3M™ Molecular Detection System

3M™ Molecular Detection Assay *Salmonella*

Salmonella is one of the most common food-borne pathogens and causes an estimated 2 to 4 million cases of salmonellosis annually. Various serotypes of *Salmonella* have been associated with raw meats, poultry, eggs, milk and dairy products, fish, shrimp, frog legs, yeast, coconut, sauces and salad dressings, cake mixes, cream-filled desserts and toppings, dried gelatin, peanut butter, cocoa and chocolate.

In order to reduce outbreaks of salmonellosis, a comprehensive farm-to-table approach to food safety is necessary. Farmers, industry, food inspectors, retailers, food service workers and consumers are all critical links in the food safety chain. Faster and more accurate testing methods are needed as traditional microbiology methods are cumbersome and can take more than four days to get results.

Product Description

The 3M™ Molecular Detection Assay *Salmonella* is a breakthrough in *Salmonella* testing for the food and beverage industry. An innovative solution that is fast, cost effective and easy to use without sacrificing sensitivity or specificity. The 3M Molecular Detection Assay *Salmonella* is used with the 3M™ Molecular Detection System for the rapid and specific detection of *Salmonella* in enriched food, feed and food process environmental samples.

The 3M Molecular Detection Assays use isothermal amplification of nucleic acid sequences with high specificity, efficiency and rapidity. Bioluminescence is used to detect the amplification. Presumptive positive results are reported in real-time while negative results are displayed after the assay is completed.

Our system offers a single enrichment step and minimal sample transfer post-enrichment making your pathogen testing simpler and faster.

Step 1—Enrich

Step 2—Lyse

Step 3—Amplify and Detect

Benefits

- Molecular accuracy with excellent specificity and sensitivity to help reduce the number of repeat tests
- Streamlined workflow to increase lab efficiency and technician productivity
- Real-time results to help you make critical decisions faster

Features

- Detects 1–5 CFU of *Salmonella* per sample size
- Simultaneous amplification and detection process that is complete in 75 minutes
- Positive samples identified as early as 15 minutes
- Flexibility to test 1 to 96 samples in each run
- Incorporate other assays in the same run using the same protocol
- Only two transfer steps after a single enrichment
- Ready-to-use and pre-dispensed reagents
- Unique color coded assay tubes by organism type
- Closed-tube system to reduce risk of amplicon contamination in the lab

Kit Details

Tests Per Kit: 96

Contents:

- Color-Coded Reagent Tubes
- Pre-Dispensed and Ready-To-Use Lysis Solution
- Caps
- Reagent Control
- Negative Control

Storage Conditions: 2–8°C (shelf-life dated on label)

Certifications and Validations

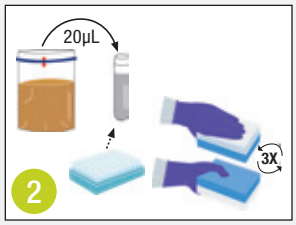
- AOAC® *Performance Tested*℠ (Certificate #031208)
- AOAC® *Official Method of Analysis*℠ (#2013.09)
- NF VALIDATION certificate granted by AFNOR Certification, 3M 01/11-11/12
- Health Canada Compendium of Analytical Methods MLFP-06

Sample Enrichment

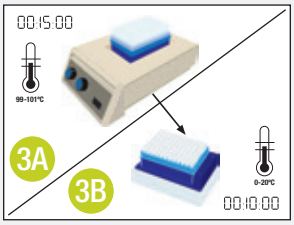
The 3M™ Molecular Detection Assay *Salmonella* uses 3M™ Buffered Peptone Water ISO for the enrichment of *Salmonella* in a variety of food, feed and process environmental samples. Please refer to the 3M Molecular Detection Assay *Salmonella* Product Instructions for detailed information, including scope and specific protocols for validated methods.

3M™ Molecular Detection Assay Process

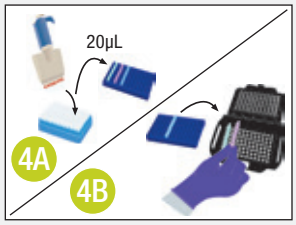
Set up run in software.



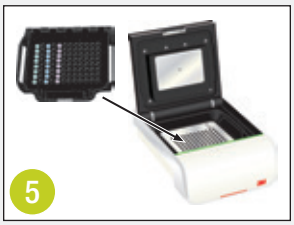
Transfer enriched sample to lysis tubes.



Heat lysis tubes, then chill.



Transfer lysate to reagent tubes.



Place speed loader tray into instrument.

Amplification and detection in real time.

3M™ Molecular Detection System Matrix Control

The 3M Molecular Detection System uses continuous amplification by a unique, high fidelity DNA polymerase that makes our system less prone to matrix interference. To assist with your verification process, we offer the 3M™ Molecular Detection Matrix Control to check for sample inhibition. 3M recommends using the Matrix Control during validation periods when adopting the 3M method or testing new or unknown matrices.

Ordering Information

Catalog Number	Description	Size	Qty.
MDAS96NA	3M™ Molecular Detection Assay *Salmonella*	96 Tests/Kit	1
MDMC96NA	3M™ Molecular Detection Matrix Control	96 Tests/Kit	1
BPW500	Buffered Peptone Water Broth ISO	500g Bottle	1
BPW025	Buffered Peptone Water Broth ISO	2.5kg Bottle	1
BPW010	Buffered Peptone Water Broth ISO	10kg Pail	1
HS10DE2G	3M™ Hydrated-Sponge w/DE Broth, 2 Gloves	10mL	100
SSL10DE	3M™ Sponge-Stick w/DE Broth	10mL	100
ENVSWB25	3M™ Enviro Swab	—	25
6469	3M™ Blender Bags w/ Filter, 6.75" x 12"	55 oz, 3 mil	200

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