

GENE-UP[®] TYPER

Now You Know
Where It Comes From, What It Is, and What To Do



Your Trusted Partner in Augmented Diagnostics

PIONEERING DIAGNOSTICS

GENE-UP® TYPER: From PCR To Strain Typing

As part of our Augmented Diagnostics approach, GENE-UP® TYPER plays a critical role in risk management. This real-time PCR assay utilizes probabilistic typing of specific microorganisms to help **identify the root cause of contamination** and prevent future occurrences. Recurring batch destruction and production stoppage can hurt your bottom line. Incorporating GENE-UP® TYPER into your routine testing allows you to **proactively manage pathogen risk**.

Have I seen this strain before?

Now You Know... What It Is

Build a strain database for quick comparison with previous events.

Is this a true contamination or a lab cross-contamination?

Now You Know... Where It Comes From

Identify the root cause of contamination.

Is this a persistent strain in my factory?

Now You Know... What To Do

Follow your strain diversity and evaluate which have been growing in your environment to take the right actions.

How can I help minimize damage from a contamination?

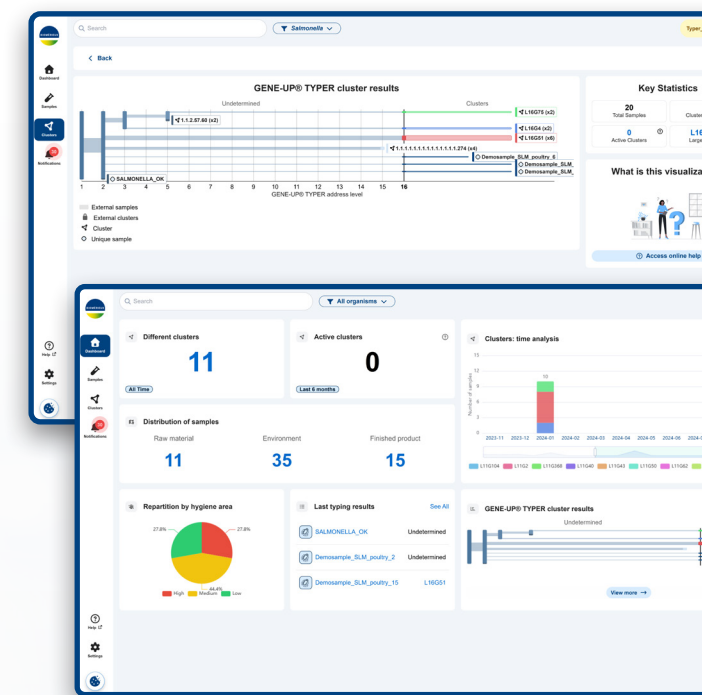
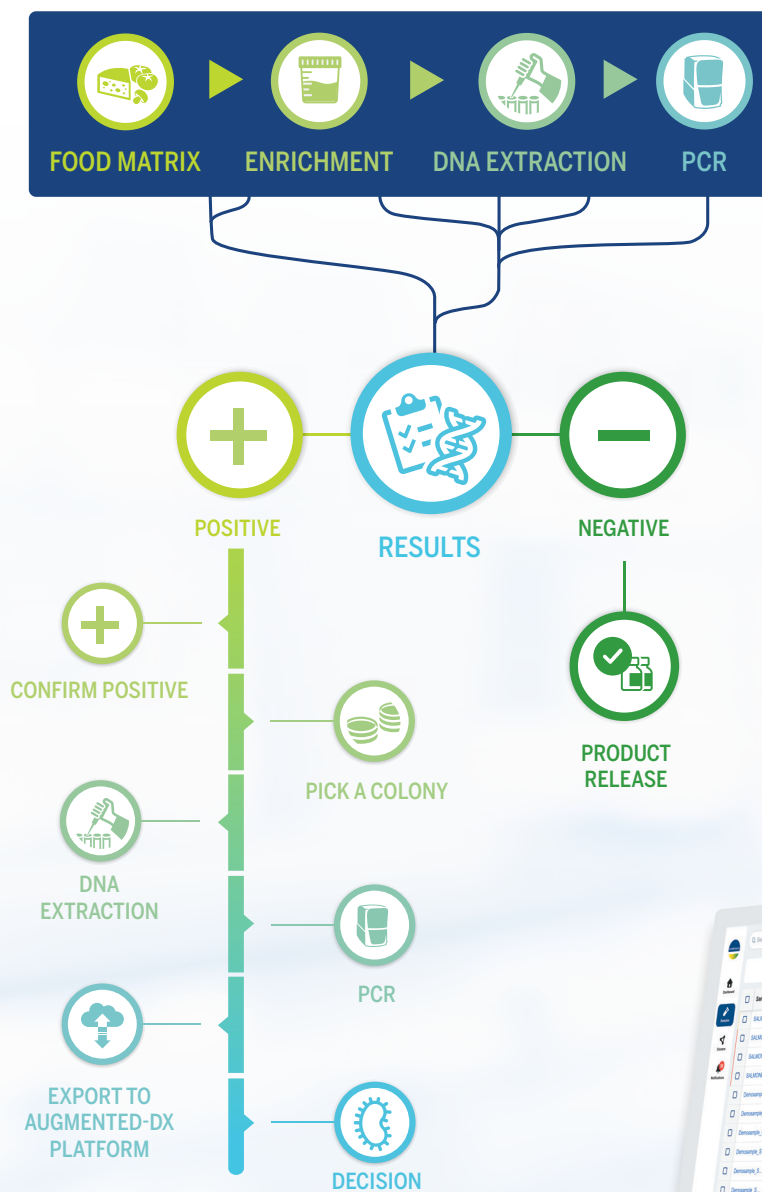
Now You Know... Faster

Make impactful decisions within 2 hours from an isolated colony.

How It Works

An investigation with GENE-UP® TYPER begins after a pathogen is detected during routine testing. Following the isolation of the strains present in your sample, DNA is extracted and amplified through real-time polymerase chain reaction with the GENE-UP® TYPER specific assay, delivering actionable insights thus allowing you to make impactful decisions.

The analytical file generated by GENE-UP® is then transferred to the AUGMENTED-DX Web application. The probabilistic algorithms analyze the presence/absence profiles to generate the predicted GENE-UP® TYPER address and its associated strain cluster in a few seconds.



One System for Routine Testing and Root Cause Investigations

GENE-UP® TYPER is run on our GENE-UP® pathogen detection system. The GENE-UP® solution is based on real-time PCR technology for the detection of foodborne pathogens, spoilers and viruses in food, feed, and environmental samples. With GENE-UP®, you can perform more than 30 testing applications, addressing the testing needs for all food and beverage segments.

Now with GENE-UP® TYPER, you can gain more insight into the pathogen contaminations present in your facility and make impactful decisions. With just one powerful platform, you can conduct routine testing *and* dive deeper with thorough investigations.

GENE-UP® TYPER Targeted Organisms

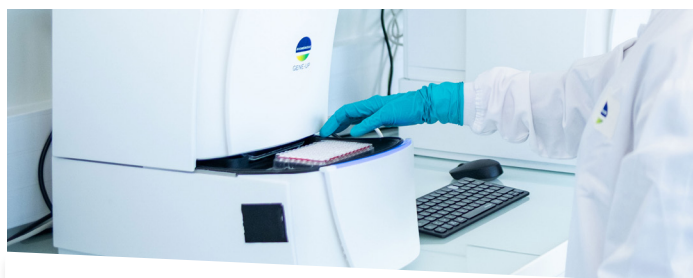
- *Listeria monocytogenes*
- *Salmonella enterica* subsp. *enterica*

Make Your Data Even Stronger

bioMérieux can give you recommendations on how to control pathogens using **GENE-UP® TYPER** as a first step and the **PATHOGEN GENOMICS APP** to deep dive further into your data.

Thanks to Whole Genome Sequencing (WGS), the PATHOGEN GENOMICS APP allows you to analyze strain mutations over time by tracking the number of changes. This helps provide an idea of how long and how well a particular microbe has been growing in your environment, as well as insight on the potential Biocide resistance of the strain.

Enhanced Root Cause Analysis



GENE-UP® TYPER

Quick investigation tool for *Listeria monocytogenes* and *Salmonella*

First degree resolution for quick action



PATHOGEN GENOMICS APP

In-depth investigation for all pathogens

Highest resolution for monitoring

Want to proactively avoid pathogen recurrence in your facility?



Contact your local bioMérieux representative about GENE-UP® TYPER and learn more on our website.

Get a behind the scenes look at our solutions in action.



Download case studies, access white papers, and watch testimonial videos from our partners on our website.