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Workflows for Detection of *E. coli* in Food Samples

Pub. No. MAN0009419   **Rev.** C.0

Note: Validated workflows include enrichment, sample preparation, detection, and confirmation methods described in the specified user guides. Refer to the appropriate publication for the specific matrices included in each validated workflow.

NF VALIDATION™-certified workflows (AFNOR™) for PCR detection

Workflow overview			
Species	*E. coli* O157:H7	*E. coli* O157:H7	*E. coli* O157:H7
NF VALIDATION™ categories	Raw beef meat and raw produce	Raw beef meat and raw produce	Raw beef meat
Nucleic acid (NA) isolation (sample prep)	Applied Biosystems™ PrepSEQ™ Nucleic Acid Extraction Kit (Cat. Nos. 4480466, 4428176)	Applied Biosystems™ PrepSEQ™ Rapid Spin Sample Preparation Kit (Cat. Nos. 4407760, 4426714, 4413269, 4426715)	Thermo Scientific™ SureTect™ E. coli O157:H7 PCR Assay (Cat. No. PT0400A)
NA isolation workflow	Automated	Spin column	Direct lysis
PCR detection	Applied Biosystems™ MicroSEQ™ *E. coli* O157:H7 Detection Kit (Cat. No. 4427409)	Applied Biosystems™ MicroSEQ™ *E. coli* O157:H7 Detection Kit (Cat. No. 4427409)	Thermo Scientific™ SureTect™ E. coli O157:H7 PCR Assay (Cat. No. PT0400A)
User guide (Pub. No.)	4426513: Sample enrichment and NA isolation 4426511: PCR[1] and confirmation	4426519: Sample enrichment and NA isolation 4426511: PCR[1] and confirmation	D12162

[1] Refer to the specified user guide for the real-time PCR instruments and analysis software included in the NF VALIDATION™-certified workflow.

AOAC™ *Performance Tested Methods*℠ - certified workflows for PCR detection

Workflow overview				
Species	*E. coli* O157:H7	*E. coli* O157:H7	*E. coli* O157:H7 and non-O157 STECs[1]	*E. coli* O157:H7 and non-O157 STECs[1]	*E. coli* O157:H7
***Performance Tested Methods*℠ matrices**	Meat products, leafy green products, and juices	Meat products, leafy green products, and juices	Raw beef	Raw beef	Raw beef, leafy green products, and juices
Nucleic acid (NA) isolation (sample prep)	Applied Biosystems™ PrepSEQ™ Nucleic Acid Extraction Kit (Cat. Nos. 4480466, 4428176)	Applied Biosystems™ PrepSEQ™ Rapid Spin Sample Preparation Kit (Cat. Nos. 4407760, 4426714, 4413269, 4426715)	Applied Biosystems™ PrepSEQ™ Nucleic Acid Extraction Kit (Cat. Nos. 4480466, 4428176)	Applied Biosystems™ PrepSEQ™ Rapid Spin Sample Preparation Kit – Extra Clean with Proteinase K (Cat. Nos. 4426715)	Thermo Scientific™ SureTect™ E. coli O157:H7 PCR Assay (Cat. No. PT0400A)
NA isolation workflow	Automated	Spin column	Automated	Spin column	Direct lysis
PCR detection	Applied Biosystems™ MicroSEQ™ *E. coli* O157:H7 Detection Kit (Cat. No. 4427409)	Applied Biosystems™ MicroSEQ™ *E. coli* O157:H7 Detection Kit (Cat. No. 4427409)	Applied Biosystems™ RapidFinder™ STEC Screening Assay (Cat. No. 4476886) Applied Biosystems™ RapidFinder™ STEC Confirmation Assay (Cat. No. 4476901)	Applied Biosystems™ RapidFinder™ STEC Screening Assay (Cat. No. 4476886) Applied Biosystems™ RapidFinder™ STEC Confirmation Assay (Cat. No. 4476901)	Thermo Scientific™ SureTect™ E. coli O157:H7 PCR Assay (Cat. No. PT0400A)
User guide (Pub. No.)	4426513: Sample enrichment and NA isolation 4426511: PCR[2] and confirmation	4426519: Sample enrichment and NA isolation 4426511: PCR[2] and confirmation	4477013	MAN0015934	D12162

[1] Serogroups O26, O45, O103, O111, O121, and O145.
[2] Refer to the specified user guide for the real-time PCR instruments and analysis software included in the *Performance Tested Methods*℠-certified workflow.

For testing of Food and Environmental samples only.

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AOAC™ *Performance Tested Methods*ˢᴹ-certified workflows for selective agar detection

Workflow overview			
Species	*E. coli* O157:H7	*E. coli* O157:H7	*E. coli* O157:H7
***Performance Tested Methods*ˢᴹ matrices**	Raw ground beef	Raw ground beef	Raw ground beef
Sample preparation	Applied Biosystems™ Pathatrix™ *E. coli* O157:H7 Kit (Cat. No. APE50SD; individual samples)	Applied Biosystems™ Pathatrix™ 5-Pooling *E. coli* O157:H7 Kit (Cat. No. APE250SDP; pooled samples)	Applied Biosystems™ Pathatrix™ 10-Pooling *E. coli* O157:H7 Kit (Cat. No. APE500SDP; pooled samples)
Sample preparation workflow	Immunomagnetic separation	Immunomagnetic separation	Immunomagnetic separation
Detection	Selective agar	Selective agar	Selective agar
User guide (Pub. No.)	MAN0007092	MAN0007090	MAN0007091

The information in this guide is subject to change without notice.

For support visit **thermofisher.com/support** or email **techsupport@lifetech.com**

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