



Laboratory Proficiency Testing Program

M04

Meat Microbiology 2 Program

***E. coli* O157:H7**

09-08-2025 (Shipment Date)

10-08-2025 (Final Report Issue Date)

Round ID: M04-090825



CERT # 1782.01

Proficiency Testing Provider

AOAC INTERNATIONAL
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Report Authorization

This report has been authorized by Shane Flynn, Senior Director of the AOAC laboratory Proficiency Testing Program.

Shane P Flynn

**REPORT TO PARTICIPANTS IN
THE AOAC® LABORATORY PROFICIENCY TESTING PROGRAM
MEAT MICROBIOLOGY 2 PROGRAM
E. coli O157:H7**

1.0 Introduction

Test materials for the Meat Microbiology 2 Program (*E. coli* O157:H7) were shipped to participants on September 8, 2025. Each laboratory was given a site identification number in order to maintain confidentiality. Participants were encouraged to analyze the samples on September 9, 2025 and urged to initiate analyses by no later than Monday, September 15, 2025. The instruction packet on how to use the confidential online data submission system was posted online. The participants were to submit an electronic response online to verify the condition of the test materials upon receipt and confirm the safe handling of the test materials containing *E. coli* O157:H7 by participants. Participants were instructed to analyze the test materials according to procedures routinely used in their laboratories. The results were to be submitted to AOAC by September 23, 2025.

2.0 Preparation of Test Materials

Each set of test materials included ten samples, each containing approximately 25 grams of frozen ground meat. All of the samples were for qualitative testing. The matrix was screened prior to spiking. Each sample was individually inoculated. Some samples were inoculated with high levels (10 - 100 cells/gram) of organisms and some samples were inoculated with low levels of organisms (1 -10 cells/gram). Two controls were uninoculated. Each sample was individually inoculated. Three samples were analyzed to verify the presence or absence of *E. coli* O157:H7. Homogeneity is Appendix C, inoculation scheme is Appendix D and stability is Appendix E.

Samples were prepared by the following laboratory:

Mérieux NutriSciences Silliker®
Food Science Center 3600
Eagles Nest Drive, Bldg. A Crete,
IL 60417

3.0 Analyses Requested

Samples 1-10	<i>E. coli</i> O157:H7	Indicate Positive/Negative
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The participants had the option of not testing for H7 if the laboratory does not routinely do that test as part of the analysis. Information on the method used for each analyses was requested.

Appendix A
Results for (M04) Meat Microbiology 2
E. coli O157:H7 species
Shipment on September 8, 2025
Site identification: 193788

09/29/2025 8:22 AM

Sample Number	<i>E. coli</i> O157:H7 Expected Results	Result for Site ID 193788 Presence or Absence of <i>E. coli</i> O157:H7 species	Evaluation	Comments from Site ID 193788
E1	<i>E. coli</i> O157:H7 Present	Present	ACCEPTABLE	
E2	<i>E. coli</i> O157:H7 Present	Present	ACCEPTABLE	
E3	Uninoculated N/A Absent	Absent	ACCEPTABLE	
E4	<i>E. coli</i> O157:H7 Present	Present	ACCEPTABLE	
E5	<i>E. coli</i> O157:H7 Present	Present	ACCEPTABLE	
E6	<i>E. coli</i> O157:H7 Present	Present	ACCEPTABLE	
E7	Uninoculated N/A Absent	Absent	ACCEPTABLE	
E8	<i>E. coli</i> O157:H7 Present	Present	ACCEPTABLE	
E9	<i>E. coli</i> O157:H7 Present	Present	ACCEPTABLE	
E10	<i>E. coli</i> O157:H7 Present	Present	ACCEPTABLE	

4.0 Results

Confidentiality of results will be maintained by issuing site identification codes to the participants. Results in reports will only be identified by the site identification code. Results of participants were compared to the expected results. The results table specifies whether the participant tested for serotype. There was inadequate information about the methodology used to group the results according to method for this shipment.

If a participant would like to appeal against the assessment of their performance in this proficiency testing scheme please contact staff at LPTP@AOAC.org

4.1 Comments and Recommendations

All participating laboratories performed well. AOAC encourages participating laboratories to investigate any false positives, or false negatives. If participants have questions on reporting, please contact PT Staff by sending an email to LPTP@AOAC.org, before officially submitting final results. Once a lab has officially submitted results, no changes can be made.

Individual laboratory results are in Appendix A



Meat Microbiology 2 (M04) PROFICIENCY TESTING PROGRAM

Sample:	Enclosed are ten samples, each containing 25 grams of ground meat. Shelf-life studies performed on samples stored frozen demonstrated that the samples remained stable for a period of at least 7 days if stored frozen. Please make every effort to analyze samples as soon as possible. Sample should arrive 10°C or below. These samples should be handled and analyzed in the same manner and following the same analytical standard operating procedures (SOPs) as routine samples.
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Ship Date:	0 -0 -2025
Start Analysis by Date:	0 -1 -2025
Result Due Date:	0 -2 -2025

Storage:	Store samples frozen (-20°C) until analysis date.
Thawing:	Thaw when ready to analyze by placing the samples into a plastic bag in cold water for 1 -2 hours. Do not refreeze the samples.

Analyze samples numbered 1 through 10 for the following:

E.coli O157:H7 - Specify the method. Report as PRESENT or ABSENT.

Use the comment section to provide additional information.

Reporting	
Where to Report	https://pt2.aoac.org
How to Report	Step by step instructions for online reporting are available once online account is accessed

Questions and Comments

If you have questions regarding the M04 PT round, please
contact LPTP@AOAC.org.

Test Material Provider:

Mérieux NutriSciences
Silliker® Food Science Center
3600 Eagles Nest Drive, Bldg. A
Crete, IL 60417

Appendix C
Homogeneity Results - Qualitative
Meat Microbiology - M04
Ship Date: September 8, 2025

Results of Homogeneity Testing - *E. coli* O157:H7/25g Sample

	Inoculated in Same Batch	Inoculation Scheme	Results		Serotype	
			Replicate 1	Replicate 2		
E-1	E-4, E-5, E-8, E-9	<i>E. coli</i> O157:H7 - Low	Positive	Positive	O157:H7	Passed
E-2	E-6, E-10	<i>E. coli</i> O157:H7 - High	Positive	Positive	O157:H7	Passed
E-3	E-7	Uninoculated	Negative	Negative	NA	Passed
E-8		<i>E. coli</i> O157:H7 - Low				

Appendix D
Inoculation Scheme
Meat Microbiology - M04
Ship Date: September 8, 2025

	Inoculation Scheme
E-1	<i>E. coli</i> O157:H7 - Low
E-2	<i>E. coli</i> O157:H7 - High
E-3	Uninoculated
E-4	<i>E. coli</i> O157:H7 - Low
E-5	<i>E. coli</i> O157:H7 - Low
E-6	<i>E. coli</i> O157:H7 - High
E-7	Uninoculated
E-8	<i>E. coli</i> O157:H7 - Low
E-9	<i>E. coli</i> O157:H7 - Low
E-10	<i>E. coli</i> O157:H7 - High

Appendix E
Stability Analysis
Meat Microbiology - M04
Ship Date: September 8, 2025
Analysis Date: September 23, 2025

Results of Stability Testing - *E. coli* O157:H7/25g Sample

	Inoculated in Same Batch	Inoculation Scheme	Results		Serotype	
			Replicate 1	Replicate 2		
E-1	E-4, E-5, E-8, E-9	<i>E. coli</i> O157:H7 - Low	Positive	Positive	O157:H7	Passed
E-2	E-6, E-10	<i>E. coli</i> O157:H7 - High	Positive	Positive	O157:H7	Passed
E-3	E-7	Uninoculated	Negative	Negative	NA	Passed
E-8		<i>E. coli</i> O157:H7 - Low				