

# Illumina Respiratory Pathogen ID/AMR Panel

- Identify COVID-19 and determine viral variants and lineages
- Detect both DNA- and RNA-based respiratory pathogens simultaneously
- Report full genome coverage of SARS-CoV-2 and Influenza A/B viruses
- Profile Antimicrobial resistance (AMR) gene expression concurrently

Analysis powered by



BACTERIA					
<i>Achromobacter denitrificans</i>	<i>Bartonella henselae</i>	<i>Cardiobacterium hominis</i>	<i>Elizabethkingia meningoseptica</i>	<i>Haemophilus influenzae</i>	<i>Mycobacterium gordonae</i>
<i>Achromobacter xylosoxidans</i>	<i>Bartonella quintana</i>	<i>Cardiobacterium valvarum</i>	<i>Enterobacter cloacae</i> complex	<i>Haemophilus parahaemolyticus</i>	<i>Mycobacterium kansasii</i>
<i>Acinetobacter baumannii</i>	<i>Bordetella bronchiseptica</i>	<i>Chlamydia pneumoniae</i>	<i>Enterococcus faecalis</i>	<i>Haemophilus parainfluenzae</i>	<i>Mycobacterium malmoense</i>
<i>Acinetobacter lwoffii</i>	<i>Bordetella hinzii</i>	<i>Chlamydia psittaci</i>	<i>Enterococcus faecium</i>	<i>Haemophilus pittmaniae</i>	<i>Mycobacterium parascrofulaceum</i>
<i>Acinetobacter nosocomialis</i>	<i>Bordetella holmesii</i>	<i>Chlamydia trachomatis</i>	<i>Escherichia coli</i>	<i>Hafnia alvei</i>	<i>Mycobacterium scrofulaceum</i>
<i>Acinetobacter pittii</i>	<i>Bordetella parapertussis</i>	<i>Chromobacterium violaceum</i>	<i>Eubacterium brachy</i>	<i>Klebsiella varicola</i>	<i>Mycobacterium szulgai</i>
<i>Actinomyces graevenitzi</i>	<i>Bordetella pertussis</i>	<i>Citrobacter freundii</i>	<i>Eubacterium limosum</i>	<i>Kytococcus sedentarius</i>	<i>Mycobacterium tuberculosis</i>
<i>Actinomyces israelii</i>	<i>Bordetella petrii</i>	<i>Citrobacter koseri</i>	<i>Eubacterium nodatum</i>	<i>Leclercia adecarboxylata</i>	<i>Mycobacterium xenopi</i>
<i>Actinomyces meyeri</i>	<i>Brucella abortus</i>	<i>Corynebacterium diphtheriae</i>	<i>Fingoldia magna</i>	<i>Legionella anisa</i>	<i>Mycobacteroides abscessus</i> ( <i>Mycobacterium abscessus</i> )
<i>Actinomyces naeslundii</i>	<i>Brucella canis</i>	<i>Corynebacterium jeikeium</i>	<i>Francisella tularensis</i>	<i>Legionella feeleeii</i>	<i>Mycobacteroides chelonae</i> ( <i>Mycobacterium chelonae</i> )
<i>Actinomyces odontolyticus</i>	<i>Brucella melitensis</i>	<i>Corynebacterium propinquum</i>	<i>Fusobacterium necrophorum</i>	<i>Legionella longbeachae</i>	<i>Mycobacteroides immunogenum</i> ( <i>Mycobacterium immunogenum</i> )
<i>Aeromonas caviae</i>	<i>Brucella suis</i>	<i>Corynebacterium pseudodiphtheriticum</i>	<i>Fusobacterium nucleatum</i>	<i>Legionella maceachernii</i>	<i>Mycoplasma pneumoniae</i>
<i>Aeromonas hydrophila</i>	<i>Burkholderia cepacia</i> complex	<i>Corynebacterium pseudotuberculosis</i>	<i>Gemella haemolysans</i>	<i>Legionella pneumophila</i>	<i>Neisseria flavescens</i>
<i>Aeromonas sobria</i>	<i>Burkholderia gladioli</i>	<i>Corynebacterium striatum</i>	<i>Gemella morbillorum</i>	<i>Legionella wadsworthii</i>	<i>Neisseria lactamica</i>
<i>Aeromonas veronii</i>	<i>Burkholderia glumae</i>	<i>Corynebacterium ulcerans</i>	<i>Gordonia araii</i>	<i>Leptospira interrogans</i>	<i>Neisseria meningitidis</i>
<i>Aggregatibacter actinomycetemcomitans</i>	<i>Burkholderia mallei</i>	<i>Coxiella burnetii</i>	<i>Gordonia bronchialis</i>	<i>Leptotrichia buccalis</i>	<i>Neisseria mucosa</i>
<i>Aggregatibacter aphrophilus</i>	<i>Burkholderia pseudomallei</i>	<i>Cronobacter sakazakii</i>	<i>Haemophilus haemolyticus</i>	<i>Listeria monocytogenes</i>	<i>Nocardia abscessus</i>
<i>Arcanobacterium haemolyticum</i>	<i>Burkholderia thailandensis</i>	<i>Delftia acidovorans</i>	<i>Kingella kingae</i>	<i>Moraxella catarrhalis</i>	<i>Nocardia arthritidis</i>
<i>Bacillus anthracis</i>	<i>Campylobacter concisus</i>	<i>Dialister pneumosintes</i>	<i>Klebsiella aerogenes</i> ( <i>Enterobacter aerogenes</i> )	<i>Moraxella osloensis</i>	<i>Nocardia beijingensis</i>
<i>Bacillus cereus</i>	<i>Capnocytophaga gingivalis</i>	<i>Dolosigranulum pigrum</i>	<i>Klebsiella oxytoca</i>	<i>Morganella morganii</i>	<i>Nocardia brasiliensis</i>
<i>Bacillus thuringiensis</i>	<i>Capnocytophaga leadbetteri</i>	<i>Eikenella corrodens</i>	<i>Klebsiella pneumoniae</i>	<i>Mycobacterium avium</i> complex	<i>Nocardia cyriacigeorgica</i>
<i>Bacteroides fragilis</i>	<i>Capnocytophaga sputigena</i>	<i>Elizabethkingia anophelis</i>	<i>Klebsiella quasipneumoniae</i>	<i>Mycobacterium fortuitum</i>	<i>Nocardia farcinica</i>

BACTERIA, cont.					
<i>Nocardia nova</i>	<i>Pediococcus acidilactici</i>	<i>Pseudomonas aeruginosa</i>	<i>Serratia marcescens</i>	<i>Streptococcus intermedius</i>	<i>Ureaplasma urealyticum</i>
<i>Nocardia otitidiscaviarum</i>	<i>Peptostreptococcus anaerobius</i>	<i>Pseudomonas fluorescens</i>	<i>Shewanella putrefaciens</i>	<i>Streptococcus mitis</i>	<i>Veillonella parvula</i>
<i>Nocardia transvalensis</i>	<i>Prevotella buccae</i>	<i>Pseudomonas stutzeri</i>	<i>Slackia exigua</i>	<i>Streptococcus pneumoniae</i>	<i>Williamsia muralis</i>
<i>Nocardia veterana</i>	<i>Prevotella intermedia</i>	<i>Ralstonia pickettii</i>	<i>Sphingomonas paucimobilis</i>	<i>Streptococcus pyogenes</i>	<i>Yersinia enterocolitica</i>
<i>Ochrobactrum anthropi</i>	<i>Prevotella melaninogenica</i>	<i>Raoultella ornithinolytica</i>	<i>Staphylococcus aureus</i>	<i>Tatlockia micdadei</i> ( <i>Legionella micdadei</i> )	<i>Yersinia pestis</i>
<i>Orientia tsutsugamushi</i>	<i>Prevotella pleuritidis</i>	<i>Raoultella planticola</i>	<i>Stenotrophomonas maltophilia</i>	<i>Treponema denticola</i>	
<i>Pandoraea pulmonicola</i>	<i>Proteus mirabilis</i>	<i>Rhodococcus hoagii</i>	<i>Streptococcus agalactiae</i>	<i>Tropheryma whipplei</i>	
<i>Pantoea agglomerans</i>	<i>Proteus penneri</i>	<i>Rickettsia rickettsii</i>	<i>Streptococcus anginosus</i>	<i>Tsukamurella pulmonis</i>	
<i>Parvimonas micra</i>	<i>Proteus vulgaris</i>	<i>Rothia mucilaginosa</i>	<i>Streptococcus constellatus</i>	<i>Tsukamurella tyrosinosolvens</i>	
<i>Pasteurella multocida</i>	<i>Providencia stuartii</i>	<i>Salmonella enterica</i>	<i>Streptococcus dysgalactiae</i>	<i>Ureaplasma parvum</i>	
VIRUSES					
Coxsackievirus A	HHV6	Human Coronavirus NL63	Human parechovirus	Influenza C virus	Rhinovirus A
Coxsackievirus B	Human adenovirus B	Human Coronavirus OC43	Influenza A virus (H1N1)	Measles Virus	Rhinovirus B
Cytomegalovirus (CMV)	Human adenovirus C	Human metapneumovirus	Influenza A virus (H3N2)	MERS coronavirus (MERS-CoV)	Rhinovirus C
EBV	Human adenovirus E	Human parainfluenza virus 1	Influenza A virus (H5N1)	Mumps virus	Rubella virus
Enterovirus A71	Human bocavirus 1	Human parainfluenza virus 2	Influenza A virus (H7N9)	Parvovirus B19	SARS coronavirus
Enterovirus D68	Human Coronavirus 229E	Human parainfluenza virus 3	Influenza A virus (H9N2)	Respiratory Syncytial Virus A	SARS-CoV-2 (2019-nCoV)
Herpes simplex virus 1 (HSV-1)	Human Coronavirus HKU1	Human parainfluenza virus 4	Influenza B virus	Respiratory Syncytial Virus B	Varicella-zoster virus (HHV-3)
FUNGI					
<i>Alternaria alternata</i>	<i>Blastomyces dermatitidis</i>	<i>Curvularia lunata</i>	<i>Lomentospora prolificans</i> ( <i>Scedosporium prolificans</i> )	<i>Pneumocystis jirovecii</i>	<i>Sarocladium kiliense</i> ( <i>Acremonium kiliense</i> )
<i>Alternaria infectoria</i>	<i>Candida auris</i>	<i>Exophiala dermatitidis</i>	<i>Microascus cinereus</i> ( <i>Scopulariopsis cinereus</i> )	<i>Purpureocillium lilacinum</i>	<i>Scedosporium apiospermum</i>
<i>Apophysomyces elegans</i>	<i>Cladophialophora bantiana</i>	<i>Fusarium oxysporum</i>	<i>Microascus cirrosus</i> ( <i>Scopulariopsis paisii</i> )	<i>Rasamsonia aegroticola</i>	<i>Schizophyllum commune</i>
<i>Aspergillus flavus</i>	<i>Coccidioides immitis</i>	<i>Fusarium proliferatum</i>	<i>Microascus paisii</i> ( <i>Scopulariopsis brumptii</i> )	<i>Rasamsonia argillacea</i>	<i>Scopulariopsis brevicaulis</i>
<i>Aspergillus fumigatus</i>	<i>Coccidioides posadasii</i>	<i>Fusarium solani</i>	<i>Mucor circinelloides</i>	<i>Rhizomucor pusillus</i>	<i>Sporothrix schenckii</i>
<i>Aspergillus nidulans</i>	<i>Cryptococcus gattii</i>	<i>Fusarium verticillioides</i>	<i>Mucor indicus</i>	<i>Rhizopus azygosporus</i>	<i>Syncephalastrum racemosum</i>
<i>Aspergillus niger</i>	<i>Cryptococcus neoformans</i>	<i>Histoplasma capsulatum</i>	<i>Mucor racemosus</i>	<i>Rhizopus microsporus</i>	<i>Talaromyces marneffeii</i>
<i>Aspergillus terreus</i>	<i>Cunninghamella bertholletiae</i>	<i>Lichtheimia corymbifera</i>	<i>Paecilomyces variotii</i>	<i>Rhizopus oryzae</i>	<i>Trichosporon asahii</i>
<i>Aspergillus versicolor</i>	<i>Curvularia geniculata</i>	<i>Lichtheimia ramosa</i>	<i>Paracoccidioides brasiliensis</i>	<i>Saksenaea vasiformis</i>	

AMR markers on the Respiratory Pathogen ID/AMR Panel

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Bacteria	<i>A. baumannii</i> <i>E. faecalis</i> <i>E. faecium</i> <i>E. cloacae</i> complex <i>E. coli</i> <i>K. pneumoniae</i> <i>P. aeruginosa</i> <i>S. aureus</i> <i>S. maltophilia</i> <i>S. pneumoniae</i>	Antibacterials	Aminoglycosides	Gentamicin, Plazomicin, Paromomycin, Tobramycin, Streptomycin, Spectinomycin, Amikacin, Neomycin
			Beta-Lactam + Beta-Lactamase Inhibitor	Amoxicillin + Clavulanic Acid, Ampicillin + Sublactam, Piperacillin + Tazobactam
			Carbapenems	Ertapenem, Meropenem, Imipenem
			Cephalosporins (1st generaton)	Cefazolin, Cefalexin
			Cephalosporins (2nd generaton)	Cefaclor, Cefoxitin
			Cephalosporins (3rd generaton)	Ceftazidime, Ceftriaxone, Cefotaxime, Cefixime
			Cephalosporins (4th generaton)	Cefepime
			Diaminopyrimidine	Trimethoprim
			Fluoroquinolones	Ciprofloxacin, Norfloxacin, Levofloxacin, Ofloxacin, Moxifloxacin
			Fosfomycin	Fosfomycin
			Glycopeptides	Vancomycin
			Lincosamides	Clindamycin, Lincomycin
			Macrolides	Clarithromycin, Azithromycin, Erythromycin
			Oxazolidinones	Linezolid
			Penicillins	Amoxicillin, Ampicillin, Methicillin, Oxacillin, Penicillin
			Polymyxins	Colistin
Sulfonamides	Sulfamethoxazole			
Tetracyclines	Tetracycline, Doxycycline			
Mycobacteria	<i>M. tuberculosis</i> complex <i>M. abscessus</i>	Antimycobacterials	<b>First-line:</b> Isoniazids Polyamine Antibiotics Pyrazinamides Rifamycin Antibiotics	Isoniazid, Ethambutol, Pyrazinamide, Rifampin, Rifampicin
			<b>Second-line:</b> Ethionamides Para-Aminosalicic Acids Aminoglycosides Fluoroquinolones	Ethionamide, Para-Aminosalicic Acid, Amikacin, Kanamycin, Streptomycin, Capreomycin, Ciprofloxacin, Levofloxacin, Moxifloxacin, Norfloxacin, Ofloxacin
Viruses	Influenza A (H1N1) Influenza A (H3N2) Influenza A (H5N1) Influenza A H7N9	Antivirals	Neuraminidase Inhibitors	Oseltamivir, Zanamivir, Peramivir, Laninamivir
			Endonuclease Inhibitors	Baloxavir

## Learn more

For more information, visit [www.illumina.com/products/by-type/sequencing-kits/library-prep-kits/respiratory-pathogen-id-panel.html](http://www.illumina.com/products/by-type/sequencing-kits/library-prep-kits/respiratory-pathogen-id-panel.html)

To learn more about SARS-CoV-2 variant analysis with the Explify Respiratory Pathogen ID/AMR Panel Data Analysis Solution, see [www.idbydna.com/rpipvariantsflyer](http://www.idbydna.com/rpipvariantsflyer)

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