

Microbial DNA qPCR Array

Food Testing: Meat

Cat. no. 330261 BAID-1202ZRA

For real-time PCR-based, application-specific microbial identification or profiling

The Meat Food Testing Microbial DNA qPCR Array is a research tool used to screen for pathogenic bacteria in meat food testing studies. This array provides microbiology researchers with a convenient way to quickly detect the presence of pathogenic bacteria found in various meat samples, allowing monitoring of the frequency of contamination. The array contains assays to screen for the presence of 20 bacterial species, as well as assays that target 2 different genes for enterohaemorrhagic *Escherichia coli* (EHEC). Species-targeting assays were designed to detect bacterial 16S rRNA gene sequences, and all assays use PCR amplification primers and hydrolysis-probe detection, which increases the specificity of each assay. Each Meat Food Testing Microbial DNA qPCR Array plate can analyze up to 4 samples simultaneously. Pan-bacteria assays that detect a broad range of bacterial species are included to serve as positive controls for bacterial DNA, and the Positive PCR Control assay is included to test for the presence of PCR inhibitors or the efficiency of the polymerase chain reaction. The arrays also include the appropriate Microbial qPCR Mastermix and Microbial DNA-Free Water. Identification of which bacterial pathogens are present in a sample is accomplished using data analysis software with imported CT values generated by the PCR instrument software. The simplicity of the product format and operating procedure allow routine and reliable screening of bacterial pathogens from meat samples in any research laboratory with access to a real-time PCR instrument.



Sample & Assay Technologies

Format	For use with the following real-time cyclers
Format A, with fluorescein	Bio-Rad® models iCycler®, iQ™ 5, MyiQ™, MyiQ2
Format A, with ROX	Applied Biosystems® models 5700, 7000, 7300, 7500, 7700, 7900HT, ViiA™ 7 (96-well blocks); Bio-Rad/MJ Research Chromo4™; Eppendorf® Mastercycler® ep realplex models 2, 2s, 4, 4s; Stratagene® models Mx3005P®, Mx3000P®
Format C, with ROX	Applied Biosystems models 7500 (Fast, 96-well block), 7900HT (Fast, 96-well block), StepOnePlus™, ViiA 7 (Fast, 96-well block)
Format D, with ROX	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®
Format E, with ROX	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™
Format F, with ROX	Roche® LightCycler® 480 (96-well block)
Format G, with ROX	Roche LightCycler 480 (384-well block)

Shipping and storage

Microbial DNA qPCR Arrays are shipped at ambient temperature or on blue ice packs. For long-term storage, keep plates at –20°C. Ensure that you have the correct Microbial DNA qPCR Array format for your real-time cycler (see table above). Microbial qPCR Mastermixes are shipped on blue ice packs. For long-term storage, keep Microbial qPCR Mastermixes at –20°C. Microbial DNA-Free Water is shipped at ambient temperature or on blue ice packs. If unopened, Microbial DNA-Free Water can be stored at room temperature or at –20°C. If tube is opened, store Microbial DNA-Free Water at –20°C. Discard tube of Microbial DNA-Free Water if opened three times and use fresh tube of Microbial DNA-Free Water for future experiments.

Note: Ensure that you have the correct Microbial qPCR Mastermixes, with the correct reference dye if required, for your instrument.

Note: Open the package and store the products appropriately immediately upon receipt.

Assay Table

Position	Species (NCBI Tax ID)/Gene	NCBI Tax ID	Antibiotic classification / Gene Description	May detect (species) / Also detect (antibiotic resistance genes) / Associated species (virulence factor genes)	Sensitivity	Assay Catalog #
A01	Aeromonas enteropelogenes(29489), Aeromonas punctata(648), Aeromonas media(651) Aeromonas hydrophila	644		Shewanella benthica(43661)	100	BPID00022A
A02	Aeromonas veronii(654) Aeromonas sobria	646			40	BPID00023A
A03	Arcobacter butzleri	28197			20	BPID00035A
A04	Bacillus anthracis(1392) Bacillus cereus	1396		Bacillus cytotoxicus(580165), Bacillus weihenstephanensis(86662)	40	BPID00043A
A05	Bacillus sonorensis(119858) Bacillus licheniformis	1402			30	BPID00044A
A06	Campylobacter fetus	196			20	BPID00085A
A07	Campylobacter coli(195),Campylobacter subantarcticus(497724), Campylobacter lari(201) Campylobacter jejuni	197			400	BPID00087A
A08	Citrobacter freundii	546		Dickeya dadantii(204038), Klebsiella oxytoca(571), Serratia marcescens(615)	100	BPID00108A
A09	Clostridium perfringens	1502			100	BPID00112A
A10	Klebsiella oxytoca(571) Enterobacter cloacae	550		Citrobacter farmeri(67824), Enterobacter hormaechei(158836), Klebsiella granulomatis(39824), Klebsiella variicola(244366), Enterobacter aerogenes(548), Klebsiella pneumoniae(573), Serratia marcescens(615)	100	BPID00139A
A11	Enterococcus gallinarum(1353) Enterococcus casseliflavus	1353			20	BPID00141A
A12	Enterococcus faecalis	1351			30	BPID00142A
B01	Enterococcus faecium	1352		Enterococcus avium(33945), Enterococcus durans(53345), Enterococcus hirae(1354)	40	BPID00143A
B02	Enterococcus italicus	246144			30	BPID00144A
B03	eae		intimin adherence protein	Escherichia coli	30	BPVF00472A
B04	stxA		Shiga toxin subunit A; RNA-N-glycosidase; catalytic subunit	Escherichia coli, Shigella dysenteriae	20	BPVF00506A
B05	Listeria monocytogenes	1639		Listeria welshimeri(1643)	200	BPID00208A
B06	Salmonella enterica	28901		Citrobacter amalonaticus(35703)	100	BPID00302A
B07	Staphylococcus aureus	1280		Staphylococcus epidermidis(1282)	100	BPID00314A
B08	Yersinia enterocolitica	630			100	BPID00357A
B09	Yersinia pseudotuberculosis(633) Yersinia pestis	633		Yersinia rohdei(29485)	100	BPID00358A
B10	Pan Bacteria 1					BPCL00360A
B11	Pan Bacteria 3					BPCL00362A
B12	PPC					BPCL00365A
C01	Aeromonas enteropelogenes(29489), Aeromonas punctata(648), Aeromonas media(651) Aeromonas hydrophila	644		Shewanella benthica(43661)	100	BPID00022A
C02	Aeromonas veronii(654) Aeromonas sobria	646			40	BPID00023A

Position	Species (NCBI Tax ID)/Gene	NCBI Tax ID	Antibiotic classification / Gene Description	May detect (species) / Also detect (antibiotic resistance genes) / Associated species (virulence factor genes)	Sensitivity	Assay Catalog #
C03	Arcobacter butzleri	28197			20	BPID00035A
C04	Bacillus anthracis(1392) Bacillus cereus	1396		Bacillus cytotoxicus(580165), Bacillus weihenstephanensis(86662)	40	BPID00043A
C05	Bacillus sonorensis(119858) Bacillus licheniformis	1402			30	BPID00044A
C06	Campylobacter fetus	196			20	BPID00085A
C07	Campylobacter coli(195),Campylobacter subantarcticus(497724), Campylobacter lari(201) Campylobacter jejuni	197			400	BPID00087A
C08	Citrobacter freundii	546		Dickeya dadantii(204038), Klebsiella oxytoca(571), Serratia marcescens(615)	100	BPID00108A
C09	Clostridium perfringens	1502			100	BPID00112A
C10	Klebsiella oxytoca(571) Enterobacter cloacae	550		Citrobacter farmeri(67824), Enterobacter hormaechei(158836), Klebsiella granulomatis(39824), Klebsiella variicola(244366), Enterobacter aerogenes(548), Klebsiella pneumoniae(573), Serratia marcescens(615)	100	BPID00139A
C11	Enterococcus gallinarum(1353) Enterococcus casseliflavus	1353			20	BPID00141A
C12	Enterococcus faecalis	1351			30	BPID00142A
D01	Enterococcus faecium	1352		Enterococcus avium(33945), Enterococcus durans(53345), Enterococcus hirae(1354)	40	BPID00143A
D02	Enterococcus italicus	246144			30	BPID00144A
D03	eae		intimin adherence protein	Escherichia coli	30	BPVF00472A
D04	stxA		Shiga toxin subunit A; RNA-N-glycosidase; catalytic subunit	Escherichia coli, Shigella dysenteriae	20	BPVF00506A
D05	Listeria monocytogenes	1639		Listeria welshimeri(1643)	200	BPID00208A
D06	Salmonella enterica	28901		Citrobacter amalonaticus(35703)	100	BPID00302A
D07	Staphylococcus aureus	1280		Staphylococcus epidermidis(1282)	100	BPID00314A
D08	Yersinia enterocolitica	630			100	BPID00357A
D09	Yersinia pseudotuberculosis(633) Yersinia pestis	633		Yersinia rohdei(29485)	100	BPID00358A
D10	Pan Bacteria 1					BPCL00360A
D11	Pan Bacteria 3					BPCL00362A
D12	PPC					BPCL00365A
E01	Aeromonas enteropelogenes(29489), Aeromonas punctata(648), Aeromonas media(651) Aeromonas hydrophila	644		Shewanella benthica(43661)	100	BPID00022A
E02	Aeromonas veronii(654) Aeromonas sobria	646			40	BPID00023A
E03	Arcobacter butzleri	28197			20	BPID00035A
E04	Bacillus anthracis(1392) Bacillus cereus	1396		Bacillus cytotoxicus(580165), Bacillus weihenstephanensis(86662)	40	BPID00043A
E05	Bacillus sonorensis(119858) Bacillus licheniformis	1402			30	BPID00044A
E06	Campylobacter fetus	196			20	BPID00085A
	Campylobacter coli(195),Campylobacter					

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E07	subantarcticus(497724), Campylobacter lari(201) Campylobacter jejuni	197			400	BPID00087A
E08	Citrobacter freundii	546		Dickeya dadantii(204038), Klebsiella oxytoca(571), Serratia marcescens(615)	100	BPID00108A
E09	Clostridium perfringens	1502			100	BPID00112A
E10	Klebsiella oxytoca(571) Enterobacter cloacae	550		Citrobacter farmeri(67824), Enterobacter hormaechei(158836), Klebsiella granulomatis(39824), Klebsiella variicola(244366), Enterobacter aerogenes(548), Klebsiella pneumoniae(573), Serratia marcescens(615)	100	BPID00139A
E11	Enterococcus gallinarum(1353) Enterococcus casseliflavus	1353			20	BPID00141A
E12	Enterococcus faecalis	1351			30	BPID00142A
F01	Enterococcus faecium	1352		Enterococcus avium(33945), Enterococcus durans(53345), Enterococcus hirae(1354)	40	BPID00143A
F02	Enterococcus italicus	246144			30	BPID00144A
F03	eae		intimin adherence protein	Escherichia coli	30	BPVF00472A
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F09	Yersinia pseudotuberculosis(633) Yersinia pestis	633		Yersinia rohdei(29485)	100	BPID00358A
F10	Pan Bacteria 1					BPCL00360A
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G01	Aeromonas enteropelogenes(29489), Aeromonas punctata(648), Aeromonas media(651) Aeromonas hydrophila	644		Shewanella benthica(43661)	100	BPID00022A
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G08	Citrobacter freundii	546		Dickeya dadantii(204038), Klebsiella oxytoca(571), Serratia marcescens(615)	100	BPID00108A
G09	Clostridium perfringens	1502			100	BPID00112A
				Citrobacter farmeri(67824), Enterobacter hormaechei(158836),		

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G11	Enterococcus gallinarum(1353) Enterococcus casseliflavus	1353			20	BPID00141A
G12	Enterococcus faecalis	1351			30	BPID00142A
H01	Enterococcus faecium	1352		Enterococcus avium(33945), Enterococcus durans(53345), Enterococcus hirae(1354)	40	BPID00143A
H02	Enterococcus italicus	246144			30	BPID00144A
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H10	Pan Bacteria 1					BPCL00360A
H11	Pan Bacteria 3					BPCL00362A
H12	PPC					BPCL00365A

No Template Control (NTC)>35

Microbial DNA Positive Control<34

Note: On Stratagene instruments, Ct of the positive control template >34

Ordering Information

Product	Contents	Cat. no.
Microbial DNA qPCR Array	Array plate, master mix, and microbial DNA-free water for detection of microbial species or genes	330261
Related Products		
Supplemental Microbial qPCR Mastermix ROX™	2 tubes of 1.35 ml each	330530
Supplemental Microbial qPCR Mastermix Fluor	2 tubes of 1.35 ml each	330540
Microbial DNA-Free Water	12 tubes of 1.35 ml each	338132

Microbial DNA qPCR Arrays are intended for molecular biology use only. These products are not intended for the diagnosis, prevention, or treatment of a disease..

Visit www.qiagen.com today to view the full array list!

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Sample & Assay Technologies