

Validated Matrices for BAX® System Assays

Organism	Assay	Approved Matrices	Validation Reference
<i>Campylobacter</i> (<i>C. jejuni</i>, <i>C. coli</i>, <i>C. lari</i>)	BAX® System Real-Time PCR Assay for <i>Campylobacter jejuni/coli/lari</i> (Kit# D12683449; KIT2018)	Poultry carcass rinses, processed turkey	AOAC-RI 040702
		Chicken cloacae swabs	NordVal Certificate #39
		For screening in poultry rinses, sponge and raw products	USDA FSIS MLG 41.04, 41A.00

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<i>Cronobacter</i> (<i>E. sakazakii</i>)	BAX® System PCR Assay for <i>E. sakazakii</i> (Kit #D11801836; KIT2001)	Powdered infant formula, powdered infant formula*, dry dairy and soy ingredients, environmental, environmental sponges	Internally Validated
		Dairy (dry ingredients), environmental (food production), powdered infant formula, soy ingredients	Health Canada #MLFP-27

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<i>E. coli</i>	BAX® System X5 PCR Assay for <i>E. coli</i> O157:H7 (Kit#D15407214; KIT2022)	Raw ground beef, beef trim, spinach and lettuce	AOAC-RI 050501
		Raw beef meats, raw milk, fruits and vegetables, ready-to-eat and ready-to-reheat dishes, raw pork, ovine and chicken meats	AFNOR QUA 18/04 - 03/08 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>
	BAX® System PCR Assay for <i>E. coli</i> O157:H7 MP (Kit #D12404903; KIT2004)	Raw ground beef, beef trim, spinach and lettuce	AOAC-RI 050501
		Raw beef meats, raw milk, fruits and vegetables, ready-to-eat and ready-to-reheat dishes, raw pork, ovine and chicken meats	AFNOR QUA 18/04 - 03/08 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>
	BAX® System Real-Time PCR Assay for <i>E. coli</i> O157:H7 (Kit #D14203648; KIT2000)	Raw ground beef, beef trim, spinach and lettuce	AOAC-RI 031002
		Raw beef meats, raw vegetables	AFNOR QUA 18/07-07/10 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>
		Meat products and carcass and environmental sponges	USDA FSIS MLG 5.09/5A.04
	BAX® System Real-Time PCR Assay for STEC Screening: stx and eae (Kit #D14642964; KIT2021)	Raw ground beef, raw ground beef with soy, raw beef trim, flour	AOAC-RI 091301
		Raw beef, raw beef mixes, beef trim, trim components, environmental sponges and carcass sponges, flour	USDA FSIS MLG 5B.05

<i>E. coli</i>	BAX® System Real-Time PCR Assay for STEC Panel 1: <i>E. coli</i> O26, O111, and O121 (Kit #D14642970; KIT2008)	Raw ground beef, raw ground beef with soy, raw beef trim, flour	AOAC-RI 091301
		Shiga toxin confirmation in meat products and carcass and environmental sponges	USDA FSIS MLG 5B.05
	BAX® System Real-Time PCR Assay for STEC Panel 2: <i>E. coli</i> O45, O103, and O145 (Kit #D14642987; KIT2009)	Raw ground beef, raw ground beef with soy, raw beef trim, flour	AOAC-RI 091301
		Shiga toxin confirmation in meat products and carcass and environmental sponges	USDA FSIS MLG 5B.05

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<i>Listeria</i>	BAX® System X5 PCR Assay for Genus <i>Listeria</i> (Kit #D15407193; KIT2024)	Environmental sponges, environmental swabs, frankfurters, smoked salmon, spinach and other vegetables, cheese	AOAC-RI 030502
		All human food products and production environmental samples	AFNOR QUA 18/06-07/08 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>

Listeria	BAX® System PCR Assay for Genus <i>Listeria</i> (Kit #D11000147; KIT2016)	Frankfurters, smoked salmon, spinach and other vegetables, cheese, environmental sponges, environmental swabs, multiple environmental surfaces	AOAC-RI 030502
		Environmental sponges and swabs	Health Canada #MLFP-15
Listeria	BAX® System PCR Assay for Genus <i>Listeria</i> 24E (Kit #D13608135; KIT2003)	Frankfurters, shrimp, spinach, queso fresco cheese, stainless steel	AOAC -RI 050903
		All human food products and production environmental samples	AFNOR QUA 18/06-07/08 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>
Listeria	BAX® System Real-Time PCR Assay for Genus <i>Listeria</i> (Kit #D15131113; KIT2019)	Frankfurters, cooked shrimp, spinach, bagged lettuce, queso fresco cheese, environmental surfaces	AOAC-RI 081401 <i>(Includes Actero™ Elite Enrichment Media from FoodChek™)</i>
Listeria	BAX® System X5 PCR Assay for <i>L. monocytogenes</i> (Kit #D15407201; KIT2023)	Ground beef, ground pork, ground chicken, ground turkey, deli turkey, frankfurters, pepperoni, fish sticks, surimi, langostinos, smoked salmon, ice cream, milk (2%), yogurt, queso fresco, cabbage slaw, peas, spinach, strawberries, apple juice, orange juice, and environmental surfaces	AOAC-RI 070202
		All human food products and production environmental samples	AFNOR QUA 18/05-07/08 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>

Listeria	BAX® System PCR Assay for <i>Listeria monocytogenes</i> (Kit #D11000157; KIT2017)	Raw and processed meats, fresh fruits and vegetables, seafood, cultured and non-cultured dairy products, fruit juice and environmental surfaces	AOAC-RI 070202
		Dairy products, fruits, vegetables (except radishes), seafood, raw and processed meats, and poultry	AOAC-OMA 2003.12
		Meat, poultry, ready-to-eat siluriformes and egg products, and environmental sponge samples	USDA FSIS MLG 8.10/8A.06
		Raw and ready to eat meat and poultry, eggs and egg products (processed and unprocessed), seafood, dairy, chocolate/bakery products, shelf stable foods, spices, composite foods, fruits and vegetables, cereals, animal feed, environmentals	Health Canada #MFLP-28
Listeria	BAX® System PCR Assay for <i>Listeria monocytogenes</i> 24E (Kit #D13608125; KIT2002)	Frankfurters, shrimp, spinach, cooked shrimp, queso fresco cheese, stainless steel surfaces	AOAC -RI 080901
		All human food products and production environmental samples	AFNOR QUA 18/05-07/08 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>
Listeria	BAX® System Real-Time PCR Assay for <i>Listeria monocytogenes</i> (Kit #D15134303; KIT2005)	Frankfurters, frozen cooked shrimp, cold smoked salmon, bagged spinach, queso fresco cheese, environmental sponges (stainless steel, plastic, sealed concrete)	AOAC-RI 121402 <i>(Includes Actero™ Elite Enrichment Media from FoodChek™)</i>

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Salmonella	BAX® System X5 PCR Assay for <i>Salmonella</i> (Kit #D15407187; KIT2025)	Frankfurters, chipped ham, cooked chicken, peanut butter, alfalfa sprouts, chocolate, nonfat dry milk, black pepper, Custard, liquid milk, nonfat dry milk chilled ready meal, cooked fish, seafood-prawns, elbow macaroni, pizza dough, frozen peas, orange juice, dry pet food, environmental sponges (finished product areas), ground beef, beef trim, spinach and lettuce	AOAC-RI 100201
		All human products, feed products, and production environmental samples (except primary production environment)	AFNOR QUA 18/03 - 11/02 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>
Salmonella	BAX® System PCR Assay for <i>Salmonella</i> (Kit #D14368501; KIT2012)	Frankfurters, chipped ham, cooked chicken, peanut butter, alfalfa sprouts, chocolate, nonfat dry milk, black pepper, Custard, liquid milk, nonfat dry milk chilled ready meal, cooked fish, seafood-prawns, elbow macaroni, pizza dough, frozen peas, orange juice, dry pet food, environmental sponges (finished product areas), ground beef, beef trim, spinach and lettuce	AOAC-RI 100201

Salmonella	BAX® System PCR Assay for <i>Salmonella</i> (Kit #D14368501; KIT2012)	Hot dogs and frankfurters, beef/raw ground beef, chicken/raw ground chicken, fish/raw frozen tilapia fish, fruit juices/orange juice, cheese/mozzarella cheese	AOAC-OMA 2003.09
		All human food products, feed products, and production environmental samples (except primary production environment)	AFNOR QUA 18/03 - 11/02 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>
		Drag swabs, fecal samples, dust, chick pads, meconium	NPIP
		Food, animal feed and environmental samples	NORDVAL Certificate #030
		Ready-to-eat meat, poultry, and siluriformes foods, Raw poultry products, raw meat and raw beef mixed products, poultry carcass and environmental sponges, meat carcass, whole bird rinses, pasteurized liquid, frozen, or dried egg products, raw siluriformes products, fermented products, dried products (breeding mixes, dehydrated sauces, dried milk)	USDA FSIS MLG 4.09/4C.07
		Dairy, eggs, meat and poultry, seafood, vegetables and other foods	Health Canada MFLP-29

Salmonella	BAX® System PCR Assay for <i>Salmonella</i> 2 (Kit #D14368501; KIT2011)	Frankfurters, chipped ham, cooked chicken, peanut butter, alfalfa sprouts, chocolate, nonfat dry milk, black pepper, Custard, liquid milk, nonfat dry milk chilled ready meal, cooked fish, seafood-prawns, elbow macaroni, pizza dough, frozen peas, orange juice, dry pet food, environmental sponges (finished product areas), ground beef, beef trim, spinach and lettuce	AOAC-RI 100201
		Hot dogs and frankfurters, beef/raw ground beef, chicken/raw ground chicken, fish/raw frozen tilapia fish, fruit juices/orange juice, cheese/mozzarella cheese	AOAC-OMA 2003.09
		Broad range of food and animal feed and production environmental samples (excluding primary production samples)	AFNOR QUA 18/03 - 11/02 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>

Salmonella	BAX® System Real-Time PCR Assay for <i>Salmonella</i> (Kit #D14306040; KIT2006)	Beef/raw ground beef, beef/ground beef with soy, beef/beef trim, hot dogs and frankfurters/frankfurters, turkey/ground turkey, chicken/chicken wings, poultry/poultry rinse, fish/shrimp, eggs and egg products (dried whole eggs, shell eggs), cheese/cream cheese, milk/nonfat dry milk, dairy products/ice cream, infant formula/milk-based infant formula, vegetables/fresh bagged lettuce, frozen vegetables/peas, fruit juices/orange juice, nuts and nut products/peanut butter, cacao bean and its products/cocoa, spices and condiments/white pepper, pet foods/dry pet food, environmental surfaces (ceramic, plastic, stainless steel)	AOAC-OMA 2013.02 <i>(Includes Actero™ Elite Enrichment Media from FoodChek™)</i>
		Raw ground beef, poultry carcass rinse, bagged lettuce, cream cheese, dry pet food, milk chocolate, chocolate liquor, cocoa powder, shell egg, stainless steel surfaces, plastic surfaces	AOAC-RI 081201
		All human food products, pet food and production environmental samples (except primary production environment)	AFNOR QUA 18/08-07/08 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>

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<i>Shigella</i>	BAX® System Real-Time PCR Assay for <i>Shigella</i> (Kit #D14812018; KIT2007)	Frankfurters	Internally Validated
		Cooked meats, raw pork, dessert gelatin, ready-to-eat prepared dishes, non-fermented soy products, lunch meals, granulated white sugar	Internally Validated

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<i>Staphylococcus aureus</i>	BAX® System Real-Time PCR Assay for <i>Staphylococcus aureus</i> (Kit #D12762689; KIT2020)	Presence/absence testing on soy and milk-based powdered infant formula; Threshold testing on ground beef and soy protein isolate	AOAC-RI #120701

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<i>Vibrio</i>	BAX® System Real-Time PCR Assay for <i>Vibrio cholerae/parahaemolyticus/vulnificus</i> (Kit #D12863877; KIT2010)	Tuna, shrimp and scallops (presence/absence), tuna, shrimp and scallops (MPN), oysters (MPN)	AOAC-RI #050902

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Yeast & Mold	BAX® System PCR Assay for Yeast & Mold (Kit #D12522091; KIT2015)	Validated on using the enriched protocol for yogurt, corn starch and milk-based powdered infant formula (for thresholds of 10-1000 cfu/g)	AOAC-RI #010902