

3M Food Safety
3M™ Molecular Detection System



Pathogen testing.
Pure and simple.





Food processing
is your business.
Food safety is ours. ●

Consumers trust companies such as yours to deliver safe, quality foods every day. Pathogens are a real threat to public health and to your business. 3M listened to your concerns and created a fast, simpler detection method — a solution that delivers accurate results, impacts your bottom line and protects your brand.



Introducing the 3M™ Molecular Detection System

The 3M Molecular Detection System is powered by an innovative combination of unique technologies — Isothermal DNA Amplification and Bioluminescence Detection — to provide a solution that is fast, accurate, easy-to-use and affordable.
It's pathogen testing made pure and simple.




Pure

The 3M Molecular Detection System uses multiple, specific primers targeting distinct regions of the genome, combined with real-time detection of the amplification, to deliver sensitive and specific results. Continuous amplification by a unique, high-fidelity DNA polymerase makes our system less prone to matrix interference. This was designed to help you perform fewer repeat tests and make critical decisions faster.

Simple

Our system makes testing easy, increasing technician productivity and efficiency. All you need is an enriched sample, a laptop and the 3M Molecular Detection System. Using a DNA polymerase that is tolerant to low-quality DNA samples allows for a simple assay set-up with fewer steps. Your lab can even test and display results for multiple organisms in a single run. The simplicity and robustness of our technology combine to deliver a low-cost instrument with minimal maintenance requirements and less downtime for your lab.



The background of the slide features a close-up of fresh, vibrant green leafy vegetables, possibly spinach or Swiss chard, with some leaves showing water droplets. In the bottom right corner, a faint, stylized illustration of a DNA double helix is visible. A semi-transparent dark green rectangular box is centered over the image, containing the main text.

Simplified for productivity.

The science may be complex, but using the system is simple. With the same protocol for each assay and fewer steps than most tests, our system makes it easy to train employees. Color-coded assay tubes with matching software screens deliver a simple, easy-to-use process. Testing different pathogens uses the same process, reducing repetitive tasks for less chance of human error. Plus, our low-maintenance system alerts the operator if it self-detects a malfunction or failure.

1



Set it up

Power up the system and your computer, then launch the software and enter the data for your test. Transfer enriched samples to the pre-filled lysis tubes and mix.

2



Run the test


Put the lysis tube rack on the heating block, then the cooling block. Mix again, and tap the rack to remove bubbles from the tubes. Let the tubes settle. Add the samples to the pre-loaded reagent tubes, and transfer reagent tubes to the instrument using the speedloader tray.

3

Get results

Press start and walk away. Monitor the real-time results and view reports as quickly as pathogen DNA is detected.





A compact system designed purely for superior testing.

The 3M Molecular Detection System was created with your food testing needs in mind. Each streamlined component works together to optimize performance with features that save time, increase productivity and assure accuracy.



Unique assays

- :: Pre-dispensed reagents and custom accessories
- :: Flexibility to test 1 to 96 samples in each run
- :: Ability to test for multiple organisms in a single run
- :: Color-coded assay tubes by organism
- :: Positive samples are identified as early as 15 minutes
- :: Simultaneous amplification and detection process complete in 75 minutes



Robust instrument design

- :: Portable without the need for recalibration
- :: Automatic diagnostics at start-up
- :: No moving parts or cooling fans
- :: No expensive thermocycler, fluorescence detectors or filters required
- :: Removable heater for easy cleaning and decontamination



Powerful software

- :: Multi-task within application while runs are in progress
- :: Operate up to four instruments simultaneously
- :: Results automatically interpreted
- :: System security with password protection and audit logs





A Total Solution You Can Trust.

3M Food Safety products are at work in more than 60 countries around the globe to help keep businesses such as yours moving forward. Our passion is to work with you to discover new food safety solutions that protect your brand, mitigate your risk and improve your operations.

We offer a full line of products that work together for consistent, reliable results. Every day, our people are there to support you locally by providing technical help and exceptional service.

Experience the new 3M Molecular Detection System today. It's pathogen testing made pure and simple.

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