

# PRODUCT CONTROL

## Same Day Strain Typing For Real Time Investigations



**diversilab**<sup>TM</sup>  
Strain typing  
automated microbial genotyping

The Professional Group Services  
and  
Pearl Design

Food Technology      Laboratory      Engineering Service

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# Fast Tracking for Immediate Action

Typing results are available in approximately 4 hours providing improved microbial safety and reduced investigational costs.

## Knowledge at Your Fingertips



The DiversiLab system benefits from a large software database and lets you choose the database with which you want to compare your results :

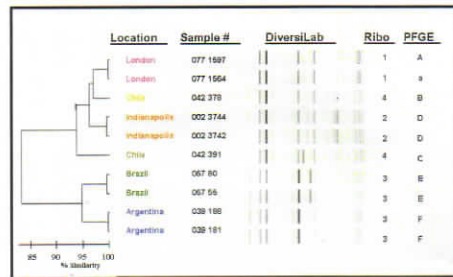
- with your own database
- between samples
- with an easy-to-use, on-line database

Trend analyses are also possible :

- database samples for long-term studies
- track seasonal outbreaks from year to year

## Comparison to other technologies

Strain Typing Comparison using Three Different Methods



Weiser, Mand Busse HJ. Rapid identification of *Staphylococcus epidermidis*. *Int J Syst Evol Microbiol*. 2000 May;50 Pt 3:1087-93.  
 vander Zee, et al. Molecular genotyping of *Staphylococcus aureus* strains: comparison of repetitive element sequence-based PCR with various typing methods and isolation of a novel epidemic marker. *J Clin Microbiol*. 1999 Feb;37(2):342-9.  
 Trindade PA, et al. Molecular techniques for MRSA typing: current issues and perspectives. *Braz J Infect Dis*. 2003 Feb;7(1):32-43.  
 Epub 2003 Dec 2. Review

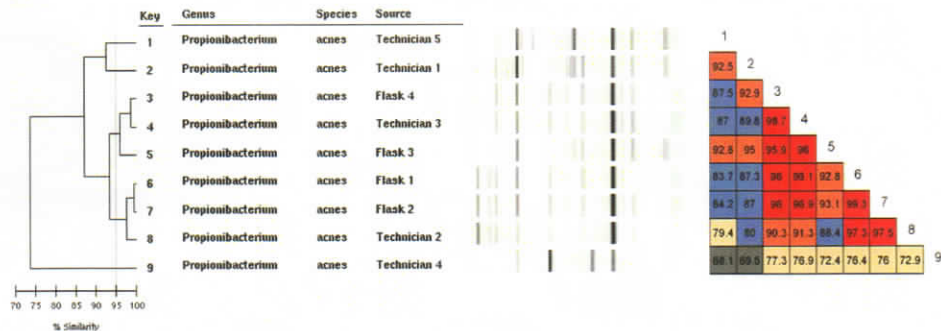
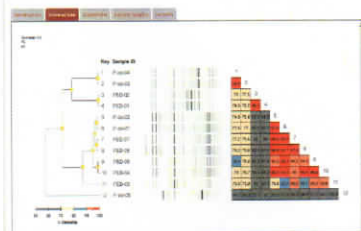
# bioMérieux's Complete Offer in Environmental, Product Control

bioMérieux has over 40 years experience in microbiology. Our recognized expertise in culture and identification testing naturally led us to further complete our extensive offer with DiversiLab™, an automated solution for genotyping. The synergy between this innovative genotyping system and bioMérieux's other systems supports increased microbial safety and reduces the risk of adverse public health reactions.

10 min

## Data Analysis

Real-time analysis and reports accessible via an individual secured website



- Tenover FC, et al., the Molecular Typing Working Group of the Society for Healthcare Epidemiology of America. How to select and interpret molecular strain typing methods for epidemiological studies of bacterial infections: a review for healthcare epidemiologists. *SHEA Position Paper, Infect Control Hosp Epidemiol* 1997;18:426-439.
- (2) Healy M, et al. Microbial DNA Typing by Automated Repetitive-Sequence-Based PCR. *J Clin Microbiol*, 2005, 43:199-207.
- (3) Durand-Zaleski I, et al. Impact de la résistance bactérienne sur les coûts des soins. *21e RICA* 2001; 41-49.
- Wenzel RP. The Lowbury Lecture. The economics of nosocomial infections. *J. Hosp. Infect.* 1995; 31:79-87.
- McKinnon PS, et al. An economic analysis of bacteremia caused by vancomycin resistant *Enterococcus* in patients admitted to a level-1 trauma center. *40th ICAAC* 2000; [Abstract 2134], 511.
- Pittet D, et al. Nosocomial bloodstream infection in critically ill patients. Excess length of stay, extra costs, and attributable mortality. *JAMA* 1994; 271:1598-1601.

\* rep-PCR : amplification of noncoding repetitive sequences interspersed throughout the bacterial genome using Polymerase Chain Reaction (PCR).



Today, it is no longer sufficient to screen and identify contaminants. Tracking microorganisms and locating the pathogen reservoir has become essential, particularly for root cause and trace back investigations. The DiversiLab<sup>®</sup> system provides superior strain discrimination, ease of use in a fraction of the time and cost preventing unnecessary product holds. It can also be used to determine strain stability during fermentation processes using bacteria, yeasts or molds. Generating same day, accurate, genotypic results provides your lab with faster resolution of contaminant outbreaks.

GENUS	SPECIES	STRAIN
Phenotypic Identification		
DiversiLab <sup>™</sup> System		

## Automated Strain Typing

DiversiLab is an automated platform using rep-PCR\* technology that provides **standardized, reproducible** DNA fingerprinting of bacterial and fungal samples for complete isolate characterization. It rapidly and accurately distinguishes your isolates to strain level. With DiversiLab technology, strain typing becomes much easier and possible in routine use, even with numerous specimens.

Intra- and Inter-laboratory reproducibility are key to accurately track contaminants. The DiversiLab platform has been shown to have :

- <1% variability for inter-laboratory reproducibility, <sup>(2)</sup>
- <2% variability or intra-laboratory reproducibility. <sup>(2)</sup>

## Extraction to Result in ~4 hours

**45 min**

### DNA Extraction

Extract DNA from isolated cultures



**2 hours**

### rep-PCR Amplification

Amplify samples using rep-PCR and the appropriate DiversiLab DNA Fingerprinting Kit



**1 hour**

### Detection

Fragments are separated via electrophoresis performed in a microfluidics DNA LabChip (1 to 13 reactions/chip run)



# Empowering decisions in the search for answers

## DiversiLab™ Fingerprinting Kits

(48 tests)

DiversiLab Acinetobacter Kit	270600	DiversiLab Legionella Kit	270617
DiversiLab Archaea Kit	270601	DiversiLab Listeria Kit	270618
DiversiLab Aspergillus Kit	270602	DiversiLab Mold Kit	270650
DiversiLab Bacillus Kit	270603	DiversiLab Mycobacterium Kit	270619
DiversiLab Bifidobacterium Kit	270604	DiversiLab Mycoplasma Kit	270620
DiversiLab Bordetella Kit	270605	DiversiLab M. tuberculosis Kit	270621
DiversiLab Burkholderia Kit	270606	DiversiLab Neisseria Kit	270622
DiversiLab Campylobacter Kit	270607	DiversiLab Non-Fermenter Kit	270651
DiversiLab Candida Kit	270608	DiversiLab Propionibacterium	270623
DiversiLab Clostridium Kit	270609	DiversiLab Pseudomonas Kit	270624
DiversiLab C.perfringens Kit	270610	DiversiLab Salmonella Kit	270625
DiversiLab Enterobacter Kit	270611	DiversiLab Serratia Kit	270626
DiversiLab Enterococcus Kit	270612	DiversiLab Shigella Kit	270627
DiversiLab Escherichia Kit	270613	DiversiLab Staphylococcus Kit	270628
DiversiLab Haemophilus Kit	270614	DiversiLab Stenotrophomonas Kit	270629
DiversiLab Klebsiella Kit	270615	DiversiLab Streptococcus Kit	270630
DiversiLab Lactobacillus Kit	270616	DiversiLab Yeast Kit	270652

## DiversiLab Reagents

DiversiLab LabChip Kit (25 chips) 270670

## DiversiLab Analyser Specifications

Weight: 10 kg (22 lbs)

Dimensions: W 162 x H 412 x D 290 mm - (W 6.4 x H 16.2 x D 11.4 inches)

Contact your local bioMérieux representative for more details and product availability.

## bioMérieux's Complete Offer in Product Control



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