

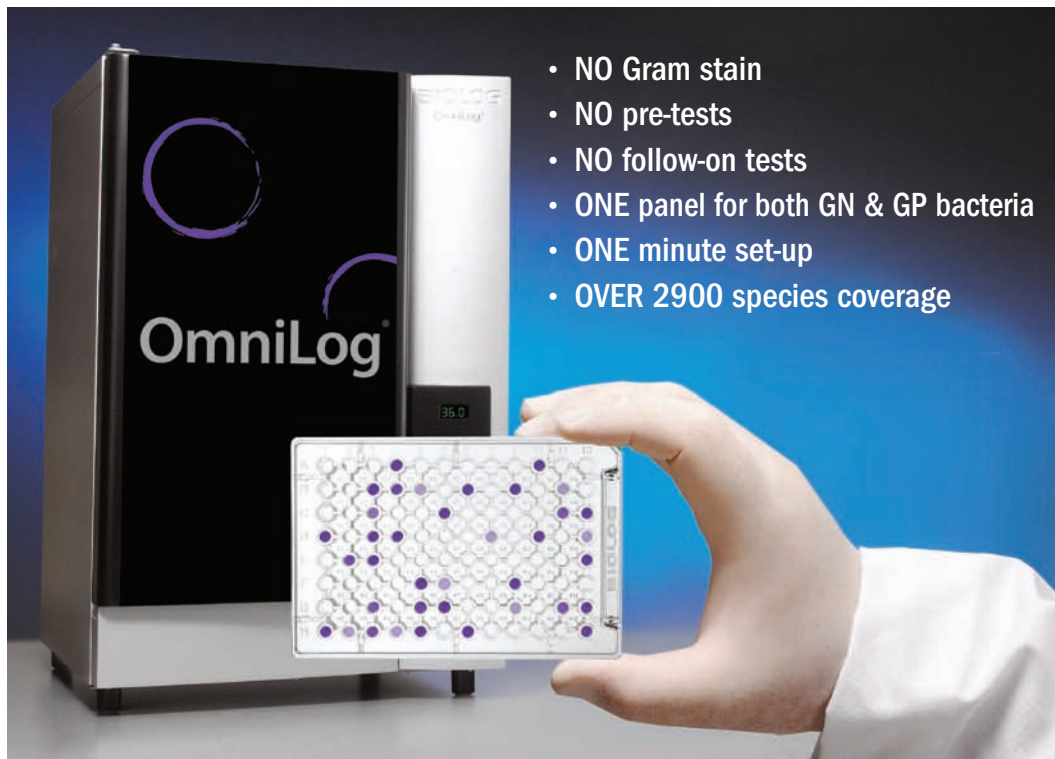


**microbial identification**  
*state-of-the-science performance*  
*with unmatched power & versatility*



# Revolutionary GEN III

## microbial identification



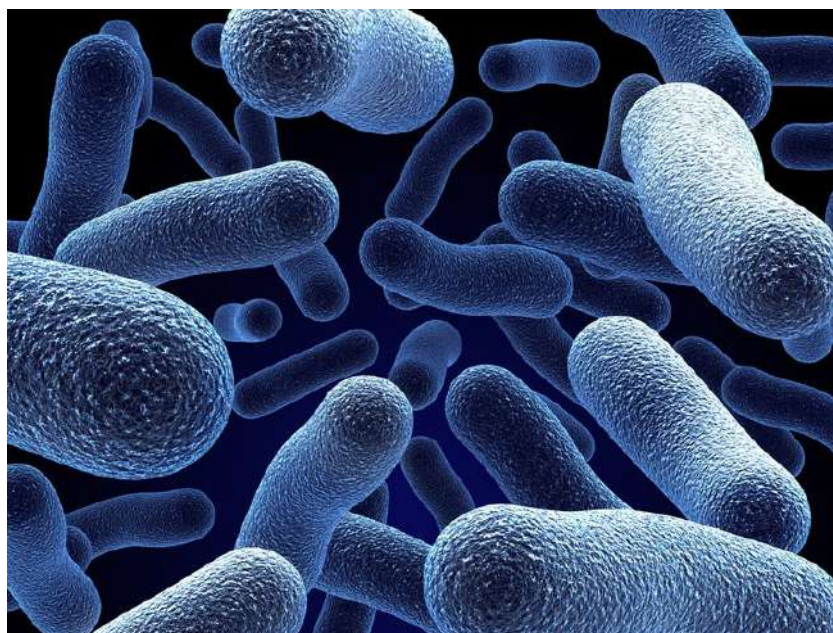
Biolog's latest generation redox chemistry enables testing and identification of aerobic Gram-negative and Gram-positive bacteria in the same test panel. Gram stain and other pre-tests are no longer needed. A simple, one minute setup protocol is used for each sample. The expanded GEN III database is designed to meet the needs of Biolog's broad customer base covering diverse disciplines of microbiology.

All Biolog Microbial Identification Systems — manual, semi-automated or fully-automated — use the powerful GEN III MicroPlate™, allowing users to determine the most appropriate system to fit their current budget and level of throughput. Should needs change, all systems can be upgraded and expanded to meet new capacity requirements.

*Biolog's single panel is easy to use, and identifies  
4 times more species than alternative systems*

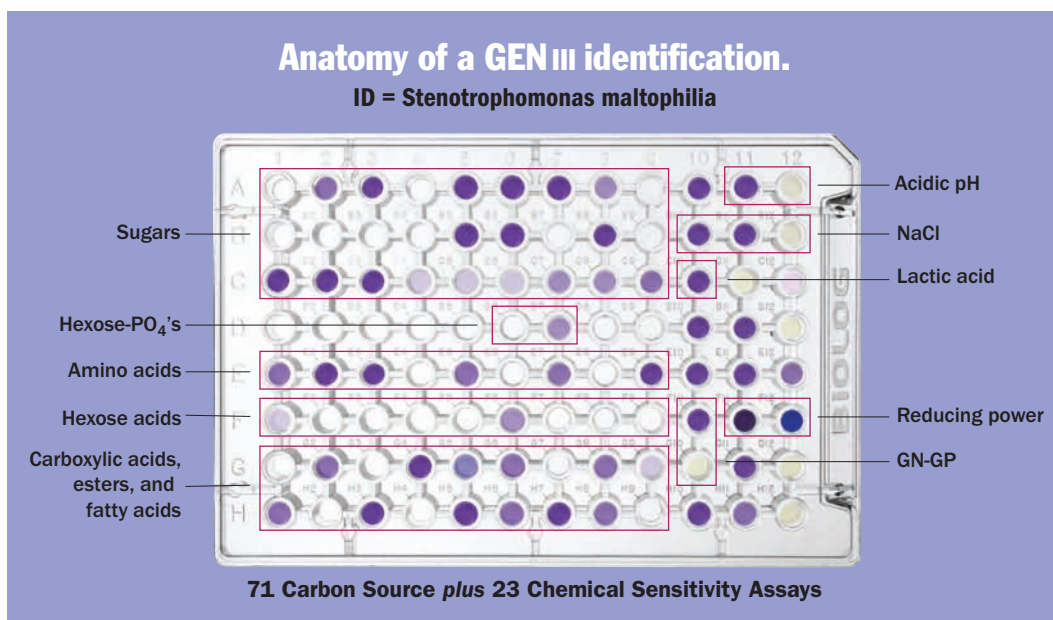
GEN III

# 3rd generation identification technology with breakthrough advantages



*One technology with multiple platforms, for consistent performance across every level of your organization.*

The GEN III redox chemistry is applicable to an unprecedented range of both Gram-negative and Gram-positive bacteria. GEN III dissects and analyzes the ability of the cell to metabolize all major classes of biochemicals, in addition to determining other important physiological properties such as pH, salt, and lactic acid tolerance, reducing power, and chemical sensitivity.



# microbial identification

## ...with the OmniLog ID System



Biolog's powerful carbon source utilization technology accurately identifies environmental and pathogenic microorganisms by producing a characteristic pattern or "metabolic fingerprint" from discrete test reactions performed within a 96 well microplate. Culture suspensions are tested with a panel of pre-selected assays, then incubated, read and compared to extensive databases of environmental organisms, human pathogens, veterinary pathogens and plant pathogens. The scope of the 96 assay reactions, coupled with sophisticated interpretation software, delivers a high level of accuracy that is comparable to molecular methods. The one minute per sample set up is much simpler and faster than DNA sequencing and the automated pattern matching eliminates the need for training and expertise in gene sequence interpretation.

**AUTOMATED**



# full automation to meet

# the demands of a dynamic workflow

The OmniLog® ID System offers a simple automated process to meet the dynamic workflow demands of a wide range of microbiology applications. Even organisms requiring special incubation temperatures or environments are easily accommodated, ensuring accurate identification for a broad spectrum of Gram-negative and Gram-positive bacteria.

The OmniLog ID System fully automates the process of microbial identification by incubating, reading and interpreting results from up to 50 Biolog MicroPlates™ at a time. The system software provides directives to guide all steps of the testing process for each MicroPlate, including sample placement and removal and extended incubation when needed. Additional MicroPlates can be loaded and processed any time there is an open tray or identification has been completed on a previously entered MicroPlate. Up to date information for each MicroPlate, including results as they become available, are continuously visible on the system's menu screen. Identifications take as little as 2 hours.

The OmniLog Plus ID System adds testing capabilities for anaerobic bacteria, yeasts, and filamentous fungi. Both OmniLog systems allow results to be saved to create a customized database or to track specific organism characteristics and frequency of isolation. The system software, which includes the RetroSpect™ software module for organism tracking and trending, is extremely easy to navigate, and provides all the required functionality to support 21CFR Part 11 electronic record requirements and regulatory compliance. Administrative features are also available to control operator access and the creation or modification of data files.



# microbial identification

## ...with the MicroStation ID System



The MicroStation™ ID System is a versatile system, with the ability to identify and characterize a wide range of environmental and pathogenic organisms across diverse fields of microbiology. Using all Biolog databases, over 2650 species of bacteria, yeast and filamentous fungi can be identified. Some bacteria can be identified in as little as 2 hours. Just prepare a cell suspension and inoculate the appropriate MicroPlate.

After inoculation and incubation, the MicroPlate is placed into the MicroStation Reader for analysis. The unique metabolic pattern generated by the organism is recorded and compared to hundreds of identification profiles in a corresponding Biolog Database. The versatile plate reader uses dual wavelength readings to quantify color reactions in the MicroPlate wells, adding consistency and accuracy when reading the reaction patterns.

Biolog's patented redox chemistry makes use of different carbon compounds including sugars, carboxylic acids, amino acids and peptides to provide an unparalleled wealth of discriminating biochemical characterizations. This diverse set of tests enables our systems to identify microorganisms that other kit-based methods misidentify or fail to identify. The MicroStation System, as well as the OmniLog System, has extensive applications also for microbial community analysis in soil, water, biofilms and other environments.

*Over 2900 species of bacteria, yeast and filamentous fungi can be identified*

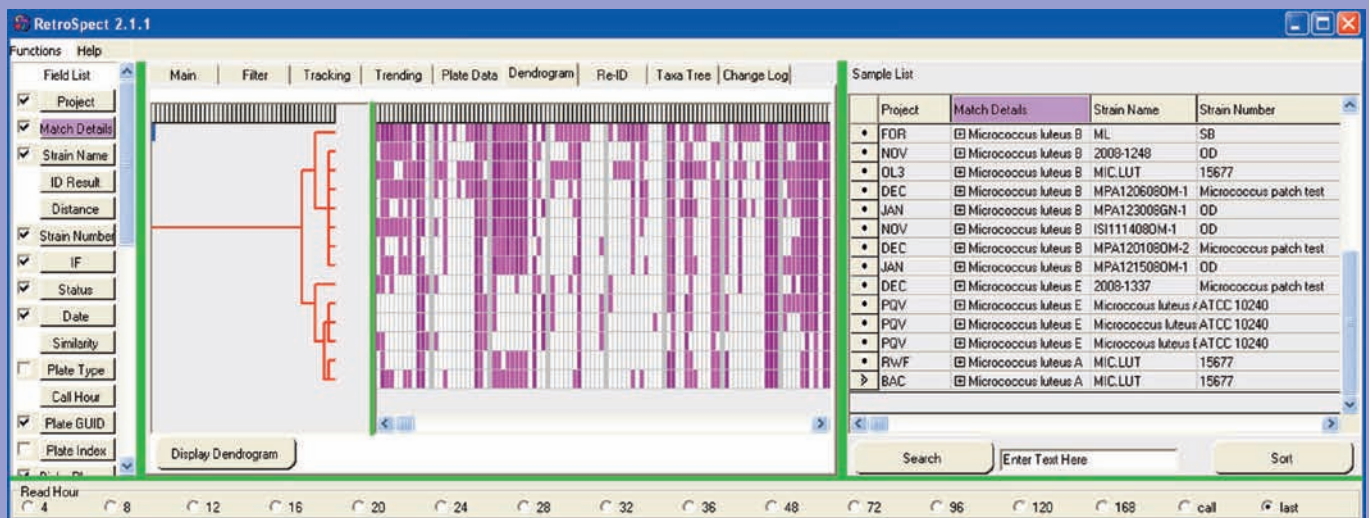
**SEMI AUTOMATED**

# unmatched versatility

# that includes pragmatic tools

## Building on Powerful Data

RetroSpect is a specialized software tool that supports data management and reporting and provides sophisticated trending and tracking of microbial data. Each Biolog MicroPlate provides an extensive data set of strain specific test information from each isolate. The new RetroSpect Software utilizes these data elements in a powerful analysis package. Data Management filters enable users to define the content of the databases and generate highly customized and informative reports.



Isolate



Prepare



Inoculate



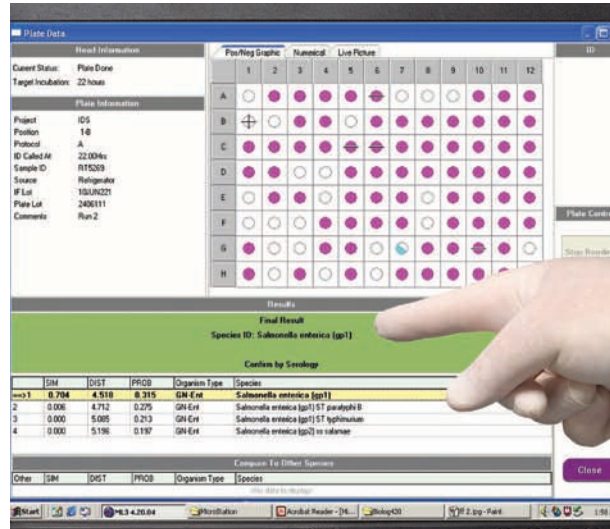
Incubate and Read

*Rewarding our customers with innovation and greater performance for more than 30 years*



# microbial identification

## with the MicroLog ID System



### Accurate identifications in any setting.

Biolog's MicroLog® manual microbial ID system is the ideal choice for testing environments with lower volume requirements or budget constraints. The system offers basic identification capability for aerobic Gram-negative and Gram-positive bacteria. GEN III MicroPlate results are read visually and entered into the MicroLog Software's data entry screen for analysis and organism identification. This System includes a turbidimeter, the MicroLog software and electronic user guide. Databases, RetroSpect software and electronic pipettor are sold separately allowing users to customize the system to meet their organization's individual needs.

### A simple, straightforward procedure.

1. Isolate a pure culture on agar media
2. Prepare inoculum at specified cell density
3. Inoculate the Biolog MicroPlate
4. Incubate the plate, observe and enter the reaction pattern to obtain ID result



Isolate



Prepare



Inoculate

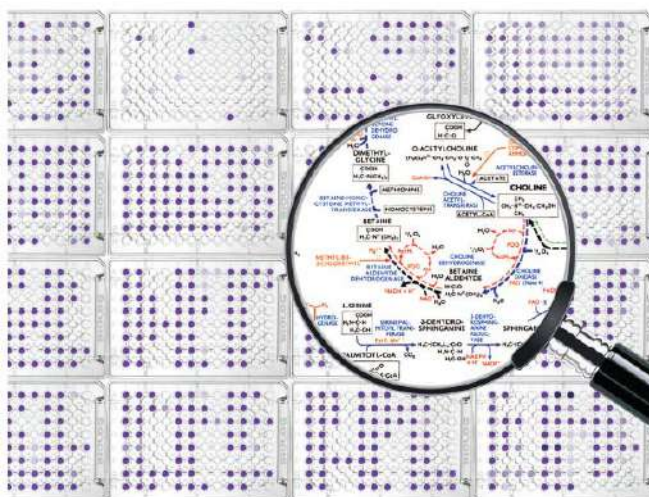


Incubate and Read

*Only Biolog technology provides users with both an identification AND a detailed strain characterization.*



# the convergence of two powerful technologies with the OmniLog Combo Systems



The OmniLog® Combo Systems provide the microbiologist with a unique solution for both microbial identification and characterization of cellular functions in a single system. They combine the power of both of Biolog's Microbial Identification and Phenotype MicroArray testing platforms. These capabilities are ideal for pursuing a wide range of studies, from routine species-level identification to projects in detailed strain characterization, such as fingerprinting and tracking strains that cause product contamination, comparison of nonpathogenic and pathogenic strains, gene and mutant characterization, cell line quality control, and bioprocess improvement. Both platform technologies employ Biolog's patented colorimetric redox chemistry to detect cellular energy production and Biolog's computer-controlled detection instrumentation.

## Phenotype MicroArray™ Technology

Phenotype MicroArray technology uses the same chemistry and format, but tests a much larger and more diverse set of cellular properties. It enables researchers to evaluate nearly 2000 phenotypes of a microbial cell in a single experiment. With automated instrumentation, phenotypic properties can be measured quantitatively and kinetically, then recorded automatically into electronic records. Through comprehensive and precise quantitation of phenotypes, researchers are able to obtain an unbiased perspective of the effect on cells of genetic differences, environmental change, and exposure to drugs and other chemicals. They can correlate genotypes with phenotypes, determine a cell's metabolic and chemical sensitivity properties, discover new targets for antimicrobial compounds, optimize cell lines and culture conditions in bioprocess development, characterize cell phenotypes for taxonomic or epidemiological studies, and more.

COMBO

### AUTOMATED

#### ORDER INFORMATION

Cat #	Description
91371	<b>OmniLog ID System</b> , for rapid automated incubation and identification of aerobic bacteria. Includes OmniLog incubator/reader, OmniLog GEN III Data Collection Software, RetroSpect Data Management Software, electronic user guide, computer, monitor, printer, pipettor, turbidimeter, web based training and a one year warranty. Databases are sold separately.
91391	<b>OmniLog Plus ID System</b> , for rapid automated incubation and identification of aerobic bacteria, plus rapid identification of anaerobic bacteria, yeast, and filamentous fungi. Includes OmniLog incubator/reader, OmniLog GEN III Data Collection Software, RetroSpect Data Management Software, MicroStation Software, electronic user guide, computer, monitor, printer, pipettor, turbidimeter, web based training and a one year warranty. Databases are sold separately.

#### OMNILOG INCUBATOR SPECIFICATIONS

**Size:** 21 in (53 cm) w | 32 in (81 cm) h | 23 in (58 cm) d  
**Power:** 100 to 240 volts, 50 to 60 Hz  
**Operating Temp Range:** 18° to 28° C  
**Operating Humidity Range:** 20% to 80% non-condensing  
**Incubation Temperature Range:** 22° to 45° C  
**Temp Consistency:** ±2° C in the tray chamber  
**Incubation Humidity Range:** Ambient  
**Test Capacity:** 50 microplates  
**Reading Cycle Time:** Up to 25 trays with 50 microplates in 15 mins  
**Temperature Control:** Input of set temperature by external computer  
**Temperature Indication:** Output to external computer and 7 segment display (green)  
**Other Indicators:** Power On (green), Interrupt On (red), and Not at Temperature (red)  
**Monitor:** 22" LCD flat panel

### SEMI AUTOMATED

#### ORDER INFORMATION

Cat #	Description
65361	<b>MicroStation ID System</b> , for semi-automated identification of bacteria, yeast, and filamentous fungi. Includes MicroStation reader, MicroStation GEN III Data Collection Software, RetroSpect Data Management Software, electronic user guide, computer, monitor, pipettor, turbidimeter, web based training and a one year warranty. Databases and printer are sold separately.

#### MICROSTATION SPECIFICATIONS

**Size:** 15.5 in (39.4 cm) w | 8.75 in (22.2 cm) h | 16 in (40.6 cm) d  
**Weight:** 30 lbs. (13.6 kg)  
**Power:** 100 to 240 volts, 50 to 60 Hz  
**Operating Temp Range:** 18° to 28° C  
**Incubation Temperature Range:** 4° C above ambient to 50° C  
**Temp Consistency:** ±0.5° C in the tray chamber  
**Test Capacity:** 1 microplate  
**Reading Cycle Time:** 15 mins  
**Detection Method:** Absorbance  
**Read Method:** Endpoint, kinetic, linear scanning  
**Monitor:** 22" LCD flat panel

# for Biolog's diverse customer base

# in a wide range of applications

## MANUAL

### ORDER INFORMATION

Cat #	Description
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45101	<b>MicroLog M System</b> , for identification of aerobic bacteria based on visual inspection and manual entry of results. Includes MicroStation GEN III Data Collection Software, electronic user guide, turbidimeter, and a one year warranty. Databases, RetroSpect Data Management Software and multichannel pipettor are sold separately.
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## COMBO SYSTEMS

### ORDER INFORMATION

Cat #	Description
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94371	<b>OmniLog Combo ID System</b> , for rapid automated incubation and identification of aerobic bacteria. Also includes the capability for Phenotypic analysis of cells. Includes OmniLog incubator/reader, OmniLog GEN III Data Collection Software, RetroSpect Data Management Software, Phenotype MicroArray Software, electronic user guide, computer, monitor, printer, pipettor, turbidimeter, web based training and a one year warranty. Databases for microbial identification are sold separately.
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94391	<b>OmniLog Combo Plus ID System</b> , for rapid automated incubation and identification of aerobic bacteria, plus rapid identification of anaerobic bacteria, yeast, and filamentous fungi. Also includes the capability for Phenotypic analysis of cells. Includes OmniLog incubator/reader, OmniLog GEN III Data Collection Software, RetroSpect Data Management Software, Phenotype MicroArray Software, MicroStation, MicroStation Software, electronic user guide, computer, monitor, printer, pipettor, turbidimeter, web based training and a one year warranty. Databases for microbial identification are sold separately.
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## DATABASES AND SOFTWARE

### ORDER INFORMATION

Cat #	Description
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22730D	<b>GEN III Database</b> , for both Gram-negative & Gram-positive bacteria. Includes appropriate Turbidity Standards.
22607D	<b>AN Database</b> , for Anaerobic bacteria identification. Requires MicroStation or OmniLog Plus System.
22605D	<b>YT Database</b> , for Yeast identification. Requires MicroStation or OmniLog Plus System.
22606D	<b>FF Database</b> , for Filamentous Fungi identification. Requires MicroStation or OmniLog Plus System.
26112D	<b>RetroSpect Data Management Software</b> , for MicroLog M System. (included with other systems)



*one technology with multiple platforms,  
for high level performance in laboratories  
of all interests, sizes and budgets*

All Biolog Microbial Identification Systems — manual, semi-automated or fully-automated— are based on the same powerful technology, allowing users to determine the most appropriate system to fit their current budget and level of throughput. And should needs change, all systems can be upgraded and expanded to meet new capability or capacity requirements.

All Biolog microbial testing is performed in a convenient dry panel MicroPlate format. A cell suspension is added and the resulting metabolic pattern or “fingerprint” generated by the microorganism is recorded and compared to hundreds of identification profiles in a corresponding Biolog Database. Databases are periodically updated to reflect the newest taxonomy, incorporate additional species, and extend additional capabilities to meet the growing needs of Biolog’s diverse customer base.

Biolog products and technical support are available all over the world. For more information, contact Biolog or your local authorized Biolog representative, or visit our website at [www.biolog.com](http://www.biolog.com)



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