

Workflows for Detection of *Salmonella* in Food and Environmental Samples

Pub. No. MAN0009417 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.

Table 1 NF Validation™-certified workflows (AFNOR™) for PCR detection

Workflow overview					
Species	<i>Salmonella</i> spp.	<i>Salmonella</i> spp.	<i>Salmonella</i> spp.	<i>Salmonella</i> spp.	<i>Salmonella enterica</i>
NF Validation categories	Meat products (processed and unprocessed)	Any food and feed category	Primary production samples	Heat-treated dairy products and meat products	All food and feed categories
Nucleic acid (NA) isolation (sample prep)	PrepSEQ® Nucleic Acid Extraction Kit [Cat. nos. 4480466, 4428176]	PrepSEQ® Rapid Spin Sample Preparation Kits [Cat. nos. 4407760, 4413269 [Extra Clean]]	PrepSEQ® Nucleic Acid Extraction Kit [Cat. nos. 4480466, 4428176] <i>or</i> PrepSEQ® Rapid Spin Sample Preparation Kit – Extra Clean with Proteinase K [Cat. no. 4426715]	Pathatrix® <i>Salmonella</i> spp. Kits [Cat. nos. APS500P (10-pooled samples), APS50 (individual samples)] Lysis Buffer, FS [Cat. no. 4480724]	PrepMan® Ultra Sample Preparation Reagent [Cat. no. 4318930]
NA isolation workflow	Automated	Spin column	Automated <i>or</i> Spin column	Immunomagnetic separation and direct lysis	Heat lysis and spin
PCR detection	MicroSEQ® <i>Salmonella</i> spp. Detection Kit [Cat. no. 4403930]	MicroSEQ® <i>Salmonella</i> spp. Detection Kit [Cat. no. 4403930]	MicroSEQ® <i>Salmonella</i> spp. Detection Kit [Cat. no. 4403930]	MicroSEQ® <i>Salmonella</i> spp. Detection Kit [Cat. no. 4403930]	TaqMan® <i>Salmonella enterica</i> Detection Kit [Cat. no. 4366104]
User guide (Pub. no.)	4485954 (Revision B and later)	MAN0010012 ^[1]	4476867 ^[2]	MAN0009585	4381939 ^[2]

^[1] Supersedes Pub. nos. 4412848 (now AOAC workflow) and 4405964 (discontinued).

^[2] Refer to the specified user guide for the real-time PCR instruments and analysis software included in the NF Validation™-certified workflow.

Table 2 AOAC® Performance Tested MethodsSM-certified workflows for PCR detection

Workflow overview				
Species	<i>Salmonella</i> spp.	<i>Salmonella</i> spp.	<i>Salmonella</i> spp.	<i>Salmonella enterica</i>
Performance Tested MethodsSM matrices	Food matrices, environmental surfaces	Food matrices, environmental surfaces	Food matrices	Food matrices
Nucleic acid (NA) isolation (sample prep)	PrepSEQ® Nucleic Acid Extraction Kit [Cat. nos. 4480466, 4428176]	PrepSEQ® Rapid Spin Sample Preparation Kits [Cat. nos. 4407760, 4413269 [Extra Clean]]	Pathatrix® 10-Pooling <i>Salmonella</i> spp. Kit [Cat. no. APS500P] Lysis Buffer, FS [Cat. no. 4480724]	PrepMan® Ultra Sample Preparation Reagent [Cat. no. 4318930]
NA isolation workflow	Automated	Spin column	Immunomagnetic separation and direct lysis	Heat lysis and spin
PCR detection	MicroSEQ® <i>Salmonella</i> spp. Detection Kit [Cat. no. 4403930]	MicroSEQ® <i>Salmonella</i> spp. Detection Kit [Cat. no. 4403930]	MicroSEQ® <i>Salmonella</i> spp. Detection Kit [Cat. no. 4403930]	TaqMan® <i>Salmonella enterica</i> Detection Kit [Cat. no. 4366104]
User guide (Pub. no.)	4405968 (Revision D and later)	4412848 (Revision F and later)	MAN0006977	4381939 ^[1]

^[1] Refer to the specified user guide for the real-time PCR instruments and analysis software included in the Performance Tested MethodsSM-certified workflow.

Table 3 AOAC® Performance Tested MethodsSM-certified workflows for selective agar detection

Workflow overview			
Species	<i>Salmonella</i> spp.	<i>Salmonella</i> spp.	<i>Salmonella</i> spp.
Performance Tested MethodsSM matrices	Food matrices	Food matrices	Food matrices
Sample preparation	Pathatrix® <i>Salmonella</i> spp. Kit (Cat. no. APS50; individual samples)	Pathatrix® 5-Pooling <i>Salmonella</i> spp. Kit (Cat. no. APS250P; pooled samples)	Pathatrix® 10-Pooling <i>Salmonella</i> spp. Kit (Cat. no. APS500P; pooled samples)
Sample preparation workflow	Immunomagnetic separation	Immunomagnetic separation	Immunomagnetic separation
Detection	Selective agar	Selective agar	Selective agar
User guide (Pub. no.)	MAN0006974	MAN0006973	MAN0006975

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