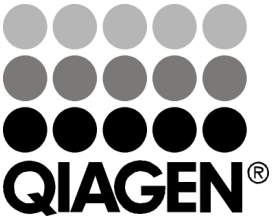
Microbial DNA qPCR Array

Respiratory Infections

Cat. no. 330261 BAID-1404ZRA

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

The Respiratory Infections Microbial DNA qPCR Array is a research tool used to screen for pathogenic bacteria and fungi from airway-derived samples. The array provides microbiology researchers with a convenient way to quickly detect the presence of pathogenic bacteria or fungi from bronchoalveolar lavage fluid, sputum, or other samples that originate from the lung or airway, and can be used to monitor the frequency of various respiratory infections in epidemiological research studies. The array contains assays for 41 bacterial or fungal pathogens including Acinetobacter spp., Aspergillus spp., Burkholderia spp., Chlamydia spp., Mycobacterium spp., Prevotella spp., and Streptococcus spp. The array also contains assays to identify methicillin-resistant Staphylococcus aureus. Assays were designed to detect bacterial 16S rRNA gene and fungal ribosomal rRNA gene sequences. For detection of methicillin-resistant Staphylococcus aureus, assays were designed to detect the antibiotic resistance gene mecA and the virulence factor genes lukF and spa. The assays use PCR amplification primers and hydrolysis-probe detection, which increases the specificity of each assay. Each Respiratory Infections Microbial DNA qPCR Array plate can analyze up to two samples simultaneously. Pan-bacteria assays that detect a broad range of bacterial species are included to serve as positive controls for the presence of bacterial DNA, and the Positive PCR Control assay is included to test for the presence of PCR inhibitors and the efficiency of the polymerase chain reaction. The arrays also include the appropriate Microbial qPCR Mastermix and Microbial DNA-Free Water. Identification of which microbial 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 microbial pathogens from airway-derived 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	Acinetobacter baumannii	470			100	BPID00004A
A02	Acinetobacter rhizosphaerae(243922) Acinetobacter calcoaceticus	471			50	BPID00005A
A03	Actinobacillus hominis	719			100	BPID00007A
A04	Aspergillus flavus	5059			50	BPID00037A
A05	Aspergillus fumigatus	746128			20	BPID00038A
A06	Bacillus anthracis	1392		Bacillus weihenstephanensis(86662), Bacillus cereus(1396)	40	BPID00042A
A07	Bordetella bronchiseptica(518), Bordetella pertussis(520) Bordetella parapertussis	519			30	BPID00071A
A08	Burkholderia vietnamiensis(60552), Burkholderia pyrrocinia(60550), Burkholderia cenocepacia(95486) Burkholderia cepacia	292		Burkholderia gladioli(28095)	100	BPID00077A
A09	Burkholderia gladioli	28095			20	BPID00078A
A10	Burkholderia pseudomallei(28450) Burkholderia mallei	13373			20	BPID00079A
A11	Chlamydia trachomatis	813			40	BPID00105A
A12	Chlamydophila pneumoniae	83558			30	BPID00106A
B01	Chlamydophila psittaci	83554		Chlamydophila abortus(83555)	30	BPID00107A
B02	Clostridium sordellii	1505			20	BPID00114A
B03	Corynebacterium diphtheriae	1717		Corynebacterium simulans(146827)	30	BPID00122A
B04	Coxiella burnetii	777			20	BPID00126A
B05	Francisella novicida(264) Francisella tularensis	263			40	BPID00157A
B06	Haemophilus influenzae	727		Haemophilus haemolyticus(726)	20	BPID00171A
B07	Legionella pneumophila	446			100	BPID00201A
B08	Moraxella catarrhalis	480			40	BPID00222A
B09	Mycobacterium tuberculosis(1773), Mycobacterium bovis(1765) Mycobacterium africanum	33894			20	BPID00225A
B10	Mycobacterium avium	1764			40	BPID00226A
B11	Mycobacterium kansasii	1768			100	BPID00229A
B12	Mycobacterium tuberculosis	1773			100	BPID00230A
C01	Mycoplasma pneumoniae	2104		Mycoplasma genitalium(2097)	100	BPID00234A
C02	Neisseria meningitidis	487		Neisseria cinerea(483), Neisseria gonorrhoeae(485)	300	BPID00241A
C03	Nocardia cyriacigeorgica(135487), Nocardia abscessus(120957), Nocardia cummidelens(165807), Nocardia flavorosea(53429), Nocardia pseudobrasiliensis(45979),Nocardia	1824			20	BPID00246A

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 #
	fluminea(134984) Nocardia asteroides					
C04	Peptostreptococcus anaerobius	1261			30	BPID00265A
C05	Pneumocystis jirovecii	42068			100	BPID00268A
C06	Prevotella bivia	28125			20	BPID00272A
C07	Prevotella oris	28135			20	BPID00282A
C08	Proteus vulgaris(585) Proteus mirabilis	584		Candidatus hamiltonella(568987)	200	BPID00287A
C09	Pseudomonas aeruginosa	287			30	BPID00288A
C10	Rhodococcus equi	43767			30	BPID00295A
C11	Xanthomonas retroflexus(305959), Pseudomonas geniculata(86188) Stenotrophomonas maltophilia	40324			30	BPID00318A
C12	Streptobacillus moniliformis	34105			100	BPID00319A
D01	Streptococcus agalactiae	1311			30	BPID00320A
D02	Streptococcus pneumoniae	1313		Streptococcus infantis(68892), Streptococcus oralis(1303), Streptococcus pseudopneumoniae(257758), Streptococcus mitis(28037)	20	BPID00331A
D03	Streptococcus pyogenes	1314			50	BPID00332A
D04	Yersinia pseudotuberculosis(633) Yersinia pestis	633		Yersinia rohdei(29485)	100	BPID00358A
D05	Staphylococcus aureus	1280		Staphylococcus epidermidis(1282)	100	BPID00314A
D06	mecA		Beta-lactam resistance		40	BPAR00374A
D07	lukF		Panton-Valentine leukocidin chain F precursor	Staphylococcus aureus	20	BPVF00517A
D08	spa		Immunoglobulin G binding protein A precursor	Staphylococcus aureus	200	BPVF00518A
D09	Pan Aspergillus/Candida	5052				BPCL00359A
D10	Pan Bacteria 1					BPCL00360A
D11	Pan Bacteria 3					BPCL00362A
D12	PPC					BPCL00365A
E01	Acinetobacter baumannii	470			100	BPID00004A
E02	Acinetobacter rhizosphaerae(243922) Acinetobacter calcoaceticus	471			50	BPID00005A
E03	Actinobacillus hominis	719			100	BPID00007A
E04	Aspergillus flavus	5059			50	BPID00037A
E05	Aspergillus fumigatus	746128			20	BPID00038A
E06	Bacillus anthracis	1392		Bacillus weihenstephanensis(86662), Bacillus cereus(1396)	40	BPID00042A
E07	Bordetella bronchiseptica(518), Bordetella pertussis(520) Bordetella parapertussis	519			30	BPID00071A
E08	Burkholderia vietnamiensis(60552), Burkholderia pyrrocinia(60550), Burkholderia cenocepacia(95486) Burkholderia cepacia	292		Burkholderia gladioli(28095)	100	BPID00077A
E09	Burkholderia gladioli	28095			20	BPID00078A
	Burkholderia					

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 #
E10	pseudomallei(28450) Burkholderia mallei	13373			20	BPID00079A
E11	Chlamydia trachomatis	813			40	BPID00105A
E12	Chlamydophila pneumoniae	83558			30	BPID00106A
F01	Chlamydophila psittaci	83554		Chlamydophila abortus(83555)	30	BPID00107A
F02	Clostridium sordellii	1505			20	BPID00114A
F03	Corynebacterium diphtheriae	1717		Corynebacterium simulans(146827)	30	BPID00122A
F04	Coxiella burnetii	777			20	BPID00126A
F05	Francisella novicida(264) Francisella tularensis	263			40	BPID00157A
F06	Haemophilus influenzae	727		Haemophilus haemolyticus(726)	20	BPID00171A
F07	Legionella pneumophila	446			100	BPID00201A
F08	Moraxella catarrhalis	480			40	BPID00222A
F09	Mycobacterium tuberculosis(1773), Mycobacterium bovis(1765) Mycobacterium africanum	33894			20	BPID00225A
F10	Mycobacterium avium	1764			40	BPID00226A
F11	Mycobacterium kansasii	1768			100	BPID00229A
F12	Mycobacterium tuberculosis	1773			100	BPID00230A
G01	Mycoplasma pneumoniae	2104		Mycoplasma genitalium(2097)	100	BPID00234A
G02	Neisseria meningitidis	487		Neisseria cinerea(483), Neisseria gonorrhoeae(485)	300	BPID00241A
G03	Nocardia cyriacigeorgica(135487), Nocardia abscessus(120957), Nocardia cummidelens(165807), Nocardia flavorosea(53429), Nocardia pseudobrasiliensis(45979),Nocardia fluminea(134984) Nocardia asteroides	1824			20	BPID00246A
G04	Peptostreptococcus anaerobius	1261			30	BPID00265A
G05	Pneumocystis jirovecii	42068			100	BPID00268A
G06	Prevotella bivia	28125			20	BPID00272A
G07	Prevotella oris	28135			20	BPID00282A
G08	Proteus vulgaris(585) Proteus mirabilis	584		Candidatus hamiltonella(568987)	200	BPID00287A
G09	Pseudomonas aeruginosa	287			30	BPID00288A
G10	Rhodococcus equi	43767			30	BPID00295A
G11	Xanthomonas retroflexus(305959), Pseudomonas geniculata(86188) Stenotrophomonas maltophilia	40324			30	BPID00318A
G12	Streptobacillus moniliformis	34105			100	BPID00319A
H01	Streptococcus agalactiae	1311			30	BPID00320A
H02	Streptococcus pneumoniae	1313		Streptococcus infantis(68892), Streptococcus oralis(1303), Streptococcus pseudopneumoniae(257758), Streptococcus mitis(28037)	20	BPID00331A

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 #
H03	Streptococcus pyogenes	1314			50	BPID00332A
H04	Yersinia pseudotuberculosis(633) Yersinia pestis	633		Yersinia rohdei(29485)	100	BPID00358A
H05	Staphylococcus aureus	1280		Staphylococcus epidermidis(1282)	100	BPID00314A
H06	mecA		Beta-lactam resistance		40	BPAR00374A
H07	lukF		Panton-Valentine leukocidin chain F precursor	Staphylococcus aureus	20	BPVF00517A
H08	spa		Immunoglobulin G binding protein A precursor	Staphylococcus aureus	200	BPVF00518A
H09	Pan Aspergillus/Candida	5052				BPCL00359A
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!

www.qiagen.com

Australia ▪ 1-800-243-800
Austria ▪ 0800/281010
Belgium ▪ 0800-79612
Brazil ▪ 0800-557779
Canada ▪ 800-572-9613
China ▪ 8621-3865-3865
Denmark ▪ 80-885945
Finland ▪ 0800-914416
France ▪ 01-60-920-930
Germany ▪ 02103-29-12000
Hong Kong ▪ 800 933 965
Ireland ▪ 1800 555 049
Italy ▪ 800-787980
Japan ▪ 03-6890-7300
Korea (South) ▪ 080-000-7145
Luxembourg ▪ 8002 2076
Mexico ▪ 01-800-7742-436
The Netherlands ▪ 0800 0229592
Norway ▪ 800-18859
Singapore ▪ 1800-742-4368
Spain ▪ 91-630-7050
Sweden ▪ 020-790282
Switzerland ▪ 055-254-22-11
UK ▪ 01293-422-911
USA ▪ 800-426-8157