

## Foodborne Pathogen Test Kits Validated by Independent Organizations

FSIS is making available a list of test kits that have been validated for detection of relevant foodborne pathogens (i.e. *Salmonella*, *Campylobacter*, *E. coli* O157:H7, *Listeria* spp. including *L. monocytogenes*, and non-O157 STECs). These lists are intended to be informational and are not an endorsement or approval of any particular method, regardless of its inclusion in the list.

While FSIS does not require the use of any particular test method, the method chosen by an establishment should be:

- 1) Validated for testing relevant foods by:
  - a) a recognized independent body (i.e., AOAC, AFNOR, MicroVal, NordVal), or
  - b) a U.S. regulatory body (i.e. FSIS MLG or FDA BAM), or an ISO method
- 2) The validated method should be:
  - a) Fit for the intended purpose and application, and
  - b) Performed under validated conditions by a laboratory that assures the quality of the analytical results.

The table below contains a list of foodborne pathogen test kits that meet criterion 1a as described above; i.e., are validated by recognized independent organizations (e.g., AOAC, AOAC-RI, AFNOR, MicroVal, NordVal). None of the test kits listed below are implicitly approved by USDA FSIS. A validated test kit must also be fit for purpose (i.e. validated for the appropriate matrix and sample size) and appropriate for the specific application in a food safety program. Additionally these methods should be performed as per the conditions of the validated protocol by a laboratory that assures the analytical results. FSIS has published further guidance for choosing a microbiological laboratory (<http://www.fsis.usda.gov/wps/wcm/connect/464a4827-0c9a-4268-8651-b417bb6bba51/Guidance-Selection-Commercial-Private-Microbiological-Testing-lab-062013.pdf?MOD=AJPERES>). The sampling methodology and frequency must be appropriate to answer the food safety question that is asked. Finally, sample transport and storage should be appropriate to ensure the integrity of the sample and the result.

The methods listed here are not necessarily equivalent or appropriate for all specific testing applications. Please refer to other FSIS guidance on fitness for purpose for specific applications. As an example, AskFSIS provides guidance on appropriate test portions for *E. coli* O157:H7 testing and application of non-culture confirmation methods to confirm screening test results. For *Listeria* food contact surface and other environmental samples, FSIS has provided the following additional guidance for sampling and testing; i.e., validated methods should include an enrichment step for the entire sponge, swab or sampling device. Methods listed below do not necessarily meet all of these criteria. For more detail on RTE *Listeria*, FSIS has published RTE *Listeria* Compliance Guidelines (<http://www.fsis.usda.gov/wps/wcm/connect/d3373299-50e6-47d6-a577-e74a1e549fde/Controlling-Lm-RTE-Guideline.pdf?MOD=AJPERES>).

On a case-by-case basis, FSIS has reviewed robust studies using the FSIS MLG method as a reference method. For these reviews, FSIS uses the FSIS Test Kit validation guidelines to evaluate the study design, results, and data analysis for these alternative methods ([http://www.fsis.usda.gov/wps/wcm/connect/966638c7-1931-471f-a79e-4155ce461d65/Validation\\_Studies\\_Pathogen\\_Detection\\_Methods.pdf?MOD=AJPERES](http://www.fsis.usda.gov/wps/wcm/connect/966638c7-1931-471f-a79e-4155ce461d65/Validation_Studies_Pathogen_Detection_Methods.pdf?MOD=AJPERES)). These alternative methods are not included in the lists below because they are not externally validated by an independent organization.

FSIS intends to update validated test kit lists on a quarterly basis.

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
S001a	3M™ Molecular Detection Assay <i>Salmonella</i>	<i>Salmonella</i> spp.	3M Health Care	AFNOR # 3M 01/11 - 11/12	All human food products (except spices, aromatic herbs, instant coffees and teas, bouillon cubes/concentrates, milk powders and cocoa powders) and environmental samples (except primary production stage environment)	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
S001b	3M™ Molecular Detection Assay	<i>Salmonella</i> spp.	3M Food Safety	AOAC-RI # 031208	Pasteurized liquid whole egg, raw ground beef, cooked breaded chicken, raw shrimp, bagged spinach, wet pet food (375g)	25g except where noted in "Validated Matrices"
S001c	3M™ Molecular Detection Assay (MDA) <i>Salmonella</i> Method	<i>Salmonella</i> spp.	3M Food Safety	AOAC-OMA # 2013.09	Raw ground beef, processed breaded chicken (325g), liquid egg (100g), shrimp, fresh spinach, and wet dog food (375g)	25g except where noted in "Validated Matrices"
S002a	3M™ TECRA™ <i>Salmonella</i> Visual Immunoassay	<i>Salmonella</i> spp.	3M Microbiology	AOAC-OMA # 989.14	All foods	25g
S002b	3M™ TECRA™ <i>Salmonella</i> Visual Immunoassay	<i>Salmonella</i> spp.	3M Microbiology	AOAC-OMA # 998.09	All foods	25g
S004a	ADIAFOOD Detection System: <i>Salmonella</i> species	<i>Salmonella</i> spp.	AES Chemunex Canada	AOAC-RI # 070402	Cottage cheese, boneless pork, ground beef, chicken breast, cooked ham, chicken wings, clam chowder, apple juice, cauliflower, tortellini	25g
S004b	ADIAFOOD <i>Salmonella</i>	<i>Salmonella</i> spp.	AES Chemunex	AFNOR # AES 10/09 - 07/10	All human food and animal feeding stuffs and environmental samples (excluding samples from primary production stage)	25g
S005a	ANSR™ for <i>Salmonella</i>	<i>Salmonella enterica</i> and <i>Salmonella bongori</i>	Neogen Corporation	AOAC-RI # 061203	Raw ground beef, hot dogs (25g, 325g), chicken carcass rinse (30mL), raw ground turkey, oat cereal, surfaces (stainless steel, plastic, sealed concrete, ceramic tile, rubber)	25g except where noted in "Validated Matrices"
S005b	ANSR™ for <i>Salmonella</i>	<i>Salmonella enterica</i>	Neogen Corporation	AFNOR # NEO 35/02 - 05/13	Meat products, dairy products, seafood and vegetables	25g
S006a	Assurance GDS® <i>Salmonella</i>	<i>Salmonella</i> spp.	BioControl Systems, Inc.	AFNOR # TRA 02/12 - 01/09	All human foodstuffs, animal feed and environmental samples	25g
S006b	Assurance GDS® <i>Salmonella</i>	<i>Salmonella</i> spp.	BioControl Systems, Inc.	AOAC-OMA # 2009.03	Meats, poultry, poultry carcass rinse, seafood, dairy products, egg, pasta, peanut butter, fruits and vegetables, spices (curry powder, chili powder, and cumin powder), and environmental surfaces	25g
S006c	Assurance GDS™ <i>Salmonella</i>	<i>Salmonella</i> spp.	BioControl Systems, Inc.	AOAC-RI # 050602	Raw beef, raw pork, ground turkey, chicken rinse, raw shrimp, nonfat dry milk, egg, and environmental surfaces (stainless steel, rubber, concrete)	25g
S007	Assurance Gold EIA <i>Salmonella</i>	<i>Salmonella</i> spp.	BioControl Systems, Inc.	AOAC-OMA # 999.08	All foods	25g
S008	Assurance® <i>Salmonella</i> Enzyme Immunoassay (EIA) Test Kit	<i>Salmonella</i> spp.	BioControl Systems, Inc.	AOAC-OMA # 992.11	All foods	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
S009	Atlas™ <i>Salmonella</i> Detection Assay	<i>Salmonella enterica</i>	Roka Biosciences, Inc.	AOAC-RI # 031201	Fresh raw ground beef (375g), frozen raw ground beef (375g), chicken carcass rinse, raw ground chicken, cooked deli turkey (325g), cooked deli chicken (325g), pasteurized dried whole egg, raw cod, creamy non-organic peanut butter, romaine lettuce (375g), tomatoes, instant nonfat dry milk, string cheese (mozzarella), milk chocolate, cocoa powder (375g), raw cookie dough, dry pet food, dry pasta, shell eggs, nacho cheese seasoning, black pepper, soy flour, environmental surfaces (stainless steel, plastic, sealed concrete)	25g except where noted in "Validated Matrices"
S010a	BAX® <i>Salmonella</i> PCR (BAX® Classic and BAX® Q7) BAX® System with Automated Detection PCR Assay for Screening <i>Salmonella</i>	<i>Salmonella</i> spp.	Oxoid, Thermo Fisher Scientific	NordVal # 030	Dairy products, meat, fish, vegetables, pastries, egg products, ready to eat meals, animal feed, and environmental samples	25g
S010b	BAX® System PCR Assay for <i>Salmonella</i>	<i>Salmonella</i> spp.	Qualicon Diagnostics LLC, a Hygiena Company	AOAC-RI # 100201	Milk (2%), custard, nonfat dry milk, liquid egg, chipped ham, cooked chicken, hot dogs, ground beef, cooked fish, prawns, frozen peas, orange juice, peanut butter, alfalfa sprouts, black pepper, dry pet food, chilled ready-meal, chocolate, elbow macaroni, pizza dough, isolated soy protein	25g
S010c	BAX® System PCR Assay <i>Salmonella</i> spp (automated)	<i>Salmonella</i> spp.	DuPont Qualicon	AFNOR # QUA 18/03 - 11/02	All human food products, animal feed and environmental samples (excluding environment of primary production stage)	25g
S010d	BAX® System <i>Salmonella</i>	<i>Salmonella</i> spp.	DuPont Qualicon (DuPont Nutrition & Health Diagnostics)	AOAC-OMA # 2003.09	Frankfurters, raw ground beef, raw ground chicken, moz za rella cheese, raw frozen tilapia fish, and orange juice	25g
S011	BBL™CHROMagar™ <i>Salmonella</i>	<i>Salmonella</i> spp.	Becton Dickinson and Company	AOAC-RI # 020502	Shell eggs, raw chicken, raw ground beef, raw fish, lettuce	N/A
S012	BioControl 1-2 TEST	Motile <i>Salmonella</i> spp.	BioControl Systems, Inc.	AOAC-OMA # 989.13	All foods	25g
S014	Check&Trace <i>Salmonella</i> (previously marketed as PermiTest <i>Salmonella</i> )	<i>Salmonella</i> spp.	Check-Points	AOAC-RI # 121001	Pure cultures	N/A
S015	Colorimetric GENE-TRAK <i>Salmonella</i> Assay	<i>Salmonella</i> spp.	GENE-TRAK Systems/Neogen Corp.	AOAC-OMA # 990.13	All foods	25g
S016	foodproof® <i>Enterobacteriaceae</i> plus <i>E. sakazakii</i> combined with foodproof® <i>Salmonella</i> Detection Kit	<i>Enterobacteriaceae</i> , <i>Salmonella</i> spp.	BIOTECON Diagnostics GmbH	MicroVal # 2011-LR39	Powdered infant formula, probiotic culture powders, ingredients	Up to 100g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
S017a	foodproof® <i>Salmonella</i> Detection Kit, Hybridization Probes and foodproof® <i>Salmonella</i> Detection Kit, 5' Nuclease with foodproof® Shortprep I Kit	<i>Salmonella</i> spp.	BIOTECON Diagnostics GmbH	NordVal # 023	Foods, feeds and environmental samples (100cm <sup>2</sup> )	25g except where noted in "Validated Matrices"
S017b	foodproof® <i>Salmonella</i> Detection Kit, Hybridization Probes for <i>Salmonella</i> spp. and foodproof® <i>Salmonella</i> Detection Kit, '5 Nuclease for <i>Salmonella</i> spp. in combination with foodproof® ShortPrep I Kit or StarPrep One Kit	<i>Salmonella</i> spp.	BIOTECON Diagnostics GmbH	AOAC-RI # 120301	Milk powder, ice cream, egg powder, chicken breast, minced meat, sliced sausage, sausage, smoked fish, watermelon, sliced cabbage, coconut, white pepper, cumin, wet pet food, dry pet food, dough, food dye, milk chocolate, cocoa powder, pasta	25g
S018	GeneDisc® Plate Pathogenic <i>E. coli</i> O157 & <i>Salmonella</i> spp.	<i>E. coli</i> O157 & <i>Salmonella</i> spp.	Pall GeneDisc Technologies	AOAC-RI # 021104	Fresh raw ground beef, fresh raw beef trim	25g, 375g
S019	GeneDisc STEC & <i>Salmonella</i> spp.	Shigatoxigenic <i>E. coli</i> & <i>Salmonella</i> spp.	Pall GeneDisc Technologies	AOAC-RI # 021105	Raw ground beef and raw beef trim (25g)	25g
S020a	GeneDisc® <i>Salmonella</i> spp.	<i>Salmonella</i> spp.	Pall GeneDisc Technologies	AFNOR # GEN 25/05 -11/08	All human food products and animal feeding stuffs	25g
S020b	GeneDisc® Plate <i>Salmonella</i>	<i>Salmonella</i> spp.	Pall GeneDisc Technologies	AOAC-RI # 021101	Raw ground beef and raw beef trim (25g)	25g
S021a	GeneQuence® <i>Salmonella</i>	<i>Salmonella</i> spp.	Neogen Corporation	AOAC-OMA # 2007.02	Raw turkey, dried, liquid and liquid frozen pasteurized eggs, milk chocolate, and dry pet food	See Manufacturer's guidance
S021b	GeneQuence® <i>Salmonella</i>	<i>Salmonella</i> spp.	Neogen Corporation	AOAC-RI # 030201	Dried whole egg, nonfat dry milk, cheese powder, raw pooled shell egg, raw ground pork, beef franks, raw ground turkey, raw ground chicken, raw fish fillet, surimi, dried fruit, fresh mushrooms, frozen fruit, black pepper, dry pet food, dry cake mix, shelled walnuts, semi-sweet chocolate, refrigerated cookie dough, soy flour, egg noodles, food dye	25g
S022	GENE-TRAK <i>Salmonella</i> DLP Assay	<i>Salmonella</i> spp.	Neogen Corporation	AOAC-RI # 961101	food, animal feed, environmental samples	25g
S023	HQS <i>Salmonella</i> spp. Sybr	<i>Salmonella</i> spp.	ADNucleis	AFNOR # ADN 33/03 - 04/10	All human food products	25g
S024	IBISA®	<i>Salmonella</i> spp.	AES Chemunex	AFNOR # AES 10/11 - 07/11	All human food and animal feeding stuffs and environmental samples (except environment of primary production stage)	25g
S025	IEH <i>E. coli</i> O157, Stx-producing <i>E. coli</i> (STEC) with Intimin and <i>Salmonella</i> Test System	<i>E. coli</i> O157, Stx-producing <i>E. coli</i> (STEC) with intimin & <i>Salmonella</i> ** <i>E. coli</i> O26, O45, O103, O111, O121 & O145	IEH Laboratories & Consulting Group	AOAC-RI # 100701	Raw ground beef (25g, 375g), raw beef trim (25g, 375g), raw poultry, RTE turkey (omitted for STEC) & mixed leafy greens	25g except where noted in "Validated Matrices"
S026	InstantLabs® <i>Salmonella</i> Species Food Safety Kit	<i>Salmonella</i> spp.	InstantLabs Medical Diagnostics Corporation	AOAC-RI # 031202	Raw ground beef (375g), raw chicken breast, raw ground chicken, lettuce, rolled oats (750g), oat flour (750g), wheat flour (750g)	25g except where noted in "Validated Matrices"

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
S027a	iQ-Check™ <i>Salmonella</i> II Kit	<i>Salmonella</i> spp.	Bio-Rad Laboratories	AFNOR # BRD 07/06 - 07/04	All human and animal food products, production environment samples, and animal faeces and environmental samples from the primary production stage	25g
S027b	iQ-Check™ <i>Salmonella</i> II Kit	<i>Salmonella</i> spp.	Bio-Rad Laboratories	AOAC-RI # 010803	whole eggs, raw beef, raw ground chicken (25g and 375g), cantaloupe, peanut butter, raw pork, fresh spinach, ceramic, concrete, plastic, stainless steel, dry dog food (25g and 375g), wet cat food, and ready to eat deli ham (375g)	25g except where noted in "Validated Matrices"
S027c	iQ-Check™ <i>Salmonella</i> II Kit	<i>Salmonella</i> spp.	Bio-Rad Laboratories	NordVal # 038	Meat products, dairy products, fish-based and vegetable products, egg products, animal feed, and environmental samples	25g
S028	IRIS <i>Salmonella</i> ®	<i>Salmonella</i> spp.	SOLABIA SAS	AFNOR # BKR 23/07 - 10/11	All human food products, animal feeding stuffs and production environment samples (except primary production stage environment)	25g
S029	LOCATE® <i>Salmonella</i> Assay Kit	<i>Salmonella</i> spp.	Rhone-Poulenc	AOAC-OMA # 997.16	All foods	25g
S030	LUMIprobe 24 <i>Salmonella</i> species	<i>Salmonella</i> spp.	EUROPROBE SA	AFNOR # EUR 15/02 - 11/00	All human and animal food products	25g
S031	Microgen GNA ID	<i>Salmonella</i> spp. & <i>E. coli</i>	Microgen Bioproducts Limited	AOAC-RI # 061101	Pure culture	N/A
S032a	MicroSEQ® <i>Salmonella</i> spp.	<i>Salmonella</i> spp.	Life Technologies	AFNOR # ABI 29/02 - 09/10	All human food products (including meat products) and animal feeding stuffs, animal feces, and environmental samples from primary production stage	25g
S032b	MicroSEQ® <i>Salmonella</i> spp. Detection Kit	<i>Salmonella</i> spp.	Life Technologies (ThermoScientific)	AOAC-RI # 031001	Dried pet food, Raw: ground beef, chicken wings, shrimp. Cantaloupe, brie, dry infant formula, chocolate, eggs, blk pepper, peanut butter, stainless steel, concrete, plastic, ceramic, rubber	25g
S032c	MicroSEQ® <i>Salmonella</i> spp. Detection Kit linked to Pathatrix <i>Salmonella</i> spp. pooling	<i>Salmonella</i> spp.	Life Technologies (ThermoScientific)	AOAC-RI # 090203c, 031001	Raw ground beef, raw chicken wings, raw shrimp, cantaloupe, brie, dry infant formula, chocolate, dry pet food, shell eggs, black pepper, peanut butter, stainless steel, sealed concrete, plastic, ceramic tile, and rubber	25g
S034a	Oxoid <i>Salmonella</i> Rapid Test	<i>Salmonella</i> spp.	OXOID Ltd	AOAC-RI # 960902	Food, animal feed, environmental samples	25g
S035	Pathatrix® Pooling System for <i>Salmonella</i> species	<i>Salmonella</i> spp.	Life Technologies (ThermoScientific)	AOAC-RI # 090203C	Deli ham, fresh diced tomatoes, chocolate	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
S036	Pathotec Cytochrome Oxidase Test MICRO-ID® Identification Kit	<i>Salmonella</i> spp., <i>E. coli</i> , and other Enterobacteriaceae	Remel	AOAC-OMA # 989.12	N/A	N/A
S037	PDX-SIB	<i>Salmonella</i> spp.	Paradigm Diagnostics, Inc.	AOAC-RI # 071102	Environmental surfaces (Stainless steel, plastic, ceramic tile & sealed concrete)	N/A
S038a	RAPID' <i>Salmonella</i> (Latex confirmation test)	<i>Salmonella</i> spp.	Bio-Rad Laboratories	AFNOR # BRD 07/11 - 12/05	All human and animal food products and environmental samples (excluding those from primary production environment)	25g
S038b	RAPID' <i>Salmonella</i> Agar	<i>Salmonella</i> spp.	Bio-Rad Laboratories	AOAC-RI # 050701	Raw chicken breast, eggs, cantaloupe, and peanut butter	25g
S038c	RAPID' <i>Salmonella</i> Agar (short protocol and double enrichment (24hr) protocol), Rapid' <i>Salmonella</i> LATEX confirmation test	<i>Salmonella</i> spp.	Bio-Rad Laboratories	NordVal # 032	Foods, animal feeds, and environmental samples	25g
S039a	RapidChek® SELECT <i>Salmonella</i>	<i>Salmonella</i> spp.	Romer Labs, Inc.	AFNOR # SDI 34/01 - 04/10	All human food, animal feed and environmental samples (excluding breeding samples)	25g
S039b	RapidChek® SELECT™ <i>Salmonella</i> Test	<i>Salmonella</i> spp.	Romer Labs Technology, Inc.	AOAC-RI # 080601	Liquid eggs, raw ground beef, raw ground chicken, chicken carcass rinsates, sliced cooked turkey, and environmental surfaces (painted concrete, plastic, rubber, stainless steel)	25g
S040	RapidChek® SELECT™ <i>Salmonella</i> Enteritidis Test System & RapidChek CONFIRM <i>Salmonella</i> Enteritidis Immunomagnetic Separation (IMS) Kit	<i>Salmonella</i> Enteritidis and other D1 serovars	Romer Labs, Inc.	AOAC-RI # 111002	Poultry house environmental drag swabs, egg pools, chicken carcass rinsates	N/A
S041	RapidChek™ <i>Salmonella</i> Lateral Flow Test Kit	<i>Salmonella</i> spp.	Romer Labs, Inc.	AOAC-RI # 030301	Whole milk, liquid eggs, raw ground beef, raw ground pork, raw ground chicken, raw ground turkey, chicken carcass washes and deli turkey, orange juice, raw cabbage	25g
S043a	Reveal® 2.0 <i>Salmonella</i>	<i>Salmonella</i> spp.	Neogen Corporation	AFNOR # NEO 35/01 - 10/11	All human food products and animal feeding stuffs	25g
S043b	Reveal® 2.0 <i>Salmonella</i>	<i>Salmonella enterica</i> of serogroups A-E	Neogen Corporation	AOAC-RI # 960801	Powdered milk, ice cream, raw ground beef, raw ground chicken, raw ground pork, raw ground sausage, raw ground turkey, cooked chicken, hot dogs, ready-to-eat meal product, chicken carcass rinse, beef skin, pork skin, picked crab meat, raw shrimp, cantaloupe, fresh spinach, peanut butter, liquid eggs, frozen whole eggs, dry pet food, soybean meal, poultry feed, sprout irrigation water, environmental surfaces (stainless steel)	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
S044a	RIDASCREEN® <i>Salmonella</i>	<i>Salmonella</i> spp.	R-Biopharm AG	AFNOR # RBP 31/01 - 06/08	All human food products, animal feed and environmental samples (except samples of primary production)	25g
S045	<i>Salmonella</i> detection method by real-time PCR	<i>Salmonella</i> spp.	Danish Technological Institute, DMRI	NordVal # 041	Raw meat, swabs from cattle and pig carcasses, poultry faeces sock swabs	25g
S047	R.A.P.I.D. LT Food Security System (FSS) for <i>Salmonella</i> Detection	<i>Salmonella</i> spp.	BioFireDX.com (formerly Idaho Technology)	AOAC-RI # 030803	Liquid whole egg, cooked ham, raw ground beef, raw chicken, lettuce, chocolate, dry pet food, environmental surfaces (stainless steel)	25g
S048	<i>Salmonella</i> Precis™	<i>Salmonella</i> spp.	OXOID Ltd	AFNOR # UNI 03/06 - 12/07	All human and animal food products and environmental samples (excluding breeding samples)	25g
S049	<i>Salmonella</i> Rapid Culture Method using ONE Broth <i>Salmonella</i> & Brilliance™ <i>Salmonella</i>	<i>Salmonella</i> spp.	ThermoFisher Scientific	AOAC-RI # 120802	Ground beef, ground chicken, lettuce, shrimp & shell eggs	25g
S050	<i>Salmonella</i> -Tek ELISA Test System	<i>Salmonella</i> spp.	Organon Teknika Corp.	AOAC-OMA # 993.08	All foods	25g
S051	<i>Salmonella</i> -Tek Screen Kit	<i>Salmonella</i> spp.	Organon Teknika Corp.	AOAC-OMA # 986.35	All foods	25g
S052	<i>Salmonella</i> -Tek Screen Kit	<i>Salmonella</i> spp.	Organon Teknika Corp.	AOAC-OMA # 987.11	All foods other than raw foods or foods with a high microbial load	25g
S053	SAST™ Molecular Tests <i>Salmonella</i> spp. Detection Kit	<i>Salmonella</i> spp.	SA Scientific, Ltd.	AOAC-RI # 021202	Raw ground beef (25g & 375g), raw beef trim (375g), raw ground turkey, chicken carcass rinses, bagged mixed lettuce (200g), fresh spinach (200g)	25g except where noted in "Validated Matrices"
S054	SESAME <i>Salmonella</i> Test	<i>Salmonella</i> spp.	SOLABIA SAS	AFNOR # BKR 23/04 - 12/07	All human and animal food products and environmental samples (with the exception of environment of primary production stage)	25g
S055	Simple Method for <i>Salmonella</i> (SMT™)	<i>Salmonella</i> spp.	AES Chemunex	AFNOR # AES 10/04 - 05/04	All food products, animal feed and environmental samples (excluding rearing environment)	25g
S056	Singlepath® <i>Salmonella</i>	<i>Salmonella</i> spp.	Merck KGaA	AOAC-RI # 060401	Dried skimmed milk, Raw ground beef, raw ground turkey, cooked peeled frozen prawns, desiccated coconut, black pepper, dried pet food	25g
S057b	SureFood PREP <i>Salmonella</i> & SureFood PATHOGEN <i>Salmonella</i> PLUS V/R/LC	<i>Salmonella</i> spp.	CONGEN Biotechnologie GmbH	AOAC-RI # 041103	Salami, pork minced meat, bacon, fresh ground chicken, fresh chicken carcass, frozen marinated chicken filets, semi-skim milk powder, raw goat milk cheese, chocolate ice cream, salad with mayonnaise, paella, cream based pastry, dehydrated poultry proteins, wheat based flour, pet food pellets	25g
S058	TAG 24 <i>Salmonella</i>	<i>Salmonella</i> spp.	BioControl Systems, Inc.	AFNOR # TRA 02/09 - 07/07	All human food products and animal feeding stuffs	25g
S059a	TaqMan® <i>Salmonella enterica</i> Detection Kit	<i>Salmonella enterica</i>	Applied Biosystems	AFNOR # ABI 29/01 - 09/07	All human food products and animal feeding stuffs	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
S059b	TaqMan® <i>Salmonella enterica</i> Detection Kit	<i>Salmonella enterica</i>	Applied Biosystems	AOAC-RI # 020803	Ground beef, chicken wings, cheddar cheese, & dry pet food, peanut butter	25g
S060a	TRANSIA® PLATE <i>Salmonella</i> Gold	<i>Salmonella</i> spp.	BioControl Systems, Inc.	AFNOR # TRA 02/08 - 03/01	Food, animal feeding stuffs and environmental samples (excluding breeding samples)	25g
S060b	TRANSIA® PLATE <i>Salmonella</i> Gold	<i>Salmonella</i> spp.	BioControl Systems, Inc.	NordVal # 001	Meat products, dairy products, seafood products, vegetables and environmental samples	25g
S060c	Transia® Plate <i>Salmonella</i> Gold	<i>Salmonella</i> spp.	BioControl Systems, Inc.	AOAC-RI # 010602	Cooked chicken, raw milk, cantaloupe, sausages, raw shrimps, yogurt, mayonnaise, shell eggs, frozen berries, currants, bean sprouts, raw ground beef, smoked fish (trout), fresh pasta, milk chocolate, ground black pepper, cake mix, dry milk-based infant formula, dry cat food, raw ground turkey, brie cheese	25g
S062a	VIDAS® Easy <i>Salmonella</i>	<i>Salmonella</i> spp.	bioMérieux, sa	AFNOR # BIO 12/16 - 09/05	All human and animal food products and environmental samples (except stock farming environment)	25g
S062b	VIDAS® <i>Salmonella</i> (VIDAS SLM) Dual selective enrichment	<i>Salmonella</i> spp.	bioMérieux, sa	AFNOR # BIO 12/01 - 04/94	All human food products and pet food	25g
S062c	VIDAS® <i>Salmonella</i> (VIDAS SLM) Single selective enrichment	<i>Salmonella</i> spp.	bioMérieux, sa	AFNOR # BIO 12/10 - 09/02	All human food products and pet food	25g
S062d	VIDAS® <i>Salmonella</i> (SLM) Assay Kit	<i>Salmonella</i> spp.	bioMérieux, Inc.	AOAC-OMA # 2004.03	Foods	25g
S062e	VIDAS® <i>Salmonella</i> (SLM) Assay	<i>Salmonella</i> spp.	bioMérieux Vitek, Inc.	AOAC-OMA # 996.08	All foods	25g
S062f	VIDAS® <i>Salmonella</i> (SLM) Assay method Easy SLM with ChromID™ <i>Salmonella</i> (SM2) Agar	<i>Salmonella</i> spp.	bioMérieux, sa	AOAC-RI # 020901	Turkey, roast beef, raw ground pork, pork sausage, raw chicken breast, raw peeled shrimp, raw cod, cantaloupe, ground black pepper, bagged spinach, pecans, peanut butter, ice cream, liquid eggs, whole milk, non-fat dry milk, orange juice, dry pasta, cake mix, dry pet food, spent irrigation water	Sample preparation and enrichment as per FSIS MLG Ch. 4 for meat/poultry/egg and environmental samples
S062g	VIDAS® <i>Salmonella</i> (SLM) Easy <i>Salmonella</i>	<i>Salmonella</i> spp.	bioMérieux, sa	AOAC-OMA # 2011.03	Liquid egg, vanilla ice cream, spinach (frozen and fresh), raw shrimp, peanut butter, deli turkey, roast beef, raw ground pork, turkey, pork sausage, raw chicken breast, dry pet food, moist pet food, whole milk, raw cod, spent irrigation water, pecans, dry pasta, cake mix, ground black pepper, NFD, dried egg yolk, dark chocolate, cantaloupe, and orange juice	Sample preparation and enrichment as per FSIS MLG Ch. 4 or FDA BAM Ch. 5
S063a	VIDAS® Immuno-Concentration <i>Salmonella</i> (ICS) Kit	<i>Salmonella</i> spp.	bioMérieux, sa	AOAC-OMA # 2001.07	All foods	25g



#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
S063b	VIDAS® Immuno-Concentration <i>Salmonella</i> (ICS) Kit and Selective Plate (HE BS XLD) Screening	<i>Salmonella</i> spp.	bioMérieux, sa	AOAC-OMA # 2001.08	All foods	25g
S063c	VIDAS® Immuno-Concentration <i>Salmonella</i> (ICS) Kit and Selective Plate (HE BS XLD) Screening <i>Salmonella</i> (SLM) Enzyme-Linked Immunofluorescent Assay (ELFA)	<i>Salmonella</i> spp.	bioMérieux, sa	AOAC-OMA # 2001.09	All foods	25g
S065a	VIDAS® Up <i>Salmonella</i>	<i>Salmonella</i> spp.	bioMérieux, sa	AFNOR # BIO 12/32 - 10/11	All human food products (except raw milk cheese), animal feeding stuffs and production environmental samples (except samples of primary production stage)	25g
S065b	VIDAS® UP <i>Salmonella</i> (SPT)	<i>Salmonella</i> spp.	bioMérieux, sa	AOAC-RI # 071101	Raw ground beef (25g, 375g, 675g), deli roast beef, chicken carcass rinsate, raw ground turkey (375g only), instant NFDM (25g, 375g), vanilla ice cream, processed american cheese, bagged lettuce (mixed leaves) (25g, 375g), peanut butter, shrimp (cooked, peeled), raw cod, liquid eggs, powdered eggs, ground black pepper, fresh almonds (375g only), dark chocolate (375g only), dry dog food (375g only), stainless steel (1"x1" swab), ceramic (1"x1" swab), and plastic (4"x4" sponge)	25g except where noted in "Validated Matrices"
S065c	VIDAS® UP <i>Salmonella</i> (SPT)	<i>Salmonella</i> spp.	bioMérieux, sa	AOAC-OMA # 2013.01	Raw ground beef (25g and 375g), processed American cheese, deli roast beef, liquid egg, peanut butter, vanilla ice cream, cooked shrimp, raw cod, bagged lettuce (25g and 375g), dark chocolate (375g), powdered eggs, instant nonfat dry milk (25g and 375g), ground black pepper, dry dog food (375g), raw ground turkey (375g), almonds (375g), chicken carcass rinsates (30mL), and stainless steel, plastic, and ceramic environmental surfaces	25g except where noted in "Validated Matrices"
S066	VIP Gold for <i>Salmonella</i> Assay	<i>Salmonella</i> spp.	BioControl Systems, Inc.	AOAC-OMA # 999.09	All foods	25g
S067	Vitek GNI+ Screening System	<i>Salmonella</i> spp. and other Enterobacteriaceae	bioMérieux, sa	AOAC-OMA # 991.13	N/A	N/A
S068	Vitek® 2 Gram-Negative (GN) Biochemical Identification System	Gram-negative bacteria	bioMérieux, Inc.	AOAC-OMA # 2011.17	N/A	N/A

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
S069	QIAGEN mericon <i>Salmonella</i> spp	<i>Salmonella</i> spp.	QIAGEN Inc.	AFNOR # QIA 36/01 - 02/13	All human food products, animal feed and environmental samples (except primary production stage environment)	25g
S070a	Solus <i>Salmonella</i> ELISA	<i>Salmonella</i> spp.	Solus Scientific	AFNOR # SOL 37/01 - 06/13	Food and feed products	25g
S070b	Solus Scientific <i>Salmonella</i> ELISA	<i>Salmonella</i> spp.	Solus Scientific Ltd.	AOAC-RI # 051601	Raw chicken breast, raw salmon filet, bagged romaine lettuce, shredded cheddar cheese, instant non-fat dry milk, shell eggs, raw beef trim (375g), stainless steel environmental surface (swab, 1 x 1 in), polystyrene, environmental surface (sponge, 4 x 4 in)	25g except where noted in "Validated Matrices"
S071	Atlas™ <i>Salmonella</i> G2 Detection Assay	<i>Salmonella enterica</i>	Roka Biosciences, Inc.	AOAC-RI # 041303	Fresh raw ground beef (25g, 375g), fresh raw ground turkey (375g), cooked deli turkey (325g), romaine lettuce (375 g), oat cereal, environmental surfaces (stainless steel, plastic, sealed concrete), peanut butter, raw almonds, string cheese, milk chocolate, cocoa powder, raw cookie dough, soy flour, whey powder, tomatoes, instant non-fat dried milk, chicken carcass rinse, pasteurized dried whole egg	25g except where noted in "Validated Matrices"
S072a	Thermo Scientific™ Sure Tect™ <i>Salmonella</i> species PCR Assay	<i>Salmonella</i> spp.	Thermo Fisher Scientific	AOAC-RI # 051303	Raw ground beef, raw chicken breast, chilled ready-to-eat dinner, pork frankfurters, raw ground pork, cooked shrimp, non-fat dried milk powder, fresh bagged lettuce, pasteurized liquid whole egg and stainless steel	25g
S072b	Thermo Scientific SureTect <i>Salmonella</i> species PCR Assay	<i>Salmonella</i> spp.	OXOID Thermo Fisher Scientific	AFNOR # UNI 03/07 - 11/13	Non-seasoned raw ground beef meat	25g
S073a	3M™ Petrifilm™ <i>Salmonella</i> Express (SALX) System	<i>Salmonella</i> spp.	3M Company (3M Food Safety)	AOAC-RI # 061301	Raw ground beef, raw ground pork, raw ground chicken, cooked chicken nuggets (325g), pasteurized liquid whole egg (100g), frozen uncooked shrimp, fresh bunched spinach, dry dog food (375g), stainless steel (sponge)	25g except where noted in "Validated Matrices"
S073b	3M™ Petrifilm™ <i>Salmonella</i> Express System	<i>Salmonella</i> spp.	3M Food Safety	AOAC-OMA # 2014.01	Raw ground beef, raw ground chicken, pasteurized liquid whole egg (100g), raw ground pork, cooked chicken nuggets (325g), frozen uncooked shrimp, fresh bunched spinach, dry dog food (375g), and stainless steel	25g except where noted in "Validated Matrices"

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
S074	mericon™ <i>Salmonella</i> spp. Kit	<i>Salmonella</i> spp.	Qiagen GmbH	AOAC-RI # 071204	Fresh raw ground beef (25g), chicken carcass rinses, creamy non-organic peanut butter, fresh spinach, pasteurized whole milk, instant nonfat dry milk, milk chocolate, shell eggs	25g
S075a	BAX® System Real-Time PCR Assay for <i>Salmonella</i>	<i>Salmonella</i>	Qualicon Diagnostics LLC, a Hygiena Company	AOAC-RI # 081201	Raw ground beef (25g, 375g), chicken carcass rinse (30mL), cream cheese, bagged lettuce, dry pet food (375g), and stainless steel	25g except where noted in "Validated Matrices"
S075b	BAX® System Real-Time PCR Assay for <i>Salmonella</i>	<i>Salmonella</i> spp.	DuPont Nutrition & Health Diagnostics	AOAC-OMA # 2013.02	Raw ground beef (25g and 375g), ground beef with soy (25g and 325g), beef trim (25g and 325g), frankfurters (325g), shrimp, ground turkey, chicken wings, poultry rinse (30mL), whole powdered (dried) eggs, shell eggs (1000mL), fresh bagged lettuce, frozen peas, orange juice (pasteurized; 25mL), cream cheese, nonfat dry milk, ice cream, peanut butter, cocoa, white pepper, milk-based infant formula (25mL), dry pet food (375g), and on stainless steel, ceramic tile, and plastic surfaces.	25g except where noted in "Validated Matrices"
S075c	DuPont BAX System Real-Time PCR Assay for <i>Salmonella</i> spp.	<i>Salmonella</i> spp.	DuPont Qualicon	AFNOR # QUA 18/08 - 03/15	Meat products (including raw beef), egg products, vegetables, seafood, and pet food	25g
S076	Pathatrix® Auto <i>Salmonella</i> spp Kit Linked to Selective Agar Detection	<i>Salmonella</i> spp.	Life Technologies	AFNOR # ABI 29/06 - 11/13	Cooked meat products and raw beef meat, heat treated milk and dairy products	N/A
S077	Pathatrix® Auto <i>Salmonella</i> spp Kit Linked to MicroSEQ® <i>Salmonella</i> spp. Detection Kit	<i>Salmonella</i> spp.	Life Technologies	AFNOR # ABI 29/07 - 11/13	Cooked meat products and raw beef meat, heat treated milk and dairy products	See Manufacturer's guidance
S078	ANSR® <i>Salmonella</i> Confirmation Test	<i>Salmonella</i> spp.	Neogen Corporation	AOAC-OMA # 2013.14	N/A	N/A
S079	Actero™ <i>Salmonella</i> /STEC Enrichment Media	<i>Salmonella</i> spp./STEC (including O26, O45, O13, O111, O121, O145 & O157)	FoodChek System Inc.	AOAC-RI # 041403	Raw ground beef, liquid whole egg, raw ground chicken, raw frozen scallops, sprouts, and Environmental surfaces (stainless steel, plastic, rubber, ceramic tiles, sealed concrete)	N/A
S080	DNABLE Molecular Detection Kit for <i>Salmonella</i>	<i>Salmonella</i> spp.	EnviroLogix	AOAC-RI # 041404	Dry pet food (25 g (9:1, v/w), 375 g (9:1 and 3:1, v/w), stainless steel environmental surface samples, and poultry environmental drag swabs.	See "Validated Matrices"
S081	FoodChek <i>Salmonella</i>	<i>Salmonella</i> serogroups B to E	FoodChek System Inc.	AOAC-RI # 041402	Liquid whole egg, shell eggs, liquid egg white, dried whole egg, and dried egg yolk, stainless steel, plastic, rubber, ceramic tiles, sealed concrete	N/A

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
S082a	foodproof <i>Salmonella</i> spp method Automated protocol using the foodproof RoboPrep Series	<i>Salmonella</i> spp.	BIOTECON Diagnostics GmbH	MicroVal # 2011LR40	Meat and Meat products (raw beef meat 375g), Milk and dairy products, Egg products, Feed samples	25g except where noted in "Validated Matrices"
S082b	foodproof <i>Salmonella</i> spp method Manual protocol	<i>Salmonella</i> spp.	BIOTECON Diagnostics GmbH	MicroVal # 2011LR42	Food, feed and primary production samples, raw beef meat (375g)	25g except where noted in "Validated Matrices"
S083	Veriflow <i>Salmonella</i> species	<i>Salmonella</i> spp.	Invisible Sentinel	AOAC-RI # 011404	Beef hot dogs, raw ground beef (20% fat), chicken carcass rinse, pasteurized milk (2%), stainless steel, ceramic tile, sealed concrete, and plastic	N/A
S084	DuPont Lateral Flow System for <i>Salmonella</i> AD (not sold in the US – international only)	<i>Salmonella</i> spp.	Qualicon Diagnostics LLC, a Hygiena Company	AOAC-RI # 021001	Raw ground beef, raw ground chicken, sliced cooked turkey, chicken carcass rinses, liquid eggs	25g
S085a	GENE-UP® <i>Salmonella</i>	<i>Salmonella</i>	bioMérieux, sa	AOAC-RI # 061504	Liquid whole egg, cooked ham, fresh raw ground beef 20% fat (25g, 375g), fresh raw chicken breast, lettuce, chocolate, dry pet food, fresh raw fish, creamy peanut butter, vanilla ice cream, stainless steel	25g except where noted in "Validated Matrices"
S085b	GENE-UP® <i>Salmonella</i>	<i>Salmonella</i> spp.	bioMérieux, sa	AFNOR # BIO 12/38 - 06/16	Ready-to-eat and ready-to-reheat food, meat products	25g
S086a	BACGene <i>Salmonella</i> spp.	<i>Salmonella</i> spp.	Eurofins GeneScan GmbH	AFNOR # EGS 38/01 - 03/15	All human food products, feed products, pet foods (375g), production environmental samples, milk powders and infant formula without probiotics (50g-375g)	25g except where noted in "Validated Matrices"
S086b	BACGene <i>Salmonella</i> spp.	<i>Salmonella</i> spp.	Eurofins GeneScan GmbH	AOAC-RI # 121501	Fresh raw ground beef (15% fat), frozen spinach, pasteurized whole liquid egg (25mL), frozen cod fillet, raw whole milk (25mL), dog pâté (composed of beef meat and animal by-products, cereals, carrots and vegetable bi-products, 375g), dry dog pellets, infant formula milk powder supplemented with probiotics ( <i>Bifidus lactis</i> ) (375g), process water from scalding tank (25mL), and stainless steel environmental surface (1" x 1" area)	25g except where noted in "Validated Matrices"

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
S087a	3M Molecular Detection Assay 2 (MDA2) - <i>Salmonella</i>	<i>Salmonella</i>	3M Food Safety	AOAC-RI # 091501	Raw ground beef (73% lean, 25g & 325g), raw ground chicken (25g & 325g), chicken carcass rinse (30mL), chicken carcass sponge, pasteurized liquid whole egg (100g), cooked breaded chicken (325g), instant non-fat dry milk, black pepper, cocoa powder, raw whole shrimp, raw bagged spinach, creamy peanut butter (25g & 375g), dry dog food (25g & 375g), pasteurized processed american cheese, spent sprout irrigation water (375mL), and environmental surfaces (sealed concrete, stainless steel, and sealed ceramic tile)	25g except where noted in "Validated Matrices"
S087b	3M Molecular Detection Assay 2 - <i>Salmonella</i> Method	<i>Salmonella</i> spp.	3M Food Safety	AOAC-OMA # 2016.01	Raw ground beef (73% lean, 25g & 325g), raw ground chicken (25g & 325g), chicken carcass rinse (30mL), chicken carcass sponge, pasteurized liquid whole egg (100g), cooked breaded chicken (325g), instant non-fat dry milk, black pepper, cocoa powder, raw whole shrimp, raw bagged spinach, creamy peanut butter (25g & 375g), dry dog food (25g & 375g), pasteurized processed american cheese, spent sprout irrigation water (375mL), and environmental surfaces (sealed concrete, stainless steel, and sealed ceramic tile)	25g except where noted in "Validated Matrices"
S088	<i>Salmonella</i> ELISA Test OPTIMA	<i>Salmonella</i> spp.	Eurofins GeneScan GmbH	AOAC-RI # 960901	Contact Manufacturer	25g
S089	Reveal <i>Salmonella</i> Enteritidis (SE) Test System	<i>Salmonella enterica</i> serovar Enteritidis	Neogen Corporation	AOAC-RI # 111001	Shell eggs and environmental samples	25g
S090	Reveal 2.0 Group D1 <i>Salmonella</i> (including <i>Salmonella</i> enteritidis)	<i>Salmonella enteritidis</i> sub sp. enterica serovar	Neogen Corporation	AOAC-RI # 041602	Raw shell eggs (20 shells), poultry feed (25g)	25g
S091	Xpress™ S	<i>Salmonella</i> spp.	Crystal Diagnostics Corporation	AOAC-RI # 051602	Whole raw tomatoes, whole chicken rinsate	N/A
S092	<i>Salmonella</i> Velox	<i>Salmonella</i> spp.	DNA Diagnostic A/S	NordVal # 046	raw meat (25-125g), chicken, fish and seafood, minced meat (25-100g)	25g except where noted in "Validated Matrices"

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
S093	SALMA™ One Day	<i>Salmonella</i> spp.	bioMérieux	AFNOR # BIO 12/41 - 03/17	All human food products (by performing validation assays on a broad range of foods), feed products and production environmental samples and surface areas (excluding environment from primary production stage)	25g
S094	3M™ Molecular Detection Assay 2 - <i>Salmonella</i>	<i>Salmonella</i> spp.	3M Health Care	AFNOR # 3M 01/16 - 11/16	All human food products (by concluding validated assays on a broad range of foods) and production environmental samples (excluding primary production samples)	25g
S095	SalmoPresto™ PE	<i>Salmonella</i> spp.	Prestodiag SAS - France	AFNOR # PDG 39/01 - 07/17	All human food products (by concluding validated assays on a broad range of foods) and production environmental samples (excluding primary production samples)	25g
S096	Thermo Fisher <i>Salmonella</i> species, Typhimurium and Enteritidis Multiplex PCR Kit	<i>Salmonella</i> species, <i>Salmonella</i> ser. Typhimurium and <i>Salmonella</i> ser. Enteritidis	Oxoid Ltd, part of Thermo Fisher Scientific	AOAC-RI # 081701	Raw chicken thighs with skin, raw chicken wings with skin, chicken nuggets, raw pork sausage, stainless steel environments surface sponges	25g
S097	GDS <i>Salmonella</i> Tq detection Kit for the detection of <i>Salmonella</i> spp.	<i>Salmonella</i> spp.	BioControl Systems Inc.	MicroVal # 2015LR50	Raw beef meats, delicatessen and heat treated meat products (with 25 g sampling), Dairy products (with 25 g sampling), Fruits and vegetables (with 25 g sampling), Environmental samples (with 25 g or surface sampling), Raw beef meats (with 375 g sampling)	See "Validated Matrices"
S098	iQ-Check Salmonella II Real-Time PCR test kit	<i>Salmonella</i> spp.	Bio-Rad (Hercules, CA, USA)	AOAC-OMA # 2017.06	375 g test portions of raw ground chicken, ready-to-eat (RTE) deli ham, dry dog food, milk chocolate, raw milk cheese, to chicken carcass rinse (30 mL), to 25 g test portions of whole eggs, raw ground beef, raw ground chicken, cantaloupe, peanut butter, raw chicken breast, raw pork, fresh spinach, dry dog food, wet cat food, and to environmental samples from stainless steel, ceramic, plastic, and sealed concrete	See "Validated Matrices"
S099	PDX-STEC	<i>Shiga toxin-producing E.coli (STEC)</i> <i>Salmonella</i> spp.	Paradigm Diagnostics, Inc.	AOAC-RI # 101705	Raw beef trim 325g	See "Validated Matrices"

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
S100	VereBeef™ Detection Kit	(8-20 hr) <i>Escherichia coli</i> O157:H7, STEC virulence factors ( <i>stx1A</i> or <i>stx2A</i> and <i>eae</i> ) (10-20 hr) <i>Escherichia coli</i> O26, O45, O103, O111, O121, O145, <i>Salmonella</i> spp.	Veredus Laboratories Pte, Ltd.	AOAC-RI # 011801	Raw beef trim 25g, 325g, 375g	See "Validated Matrices"
S101	Probe4Salmonella	<i>Salmonella</i> spp.	Biomode2, S.A.	AOAC-RI # 031804	(25g) fresh raw ground beef (73% lean)	See "Validated Matrices"
S102	Assurance VIP® Gold for <i>Salmonella</i>	<i>Salmonella</i> spp.	BioContol Systems, Inc.	AOAC-RI # 031801	Chicken carcass rinsate, ready-to-eat poultry, roast beef	N/A
S103	PolySkoPe 1.0 Multiplex Detection Assay	STECs, <i>E. coli</i> O157:H7 & Non-O157 STEC Big 6 (O26, O45, O103, O111, O121, O145), <i>Listeria monocytogenes</i> , <i>Salmonella</i> species	PolySkoPe Labs	AOAC-RI # 041801	(25g) Fresh raw ground beef (73% lean), deli turkey, fresh baby spinach, stainless steel (4x4 in sponge)	See "Validated Matrices"

## Foodborne Pathogen Test Kits Validated by Independent Organizations

FSIS is making available a list of test kits that have been validated for detection of relevant foodborne pathogens (i.e. *Salmonella*, *Campylobacter*, *E. coli* O157:H7, *Listeria* spp. including *L. monocytogenes*, and non-O157 STECs). These lists are intended to be informational and are not an endorsement or approval of any particular method, regardless of its inclusion in the list.

While FSIS does not require the use of any particular test method, the method chosen by an establishment should be:

- 1) Validated for testing relevant foods by:
  - a) a recognized independent body (i.e., AOAC, AFNOR, MicroVal, NordVal), or
  - b) a U.S. regulatory body (i.e. FSIS MLG or FDA BAM), or an ISO method
- 2) The validated method should be:
  - a) Fit for the intended purpose and application, and
  - b) Performed under validated conditions by a laboratory that assures the quality of the analytical results.

The table below contains a list of foodborne pathogen test kits that meet criterion 1a as described above; i.e., are validated by recognized independent organizations (e.g., AOAC, AOAC-RI, AFNOR, MicroVal, NordVal). None of the test kits listed below are implicitly approved by USDA FSIS. A validated test kit must also be fit for purpose (i.e. validated for the appropriate matrix and sample size) and appropriate for the specific application in a food safety program. Additionally these methods should be performed as per the conditions of the validated protocol by a laboratory that assures the analytical results. FSIS has published further guidance for choosing a microbiological laboratory (<http://www.fsis.usda.gov/wps/wcm/connect/464a4827-0c9a-4268-8651-b417bb6bba51/Guidance-Selection-Commercial-Private-Microbiological-Testing-lab-062013.pdf?MOD=AJPERES>). The sampling methodology and frequency must be appropriate to answer the food safety question that is asked. Finally, sample transport and storage should be appropriate to ensure the integrity of the sample and the result.

The methods listed here are not necessarily equivalent or appropriate for all specific testing applications. Please refer to other FSIS guidance on fitness for purpose for specific applications. As an example, AskFSIS provides guidance on appropriate test portions for *E. coli* O157:H7 testing and application of non-culture confirmation methods to confirm screening test results. For *Listeria* food contact surface and other environmental samples, FSIS has provided the following additional guidance for sampling and testing; i.e., validated methods should include an enrichment step for the entire sponge, swab or sampling device. Methods listed below do not necessarily meet all of these criteria. For more detail on RTE *Listeria*, FSIS has published RTE *Listeria* Compliance Guidelines (<http://www.fsis.usda.gov/wps/wcm/connect/d3373299-50e6-47d6-a577-e74a1e549fde/Controlling-Lm-RTE-Guideline.pdf?MOD=AJPERES>).

On a case-by-case basis, FSIS has reviewed robust studies using the FSIS MLG method as a reference method. For these reviews, FSIS uses the FSIS Test Kit validation guidelines to evaluate the study design, results, and data analysis for these alternative methods ([http://www.fsis.usda.gov/wps/wcm/connect/966638c7-1931-471f-a79e-4155ce461d65/Validation\\_Studies\\_Pathogen\\_Detection\\_Methods.pdf?MOD=AJPERES](http://www.fsis.usda.gov/wps/wcm/connect/966638c7-1931-471f-a79e-4155ce461d65/Validation_Studies_Pathogen_Detection_Methods.pdf?MOD=AJPERES)). These alternative methods are not included in the lists below because they are not externally validated by an independent organization.

FSIS intends to update validated test kit lists on a quarterly basis.

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
C001	ADIAFOOD Detection System: <i>Campylobacter</i> Quantification	<i>Campylobacter jejuni</i> ; <i>Campylobacter coli</i> ; <i>Campylobacter lari</i>	AES Chemunex Canada	AOAC-RI # 050603	Poultry rinses	20mL
C002	BAX® System Real-Time PCR Assay for <i>Campylobacter jejuni</i> , <i>coli</i> , and <i>lari</i>	<i>Campylobacter jejuni</i> ; <i>Campylobacter coli</i> ; <i>Campylobacter lari</i>	DuPont Nutrition & Health	NordVal # 039	Faeces on cloacae swabs (levels above 100 cfu/g)	N/A
C003	DuPont™ BAX® System Real-Time PCR Assay for <i>Campylobacter jejuni</i> , <i>coli</i> , and <i>lari</i>	<i>Campylobacter jejuni</i> ; <i>Campylobacter coli</i> ; <i>Campylobacter lari</i>	Qualicon Diagnostics LLC, a Hygiena Company	AOAC-RI # 040702	Ready-to-eat turkey product & chicken carcass rinses	25g, 30mL



#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
C004a	CampyFood Agar (CFA)	<i>Campylobacter</i> spp.	bioMérieux	AFNOR # BIO 12/30 - 05/10	Meat products and production environment samples	25g
C004b	CampyFood Agar (CFA)	<i>Campylobacter</i> spp.	bioMérieux, sa	AOAC-RI # 071201	Fresh raw pork, raw chicken breast, processed chicken nuggets, chicken carcass rinsate, turkey carcass sampled with sponge	25g
C004c	CampyFood® agar method	<i>Campylobacter</i> spp.	bioMérieux	MicroVal # 2009LR28	Poultry products, meat products, environmental samples	25g
C005	<i>Campylobacter</i> real-time PCR	<i>Campylobacter</i> spp.	Eurofins Genescan	NordVal # 017	Chicken raw meat, faeces on cloacae swabs, disposal shoe covers with chicken faeces	N/A
C006	CASA® ( <i>Campylobacter</i> Selective Agar) for enumeration of <i>Campylobacter</i> spp.	<i>Campylobacter</i> spp.	bioMérieux, sa	MicroVal # RQA2010LR38	Meat products, poultry products & environmental samples	N/A
C007	iQ-Check™ <i>Campylobacter</i> Real-Time PCR	<i>Campylobacter jejuni</i> ; <i>Campylobacter coli</i> ; <i>Campylobacter lari</i>	Bio-Rad Laboratories	AOAC-RI # 031209	Chicken carcass rinse, turkey carcass sponge, raw ground chicken breast	25g, 30mL
C008	Oxoid Brilliance™ CampyCount Agar	<i>Campylobacter</i> spp.	Oxoid Ltd, part of Thermo Fisher Scientific	MicroVal # 2008LR12	Poultry products	N/A
C009	Singlepath® <i>Campylobacter</i>	<i>Campylobacter jejuni</i> ; <i>Campylobacter coli</i>	Merck KGaA	AOAC-RI # 120401	Raw ground chicken, raw ground turkey, pasteurized milk	25g
C010	Veriflow™ <i>Campylobacter</i>	<i>Campylobacter</i> spp.	Invisible Sentinel, Inc.	AOAC-RI # 101201	Chicken carcass rinse	N/A
C011a	VIDAS® <i>Campylobacter</i> (CAM)	<i>Campylobacter</i> spp.	bioMérieux, sa	AFNOR # BIO 12/29 - 05/10	Meat products and production environment samples	25g
C011b	VIDAS® <i>Campylobacter</i> (CAM)	<i>Campylobacter</i> spp.	bioMérieux, sa	AOAC-RI # 051201	Fresh raw pork, raw chicken breast, processed chicken nuggets, chicken carcass rinsate, turkey carcass sampled with sponge	25g
C012	RAPID' <i>Campylobacter</i> /Agar	<i>Campylobacter</i> spp.	Bio-Rad	AFNOR # BRD 07/25 - 01/14	Meat products and meat product and production environmental samples	N/A
C013	ANSR for <i>Campylobacter</i>	<i>Campylobacter jejuni</i> ; <i>Campylobacter coli</i> ; <i>Campylobacter lari</i>	Neogen Corporation	AOAC-RI # 071601	Chicken carcass rinse and turkey carcass sponge	N/A

## Foodborne Pathogen Test Kits Validated by Independent Organizations

FSIS is making available a list of test kits that have been validated for detection of relevant foodborne pathogens (i.e. *Salmonella*, *Campylobacter*, *E. coli* O157:H7, *Listeria* spp. including *L. monocytogenes*, and non-O157 STECs). These lists are intended to be informational and are not an endorsement or approval of any particular method, regardless of its inclusion in the list.

While FSIS does not require the use of any particular test method, the method chosen by an establishment should be:

- 1) Validated for testing relevant foods by:
  - a) a recognized independent body (i.e., AOAC, AFNOR, MicroVal, NordVal), or
  - b) a U.S. regulatory body (i.e. FSIS MLG or FDA BAM), or an ISO method
- 2) The validated method should be:
  - a) Fit for the intended purpose and application, and
  - b) Performed under validated conditions by a laboratory that assures the quality of the analytical results.

The table below contains a list of foodborne pathogen test kits that meet criterion 1a as described above; i.e., are validated by recognized independent organizations (e.g., AOAC, AOAC-RI, AFNOR, MicroVal, NordVal). None of the test kits listed below are implicitly approved by USDA FSIS. A validated test kit must also be fit for purpose (i.e. validated for the appropriate matrix and sample size) and appropriate for the specific application in a food safety program. Additionally these methods should be performed as per the conditions of the validated protocol by a laboratory that assures the analytical results. FSIS has published further guidance for choosing a microbiological laboratory (<http://www.fsis.usda.gov/wps/wcm/connect/464a4827-0c9a-4268-8651-b417bb6bba51/Guidance-Selection-Commercial-Private-Microbiological-Testing-lab-062013.pdf?MOD=AJPERES>). The sampling methodology and frequency must be appropriate to answer the food safety question that is asked. Finally, sample transport and storage should be appropriate to ensure the integrity of the sample and the result.

The methods listed here are not necessarily equivalent or appropriate for all specific testing applications. Please refer to other FSIS guidance on fitness for purpose for specific applications. As an example, AskFSIS provides guidance on appropriate test portions for *E. coli* O157:H7 testing and application of non-culture confirmation methods to confirm screening test results. For *Listeria* food contact surface and other environmental samples, FSIS has provided the following additional guidance for sampling and testing; i.e., validated methods should include an enrichment step for the entire sponge, swab or sampling device. Methods listed below do not necessarily meet all of these criteria. For more detail on RTE *Listeria*, FSIS has published RTE *Listeria* Compliance Guidelines (<http://www.fsis.usda.gov/wps/wcm/connect/d3373299-50e6-47d6-a577-e74a1e549fde/Controlling-Lm-RTE-Guideline.pdf?MOD=AJPERES>).

On a case-by-case basis, FSIS has reviewed robust studies using the FSIS MLG method as a reference method. For these reviews, FSIS uses the FSIS Test Kit validation guidelines to evaluate the study design, results, and data analysis for these alternative methods ([http://www.fsis.usda.gov/wps/wcm/connect/966638c7-1931-471f-a79e-4155ce461d65/Validation\\_Studies\\_Pathogen\\_Detection\\_Methods.pdf?MOD=AJPERES](http://www.fsis.usda.gov/wps/wcm/connect/966638c7-1931-471f-a79e-4155ce461d65/Validation_Studies_Pathogen_Detection_Methods.pdf?MOD=AJPERES)). These alternative methods are not included in the lists below because they are not externally validated by an independent organization.

FSIS intends to update validated test kit lists on a quarterly basis.

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L001	3M™ Petrifilm™ Environmental <i>Listeria</i> Plate	<i>Listeria monocytogenes</i> ; <i>Listeria innocua</i> ; <i>Listeria welshimeri</i>	3M Food Safety	AOAC-RI # 030601	Environmental surfaces (stainless steel, ceramic tile, plastic & sealed concrete)	N/A
L002	3M™ TECRA™ <i>Listeria</i> Visual Immunoassay (TLVIA)	<i>Listeria</i> spp.	3M Microbiology	AOAC-OMA # 995.22	Dairy foods, seafoods, poultry, meats (except raw ground chuck), and leafy vegetables	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L003	3M™ Tecra™ <i>Listeria</i> Visual Immunoassay (VIA)	<i>Listeria</i> spp.	3M Food Safety	AOAC-RI # 091201	Environmental surfaces (stainless steel, concrete)	N/A
L004	3M™ TECRA™ <i>Listeria</i> Visual Immunoassay using 3M™ TECRA™ <i>Listeria</i> Enrichment Broth	<i>Listeria</i> spp.	3M Microbiology	AOAC-OMA # 2002.09	Raw meats, fresh produce/vegetables, processed meats, seafood, dairy foods cultured/noncultured, fruit and fruit juices	25g
L005	AccuProbe <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	bioMérieux, sa	AFNOR # BIO 12/4 -02/95	All human food products and environmental samples of production	25g
L006	ACTEROT™ <i>Listeria</i> Enrichment Media	<i>Listeria</i> spp. (not <i>L. grayi</i> )	FoodChek Systems, Inc	AOAC-RI # 111201	Frankfurters, smoked turkey breast (125g), cured ham (125g), raw frozen salmon, cold smoked salmon, frozen cooked shrimp, cooked shrimp, ice cream, pasteurized milk, pasteurized 2% milk, soft Mexican-style cheese, bagged spinach, soft fresh ricotta cheese, liquid whole eggs, ceramic tile, rubber, sealed concrete, stainless steel, plastic	25g except where noted in "Validated Matrices"
L007	ADIAFOOD Advanced Detection System: <i>Listeria</i> spp. environmental sample testing	<i>Listeria</i> spp.	AES Chemunex Canada	AOAC-RI # 021109	Environmental surfaces (stainless steel, ceramic, plastic & sealed concrete)	N/A
L008	ADIAFOOD Detection System: <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	AES Chemunex Canada	AOAC-RI # 040402	Yogurt, brie cheese, mayonnaise, raw ground pork, raw pork chops, sausages, raw beef cubes, raw cod fillet, green beans, fruit salad	25g
L009	ADIAFOOD <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	AES Chemunex	AFNOR # AES 10/08 - 12/09	All human food products and environmental samples	25g
L010	AL Detection	<i>Listeria monocytogenes</i> and <i>Listeria</i> spp.	Bio-Rad Laboratories	AFNOR # BRD 07/16 -01/09	All human food products and environmental samples	25g
L011	AL Enumeration	<i>Listeria monocytogenes</i>	Bio-Rad Laboratories	AFNOR # BRD 07/17 -01/09	All human food products and environmental samples	N/A
L012	ALOA® Count	<i>Listeria monocytogenes</i> and <i>Listeria</i> spp.	AES Chemunex	AFNOR # AES 10/05 - 09/06	All foodstuffs for human consumption	N/A
L013a	ALOA® One Day	<i>Listeria monocytogenes</i> and <i>Listeria</i> spp.	AES Chemunex	AFNOR # AES 10/03 – 09/00	All foodstuffs for human consumption and environmental samples	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L013b	ALOA® One Day Method	<i>Listeria monocytogenes</i> and <i>Listeria</i> spp.	AES Chemunex	AOAC-RI # 091102	Raw ground beef, ham, sausage, deli turkey, smoked salmon, mexican soft cheese, pasteurized milk, and environmental surfaces (stainless steel, plastic, ceramic, sealed concrete)	25g
L014a	ANSRT™ for <i>Listeria</i>	<i>Listeria</i> spp. ( <i>L. grayi</i> variable)	Neogen Corporation	AOAC-RI # 101202	Pasteurized 2% milk, queso fresco, ice cream, smoked salmon, lettuce, cantaloupe, guacamole, pasteurized liquid egg, hot dog, fermented sausage, deli turkey, stainless steel, plastic, ceramic tile, sealed concrete, rubber	25g
L014b	ANSR for <i>Listeria</i>	<i>Listeria</i> spp.	Neogen Corporation	AFNOR # NEO 35/03 - 01/16	All human food products and production environmental samples	N/A
L015a	Assurance GDS™ for <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	BioControl Systems, Inc.	AOAC-RI # 070702	Liquid pasteurized milk, mexican soft cheese, frankfurter, deli turkey, raw fish, raw green beans, environmental surfaces (stainless steel, rubber, concrete, plastic)	25g
L015b	Assurance GDS® <i>Listeria monocytogenes Tq</i>	<i>Listeria monocytogenes</i>	BioControl Systems	MicroVal # 2014LR32	All food products and environmental samples	25g
L016a	Assurance GDS™ for <i>Listeria</i> species	<i>Listeria</i> species including <i>L. monocytogenes</i> , <i>L. innocua</i> , <i>L. seeligeri</i> , <i>L. welshimeri</i> , <i>L. ivanovii</i> and <i>L. grayi</i>	BioControl Systems, Inc.	AOAC-RI # 070701	Liquid pasteurized milk, mexican soft cheese, frankfurter, deli turkey, raw fish, raw green beans, environmental surfaces (stainless steel, rubber, concrete, plastic)	25g
L016b	Assurance GDS® <i>Listeria Tq</i>	<i>Listeria</i> spp.	BioControl Systems	MicroVal # 2010LR31	All food products and environmental samples	25g
L017a	Assurance® <i>Listeria</i> EIA	<i>Listeria monocytogenes</i> and <i>Listeria</i> spp.	BioControl Systems, Inc.	AOAC-OMA # 996.14	Dairy foods, red meats, pork, poultry and poultry products, seafood, fruits, vegetables, nutmeats, pasta, chocolate, eggs, bone meal, and from environmental surfaces	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L017b	Assurance™ EIA for <i>Listeria</i>	<i>L. monocytogenes</i> , <i>L. innocua</i> , <i>L. seeligeri</i> , <i>L. welshimeri</i> , <i>L. ivanovii</i> , <i>L. grayii</i>	BioControl Systems, Inc.	AOAC-RI # 060802	Liquid pasteurized milk, mexican soft cheese, raw beef trim, ready to eat turkey, raw green beans, raw fish, environmental surfaces (stainless steel, rubber, plastic)	N/A
L018	BAX® system <i>L. monocytogenes</i>	<i>Listeria monocytogenes</i>	DuPont Qualicon (DuPont Nutrition & Health Diagnostics)	AOAC-OMA # 2003.12	Dairy products, fruits and vegetables [except radishes], seafoods, raw and processed meats, and poultry	25g
L019a	BAX® System PCR Assay for Genus <i>Listeria</i> 24E	<i>Listeria</i> spp.	Qualicon Diagnostics LLC, a Hygiena Company	AOAC-RI # 050903	Bagged spinach, processed cheese, frankfurters, cooked shrimp, environmental surfaces (stainless steel)	25g
L019b	BAX® System PCR Assay for Genus <i>Listeria</i> 24E	<i>Listeria</i> spp. excluding <i>L. grayi</i>	DuPont Qualicon (DuPont Nutrition & Health Diagnostics)	AFNOR # QUA 18/06 - 07/08	All human food products and environmental samples	25g
L020a	BAX® System PCR Assay for <i>Listeria monocytogenes</i> 24E	<i>Listeria monocytogenes</i>	Qualicon Diagnostics LLC, a Hygiena Company	AOAC-RI # 080901	Bagged spinach, processed cheese, frankfurters, cooked shrimp, environmental surfaces (stainless steel)	25g
L020b	BAX® System PCR Assay for <i>Listeria monocytogenes</i> 24E	<i>Listeria monocytogenes</i>	DuPont Qualicon (DuPont Nutrition & Health Diagnostics)	AFNOR # QUA 18/05 - 07/08	All human food products and production environmental samples	25g
L021	BAX® System PCR Assay for <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	Qualicon Diagnostics LLC, a Hygiena Company	AOAC-RI # 070202	Raw meats, fresh produce/vegetables, processed meats, seafood, dairy cultured/non-cultured, egg and egg products, and fruit juices	25g
L022	BAX® System PCR Assay for Screening Genus <i>Listeria</i>	<i>Listeria</i> spp. including <i>L. monocytogenes</i> , <i>L. innocua</i> , <i>L. ivanovii</i> , <i>L. seeligeri</i> , <i>L. welshimeri</i>	Qualicon Diagnostics LLC, a Hygiena Company	AOAC-RI # 030502	Processed cheese, frankfurters, smoked salmon, spinach, environmental surfaces (plastic ceramic, tile, rubber, painted wood surfaces, unpainted wood, sealed concrete, cast iron, air filter material & drain swabs)	25g
L023	BBL™ CHROMagar™ <i>Listeria</i>	<i>Listeria monocytogenes</i> , <i>Listeria ivanovii</i>	Becton Dickinson and Company	AOAC-RI # 060501	Raw ground beef, smoked salmon, lettuce, brie cheese	N/A

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L024	CHROMagar™ <i>Listeria</i>	<i>Listeria monocytogenes</i>	CHROMagar	AFNOR # CHR 21/1 -12/01	All human food products and environmental samples	25g
L025	CHROMagar™ <i>Listeria</i> (Enumeration)	<i>Listeria monocytogenes</i>	CHROMagar	AFNOR # CHR 21/02 -12/06	All human food products and environmental samples	N/A
L026	ChromID Lmono Agar	<i>Listeria monocytogenes</i>	bioMérieux, sa	AFNOR # BIO 12/31 - 05/11	All human food products and production environmental samples	25g
L027	ChromID Lmono Agar (LMO-F) for <i>Listeria monocytogenes</i> enumeration	<i>Listeria monocytogenes</i>	bioMérieux, sa	MicroVal # 2010LR35	All food categories & environmental samples	N/A
L029a	Compass® <i>Listeria</i> Agar (Detection)	<i>Listeria monocytogenes</i> and <i>Listeria</i> spp.	SOLABIA SAS	AFNOR # BKR 23/02-11/02	All human food products and production environment samples	25g
L029b	Compass® <i>Listeria</i> Agar (Enumeration)	<i>Listeria monocytogenes</i>	SOLABIA SAS	AFNOR # BKR 23/05-12/07	All human food products and production environment samples	N/A
L030	Dupont® Lateral Flow System <i>Listeria</i> species	<i>Listeria</i> spp.	Qualicon Diagnostics LLC, a Hygiena Company	AOAC-RI # 080501	Ice cream, soft cheese, milk, deli turkey, pepperoni, hot dogs, roast beef, cooked shrimp, smoked fish, potato salad, environmental surfaces (rubber, painted concrete, stainless steel)	25g
L031	FoodChek™ <i>Listeria</i> spp.	<i>Listeria</i> spp. (not <i>L. grayi</i> )	FoodChek Systems, Inc	AOAC-RI # 111202	Cold smoked salmon, frozen cooked shrimp, soft fresh ricotta cheese, liquid whole eggs, and environmental surfaces (stainless steel, plastic, ceramic tiles, rubber, sealed concrete)	25g
L032a	foodproof® <i>Listeria monocytogenes</i> Detection Kit in combination with the foodproof® ShortPrep II Kit	<i>Listeria monocytogenes</i>	BIOTECON Diagnostics GmbH	AOAC-RI # 070401	Dried whole eggs, dry whole milk, vanilla ice cream, Harzer cheese, sausage, raw ground chicken, raw ground pork, ham, gravlax, pollack fillet, melon cubes, white cabbage, bean sprouts, paprika emulsion dye, parsley flakes, dry pet food, peanut butter, milk chocolate, pizza, spaghetti	25g
L032b	foodproof® <i>Listeria monocytogenes</i> Detection Kit, Hybridization Probes and foodproof® <i>Listeria monocytogenes</i> Detection Kit, 5' Nuclease in combination with foodproof® ShortPrep II Kit	<i>Listeria monocytogenes</i>	BIOTECON Diagnostics GmbH	NordVal # 025	Foods and environmental samples	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L033	GeneDisc® Plate <i>Listeria</i> DUO Detection Kit	<i>Listeria</i> spp. & <i>Listeria monocytogenes</i>	Pall GeneDisc Technologies	AOAC-RI # 031206	Deli roast beef, hot dogs, deli turkey, raw shrimp, cold smoked salmon, romaine lettuce, pasteurized whole milk, vanilla ice cream, Brie cheese, liquid eggs, environmental surfaces (stainless steel, sealed concrete)	N/A
L034a	GeneDisc® <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	Pall GeneSystems (Pall GeneDisc Technologies)	AFNOR # GEN 25/08 - 07/10	All human food products and production environment samples	25g
L034b	GeneDisc® Plate <i>Listeria monocytogenes</i> Detection Kit	<i>Listeria monocytogenes</i>	Pall GeneDisc Technologies	AOAC-RI # 031204	Deli roast beef, hot dogs, deli turkey, raw shrimp, cold smoked salmon, romaine lettuce, pasteurized whole milk, vanilla ice cream, Brie cheese, liquid eggs, environmental surfaces (stainless steel, sealed concrete)	N/A
L035a	GeneDisc® <i>Listeria</i> spp.	<i>Listeria</i> spp.	Pall GeneSystems (Pall GeneDisc Technologies)	AFNOR # GEN 25/07 - 07/10	All human food products and production environment samples	25g
L035b	GeneDisc® Plate <i>Listeria</i> spp. Detection Kit	<i>Listeria</i> spp.	Pall GeneDisc Technologies	AOAC-RI # 031205	Deli roast beef, hot dogs, deli turkey, raw shrimp, cold smoked salmon, romaine lettuce, pasteurized whole milk, vanilla ice cream, Brie cheese, liquid eggs, environmental surfaces (stainless steel, sealed concrete)	N/A
L036	GeneDisc® Plate <i>Listeria</i> Identification Kit	<i>L. monocytogenes</i> , <i>L. innocua</i> , <i>L. ivanovii</i> , <i>L. seeligeri</i> , <i>L. welshimeri</i> & <i>L. grayi</i>	Pall GeneDisc Technologies	AOAC-RI # 031207	Pure colonies from OXA, MOX, OAA, PALCAM, Rapid' <i>L. mono</i> agar & Nutrient Agar	N/A

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L037	GeneQuence™ <i>Listeria</i> Microwell Test	<i>Listeria</i> spp.	Neogen Corporation	AOAC-RI # 010403	Parmesan cheese, brie cheese, pasteurized milk, ice cream, cottage cheese, mayonnaise, ground beef, deli turkey, hot dogs, ground pork, deli ham, lettuce, mixed vegetables, alfalfa sprouts, raw shrimp, pasteurized crab meat, smoked salmon, environmental surfaces (stainless steel, ceramic, cast iron, plastic, concrete, painted wood)	25g
L038	GENE-TRAK <i>Listeria</i>	<i>Listeria</i> spp.	Neogen Corporation	AOAC-OMA # 993.09	Dairy products, meats, and seafoods	25g
L039	GENE-TRAK <i>Listeria</i> DLP Assay	<i>Listeria</i> spp.	Neogen Corporation	AOAC-RI # 981201	Dairy products, meats, seafood, and environmental samples	25g
L040	IEH <i>Listeria</i> spp. & <i>Listeria monocytogenes</i> Test System	<i>Listeria</i> spp. & <i>Listeria monocytogenes</i>	IEH Laboratories & Consulting Group	AOAC-RI # 021201	Raw beef trim, ready-to-eat turkey, environmental surfaces (stainless steel, plastic)	25-375g
L041a	iQ-Check™ <i>Listeria monocytogenes</i> II	<i>Listeria monocytogenes</i>	Bio-Rad Laboratories	AFNOR # BRD 07/10 - 04/05	All human foodstuffs and environmental samples	25g
L041b	iQ-Check™ <i>Listeria monocytogenes</i> II Real Time PCR	<i>Listeria monocytogenes</i>	Bio-Rad Laboratories	AOAC-RI # 010802	Smoked salmon, cottage cheese, hot dogs, deli turkey	25g
L042a	iQ-Check™ <i>Listeria</i> species	<i>Listeria</i> spp.	Bio-Rad Laboratories	AFNOR # BRD 07/13 - 05/07	All human foodstuffs and environmental samples	25g
L042b	iQ-Check™ <i>Listeria</i> spp. Real-Time PCR	<i>Listeria</i> spp.	Bio-Rad Laboratories	AOAC-RI # 090701	Environmental surfaces (stainless steel, plastic, ceramic, sealed concrete)	N/A
L043	<i>Listeria</i> LT	<i>Listeria</i> species ( <i>Listeria innocua</i> , <i>L. ivanovii</i> , <i>L. monocytogenes</i> , <i>L. seeligeri</i> , <i>L. welshimeri</i> )	BioFire Diagnostics	AOAC-RI # 010901	Turkey deli meat, mexican soft cheese, environmental surfaces (plastic, stainless steel & ceramic)	25g
L044a	<i>Listeria</i> Precis™ (Detection)	<i>Listeria monocytogenes</i>	OXOID Ltd	AFNOR # UNI 03/04 -04/05	All human food products and environmental samples	25g
L044b	<i>Listeria</i> Precis™ (Enumeration)	<i>Listeria monocytogenes</i>	OXOID Ltd	AFNOR # UNI 03/05 -09/06	All human food products and environmental samples	N/A
L045	<i>Listeria</i> -Tek ELISA	<i>Listeria monocytogenes</i>	Organon Teknika Corporation	AOAC-OMA # 994.03	Meat, meat products, fish, dairy products	25g



#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L046	LUMIprobe 24 <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	EUROPROBE SA	AFNOR # EUR 15/03 - 12/05	All human food products (except French cheeses "cantal" and "salers") and environmental samples	25g
L047	Microgen™ <i>Listeria</i> -ID	<i>Listeria</i> spp.	Microgen Bioproducts Ltd	AOAC-RI # 060402	Pure culture	N/A
L048	MICRO-ID <i>Listeria</i>	<i>Listeria</i> spp.	Organon Teknika Corporation	AOAC-OMA # 992.18	Foods and environmental samples	N/A
L049a	MicroSEQ <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	Life Technologies SAS	AFNOR # ABI 29/05 - 12/11	Human food and environmental samples	25g
L049b	MicroSEQ® <i>Listeria monocytogenes</i> Detection Kit	<i>Listeria monocytogenes</i>	Applied Biosystems	AOAC-RI # 011002	Pasteurized whole milk, dry infant formula, ice cream, roast beef, cured bacon, lox (cold-smoked salmon), lettuce, salad dressing and mayonnaise	25g
L050a	MicroSEQ <i>Listeria</i> spp.	<i>Listeria</i> spp.	Life Technologies SAS	AFNOR # ABI 29/04 - 12/11	Human food and environmental samples	N/A
L050b	MicroSEQ® <i>Listeria</i> spp. Detection Kit	<i>Listeria</i> spp.	Applied Biosystems	AOAC-RI # 021108	Pasteurized whole cows milk, dry infant formula, hot dogs, roast beef, lox (smoked salmon), environmental surfaces (stainless steel, plastic cutting board, ceramic tile, rubber sheets, concrete sealed with Seal Hard®)	N/A
L051a	3M™ Molecular Detection Assay <i>Listeria</i>	<i>Listeria</i> spp.	3M	AOAC-RI # 081203	Environmental surfaces (stainless steel, concrete, plastic)	N/A
L051b	3M™ Molecular Detection Assay (MDA) <i>Listeria</i> Method	<i>Listeria</i> spp.	3M Food Safety	AOAC-OMA # 2014.06	Beef hot dogs (25g), deli turkey (25g), cold smoked salmon (25g), full-fat cottage cheese (25g), sealed concrete (sponge in 100mL and sponge in 225mL enrichment volume) and stainless steel (swab in 10mL and sponge in 225mL enrichment volume)	See "Validated Matrices"
L052a	Oxoid <i>Listeria</i> Rapid Test (OLRT)	<i>Listeria</i> spp. excluding <i>L. grayi</i> subsp <i>grayi</i> and <i>L. grayi</i> subsp <i>murrayi</i>	OXOID Ltd	AFNOR # UNI 03/02 - 04/95	All human food products and environmental samples	25g
L052b	Oxoid <i>Listeria</i> Rapid Test	<i>Listeria</i> spp.	Oxoid Ltd	AOAC-RI # 960701	Food and environmental samples	25g
L053	PATHATRIX Pooling System for <i>Listeria</i> species	<i>Listeria</i> spp.	Life Technologies (ThermoScientific)	AOAC-RI # 090201B	Soft cheese, single cream, cooked chicken, ready meal, frozen prawns	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L054	PDX- LIB	<i>Listeria</i> spp. including <i>L. monocytogenes</i> , <i>L. innocua</i> , <i>L. ivanovii</i> , <i>L. welshimeri</i>	Paradigm Diagnostics, Inc.	AOAC-RI # 040501	Environmental surfaces (ceramic tile, stainless steel, plastic, & sealed concrete)	N/A
L055a	RAPID' <i>L. mono</i> (Detection)	<i>Listeria monocytogenes</i> and <i>Listeria</i> spp.	Bio-Rad Laboratories	AFNOR # BRD 07/04 - 09/98	All human food products and environmental samples	25g
L055b	RAPID' <i>L. mono</i> Agar (Enumeration)	<i>Listeria monocytogenes</i>	Bio-Rad Laboratories	AFNOR # BRD 07/05 - 09/01	All human food products and environmental samples	N/A
L055c	RAPID' <i>L. mono</i>	<i>Listeria monocytogenes</i>	Bio-Rad Laboratories	AOAC-RI # 030406	Brie cheese, surimi, mixed salad, & deli turkey	N/A
L056	RapidChek® <i>Listeria</i>	<i>Listeria</i> spp.	Romer Labs Technology, Inc.	AOAC-RI # 020401	Ice cream, soft cheese, pasteurized whole milk, deli turkey, pepperoni, hot dogs, roast beef, cooked shrimp, smoked fish, potato salad, environmental surfaces (rubber, painted concrete, stainless steel)	25g
L057a	RAPID' <i>Listeria</i> spp.	<i>Listeria</i> spp.	Bio-Rad Laboratories	AFNOR # BRD 07/12 - 12/06	All human food products and environmental samples	25g
L057b	RAPID' <i>Listeria</i> spp.	<i>Listeria</i> spp.	Bio-Rad Laboratories	AOAC-RI # 080701	Environmental surfaces (stainless steel, plastic, ceramic, sealed concrete)	N/A
L058	Reveal® 2.0 <i>Listeria</i> Test System	<i>Listeria</i> spp. excluding <i>L. grayi</i>	Neogen Corporation	AOAC-RI # 041101	Pasteurized liquid egg, ice cream, parmesan cheese, 2% milk, deli turkey, hot dogs, frozen cooked hamburgers, pepperoni, pasteurized crab meat, smoked salmon, environmental surfaces (stainless steel, ceramic tile, plastic, concrete)	25g
L059	Roka <i>Listeria</i> Detection Assay	<i>Listeria</i> spp.	Roka Bioscience, Inc	AOAC-RI # 011201	Pasteurized whole milk, ice cream, Brie cheese, hot dogs, cured ham, deli chicken, chicken salad, cold-smoked salmon, romaine lettuce, environmental surfaces (stainless steel, sealed concrete, plastic)	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L060	RapidChek® <i>Listeria</i> NextDay Food and Environmental Test System	<i>Listeria</i> spp.	Romer Labs Technology, Inc.	AOAC-RI # 101102	Hot dogs (25g, 125g), roast beef (25g), frozen breaded chicken (25g, 125g), frozen meatballs (25g), whole milk (25g), ice cream (25g), ricotta cheese (25g), shredded Mexican cheese (125g), cheese powder (25g), and environmental surfaces (stainless steel (430SS, food grade), plastic (polyurethane, food grade), rubber (synthetic, food grade), and painted concrete (latex-based white paint))	See "Validated Matrices"
L061a	TRANSIA® PLATE <i>Listeria</i>	<i>Listeria</i> spp.	BioControl	NordVal # 002	Foods and environmental samples	25g
L061b	TRANSIA® PLATE <i>Listeria</i> spp.	<i>Listeria</i> spp.	BioControl Systems, Inc.	AFNOR # TRA 02/06 - 11/95	All food products and environmental samples	25g
L062	TRANSIA® Plate <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	BioControl Systems, Inc.	AFNOR # TRA 02/11 - 03/08	All human food products and environmental samples	N/A
L063b	VIDAS® <i>Listeria monocytogenes</i> Xpress (LMX)	<i>Listeria monocytogenes</i>	bioMérieux, sa	AOAC-RI # 091103	Spinach, peanut butter, shrimp, smoked fish, liver pâté, raw fermented sausage, ground beef (125g), turkey hotdogs, deli ham (25g, 125g), deli turkey (25g, 125g), processed cheese, ice cream, Mexican soft cheese (125g)	25g except where noted in "Validated Matrices"
L063c	VIDAS® <i>Listeria monocytogenes</i> Xpress (LMX) Method	<i>Listeria monocytogenes</i>	bioMérieux, sa	AOAC-OMA # 2013.11	Deli ham (25g, 125g), fermented sausage, liver pâté, processed cheese, vanilla ice cream, cooked shrimp, smoked white fish, frozen spinach, peanut butter, deli turkey (25g, 125g), queso fresco (125g), and ground beef (125g)	25g except where noted in "Validated Matrices"
L064a	VIDAS® <i>Listeria</i> (LIS)	<i>Listeria</i> spp.	bioMérieux, sa	AFNOR # BIO 12/02 - 06/94	All human food products and production environment samples	25g/25mL
L064b	VIDAS® <i>Listeria</i> (LIS)	<i>Listeria</i> spp.	bioMérieux, sa	AOAC-OMA # 2004.06	Dairy products, vegetables, seafood, raw meats and poultry, and processed meats and poultry	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L064c	VIDAS® <i>Listeria</i> (LIS)	<i>Listeria</i> spp.	bioMérieux, sa	AOAC-OMA # 999.06	Dairy products, vegetables, seafoods, raw meats and poultry, and processed meats and poultry	25g
L064d	VIDAS® <i>Listeria</i> Assay	<i>Listeria</i> spp.	bioMérieux, sa	AOAC-RI # 981202	Raw meats and poultry, cooked and processed meats and poultry, seafood, vegetables, dairy products, & environmental samples	25g
L065a	VIDAS® <i>Listeria</i> DUO (LDUO)	<i>Listeria monocytogenes</i> and <i>Listeria</i> spp.	bioMérieux, sa	AFNOR # BIO 12/18 - 03/06	All human food products and environmental samples	25g/25mL
L065b	VIDAS® <i>Listeria</i> DUO (LDUO) with Ottaviani Agar	<i>Listeria monocytogenes</i> and <i>Listeria</i> spp.	bioMérieux, sa	AOAC-RI # 100702	Cheddar cheese, camembert cheese, pasteurized milk, yogurt, vanilla ice cream, raw pork, meat frankfurters, frozen ground beef, ham, roast beef, chicken frankfurters, raw ground chicken, raw cod, frozen cooked shrimp, crab meat, frozen green beans, cauliflower	25g
L066	VIDAS® <i>Listeria monocytogenes</i> 2 (VIDAS LMO2) (Enrichment at 30°C)	<i>Listeria monocytogenes</i>	bioMérieux, sa	AFNOR # BIO 12/09 - 07/02	All human food products (except raw products) and environmental samples	25g
L067	VIDAS® <i>Listeria monocytogenes</i> 2 (VIDAS LMO2) (Enrichment at 37°C)	<i>Listeria monocytogenes</i>	bioMérieux, sa	AFNOR # BIO 12/11 -03/04	All human food products and environmental samples	25g
L068b	VIDAS® <i>Listeria</i> species Xpress (LSX) Test with Ottaviani Agosti Agar (OAA)	<i>Listeria</i> spp.	bioMérieux, sa	AOAC-RI # 100501	Raw pork, frankfurters, roast beef, frozen raw beef, ham, fresh ground chicken, chicken franks, pasteurized crab meat, raw cod & shrimp, green beans, cauliflower, yogurt, camembert cheese, pasteurized whole milk, cheddar cheese, vanilla ice cream, mexican soft cheese, stainless steel, plastic, rubber, ceramic, wood, sealed concrete, cast iron & air filter material	25g
L068c	VIDAS® <i>Listeria</i> species Xpress (LSX)	<i>Listeria</i> spp.	bioMérieux, sa	AOAC-OMA # 2010.02	Dairy products, vegetables, seafood, raw meats and poultry, and processed meats and poultry	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L069	VIDAS® LMO2	<i>Listeria monocytogenes</i>	bioMérieux, sa	AOAC-OMA # 2004.02	Dairy products, vegetables, seafood, raw meats and poultry, and processed meats and poultry	25g
L070a	VIDAS® UP <i>Listeria</i>	<i>Listeria</i> spp.	bioMérieux, sa	AFNOR # BIO 12/33 - 05/12	Human food products and production environment samples	N/A
L070b	VIDAS® UP <i>Listeria</i> (LPT)	<i>Listeria</i> spp.	bioMérieux, sa	AOAC-OMA # 2013.10	Deli ham (25 and 125 g), pepperoni (25 g), beef hot dogs (25 g), chicken nuggets (25 g), chicken liver pâté (25 g), ground beef (125 g), deli turkey (125 g), cooked shrimp (25 g), smoked salmon (25 g), whole cantaloupe melon, bagged mixed salad (25 g), peanut butter (25 g), black pepper (25 g), vanilla ice cream (25 g), queso fresco (25 and 125 g), stainless steel, plastic, ceramic and concrete environmental surfaces	See "Validated Matrices"
L071a	VIP® Gold for <i>Listeria</i>	<i>Listeria monocytogenes</i> and <i>Listeria</i> spp.	BioControl Systems, Inc.	AOAC-OMA # 997.03	Dairy foods, red meats, pork, poultry and poultry products, seafood, fruits, vegetables, nutmeats, pasta, chocolate, eggs, bone meal, and environmental surfaces	25g
L071b	VIP® for <i>Listeria</i>	<i>L. monocytogenes</i> , <i>L. seeligeri</i> , <i>L. welshimeri</i> , <i>L. ivanovii</i> , <i>L. grayii</i>	BioControl Systems, Inc.	AOAC-RI # 060801	Liquid pasteurized milk, mexican soft cheese, raw beef trim, ready to eat turkey, raw green beans, raw fish, environmental surfaces (stainless steel, rubber, plastic)	25g
L072	Vitek GPI and GNI+	<i>Listeria</i> spp.	bioMérieux, sa	AOAC-OMA # 992.19	N/A	N/A
L073a	Solus <i>Listeria</i> ELISA	<i>Listeria</i> spp.	Solus Scientific	AFNOR # SOL 37/02 - 06/13	Human food products and environmental samples	N/A
L073b	Solus Scientific <i>Listeria</i> ELISA	<i>Listeria</i> spp.	Solus Scientific Ltd.	AOAC-RI # 041601	Bagged romaine lettuce, hot dogs, frozen raw shrimp, smoked salmon, soft cheese (brie), stainless steel (swap, 1 x 1 in), polystyrene (sponge, 4 x 4 in)	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L074	VITEK® 2 Gram Positive (GP)	Gram-positive bacteria, including <i>Listeria</i> spp. and <i>Staphylococcus</i> spp.	bioMérieux, sa	AOAC-OMA # 2012.02	N/A	N/A
L075	InstantLabs® <i>Listeria</i> Species Food Safety Kit	<i>Listeria</i> spp.	InstantLabs Medical Diagnostics Corporation	AOAC-RI # 041304	Hot dogs, raw Shrimp, cheddar cheese, and environmental surfaces (stainless steel, sealed concrete)	25g
L076	InstantLabs® <i>Listeria monocytogenes</i> Food Safety Kit	<i>Listeria monocytogenes</i>	InstantLabs Medical Diagnostics Corporation	AOAC-RI # 051302	Hot dogs, deli turkey, romaine lettuce, raw shrimp, cheddar cheese, vanilla ice cream, pasteurized whole milk, and environmental surfaces (stainless steel, sealed concrete)	25g
L077	Veriflow™ <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	Invisible Sentinel	AOAC-RI # 051304	Beef hot dogs (14% fat), deli turkey (2% fat), stainless steel, ceramic tile, concrete, plastic	N/A
L078a	Thermo Scientific™ SureTect™ <i>Listeria monocytogenes</i> PCR Assay	<i>Listeria monocytogenes</i>	OXOID Ltd, part of Thermo Fisher Scientific	AOAC-RI # 061302	Raw ground beef, raw ground turkey, raw ground pork, raw pork sausage, raw cod, pork frankfurters, salami, cooked sliced turkey, cooked sliced ham, pasteurized 2% milk, pasteurized brie cheese, fresh bagged spinach, bagged lettuce, ice cream, smoked salmon, cooked prawns, and environmental surfaces (stainless steel and plastic)	25g
L078b	Thermo Scientific™ SureTect™ <i>Listeria monocytogenes</i> PCR Assay	<i>Listeria monocytogenes</i>	OXOID Ltd, part of Thermo Fisher Scientific	AFNOR # UNI 03/08 - 11/13	All human food products and production environmental samples	N/A
L079	Atlas® <i>Listeria monocytogenes</i> LmG2 Detection Assay	<i>Listeria monocytogenes</i>	Roka Bioscience, Inc	AOAC-RI # 111301	Hot dogs, cured ham, deli turkey (125g), chicken salad, environmental surfaces (stainless steel), frozen chocolate cream pie, frozen cheese pizza, vanilla ice cream	25g except where noted in "Validated Matrices"

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L080	DETECT/L™ Test	<i>Listeria spp.</i> ( <i>L. monocytogenes</i> , <i>L. innocua</i> , <i>L. ivanovii</i> , <i>L. seeligeri</i> , <i>L. welshimeri</i> & <i>L. marthii</i> )	Sample6	AOAC-RI # 041401	Environmental surface (Stainless steel)	N/A
L081	mericon® <i>Listeria monocytogenes</i> Pathogen Detection Assay	<i>Listeria monocytogenes</i>	Qiagen GmbH	AOAC-RI # 061401	Uncooked hot dogs, deli turkey, smoked salmon, mung bean sprouts, pasteurized whole milk, environmental surfaces (stainless steel, ceramic tile, plastic, and sealed concrete)	N/A
L082	mericon® <i>Listeria species</i> Pathogen Detection Assay	<i>Listeria spp.</i>	Qiagen GmbH	AOAC-RI # 061402	Uncooked hot dogs, deli turkey, smoked salmon, mung bean sprouts, pasteurized whole milk, environmental surfaces (stainless steel, ceramic tile, plastic, and sealed concrete)	N/A
L084a	Thermo Scientific™ SureTect™ <i>Listeria species</i> PCR Assay	<i>Listeria spp.</i>	OXOID Ltd, part of Thermo Fisher Scientific	AOAC-RI # 071304	Raw ground beef, ground pork, raw ground turkey, raw pork sausages, pork frankfurters, salami, cooked sliced ham, cooked sliced turkey, pasteurized 2% milk, bagged lettuce, fresh bagged spinach, cantaloupe, processed cheese, smoked salmon, raw cod, cooked prawns, pasteurized brie cheese, ice cream, and environmental surfaces (stainless steel and plastic)	25g
L084b	Thermo Scientific™ SureTect™ <i>Listeria Species</i> PCR Assay	<i>Listeria spp.</i>	OXOID Ltd, part of Thermo Fisher Scientific	AFNOR # UNI 03/09 - 11/13	All human food products and production environmental samples	N/A
L085	ADIAFOOD Detection System: <i>Listeria Species</i>	<i>Listeria spp.</i>	AES Chemunex Canada	AOAC-RI # 050401	Yogurt, mayonnaise, sliced ham, raw ground pork, sausages, raw beef, raw cod fillet, imitation crabmeat, raw shrimp, green beans, pre-cut lettuce	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L086	DuPont™ BAX® System Real-Time PCR Assay for Genus <i>Listeria</i>	<i>Listeria</i> spp.	Qualicon Diagnostics LLC, a Hygiena Company	AOAC-RI # 081401	Frankfurters (beef), cooked shrimp, bagged lettuce, queso fresco (mexican style cheese), and environmental surfaces (stainless steel, plastic, and concrete)	25g
L087a	3M™ Molecular Detection Assay (MDA) <i>Listeria monocytogenes</i> Method	<i>Listeria monocytogenes</i>	3M Food Safety	AOAC-OMA # 2014.07	Beef hot dogs (25g and 125g), deli turkey (25g and 125g), cold smoked salmon, full-fat cottage cheese, chocolate milk, sealed concrete (sponge in 100mL and sponge in 225mL) and stainless steel (sponge in 225mL)	25g except where noted in "Validated Matrices"
L087b	3M Molecular Detection Assay <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	3M Food Safety	AOAC-RI # 051401	Beef hot dogs, deli turkey, cold smoked salmon, bagged raw spinach, romain lettuce, cantaloupe, full fat cottage cheese, chocolate milk, and environmental surfaces (concrete, stainless steel)	25g
L088	Atlas <i>Listeria</i> Environmental LE Detection Assay	<i>Listeria</i> spp.	Roka Bioscience, Inc	AOAC-RI # 061503	Stainless steel, PVC, plastic, sealed concrete	N/A
L089	DuPont BAX System Real-Time PCR Assay for <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	Qualicon Diagnostics LLC, a Hygiena Company	AOAC-RI # 121402	Beef frankfurters, bagged spinach, queso fresco, cooked shrimp, stainless steel, plastic & concrete	25g
L090a	ANSR for <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	Neogen Corporation	AOAC-RI # 061506	Hot dogs (125g), queso fresco, cantaloupe, guacamole, pasteurized liquid egg, sprout irrigation water (25mL), stainless steel	25g except where noted in "Validated Matrices"
L090b	ANSR for <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	Neogen Corporation	AFNOR # NEO 35/04 - 03/16	All human food products and production environmental samples	N/A



#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L091a	3M™ Molecular Detection Assay 2 (MDA2) - <i>Listeria</i> species	<i>Listeria</i> spp.	3M Company (3M Food Safety)	AOAC-RI # 111501	Beef hot dogs, deli turkey (125g), raw chicken (leg pieces and fillets), cold smoked salmon, whole melon, romaine lettuce, queso fresco, vanilla ice cream, 4% milk fat cottage cheese, bagged raw spinach, sealed concrete (4"x 4" sponge enriched in 100mL), plastic (1" x 1" swab enriched in 10mL), stainless steel (4"x 4" sponge enriched in 225 mL)	25g except where noted in "Validated Matrices"
L091b	3M™ Molecular Detection Assay (MDA) 2 - <i>Listeria</i> Method	<i>Listeria</i> spp.	3M Food Safety	AOAC-OMA # 2016.07	hot dogs (25g, 125g), salmon, deli turkey (25g, 125g), cottage cheese, vanilla ice cream, queso fresco, spinach, melon (whole), raw chicken leg pieces, raw chicken fillet; concrete (3M™ Hydrated Sponge Stick with D/E, 225mL, 100mL), stainless steel (3M™ Hydrated Sponge Stick with D/E, 225mL), and plastic (3M™ EnviroSwab with Lethen, 10mL) environmental samples	25g except where noted in "Validated Matrices"
L091c	3M™ Molecular Detection Assay 2 - <i>Listeria</i>	<i>Listeria</i> spp.	3M France	AFNOR # 3M 01/14 - 05/16	All human food products and production environmental samples	N/A
L092a	3M™ Molecular Detection Assay 2 (MDA2) - <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	3M Company (3M Food Safety)	AOAC-RI # 081501	Beef hot dogs, deli turkey (125g), raw chicken (leg pieces and fillets), cold smoked salmon, whole melon, romaine lettuce, queso fresco, vanilla ice cream, 4% milk fat cottage cheese, bagged raw spinach, sealed concrete (4"x 4" sponge enriched in 100mL), plastic (1" x 1" swab enriched in 10mL), stainless steel (4"x 4" sponge enriched in 225 mL)	25g except where noted in "Validated Matrices"

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L092b	3M™ Molecular Detection Assay (MDA) 2 - <i>Listeria monocytogenes</i> Method	<i>Listeria monocytogenes</i>	3M Food Safety	AOAC-OMA # 2016.08	hot dogs (25g, 125g), salmon, deli turkey (25g, 125g), cottage cheese, chocolate milk, vanilla ice cream, queso fresco, romaine lettuce, melon (whole), raw chicken leg pieces; raw chicken breast fillet, concrete (3M™ Hydrated Sponge Stick with Dey-Engley [D/E], 225mL, 100 mL), stainless steel (3M Hydrated Sponge Stick with D/E, 225mL), and plastic (3M™ EnviroSwab with Lethen, 10mL) environmental samples	25g except where noted in "Validated Matrices"
L092c	3M™ Molecular Detection Assay 2 - <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	3M France	AFNOR # 3M 01/15 - 09/16	All human food products and production environmental samples	N/A
L093	Veriflow™ <i>Listeria</i> spp.	<i>Listeria</i> spp.	Invisible Sentinel, Inc.	AOAC-RI # 121302	Deli Turkey (125g), beef hot dogs, whey protein isolate, and environmental surfaces (1" x 1" swab or 4" x 4" sponge; stainless steel, ceramic tile, sealed concrete, plastic)	25g except where noted in "Validated Matrices"
L094	GeneQuence™ <i>Listeria monocytogenes</i> Test	<i>Listeria monocytogenes</i>	Neogen Corporation	AOAC-RI # 120501	Deli turkey, deli ham, deli roast beef, hot dogs, raw ground beef, raw ground pork, smoked salmon, cooked crab meat, raw shrimp, ice cream, pasteurized milk, brie cheese, parmesan cheese, lettuce, frozen peas, and soy flour	25g
L095	LESS Plus for <i>Listeria</i> + ANSR for <i>Listeria</i>	<i>Listeria</i> spp.	Neogen Europe Ltd.	AFNOR # NEO 35/05 - 07/16	All human food products and production environmental samples	N/A
L096	LESS Plus for <i>Listeria monocytogenes</i> + ANSR for <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	Neogen Europe Ltd.	AFNOR # NEO 35/06 - 07/16	All human food products and production environmental samples	N/A

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L097a	GENE-UP® <i>Listeria</i>	<i>Listeria</i> spp.	bioMérieux, sa	AOAC-RI # 051603	Deli ham (25g, 125g), deli turkey (25g), beef hot dogs (25g), breaded chicken nuggets (25g), fresh bagged spinach (25g), fresh bagged lettuce (25g), cooked shrimp (25g), smoked salmon (25g, 125g), stainless steel (sponge, 4 x 4)	25g except where noted in "Validated Matrices"
L097b	GENE-UP® <i>Listeria</i>	<i>Listeria</i> spp. (except <i>L. grayi</i> )	bioMérieux, sa	AFNOR # BIO 12/39 - 09/16	Meat and dairy products	25g
L098	Xpress LM	<i>Listeria monocytogenes</i>	Crystal Diagnostics Corporate	AOAC-RI # 071602	Stainless steel, plastic, ceramic tile	N/A
L099a	GENE-UP® <i>Listeria monocytogenes</i> Detection System	<i>Listeria monocytogenes</i>	bioMérieux, sa	AOAC-RI # 121602	Deli ham (25g, 125g), deli roast beef (25g, 125g), deli turkey, turkey hot dogs, smoked salmon, cooked shrimp, fresh spinach, mixed bagged salad, liquid whole egg (100g), whey powder (375g), vanilla ice cream, (375g)	25g except where noted in "Validated Matrices"
L099b	GENE-UP® <i>Listeria monocytogenes</i> Detection System	<i>Listeria monocytogenes</i>	bioMérieux, sa	AFNOR # BIO 12/40 - 11/16	All human food products and production environmental samples	25g
L100	BACSpec <i>Listeria</i>	<i>Listeria</i> spp. (including <i>L. monocytogenes</i> , <i>L. seeligeri</i> , <i>L. welshimeri</i> , <i>L. marthii</i> , <i>L. ivanovii</i> , <i>L. grayi</i> , <i>L. innocua</i> , and <i>L. recourtae</i> )	Eurofins GeneScan	AOAC-RI # 051703	Vegetable salad, frozen cantaloupe, soft white cheese, raw whole milk, frankfurter sausages, process water, smoked salmon, frozen cooked shrimp, stainless steel (1x1 in), sealed ceramic tile (4x4 in)	25g
L101	BACGene <i>Listeria</i> Multiplex	<i>Listeria monocytogenes</i> & <i>Listeria</i> spp.	Eurofins GeneScan GmbH	AFNOR # EGS 38/05 - 03/17	All human food products (by performing validation assays on a broad range of foods) and production environmental samples	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L102	BACGene <i>Listeria</i> Multiplex	<i>Listeria</i> spp. (including <i>L. monocytogenes</i> , <i>L. seeligeri</i> , <i>L. welshimeri</i> , <i>L. marthii</i> , <i>L. ivanovii</i> , <i>L. grayi</i> , <i>L. innocua</i> , and <i>L. recourtae</i> ) and <i>L. monocytogenes</i>	Eurofins GeneScan	AOAC-RI # 061701	Mayonnaise-based vegetable salad, frankfurters, raw whole milk, soft white cheese ( <i>Listeria</i> spp. only), frozen cantaloupe balls, smoked salmon, frozen cooked shrimp ( <i>Listeria</i> spp. only), stainless steel 304L (1x1 in swab), ceramic tile (4x4 in sponge), and process water	25g
L103	BACGene <i>Listeria</i> spp.	<i>Listeria</i> spp.	Eurofins GeneScan GmbH	AFNOR # EGS 38/02 - 01/17	All human food products (by performing validation assays on a broad range of foods) and production environmental samples	25g
L104	BACGene <i>Listeria</i> spp.	<i>Listeria</i> spp. (including <i>L. monocytogenes</i> , <i>L. seeligeri</i> , <i>L. welshimeri</i> , <i>L. marthii</i> , <i>L. ivanovii</i> , <i>L. grayi</i> , <i>L. innocua</i> , and <i>L. recourtae</i> )	Eurofins GeneScan	AOAC-RI # 061702	Mayonnaise-based vegetable salad, frankfurters, raw whole milk, soft white cheese, frozen cantaloupe balls, smoked salmon, frozen cooked shrimp, stainless steel 304L (1x1 in swab), ceramic tile (4x4 in sponge), and process water (vegetable sausage production)	25g
L105	BACGene <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	Eurofins GeneScan GmbH	AFNOR # EGS 38/03 - 01/17	All human food products (by performing validation assays on a broad range of foods) and production environmental samples	25g
L106	BACGene <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	Eurofins GeneScan	AOAC-RI # 061703	Mayonnaise-based vegetable salad, frankfurters, raw whole milk, frozen cantaloupe balls, smoked salmon, stainless steel 304L (1x1 in swab), ceramic tile (4x4 in sponge), and process water (vegetable sausage production)	25g
L107	BACSpec <i>Listeria</i>	<i>Listeria</i> spp.	Eurofins GeneScan	AFNOR # EGS 38/04 - 01/17	All human food products (by performing validation assays on a broad range of foods) and production environmental samples	25g
L108	RapidChek® <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	Romer Labs, Inc.	AOAC-RI # 011805	Hot dogs, cured ham, frozen cooked breaded chicken	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated Matrices	Validated Test Portion Size**
L109	RapidChek® <i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i>	Romer Labs, Inc.	AOAC-OMA # 993.12	Ice cream	25mL
L110	DETECT™ HT/L Kit	<i>Listeria species</i> ( <i>L. monocytogenes</i> , <i>L. innocua</i> , <i>L. ivanovii</i> , <i>L. seeligeri</i> , <i>L. welshimeri</i> , <i>L. marthii</i> )	Sample6	AOAC-RI # 101704	Stainless steel environmental surfaces (4x4 squares; 18 ga. 304 stainless steel, brushed finish, not mirror)	N/A
L111	Probe4Monocytogenes	<i>Listeria monocytogenes</i>	Biomode2, S.A.	AOAC-RI # 111701	(25g) Butter, lettuce, cow's milk (2% fat, pasteurized), raw ground beef (fresh), raw ground pork (fresh), cooked shrimp (head removed)	See "Validated Matrices"
L112	GENE-UP® <i>Listeria monocytogenes</i> Detection System	<i>Listeria monocytogenes</i>	bioMérieux, sa	AOAC-RI # 121602	Deli ham (25g, 125g), deli roast beef, deli turkey, turkey hot dogs, smoked salmon, cooked shrimp, fresh spinach, mixed bagged salad (25g), liquid whole egg (100g), whey powder (375g), vanilla ice cream (25g), mexican soft cheese (25g, 125g)	See "Validated Matrices"
L113	PolySkoPe 1.0 Multiplex Detection Assay	STECs, <i>E. coli</i> O157:H7 & Non-O157 STEC Big 6 (O26, O45, O103, O111, O121, O145), <i>Listeria monocytogenes</i> , <i>Salmonella species</i>	PolySkoPe Labs	AOAC-RI # 041801	(25g) Fresh raw ground beef (73% lean), deli turkey, fresh baby spinach, stainless steel (4x4 in sponge)	See "Validated Matrices"

## Foodborne Pathogen Test Kits Validated by Independent Organizations

FSIS is making available a list of test kits that have been validated for detection of relevant foodborne pathogens (i.e. *Salmonella*, *Campylobacter*, *E. coli* O157:H7, *Listeria* spp. including *L. monocytogenes*, and non-O157 STECs). These lists are intended to be informational and are not an endorsement or approval of any particular method, regardless of its inclusion in the list.

While FSIS does not require the use of any particular test method, the method chosen by an establishment should be:

- 1) Validated for testing relevant foods by:
  - a) a recognized independent body (i.e., AOAC, AFNOR, MicroVal, NordVal), or
  - b) a U.S. regulatory body (i.e. FSIS MLG or FDA BAM), or an ISO method
- 2) The validated method should be:
  - a) Fit for the intended purpose and application, and
  - b) Performed under validated conditions by a laboratory that assures the quality of the analytical results.

The table below contains a list of foodborne pathogen test kits that meet criterion 1a as described above; i.e., are validated by recognized independent organizations (e.g., AOAC, AOAC-RI, AFNOR, MicroVal, NordVal). None of the test kits listed below are implicitly approved by USDA FSIS. A validated test kit must also be fit for purpose (i.e. validated for the appropriate matrix and sample size) and appropriate for the specific application in a food safety program. Additionally these methods should be performed as per the conditions of the validated protocol by a laboratory that assures the analytical results. FSIS has published further guidance for choosing a microbiological laboratory (<http://www.fsis.usda.gov/wps/wcm/connect/464a4827-0c9a-4268-8651-b417bb6bba51/Guidance-Selection-Commercial-Private-Microbiological-Testing-lab-062013.pdf?MOD=AJPERES>). The sampling methodology and frequency must be appropriate to answer the food safety question that is asked. Finally, sample transport and storage should be appropriate to ensure the integrity of the sample and the result.

The methods listed here are not necessarily equivalent or appropriate for all specific testing applications. Please refer to other FSIS guidance on fitness for purpose for specific applications. As an example, AskFSIS provides guidance on appropriate test portions for *E. coli* O157:H7 testing and application of non-culture confirmation methods to confirm screening test results. For *Listeria* food contact surface and other environmental samples, FSIS has provided the following additional guidance for sampling and testing; i.e., validated methods should include an enrichment step for the entire sponge, swab or sampling device. Methods listed below do not necessarily meet all of these criteria. For more detail on RTE *Listeria*, FSIS has published RTE *Listeria* Compliance Guidelines (<http://www.fsis.usda.gov/wps/wcm/connect/d3373299-50e6-47d6-a577-e74a1e549fde/Controlling-Lm-RTE-Guideline.pdf?MOD=AJPERES>).

On a case-by-case basis, FSIS has reviewed robust studies using the FSIS MLG method as a reference method. For these reviews, FSIS uses the FSIS Test Kit validation guidelines to evaluate the study design, results, and data analysis for these alternative methods ([http://www.fsis.usda.gov/wps/wcm/connect/966638c7-1931-471f-a79e-4155ce461d65/Validation\\_Studies\\_Pathogen\\_Detection\\_Methods.pdf?MOD=AJPERES](http://www.fsis.usda.gov/wps/wcm/connect/966638c7-1931-471f-a79e-4155ce461d65/Validation_Studies_Pathogen_Detection_Methods.pdf?MOD=AJPERES)). These alternative methods are not included in the lists below because they are not externally validated by an independent organization.

FSIS intends to update validated test kit lists on a quarterly basis.

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated matrices	Validated Test Portion Size**
EC001	3M™ Tecra™ <i>E. coli</i> O157 Visual Immunoassay (VIA)	<i>E. coli</i> O157	3M Tecra International Pty Ltd	AOAC-RI # 001101	Raw ground beef, cooked ground beef, raw ground chicken, cooked ground chicken	25g
EC002a	ADIAFOOD Detection System: <i>E. coli</i> O157 (No longer available for sale in the US)	<i>E. coli</i> O157	bioMerieux, s.a.	AOAC-RI # 010408	N/A	N/A
EC002b	ADIAFOOD Detection System: <i>E. coli</i> O157:H7 (No longer available for sale in the US)	<i>E. coli</i> O157:H7	AES Chemunex Canada	AOAC-RI # 010409	Ground beef	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated matrices	Validated Test Portion Size**
EC002c	ADIAFOOD <i>E. coli</i> O157:H7 (No longer available for sale in the US)	<i>E. coli</i> O157	bioMérieux, sa	AFNOR # AES 10/12 - 10/11	Raw beef meat	25g
EC003	Assurance GDS for <i>E. coli</i> O157:H7	<i>E. coli</i> O157:H7	BioControl Systems	AOAC-OMA # 2005.04	Raw ground beef, beef trim, orange juice, apple juice, fresh vegetables, and sprout process water	25g
EC004	Assurance GDS Shigatoxin Genes	<i>E. coli</i> O157:H7 and <i>E. coli</i> O157:H7 nonmotile (NM)	BioControl Systems	AOAC-OMA # 2005.05	Raw ground beef, beef trim, orange juice, fresh vegetables, and sprout process water	25g
EC005	Assurance® Enzyme Immunoassay (EIA)	<i>E. coli</i> O157:H7 (EHEC)	BioControl Systems	AOAC-OMA # 996.10	Dairy foods, meats, poultry products, fruits, nutmeats, seafood, pasta, liquid eggs, raw and cooked beef	25g
EC006a	BAX® Real-Time PCR Assay <i>E. coli</i> O157:H7	<i>E. coli</i> O157	DuPont Qualicon (DuPont Nutrition & Health Diagnostics)	AFNOR # QUA 18/07 - 07/10	Raw beef and raw vegetables	25g
EC006b	DuPont™ BAX® System Real-Time PCR Assay for <i>E. coli</i> O157:H7	<i>E. coli</i> O157:H7	Qualicon Diagnostics LLC, a Hygiena Company	AOAC-RI # 031002	Lettuce & spinach; Beef trim (375g) & ground beef (65g)	25g except where noted in "Validated Matrices"
EC007a	BAX® System <i>E. coli</i> O157:H7 MP	<i>E. coli</i> O157	DuPont Qualicon (DuPont Nutrition & Health Diagnostics)	AFNOR # QUA 18/04 - 03/08	Raw beef meat, raw milk, fruits, vegetables, Ready-to-Eat meals, raw pork meat, raw ovine meat, and raw chicken meat	25g
EC007b	DuPont™ BAX® System PCR Assay for <i>E. coli</i> O157:H7 MP and the BAX® System MP Media	<i>E. coli</i> O157:H7	Qualicon Diagnostics LLC, a Hygiena Company	AOAC-RI # 050501	Raw ground beef (25g), beef trim (65g), spinach & lettuce (25g)	25g except where noted in "Validated Matrices"
EC010	BBL™ CHROMagar™ O157	<i>E. coli</i> O157:H7	Becton Dickinson and Company	AOAC-RI # 090501	Raw ground beef, unpasteurized apple cider	N/A
EC011	Duopath® STEC (formerly Duopath® Verotoxin)	stx1/st2 producing <i>E. coli</i>	Merck KGaA	AOAC-RI # 020402	Pure culture	N/A
EC012	DuPont™ Lateral Flow System <i>E. coli</i> O157	<i>E. coli</i> O157	Qualicon Diagnostics LLC, a Hygiena Company	AOAC-RI # 010601	Boneless beef, ground beef, apple cider	25g
EC013	<i>E. coli</i> O157:H7 Test Kit	<i>E. coli</i> O157:H7	BioFire Diagnostics	AOAC-RI # 100901	Raw ground beef, uncooked spinach	25g
EC014	FoodChek™ <i>E. coli</i> Kit for Detection of <i>E. coli</i> O157	<i>E. coli</i> O157:H7	FoodChek Systems, Inc.	AOAC-RI # 060902	Raw ground beef (25g, 375g), raw beef trim (375g), carcass sponge	See "Validated Matrices"
EC015b	foodproof® <i>E. coli</i> O157 Detection Kit, Hybridization Probes and foodproof® <i>E. coli</i> O157 Detection Kit, 5'Nuclease in combination with foodproof® ShortPrep II Kit	<i>E. coli</i> O157	BIOTECON Diagnostics GmbH	AOAC-RI # 100601	Camembert cheese, egg salad, raw milk, mayonnaise, hamburger meat, brockwurst sausage, coalfish, fresh salmon, apple juice, raw vegetables	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated matrices	Validated Test Portion Size**
EC016a	GeneDisc® <i>E.coli</i> O157:H7	<i>E. coli</i> O157	Pall GeneDisc Technologies	AFNOR # GEN 25/06 - 11/08	Raw beef meats (including frozen, seasoned), dairy products and vegetables	25g
EC016b	GeneDisc® Plate Pathogenic <i>E.coli</i> O157	<i>E. coli</i> O157	Pall GeneDisc Technologies	AOAC-RI # 021102	Fresh raw ground beef and fresh raw beef trim	25g, 375g
EC017	GeneDisc® Plate Pathogenic <i>E.coli</i> O157 & <i>Salmonella</i>	<i>E.coli</i> O157 & <i>Salmonella</i> spp.	Pall GeneDisc Technologies	AOAC-RI # 021104	Fresh raw ground beef, fresh raw beef trim	25g, 375g
EC019	IEH <i>E. coli</i> O157, Stx-producing <i>E. coli</i> (STEC) with Intimin and <i>Salmonella</i> Test System	<i>E.coli</i> O157, Stx-producing <i>E.coli</i> (STEC) with intimin & <i>Salmonella</i> ** <i>E.coli</i> O26, O45, O103, O111, O121 & O145	IEH Laboratories & Consulting Group	AOAC-RI # 100701	Raw ground beef (25g,375g), raw beef trim (25g, 375g), raw poultry, RTE turkey & mixed leafy greens	25g except where noted in "Validated Matrices"
EC020a	iQ-Check™ <i>E.coli</i> O157:H7 Real Time PCR	<i>E. coli</i> O157:H7	Bio-Rad Laboratories	AOAC-RI # 020801	Ground beef, apple cider, fresh spinach	25g
EC020b	iQ-Check™ <i>E.coli</i> O157:H7 Kit	<i>E. coli</i> O157	BIO-RAD	AFNOR # BRD 07/15 - 06/08	Raw beef	25g
EC021a	MicroSEQ <i>E. coli</i> O157:H7	<i>E. coli</i> O157	Applied Biosystems	AFNOR # ABI 29/03 - 03/11	Raw beef meat and fresh vegetables	25g
EC021b	MicroSEQ® <i>E. coli</i> O157:H7 Detection Kit	<i>E. coli</i> O157:H7	Life Technologies	AOAC-RI # 071001	Raw ground beef & raw beef trim (25g, 375g); spinach, orange juice, apple juice	25g except where noted in "Validated Matrices"
EC022a	3M™ Molecular Detection Assay <i>E.coli</i> O157 (including H7)	<i>E. coli</i> O157 (including H7)	3M Food Safety	AOAC-RI # 071202	Raw ground beef (325g, 375g), fresh bagged spinach (200g), alfalfa sprouts (25g)	See "Validated Matrices"
EC022b	3M Molecular Detection Assay <i>E. coli</i> O157 (including H7)	<i>E. coli</i> O157	3M Health Care	AFNOR # 3M 01/12-03/13	Raw beef meats, raw dairy products, raw fruits and vegetables	25g
EC023	PATHATRIX Pooling System for <i>E.coli</i> O157 spp.	<i>E. coli</i> O157 (including H7)	Life Technologies (ThermoScientific)	AOAC-RI # 030202	Raw ground beef	25g
EC024	RapidChek® <i>E. coli</i> O157 (including H7) Lateral Flow Test Assay	<i>E. coli</i> O157	Romer Labs Technology, Inc.	AOAC-RI # 070801	Raw ground beef & boneless beef trim	25g, 375g
EC025a	RAPID® <i>E. coli</i> O157:H7	<i>E. coli</i> O157:H7	Bio-Rad Laboratories	AOAC-RI # 060701	Raw ground beef and fresh spinach	Sample preparation, enrichment, and IMS as per FSIS MLG Ch. 5
EC025b	RAPID® <i>E. coli</i> O157:H7/Agar	<i>E. coli</i> O157:H7	BIO-RAD	AFNOR # BRD 07/14 - 09/07	All human food products and environmental samples	25g/25mL
EC026a	Reveal for <i>E. coli</i> O157:H7 Test in Selected Foods and Environmental Swabs	<i>E. coli</i> O157:H7	Neogen Corporation	AOAC-OMA # 2000.14	Raw ground beef, raw beef cubes, apple cider, iceberg lettuce rinse, environmental swabs of stainless steel	25g, 375g (20hr enrichments)
EC026b	Reveal for <i>E. coli</i> O157:H7 Test System in Selected Foods	<i>E. coli</i> O157:H7	Neogen Corporation	AOAC-OMA # 2000.13	Raw ground beef, raw beef cubes, iceberg lettuce rinse	25g (8hr enrichments), 375g (12hr enrichments)
EC027	Reveal® 2.0 <i>E. coli</i> O157:H7 Test System	<i>Escherichia coli</i> serotypes O157:H7 & O157:NM	Neogen Corporation	AOAC-RI # 011103	Raw beef trim, raw ground beef	65g, 375g



#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated matrices	Validated Test Portion Size**
EC028	SAS™ Molecular Tests <i>Escherichia coli</i> O157 Detection Kit	<i>E. coli</i> O157	SA Scientific, Ltd.	AOAC-RI # 031203	Raw ground beef (25g, 375g), raw beef trim (375g), bagged mixed lettuce (200g), fresh spinach (200g)	See "Validated Matrices"
EC029	Singlepath® <i>E. coli</i> O157	<i>E. coli</i> O157 (including H7)	Merck KGaA	AOAC-RI # 010407	Raw ground beef & pasteurized milk	25g
EC031a	VIDAS® UP <i>E. coli</i> O157 (including H7) (ECPT)	<i>E. coli</i> O157:H7	bioMérieux, sa	AOAC-RI # 060903	Ground beef, beef trimmings (with sample sizes: 25g, 75g & 375g composite & wet pooled samples 75g & 375g), bagged lettuce, fresh spinach & irrigation water	25g except where noted in "Validated Matrices"
EC031b	VIDAS® UP <i>E. coli</i> O157 including H7 (VIDAS ECPT)	<i>E. coli</i> O157	bioMérieux, sa	AFNOR # BIO 12/25 - 05/09	All human food products and production environmental samples; raw beef and raw veal meats including seasoned meats	25g
EC032	Visual Immunoprecipitate Assay (VIP®) Assay	<i>E. coli</i> O157:H7	BioControl Systems	AOAC-OMA # 996.09	Dairy products, meats, poultry, fruits, nutmeats, seafood, pasta, liquid eggs, vegetables, raw beef, cooked beef	25g
EC033	Crystal Diagnostics MultiPath System™ E	<i>E. coli</i> O157	Crystal Diagnostics Corporation	AOAC-RI # 041301	Raw ground beef (375g), fresh raw spinach (200g)	See "Validated Matrices"
EC034	GeneDisc® Plate STEC	Shigatoxigenic <i>E. coli</i>	Pall GeneDisc Technologies	AOAC-RI # 021103	Fresh raw ground beef, fresh raw beef trim	25g, 375g
EC035	iQ-Check™ STEC VirX and SerO Real-Time PCR	<i>Stx1</i> , <i>Stx2</i> , <i>eae</i> , O26, O45, O103, O11, O121, O145, O157:H7, and STEC	Bio-Rad Laboratories	AOAC-RI # 121203	Raw beef trim	25g
EC036	GeneDisc® Plate STEC & <i>Salmonella</i> spp.	Shigatoxigenic <i>E. coli</i> and <i>Salmonella</i> spp.	Pall GeneDisc Technologies	AOAC-RI # 021105	Fresh raw ground beef, fresh raw beef trim	25g, 375g
EC037	Atlas® <i>E. coli</i> O157:H7 EG2 Detection Assay	<i>E. coli</i> O157:H7	ROKA Bioscience, Inc	AOAC-RI # 011401	Fresh raw ground beef (73% lean, 375g), fresh raw beef trim (65g), romaine lettuce (375g)	See "Validated Matrices"
EC038	Atlas® STEC EG2 Combo Detection Assay	<i>E. coli</i> O157:H7 & non-O157 STEC	ROKA Bioscience, Inc	AOAC-RI # 011402	Fresh raw ground beef (73% lean), fresh raw beef trim, romaine lettuce	375g
EC039	InstantLabs <i>E. coli</i> O157 (including H7) Food Safety Kit	<i>E. coli</i> O157 (including H7)	InstantLabs	AOAC-RI # 011403	Fresh raw ground beef (27% fat, 375g), fresh raw beef trim (375g), fresh raw ground chicken, romaine lettuce, pasteurized apple juice	25g except where noted in "Validated Matrices"
EC040	GeneDisc® Plate STEC Top 7	<i>E. coli</i> O157:H7 & non-O157 STEC	Pall GeneDisc Technologies	AOAC-RI # 031401	Fresh raw ground beef, fresh raw beef trim	375g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated matrices	Validated Test Portion Size**
EC041	Actero™ <i>Salmonella</i> /STEC Enrichment Media	<i>Salmonella</i> spp./STEC (including O26, O45, O13, O111, O121, O145 & O157)	FoodChek System Inc.	AOAC-RI # 041403	Raw ground beef	Contact Manufacturer
EC042	NH Immunochromato O157 Test Kit	<i>E. coli</i> O157	NH Foods Ltd.	AOAC-RI # 091403	Fresh ground beef (15% fat)	25g
EC043a	ThermoScientific SureTect <i>Escherichia coli</i> O157:H7 PCR Assay	<i>Escherichia coli</i> O157:H7	ThermoScientific	AOAC-RI # 021501	Raw ground beef (375g, 1:4 and 1:5 ratios), raw beef trim (375g, 1:4 and 1:5 ratios), bagged spinach (25g, 1:10 ratio) & apple juice	25g except where noted in "Validated Matrices"
EC043b	ThermoScientific SureTect <i>Escherichia coli</i> O157:H7 PCR Assay	<i>Escherichia coli</i> O157:H7	OXOID Ltd, part of Thermo Fisher Scientific	AFNOR # UNI 03/10 - 03/15	raw beef meats	25g
EC044	RAPID-B <i>E. coli</i> O157	<i>E. coli</i> O157	Vivione Biosciences	AOAC-RI # 071403	Raw ground beef and raw beef trim	25g, 375g
EC045	GENE-UP <i>E. coli</i> O157:H7	<i>E. coli</i> O157:H7	bioMérieux, sa	AOAC-RI # 061505	Fresh raw ground beef, fresh spinach	25g
EC046	mericon® <i>E. coli</i> O157 Screen PLUS	<i>E. coli</i> O157 ( <i>stx1</i> , <i>stx2</i> , <i>eae</i> and O157)	Qiagen GmbH	AOAC-RI # 101503	Raw ground beef (70% lean, 325g), raw beef trim (325g), fresh spinach (25g)	See "Validated Matrices"
EC047	ANSR for <i>E. coli</i> O157:H7	<i>E. coli</i> O157:H7	Neogen Corporation	AOAC-RI # 111502	Ground beef (80% lean, 325g), beef trim (~20% fat, 375g and 325g), spinach (200g), sprout irrigation water (125mL)	See "Validated Matrices"
EC048	Solus <i>E. coli</i> O157 ELISA	<i>E. coli</i> O157	Solus Scientific Solutions Ltd	AFNOR # SOL 37/03 -10/15	Raw beef meat products (seasoned or not), raw milks and dairy products, vegetables, and production environmental samples	N/A
EC049	Veriflow O157:H7	<i>E. coli</i> O157:H7	Invisible Sentinel, Inc.	AOAC-RI # 121401	20% fat raw ground beef, raw spinach, and 2% fat milk	Contact Manufacturer
EC050	PhageDX <i>E. coli</i> O157:H7 Assay	<i>E. coli</i> O157:H7	Laboratory Corporation of America	AOAC-RI # 081601	Fresh raw ground beef, 80% lean	25g
EC051	GENE-UP® EHEC Series	<i>Escherichia coli</i> O157:H7 & non-O157 STEC Top 6 (O26,O45,O103,O111,O121 & O145)	bioMérieux, sa	AOAC-RI # 031701	Spinach (200g), raw beef trim (375g), raw ground beef (25g, 375g)	See "Validated Matrices"
EC052	Assurance GDS for <i>E. coli</i> O157:H7 Tq Detection Kit	<i>Escherichia coli</i> O157:H7	BioControl Systems, Inc	MicroVal # 2015LR49	Raw beef meats (25g, 375g), dairy products (25g), fruits and vegetables (25g), environmental samples (25g or surface sample)	See "Validated Matrices"
EC053	Veriflow® STEC	<i>Escherichia coli</i> with <i>stx1</i> or <i>stx2</i> and <i>eae</i>	Invisible Sentinel Inc.	AOAC-RI # 111601	Raw beef trim	375g
EC054	3M Molecular Detection Assay 2 - <i>E. coli</i> O157 (including H7)	<i>E. coli</i> O157	3M Health Care	AFNOR # 3M 01/18 - 05/17	Raw beef meats, raw dairy products, raw fruits and vegetables	25g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated matrices	Validated Test Portion Size**
EC055	3M Molecular Detection Assay 2 - <i>E. coli</i> O157 (including H7)	<i>Escherichia coli</i> O157:H7	3M Food Safety	AOAC-OMA # 2017.01	Raw ground beef (73% lean), frozen blueberries, fresh bean sprouts, and fresh baby spinach	25g
EC056	QIAGEN mericon® <i>E. coli</i> O157 Screen Plus and mericon® <i>E. coli</i> STEC O-Type Pathogen Detection Assays	<i>Escherichia coli</i> O157:H7 and <i>Escherichia coli</i> non-O157 STEC	Qiagen Germantown, MD	AOAC-OMA # 2017.05	fresh spinach (25g), raw ground beef (70% lean) (325g), raw beef trim (325g)	See "Validated Matrices"
EC057	GENE UP® <i>E. coli</i> O157:H7	<i>Escherichia coli</i> O157:H7	bioMérieux	MicroVal # 2015LR59	Fresh and frozen raw meats, cured and fermented meats, vegetables and environmental samples using a general protocol, raw dairy products using a specific protocol and raw meats (except poultry) using a short protocol (25 g and 375 g sample size)	See "Validated Matrices"
EC058	VereBeef™ Detection Kit	(8-20 hr) <i>Escherichia coli</i> O157:H7, STEC virulence factors ( <i>stx1A</i> or <i>stx2A</i> and <i>eae</i> ) (10-20 hr) <i>Escherichia coli</i> O26, O45, O103, O111, O121, O145	Veredus Laboratories Pte, Ltd.	AOAC-RI # 011801	Raw beef trim 25g, 325g, 375g	See "Validated Matrices"
EC059	PolySkoPe 1.0 Multiplex Detection Assay	STECs, <i>E. coli</i> O157:H7 & Non-O157 STEC Big 6 (O26, O45, O103, O111, O121, O145), <i>Listeria monocytogenes</i> , <i>Salmonella species</i>	PolySkoPe Labs	AOAC-RI # 041801	(25g) Fresh raw ground beef (73% lean), deli turkey, fresh baby spinach, stainless steel (4x4 in sponge)	See "Validated Matrices"

## Foodborne Pathogen Test Kits Validated by Independent Organizations

FSIS is making available a list of test kits that have been validated for detection of relevant foodborne pathogens (i.e. *Salmonella*, *Campylobacter*, *E. coli* O157:H7, *Listeria* spp. including *L. monocytogenes*, and non-O157 STECs). These lists are intended to be informational and are not an endorsement or approval of any particular method, regardless of its inclusion in the list.

While FSIS does not require the use of any particular test method, the method chosen by an establishment should be:

- 1) Validated for testing relevant foods by:
  - a) a recognized independent body (i.e., AOAC, AFNOR, MicroVal, NordVal), or
  - b) a U.S. regulatory body (i.e. FSIS MLG or FDA BAM), or an ISO method
- 2) The validated method should be:
  - a) Fit for the intended purpose and application, and
  - b) Performed under validated conditions by a laboratory that assures the quality of the analytical results.

The table below contains a list of foodborne pathogen test kits that meet criterion 1a as described above; i.e., are validated by recognized independent organizations (e.g., AOAC, AOAC-RI, AFNOR, MicroVal, NordVal). None of the test kits listed below are implicitly approved by USDA FSIS. A validated test kit must also be fit for purpose (i.e. validated for the appropriate matrix and sample size) and appropriate for the specific application in a food safety program. Additionally these methods should be performed as per the conditions of the validated protocol by a laboratory that assures the analytical results. FSIS has published further guidance for choosing a microbiological laboratory (<http://www.fsis.usda.gov/wps/wcm/connect/464a4827-0c9a-4268-8651-b417bb6bba51/Guidance-Selection-Commercial-Private-Microbiological-Testing-lab-062013.pdf?MOD=AJPERES>). The sampling methodology and frequency must be appropriate to answer the food safety question that is asked. Finally, sample transport and storage should be appropriate to ensure the integrity of the sample and the result.

The methods listed here are not necessarily equivalent or appropriate for all specific testing applications. Please refer to other FSIS guidance on fitness for purpose for specific applications. As an example, AskFSIS provides guidance on appropriate test portions for *E. coli* O157:H7 testing and application of non-culture confirmation methods to confirm screening test results. For *Listeria* food contact surface and other environmental samples, FSIS has provided the following additional guidance for sampling and testing; i.e., validated methods should include an enrichment step for the entire sponge, swab or sampling device. Methods listed below do not necessarily meet all of these criteria. For more detail on RTE *Listeria*, FSIS has published RTE *Listeria* Compliance Guidelines (<http://www.fsis.usda.gov/wps/wcm/connect/d3373299-50e6-47d6-a577-e74a1e549fde/Controlling-Lm-RTE-Guideline.pdf?MOD=AJPERES>).

On a case-by-case basis, FSIS has reviewed robust studies using the FSIS MLG method as a reference method. For these reviews, FSIS uses the FSIS Test Kit validation guidelines to evaluate the study design, results, and data analysis for these alternative methods ([http://www.fsis.usda.gov/wps/wcm/connect/966638c7-1931-471f-a79e-4155ce461d65/Validation\\_Studies\\_Pathogen\\_Detection\\_Methods.pdf?MOD=AJPERES](http://www.fsis.usda.gov/wps/wcm/connect/966638c7-1931-471f-a79e-4155ce461d65/Validation_Studies_Pathogen_Detection_Methods.pdf?MOD=AJPERES)). These alternative methods are not included in the lists below because they are not externally validated by an independent organization.

FSIS intends to update validated test kit lists on a quarterly basis.

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated matrices	Validated Test Portion Size**
STEC001	GeneDisc® Plate STEC	Shigatoxigenic <i>E. coli</i>	Pall GeneDisc Technologies	AOAC-RI # 021103	Fresh raw ground beef, fresh raw beef trim	25g, 375g
STEC002	GeneDisc® Plate STEC Top 6	STECs including O26, O103, O111, O145, O45, O121	Pall GeneDisc Technologies	AOAC-RI # 021106	Fresh raw ground beef, fresh raw beef trim	25g, 375g
STEC003	iQ-Check™ STE VirX and SerO Real-Time PCR	<i>Stx1</i> , <i>Stx2</i> , <i>eae</i> , O26, O45, O103, O11, O121, O145, O157:H7, and STEC	Bio-Rad Laboratories	AOAC-RI # 121203	Raw beef trim	Contact Manufacturer

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated matrices	Validated Test Portion Size**
STEC004	GeneDisc® Plate STEC & <i>Salmonella</i> spp.	Shigatoxigenic <i>E.coli</i> and <i>Salmonella</i> spp.	Pall GeneDisc Technologies	AOAC-RI # 021105	Fresh raw ground beef, fresh raw beef trim	25g, 375g
STEC005	IEH <i>E. coli</i> O157, Stx-producing <i>E. coli</i> (STEC) with Intimin and <i>Salmonella</i> Test System	<i>E.coli</i> O157, Stx-producing <i>E.coli</i> (STEC) with intimin & <i>Salmonella</i> ** <i>E.coli</i> O26, O45, O103, O111, O121 & O145	IEH Laboratories & Consulting Group	AOAC-RI # 100701	Raw ground beef (25g,375g), raw beef trim (25g, 375g), raw poultry, RTE turkey & mixed leafy greens	25g except where noted in "Validated Matrices"
STEC006	DuPont™ BAX® System Real-Time PCR Assay Suite for STEC)	STEC Shiga Toxin producing <i>E.coli</i> O26,O111, O121, O45, O103, O145	Qualicon Diagnostics LLC, a Hygiena Company	AOAC-RI # 091301	Raw beef trim (375g), raw ground beef (325g, 375g), raw ground beef plus soy (325g), raw ground beef (25g), and all-purpose flour (25g)	See "Validated Matrices"
STEC007	Assurance GDS® for MPX Top 7 STEC	STECs including: O26,O45,O103,O111,O121, O145, & O157	BioControl Systems, Inc.	AOAC-RI # 071301	Raw beef trim, raw ground beef, raw spinach, and raw mixed greens	Contact Manufacturer
STEC008	Atlas® STEC EG2 Combo Detection Assay	<i>E. coli</i> O157:H7 & non-O157 STEC	ROKA Bioscience, Inc	AOAC-RI # 011402	Fresh raw ground beef (73% lean), fresh raw beef trim, romaine lettuce	375g
STEC009	GeneDisc® Plate STEC Top 7	<i>E. coli</i> O157:H7 & non-O157 STEC	Pall GeneDisc Technologies	AOAC-RI # 031401	Fresh raw ground beef (20% fat), fresh raw beef trim (20% fat)	375g
STEC010	Actero™ <i>Salmonella</i> /STEC Enrichment Media	<i>Salmonella</i> spp./STEC (including O26, O45, O13, O111, O121, O145 & O157)	FoodChek System Inc.	AOAC-RI # 041403	Raw ground beef	Contact Manufacturer
STEC011	Assurance GDS® Top 7 STEC ( <i>eae</i> ) Tq with Assurance GDS® Shiga Toxin Genes (Top 7) Tq	STECs including: O26,O45,O103,O111,O121, O145, & O157	BioControl Systems, Inc.	AOAC-RI # 071303	Raw beef trim, raw ground beef, raw spinach, and raw mixed greens	Contact Manufacturer
STEC012	Xpress E7 STEC	STECs including: O26,O45,O103,O111,O121, O145, & O157	Crystal Diagnostics Corporate	AOAC-RI # 011502	Raw ground beef and beef trim (325g), Spinach (200g)	See "Validated Matrices"
STEC013	Rapid-B Non-O157 STEC Kit	non-O157 STEC	Vivione Biosciences	AOAC-RI # 071404	Raw ground beef and raw beef trim	25g, 375g
STEC014	Assurance GDS MPX ID for Top STEC	STECs including: O26,O45,O103,O111,O121, O145	BioControl Systems, Inc.	AOAC-RI # 101502	Raw ground beef 20% fat (375g), raw beef trim 45% fat (375g), raw spinach (25g), stainless steel (4"x4" sponge)	See "Validated Matrices"
STEC015	mericon® <i>E. coli</i> STEC O-type Pathogen Detection Assay	STEC including: O26,O45,O103,O111,O121, O145, O157:H7	Qiagen GmbH	AOAC-RI # 101504	Raw ground beef (70% lean, 325g), raw beef trim (325g), fresh spinach (25g)	See "Validated Matrices"
STEC016	Duopath® STEC (formerly Duopath® Verotoxin)	stx1/stx2 producing <i>E. coli</i>	Merck KGaA	AOAC-RI # 020402	Pure culture	N/A
STEC017	Applied BioSystems RapidFinder STEC Detection Workflow	Shiga toxin-producing <i>E.coli</i> (STEC) including O157:H7, O26,O45,O130,O121, O145	Thermo Fisher Scientific	AOAC-RI # 061602	Fresh raw ground beef (73% lean), fresh raw beef trim	375g

#	Method Name	Target Organism(s)	Manufacturer	External Validation	Validated matrices	Validated Test Portion Size**
STEC018	GENE-UP® EHEC Series	<i>Escherichia coli</i> O157:H7 & non-O157 STEC Top 6 (O26,O45,O103,O111,O121 & O145)	bioMérieux, sa	AOAC-RI # 031701	Spinach (200g), raw beef trim (375g), raw ground beef (25g, 375g)	See "Validated Matrices"
STEC019	Veriflow® STEC	<i>Escherichia coli</i> with <i>stx1</i> or <i>stx2</i> and <i>eae</i>	Invisible Sentinel Inc.	AOAC-RI # 111601	Raw beef trim	375g
STEC020	QIAGEN mericon® <i>E. coli</i> O157 Screen Plus and mericon® <i>E. coli</i> STEC O-Type Pathogen Detection Assays	<i>Escherichia coli</i> O157:H7 and <i>Escherichia coli</i> non-O157 STEC	Qiagen Germantown, MD	AOAC-OMA # 2017.05	fresh spinach (25g), raw ground beef (70% lean) (325g), raw beef trim (325g)	See "Validated Matrices"
STEC021	VereBeef™ Detection Kit	(8-20 hr) <i>Escherichia coli</i> O157:H7, STEC virulence factors ( <i>stx1A</i> or <i>stx2A</i> and <i>eae</i> ) (10-20 hr) <i>Escherichia coli</i> O26, O45, O103, O111, O121, O145	Veredus Laboratories Pte, Ltd.	AOAC-RI # 011801	Raw beef trim 25g, 325g, 375g	See "Validated Matrices"
STEC022	PDX-STEC	<i>Shiga toxin-producing E.coli</i> (STEC) <i>Salmonella</i> spp.	Paradigm Diagnostics, Inc.	AOAC-RI # 101705	Raw beef trim 325g	See "Validated Matrices"
STEC023	PolySkope 1.0 Multiplex Detection Assay	STECs, <i>E. coli</i> O157:H7 & Non-O157 STEC Big 6 (O26,O45,O103,O111,O121 ,O145), <i>Listeria monocytogenes</i> , <i>Salmonella</i> species	PolySkope Labs	AOAC-RI # 041801	(25g) Fresh raw ground beef (73% lean), deli turkey, fresh baby spinach, stainless steel (4x4 in sponge)	See "Validated Matrices"