



# CERTIFICATION

## AOAC Research Institute *Performance Tested Methods*<sup>SM</sup>

Certificate No.

**091501**

The AOAC Research Institute hereby certifies the method known as

### **Molecular Detection Assay 2 – *Salmonella***

manufactured by

**Neogen Corporation  
620 Leshar Place  
Lansing, Michigan 48912 USA**

This method has been evaluated and certified according to the policies and procedures of the AOAC *Performance Tested Methods*<sup>SM</sup> Program. This certificate indicates an AOAC Research Institute Certification Mark License Agreement has been executed which authorizes the manufacturer to display the AOAC Research Institute *Performance Tested Methods*<sup>SM</sup> certification mark on the above-mentioned method for the period below. Renewal may be granted by the Expiration Date under the rules stated in the licensing agreement.

A handwritten signature in black ink, appearing to read "Bradley A. Stawick".

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Bradley A. Stawick, AOAC Research Institute Senior Director

Issue Date                      January 19, 2026

Expiration Date                December 31, 2026

**METHOD NAME**

Neogen® Molecular Detection Assay 2 – *Salmonella*  
Formerly 3M™ Molecular Detection Assay 2 – *Salmonella*

**CATALOG NUMBER**

MDA2SAL96 (SKU 700002157)

**ORIGINAL CERTIFICATION DATE**

September 21, 2015

**PRINCIPLE OF THE METHOD**

The Neogen® MDA 2 – *Salmonella* is used with the Neogen Molecular Detection System for the rapid and specific detection of *Salmonella* in enrichments of food, animal feed and food process environmental samples.

The Molecular Detection Assays use loop-mediated isothermal amplification to rapidly amplify nucleic acid sequences with high specificity and sensitivity, combined with bioluminescence to detect the amplification. Presumptive positive results are reported in real-time while negative results are displayed after the assay is completed. Presumptive positive results should be confirmed using your preferred method or as specified by local regulations.

**CERTIFIED CLAIM STATEMENT:** The Molecular Detection Assay 2 – *Salmonella* method is certified for the detection of *Salmonella* species within the scope of Tables 1 and 2 and the modifications indicated in Table 3.

**Certified method includes:**

1. Molecular Detection System Instrument, software version 3.4.0

**Table 1. Method Performance Claims**

Matrix	Test Portion	Enrichment Conditions				Reference Method/SMPR <sup>b</sup>	Claim <sup>c</sup>
		Broth <sup>a</sup>	Volume	Temperature	Time		
Raw ground beef (73% lean)	25 g	pw BPW ISO	225 mL	41.5 ± 1°C	10-24 h	MLG 4.08	NSDD
	325 g	pw BPW ISO	975 mL	41.5 ± 1°C	10-24 h	MLG 4.08	NSDD
Raw ground chicken	25 g	pw BPW ISO	225 mL	41.5 ± 1°C	14-24 h	MLG 4.08	NSDD
	325 g	pw BPW ISO	975 mL	41.5 ± 1°C	14-24 h	MLG 4.08	NSDD
Chicken carcass rinse	30 mL	pw BPW ISO	30 mL	41.5 ± 1°C	18-24 h	MLG 4.08	NSDD
Chicken carcass	sponge <sup>d</sup>	pw BPW ISO	50 mL	41.5 ± 1°C	18-24 h	MLG 4.08	NSDD
Cooked breaded chicken	325 g	BPW ISO	2925 mL	37 ± 1°C	18-24 h	MLG 4.08	NSDD
Pasteurized liquid whole egg	100 g	BPW ISO	900 mL	37 ± 1°C	18-24 h	MLG 4.08	NSDD
Instant nonfat dry milk	25 g	BPW ISO	225 mL	37 ± 1°C	20-24 h	BAM Ch. 5	NSDD
Black pepper	25 g	BPW ISO	225 mL	37 ± 1°C	18-24 h	BAM Ch. 5	NSDD
Cocoa powder	25 g	BPW ISO	225 mL	37 ± 1°C	24-28 h	BAM Ch. 5	NSDD
Raw whole shrimp	25 g	BPW ISO	225 mL	37 ± 1°C	18-24 h	BAM Ch. 5	NSDD
Raw whole (head on) shrimp	25 g	BPW ISO <sup>e</sup>	225 mL	37 ± 1°C	18-24 h	ISO 6579-1:2017	NSDD

Raw bagged spinach	25 g	BPW ISO	225 mL	37 ± 1°C	18-24 h	BAM Ch. 5	NSDD
Creamy peanut butter	25 g	BPW ISO	225 mL	37 ± 1°C	18-24 h	BAM Ch. 5	NSDD
	375 g	BPW ISO	3375 mL	37 ± 1°C	18-24 h	BAM Ch. 5	NSDD
Dry dog food	25 g	BPW ISO	225 mL	37 ± 1°C	18-24 h	BAM Ch. 5	NSDD
	375 g	BPW ISO	1500 mL	37 ± 1°C	18-24 h	BAM Ch. 5	NSDD
Pasteurized processed American cheese	25 g	BPW ISO	225 mL	37 ± 1°C	18-24 h	BAM Ch. 5	NSDD
Spent sprout irrigation water	375 mL	BPW ISO	1500 mL	37 ± 1°C	18-24 h	FDA Guidance	NSDD
Boot socks	1 pair	2X BPW ISO	225 mL	37 ± 1°C	20-26 h	ISO 6579-1:2017	NSDD
Boot socks (with high concentration of calcium)	1 pair	2X BPW ISO <sup>f</sup>	225 mL	37 ± 1°C	20-26 h	ISO 6579-1:2017	NSDD
Sealed concrete	4"x4", sponge <sup>g</sup>	pw BPW ISO	225 mL	41.5 ± 1°C	18-24 h	BAM Ch. 5	NSDD
Stainless steel	1"x1", swab <sup>g</sup>	pw BPW ISO	10 mL	41.5 ± 1°C	18-24 h	BAM Ch. 5	NSDD
Sealed ceramic tile	4"x4", sponge <sup>g</sup>	pw BPW ISO	50 mL	41.5 ± 1°C	18-24 h	BAM Ch. 5	NSDD
Dried cannabis flower (>0.3% THC)	10 g	BPW ISO	90 mL	41.5 ± 1°C	28-32 h	SMPR 2020.002	NSDD
Dried hemp flower (≤0.3% THC)	10 g	BPW ISO	90 mL	41.5 ± 1°C	28-32 h	SMPR 2020.002	NSDD

<sup>a</sup> pw = prewarmed; BPW ISO = Buffered Peptone Water ISO formulation

<sup>b</sup> MLG = Microbiology Laboratory Guidebook; BAM = Bacteriological Analytical Manual; FDA Guidance = U.S. FDA Guidance for Industry: Sampling and Microbial Testing of Spent Irrigation Water during Sprout Production (October 27, 1999); ISO = International Organization for Standardization; SMPR = Standard Method Performance Requirements

<sup>c</sup> NSDD = No statistical difference detected using SLV study design from OMA Appendix J (2012). The SLV qualitative method comparison study design from OMA Appendix J (2012) is not intended to demonstrate statistical equivalence. Expert opinion is that the method is appropriate for its intended use.

<sup>d</sup> Sponges premoistened in 10 mL BPW

<sup>e</sup> Transfer 0.1 mL BPW ISO to 10 mL RVS, mix well and incubate at 41.5 ± 1°C for 4 h.

<sup>f</sup> For boot socks containing a high concentration of calcium, transfer 1 mL of enriched media to 9 mL BPW-ISO (1:10 dilution) or 0.1 mL to 9.9 mL BPW-ISO (1:100 dilution) prior to analysis.

<sup>g</sup> Sponges premoistened Dey-Engley broth; swabs premoistened with Lethen broth

**Table 2. Method Selectivity**

Broth <sup>a</sup>	Temperature	Inclusivity Strains		Exclusivity Strains	
		No. Tested	No. Positive	No. Tested	No. Positive
BPW ISO	37 ± 1°C	111 <sup>b</sup>	111	30 <sup>c</sup>	0
BPW ISO	41.5 ± 1°C	111 <sup>b</sup>	109 <sup>d</sup>	NA <sup>e</sup>	NA
BPW ISO & RVS <sup>f</sup>	37 ± 1°C	100 <sup>b</sup>	99 <sup>g</sup>	10 <sup>h</sup>	0

<sup>a</sup> BPW ISO = Buffered Peptone Water ISO formulation; RVS = Rappaport-Vassiliadis Salmonella.

<sup>b</sup> Comprising *Salmonella bongori* and *Salmonella enterica* including subsps *arizonae*, *diarizonae*, *indica*, *houtenae*, *salamae*, and *enterica*

<sup>c</sup> Comprising 29 species

<sup>d</sup> *S. enterica* subsp. *Enterica* ser. *Poona* and *S. enterica* subsp. *Enterica* ser. *Urbana* were negative at 41.5°C. A second strain of each type was tested, and a positive result was observed.

<sup>e</sup> One set of exclusivity strains was tested with both 37°C and 41.5°C inclusivity strain sets.

<sup>f</sup> Strains were cultured in BPW ISO at 37 ± 1°C for 18-24 h followed by a transfer of 0.1 mL into 10 mL RVS then incubated for 4 h at

41.5 ± 1°C.

<sup>g</sup> *S. enterica* subsp. *arizonae* was not detected.

<sup>h</sup> Comprising 10 species

**Table 3. Method History**

No.	Date	Summary	Supporting Data
1	September 2015	Original certification: Included raw ground beef, raw ground chicken, chicken carcass rinse, chicken carcass sponge, instant non-fat dry milk, black pepper, cocoa powder, pasteurized liquid whole egg, raw whole shrimp, raw bagged spinach, spent sprout irrigation water, cooked breaded chicken, peanut butter, dry dog food, American cheese, sealed concrete, stainless steel, sealed ceramic tile	Certification Report
2	March 2019	Level 3 Modification: Evaluation of new enrichment conditions and addition of raw whole (head-on) shrimp	Modification 1 Report
3	January 2022	Level 2 Modification: Addition of dried cannabis flower (>0.3% THC) and dried hemp flower (≤0.3% THC)	Modification 2 Report
4	January 2024	Level 1 Modification: Rebrand method from 3M to Neogen Corporation	NA <sup>a</sup>
5	June 2025	Level 2 Modification: Addition of boot socks from poultry production environments	Modification 3 Report

<sup>a</sup> Not applicable