

Validated Matrices for BAX[®] System Assays

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

<i>Cronobacter (E. sakazakii)</i>		
Assay	Approved Matrices	Validation Reference
BAX [®] System PCR Assay for <i>Cronobacter (E. sakazakii)</i> KIT2001 (Kit #D11801836)	Powdered infant formula, dry dairy and soy ingredients, environmentals, environmental sponges	Internally Validated
	Dairy (dry ingredients), environmentals (food production), powdered infant formula, soy ingredients	Health Canada #MFLP-27

E. coli

Assay	Approved Matrices	Validation Reference
BAX® System X5 PCR Assay for <i>E. coli</i> O157:H7 KIT2022 (Kit #D15407214)	Raw ground beef, beef trim, spinach and lettuce	AOAC PTM #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 KIT2004 (Kit #D12404903)	Raw ground beef, beef trim, spinach and lettuce	AOAC PTM #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 KIT2000 (Kit #D14203648)	Raw ground beef, beef trim, spinach and lettuce	AOAC PTM #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: <i>stx</i> and <i>eae</i> KIT2021 (Kit #D14642964)	Raw ground beef, raw ground beef with soy, raw beef trim, flour	AOAC PTM #091301
	Raw beef, raw beef mixes, beef trim, trim components, environmental sponges and carcass sponges, flour	USDA FSIS MLG 5B.05
BAX® System Real-Time PCR Assay for STEC Panel 1: <i>E. coli</i> O26, O111, and O121 KIT2008 (Kit #D14642970)	Raw ground beef, raw ground beef with soy, raw beef trim, flour	AOAC PTM #091301
	Shiga toxin confirmation in meat products, carcass, 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 KIT2009 (Kit #D14642987)	Raw ground beef, raw ground beef with soy, raw beef trim, flour	AOAC PTM #091301
	Shiga toxin confirmation in meat products and carcass and environmental sponges	USDA FSIS MLG 5B.05

Listeria

Assay	Approved Matrices	Validation Reference
BAX® System X5 PCR Assay for Genus <i>Listeria</i> KIT2024 (Kit #D15407193)	Environmental sponges, environmental swabs, frankfurters, smoked salmon, spinach and other vegetables, cheese	AOAC PTM #030502
	All human food products and environmental samples (excluding primary production samples)	AFNOR QUA 18/06-07/08 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>
BAX® System PCR Assay for Genus <i>Listeria</i> KIT2016 (Kit #D11000147)	Frankfurters, smoked salmon, spinach and other vegetables, cheese, environmental sponges, environmental swabs, multiple environmental surfaces	AOAC PTM #030502
	Environmental sponges and swabs	Health Canada #MFLP-15
BAX® System PCR Assay for Genus <i>Listeria</i> 24E KIT2003 (Kit #D13608135)	Frankfurters, shrimp, spinach, queso fresco cheese, stainless steel	AOAC PTM #050903
	All human food products and production environmental samples (excluding primary production samples)	AFNOR QUA 18/06-07/08 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>
BAX® System Real-Time PCR Assay for Genus <i>Listeria</i> KIT2019 (Kit #D15131113)	Frankfurters, cooked shrimp, spinach, bagged lettuce, queso fresco cheese, environmental surfaces	AOAC PTM #081401 <i>(Includes Actero™ Elite Enrichment Media from FoodChek™)</i>
	All human food products and production environmental samples (excluding primary production samples)	AFNOR QUA 18/09-01/19 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>

Listeria monocytogenes

Assay	Approved Matrices	Validation Reference
BAX® System X5 PCR Assay for <i>Listeria monocytogenes</i> KIT2023 (Kit #D15407201)	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 PTM #070202
	All human food products and production environmental samples (excluding primary production samples)	AFNOR QUA 18/05-07/08 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>
BAX® System PCR Assay for <i>Listeria monocytogenes</i> KIT2017 (Kit #D11000157)	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 PTM #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
BAX® System PCR Assay for <i>Listeria monocytogenes</i> 24E KIT2002 (Kit #D13608125)	Frankfurters, shrimp, spinach, queso fresco cheese, stainless steel surfaces	AOAC PTM #080901
	All human food products and production environmental samples (excluding primary production samples)	AFNOR QUA 18/05-07/08 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>
BAX® System Real-Time PCR Assay for <i>Listeria monocytogenes</i> KIT2005 (Kit #D15134303)	Frankfurters, frozen cooked shrimp, bagged spinach, queso fresco cheese, environmental sponges (stainless steel, plastic, sealed concrete)	AOAC PTM #121402 <i>(Includes Actero™ Elite Enrichment Media from FoodChek™)</i>
	All human food products and production environmental samples (excluding primary production samples)	AFNOR QUA 18/10-01/19 <i>(Validation study performed in accordance with EN ISO 16140-2)</i>

Salmonella

Approved Matrices

Assay

Validation Reference

Assay	Approved Matrices	Validation Reference
BAX® System X5 PCR Assay for <i>Salmonella</i> KIT2025 (Kit #D15407187)	Frankfurters, chipped ham, cooked chicken, raw ground chicken, soy protein powder, liquid egg, cream cheese, peanut butter, alfalfa sprouts, chocolate, nonfat dry milk, black pepper, custard, liquid 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 PTM #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>
BAX® System PCR Assay for <i>Salmonella</i> KIT2012 (Kit #D14368501) <i>Salmonella</i> 2 KIT2011 (Kit #D14368501)	Frankfurters, chipped ham, cooked chicken, raw ground chicken, soy protein powder, liquid egg, cream cheese, peanut butter, alfalfa sprouts, chocolate, nonfat dry milk, black pepper, custard, liquid 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 PTM #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
	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, fish and seafood, chocolate/bakery products, fruits and vegetable-based products, raw poultry, environmental surface samples	Health Canada MFLP-29

Salmonella

Assay

Approved Matrices

Validation Reference

<p>BAX[®] System Real-Time PCR Assay for <i>Salmonella</i> KIT2006 (Kit #D14306040)</p>	<p>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)</p>	<p>AOAC OMA 2013.02</p>
	<p>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</p>	<p>AOAC PTM #081201</p>
	<p>Dry pet food, milk chocolate, chocolate liquor, cocoa powder, shell egg, stainless steel, plastic, raw ground beef, raw ground chicken, chicken carcass rinse, dried whole egg, whole liquid egg, raw almonds, peanut butter, dried raisin, dried parsley, whole black pepper</p>	<p>AOAC PTM #041403 <i>(Using Actero™ Elite Enrichment Media from FoodChek™)</i></p>
	<p>All human food products, pet food and production environmental samples (except primary production environment)</p>	<p>AFNOR QUA 18/08-03/15 <i>(Validation study performed in accordance with EN ISO 16140-2)</i></p>

Shigella

Assay

Approved Matrices

Validation Reference

BAX[®] System Real-Time
PCR Assay for
Shigella
KIT2007 (Kit #D14812018)

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

Staphylococcus aureus

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

Vibrio

Assay

Approved Matrices

Validation Reference

BAX® System Real-Time
PCR Assay for
Vibrio cholerae/ parahaemolyticus/
vulnificus
KIT2010 (Kit #D12863877)

Tuna, shrimp and scallops (presence/absence),
shrimp and scallops (MPN), oysters (MPN)

AOAC PTM #050902

Yeast & Mold

Assay

Approved Matrices

Validation Reference

BAX® System PCR Assay for
Yeast & Mold
KIT2015 (Kit #D12522091)

Validated on using the enriched protocol for yogurt, corn starch and milk-based
powdered infant formula (for thresholds of 10-1000 cfu/g)

AOAC PTM #010902