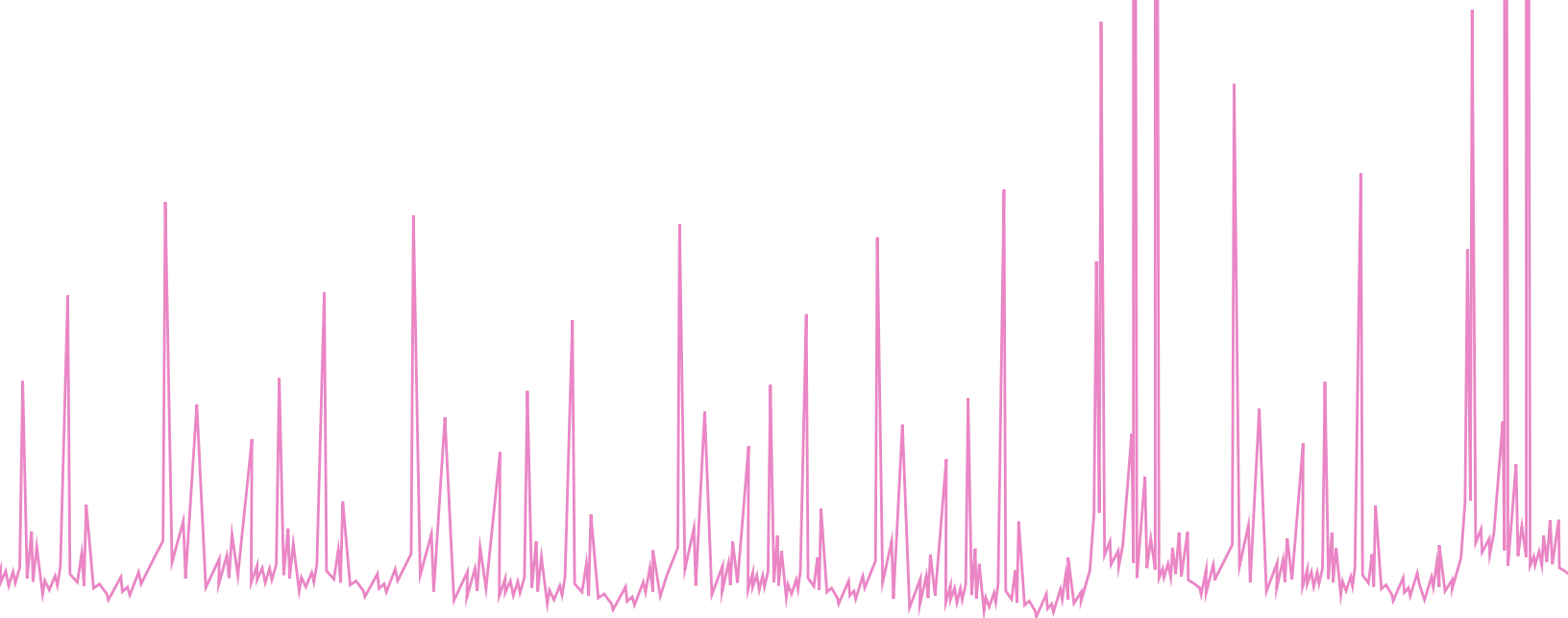


# Proteotypic Services for Challenging Samples

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## MALDI-TOF method

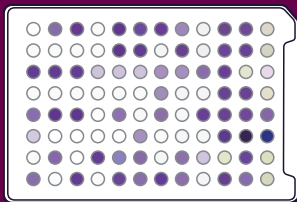
- Precision at its peak: our validated library and proprietary algorithms generate species-level identification for your samples.
- Reliable results, your way: choose turnaround time - next day, 2 days, or standard 3-day.
- Tailored solutions: customized approach available for challenging fungal sample preparation and identification



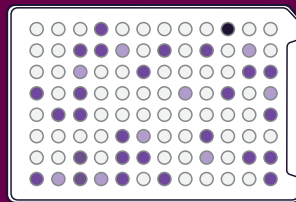
# Phenotypic Services for Sensitive and Specific IDs

## Phenotypic ID with Biolog's benchmark products

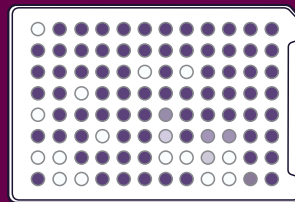
We phenotypically identify aerobic and anaerobic bacteria, yeast, and fungi with our 4 specialized microbial identification microplates. For each type of plate, a proprietary set of reagents are pre-arrayed, and the unknown organism is inoculated in every well. Respiration is measured over time with a reporter dye, and Odin searches its extensive database of nearly 3,000 organisms to match the unique fingerprint pattern, which can even generate species- and strain-level IDs.



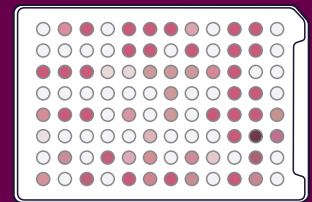
GEN III (Aerobes)



AN (Anaerobes)



YT (Yeast)



FF (Filamentous Fungi)

## ID common bugs and the weird stuff

Our comprehensive Database covers:

- >1,560 aerobic taxa
- >360 anaerobic taxa
- >260 yeast species
- >710 filamentous fungi species

**Superior chemistry: More tests (94 in one plate) = more resolving power, and the ability to accurately identify many more species**

# Discover Comprehensive Microbial Solutions

## Unlock the Power of Multiomic Identification

At Biolog Lab Services, we offer a wide range of cutting-edge microbial identification services tailored to meet your specific needs. From genotypic to proteotypic and phenotypic approaches, we provide accurate and reliable results to support your microbiological endeavors.

### Our Services Include:

- Multiomic Identification of Bacteria, Yeast, and Fungi: Uncover comprehensive insights into microbial communities with our advanced multiomic identification methods.
- USP <61> Enumeration/Total Plate Count (TPC): Accurately quantify microbial populations in your samples.
- USP <797>: Ensure compliance with pharmaceutical industry standards for sterile compounding.
- Bioburden Enumeration: Determine the level of viable microorganisms present in your samples.
- Visual ID and Gram Stain: Visualize and characterize microbial morphology and staining properties.
- Biological Indicator Testing: Assess the effectiveness of sterilization processes using biological indicators.
- Water Sample Testing: Evaluate the microbial quality of water sources for various applications.
- Purities: Confirm the purity of your microbial cultures for research and industrial use.

We also customize services to your specific needs.

### Certifications:

- ISO 17025:2017 Accredited: Demonstrating our commitment to quality and competence in testing and calibration.
- FDA Registered: Ensuring compliance with regulatory requirements for food, drug, and medical device manufacturing.
- Import and Interstate USDA/APHIS Permitted: Facilitating the import and interstate movement of regulated organisms.
- GDUFA Registered: Complying with the Generic Drug User Fee Amendments for pharmaceutical manufacturing.
- cGMP Compliant: Adhering to Current Good Manufacturing Practices for quality assurance in production processes.

## Trust Biolog Lab Services for Reliable Microbial Solutions

Contact us today to learn more about how our services can benefit your projects and ensure microbial safety and quality.

# Biolog for You

Find out how at [biolog.com](http://biolog.com)

**biolog**

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