

# RPIP Pathogens & AMR Marker Panel



Advanta RPIP mNGS Test - List of Organisms	
Microorganism Counts	
<b>Bacteria</b>	<b>173</b>
<b>Fungi</b>	<b>53</b>
<b>Viruses</b>	<b>42</b>
Total Microorganisms	<b>268</b>

Reporting Name	Class
1 <i>Achromobacter denitrificans</i>	Bacterial
2 <i>Achromobacter xylosoxidans</i>	Bacterial
3 <i>Acinetobacter baumannii</i>	Bacterial
4 <i>Acinetobacter lwoffii</i>	Bacterial
5 <i>Acinetobacter nosocomialis</i>	Bacterial
6 <i>Acinetobacter pittii</i>	Bacterial
7 <i>Actinomyces graevenitzi</i>	Bacterial
8 <i>Actinomyces israelii</i>	Bacterial
9 <i>Actinomyces meyeri</i>	Bacterial
10 <i>Actinomyces naeslundii</i>	Bacterial
11 <i>Actinomyces odontolyticus</i>	Bacterial
12 <i>Aeromonas caviae</i>	Bacterial
13 <i>Aeromonas hydrophila</i>	Bacterial
14 <i>Aeromonas sobria</i>	Bacterial
15 <i>Aeromonas veronii</i>	Bacterial
16 <i>Aggregatibacter actinomycetemcomitans</i>	Bacterial
17 <i>Aggregatibacter aphrophilus</i>	Bacterial
18 <i>Arcanobacterium haemolyticum</i>	Bacterial
19 <i>Bacillus anthracis</i>	Bacterial
20 <i>Bacillus cereus</i>	Bacterial
21 <i>Bacillus thuringiensis</i>	Bacterial
22 <i>Bacteroides fragilis</i>	Bacterial
23 <i>Bartonella henselae</i>	Bacterial
24 <i>Bartonella quintana</i>	Bacterial
25 <i>Bordetella bronchiseptica</i>	Bacterial
26 <i>Bordetella hinzii</i>	Bacterial
27 <i>Bordetella holmesii</i>	Bacterial
28 <i>Bordetella parapertussis</i>	Bacterial
29 <i>Bordetella pertussis</i>	Bacterial
30 <i>Bordetella petrii</i>	Bacterial
31 <i>Brucella abortus</i>	Bacterial
32 <i>Brucella canis</i>	Bacterial
33 <i>Brucella melitensis</i>	Bacterial
34 <i>Brucella suis</i>	Bacterial
35 <i>Burkholderia cepacia complex</i>	Bacterial

Reporting Name	Class
36 <i>Burkholderia gladioli</i>	Bacterial
37 <i>Burkholderia glumae</i>	Bacterial
38 <i>Burkholderia mallei</i>	Bacterial
39 <i>Burkholderia pseudomallei</i>	Bacterial
40 <i>Burkholderia thailandensis</i>	Bacterial
41 <i>Campylobacter concisus</i>	Bacterial
42 <i>Capnocytophaga gingivalis</i>	Bacterial
43 <i>Capnocytophaga leadbetteri</i>	Bacterial
44 <i>Capnocytophaga sputigena</i>	Bacterial
45 <i>Cardiobacterium hominis</i>	Bacterial
46 <i>Cardiobacterium valvarum</i>	Bacterial
47 <i>Chlamydia pneumoniae</i>	Bacterial
48 <i>Chlamydia psittaci</i>	Bacterial
49 <i>Chlamydia trachomatis</i>	Bacterial
50 <i>Chromobacterium violaceum</i>	Bacterial
51 <i>Citrobacter freundii complex</i>	Bacterial
52 <i>Citrobacter koseri</i>	Bacterial
53 <i>Corynebacterium diphtheriae</i>	Bacterial
54 <i>Corynebacterium jeikeium</i>	Bacterial
55 <i>Corynebacterium propinquum</i>	Bacterial
56 <i>Corynebacterium pseudodiphtheriticum</i>	Bacterial
57 <i>Corynebacterium pseudotuberculosis</i>	Bacterial
58 <i>Corynebacterium striatum</i>	Bacterial
59 <i>Corynebacterium ulcerans</i>	Bacterial
60 <i>Coxiella burnetii</i>	Bacterial
61 <i>Cronobacter sakazakii</i>	Bacterial
62 <i>Delftia acidovorans</i>	Bacterial
63 <i>Dialister pneumosintes</i>	Bacterial
64 <i>Dolosigranulum pigrum</i>	Bacterial
65 <i>Eikenella corrodens</i>	Bacterial
66 <i>Elizabethkingia anophelis</i>	Bacterial
67 <i>Elizabethkingia meningoseptica</i>	Bacterial
68 <i>Enterobacter cloacae complex</i>	Bacterial
69 <i>Enterococcus faecalis</i>	Bacterial
70 <i>Enterococcus faecium</i>	Bacterial
71 <i>Escherichia coli</i>	Bacterial
72 <i>Eubacterium brachy</i>	Bacterial
73 <i>Eubacterium limosum</i>	Bacterial
74 <i>Eubacterium nodatum</i>	Bacterial
75 <i>Fingoldia magna (Peptostreptococcus magnus)</i>	Bacterial
76 <i>Francisella tularensis</i>	Bacterial
77 <i>Fusobacterium necrophorum</i>	Bacterial

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78	<i>Fusobacterium nucleatum</i>	Bacterial
79	<i>Gemella haemolysans</i>	Bacterial
80	<i>Gemella morbillorum</i>	Bacterial
81	<i>Gordonia araii</i>	Bacterial
82	<i>Gordonia bronchialis</i>	Bacterial
83	<i>Haemophilus haemolyticus</i>	Bacterial
84	<i>Haemophilus influenzae</i>	Bacterial
85	<i>Haemophilus parahaemolyticus</i>	Bacterial
86	<i>Haemophilus parainfluenzae</i>	Bacterial
87	<i>Haemophilus pittmaniae</i>	Bacterial
88	<i>Hafnia alvei</i>	Bacterial
89	<i>Kingella kingae</i>	Bacterial
90	<i>Klebsiella aerogenes (Enterobacter aerogenes)</i>	Bacterial
91	<i>Klebsiella oxytoca</i>	Bacterial
92	<i>Klebsiella pneumoniae</i>	Bacterial
93	<i>Klebsiella quasipneumoniae</i>	Bacterial
94	<i>Klebsiella variicola</i>	Bacterial
95	<i>Kytococcus sedentarius</i>	Bacterial
96	<i>Leclercia adecarboxylata</i>	Bacterial
97	<i>Legionella anisa</i>	Bacterial
98	<i>Legionella feeleii</i>	Bacterial
99	<i>Legionella longbeachae</i>	Bacterial
100	<i>Legionella maceachernii</i>	Bacterial
101	<i>Legionella pneumophila</i>	Bacterial
102	<i>Legionella wadsworthii</i>	Bacterial
103	<i>Leptospira interrogans</i>	Bacterial
104	<i>Leptotrichia buccalis</i>	Bacterial
105	<i>Listeria monocytogenes</i>	Bacterial
106	<i>Moraxella catarrhalis</i>	Bacterial
107	<i>Moraxella osloensis</i>	Bacterial
108	<i>Morganella morganii</i>	Bacterial
109	<i>Mycobacterium avium complex</i>	Bacterial
110	<i>Mycobacterium fortuitum (Mycolicibacterium fortuitum)</i>	Bacterial
111	<i>Mycobacterium gordonae</i>	Bacterial
112	<i>Mycobacterium kansasii</i>	Bacterial
113	<i>Mycobacterium malmoense</i>	Bacterial
114	<i>Mycobacterium scrofulaceum</i>	Bacterial
115	<i>Mycobacterium simiae complex</i>	Bacterial
116	<i>Mycobacterium szulgai</i>	Bacterial
117	<i>Mycobacterium tuberculosis complex</i>	Bacterial
118	<i>Mycobacterium xenopi</i>	Bacterial
119	<i>Mycobacteroides abscessus (Mycobacterium abscessus)</i>	Bacterial
120	<i>Mycobacteroides chelonae (Mycobacterium chelonae)</i>	Bacterial

	Reporting Name	Class
121	<i>Mycobacteroides immunogenum (Mycobacterium immunogenum)</i>	Bacterial
122	<i>Mycoplasma pneumoniae</i>	Bacterial
123	<i>Neisseria flavescens</i>	Bacterial
124	<i>Neisseria lactamica</i>	Bacterial
125	<i>Neisseria meningitidis</i>	Bacterial
126	<i>Neisseria mucosa</i>	Bacterial
127	<i>Nocardia abscessus</i>	Bacterial
128	<i>Nocardia arthritis</i>	Bacterial
129	<i>Nocardia beijingensis</i>	Bacterial
130	<i>Nocardia brasiliensis</i>	Bacterial
131	<i>Nocardia cyriacigeorgica</i>	Bacterial
132	<i>Nocardia farcinica</i>	Bacterial
133	<i>Nocardia nova</i>	Bacterial
134	<i>Nocardia otitidiscaviarum</i>	Bacterial
135	<i>Nocardia transvalensis</i>	Bacterial
136	<i>Nocardia veterana</i>	Bacterial
137	<i>Ochrobactrum anthropi</i>	Bacterial
138	<i>Orientia tsutsugamushi</i>	Bacterial
139	<i>Pandoraea pulmonicola</i>	Bacterial
140	<i>Pantoea agglomerans</i>	Bacterial
141	<i>Parvimonas micra</i>	Bacterial
142	<i>Pasteurella multocida</i>	Bacterial
143	<i>Pediococcus acidilactici</i>	Bacterial
144	<i>Peptostreptococcus anaerobius</i>	Bacterial
145	<i>Prevotella buccae</i>	Bacterial
146	<i>Prevotella intermedia</i>	Bacterial
147	<i>Prevotella melaninogenica</i>	Bacterial
148	<i>Prevotella pleuritidis</i>	Bacterial
149	<i>Proteus mirabilis</i>	Bacterial
150	<i>Proteus penneri</i>	Bacterial
151	<i>Proteus vulgaris</i>	Bacterial
152	<i>Providencia stuartii</i>	Bacterial
153	<i>Pseudomonas aeruginosa</i>	Bacterial
154	<i>Pseudomonas fluorescens</i>	Bacterial
155	<i>Pseudomonas stutzeri</i>	Bacterial
156	<i>Ralstonia pickettii</i>	Bacterial
157	<i>Raoultella ornithinolytica</i>	Bacterial
158	<i>Raoultella planticola</i>	Bacterial
159	<i>Rhodococcus hoagii (Rhodococcus equi)</i>	Bacterial
160	<i>Rickettsia rickettsii</i>	Bacterial
161	<i>Rothia mucilaginosa</i>	Bacterial
162	<i>Salmonella enterica</i>	Bacterial

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163	<i>Serratia marcescens</i>	Bacterial
164	<i>Shewanella putrefaciens</i>	Bacterial
165	<i>Slackia exigua</i>	Bacterial
166	<i>Sphingomonas paucimobilis</i>	Bacterial
167	<i>Staphylococcus aureus</i>	Bacterial
168	<i>Stenotrophomonas maltophilia</i>	Bacterial
169	<i>Streptococcus agalactiae</i>	Bacterial
170	<i>Streptococcus anginosus</i>	Bacterial
171	<i>Streptococcus constellatus</i>	Bacterial
172	<i>Streptococcus dysgalactiae</i>	Bacterial
173	<i>Streptococcus intermedius</i>	Bacterial
174	<i>Streptococcus mitis</i>	Bacterial
175	<i>Streptococcus pneumoniae</i>	Bacterial

	Reporting Name	Class
176	<i>Streptococcus pyogenes</i>	Bacterial
177	<i>Tatlockia micdadei (Legionella micdadei)</i>	Bacterial
178	<i>Treponema denticola</i>	Bacterial
179	<i>Tropheryma whipplei</i>	Bacterial
180	<i>Tsukamurella pulmonis</i>	Bacterial
181	<i>Tsukamurella tyrosinosolvens</i>	Bacterial
182	<i>Ureaplasma parvum</i>	Bacterial
183	<i>Ureaplasma urealyticum</i>	Bacterial
184	<i>Veillonella parvula</i>	Bacterial
185	<i>Williamsia muralis</i>	Bacterial
186	<i>Yersinia enterocolitica</i>	Bacterial
187	<i>Yersinia pestis</i>	Bacterial

	Reporting Name	Class
1	<i>Alternaria alternata</i>	Fungal
2	<i>Alternaria infectoria</i>	Fungal
3	<i>Apophysomyces elegans</i>	Fungal
4	<i>Aspergillus flavus</i>	Fungal
5	<i>Aspergillus fumigatus</i>	Fungal
6	<i>Aspergillus nidulans</i>	Fungal
7	<i>Aspergillus niger</i>	Fungal
8	<i>Aspergillus terreus</i>	Fungal
9	<i>Aspergillus versicolor</i>	Fungal
10	<i>Blastomyces dermatitidis</i>	Fungal
11	<i>Byssoschlamyia spectabilis (Paecilomyces variotii)</i>	Fungal
12	<i>Candida auris (Clavispora auris)</i>	Fungal
13	<i>Cladophialophora bantiana</i>	Fungal
14	<i>Coccidioides immitis</i>	Fungal
15	<i>Coccidioides posadasii</i>	Fungal
16	<i>Cryptococcus gattii</i>	Fungal
17	<i>Cryptococcus neoformans</i>	Fungal
18	<i>Cunninghamella bertholletiae</i>	Fungal
19	<i>Curvularia geniculata</i>	Fungal
20	<i>Curvularia lunata</i>	Fungal
21	<i>Exophiala dermatitidis</i>	Fungal
22	<i>Fusarium oxysporum</i>	Fungal
23	<i>Fusarium proliferatum</i>	Fungal
24	<i>Fusarium solani</i>	Fungal
25	<i>Fusarium verticillioides</i>	Fungal
26	<i>Histoplasma capsulatum</i>	Fungal
27	<i>Lichtheimia corymbifera</i>	Fungal

	Reporting Name	Class
28	<i>Lichtheimia ramosa</i>	Fungal
29	<i>Lomentospora prolificans (Scedosporium prolificans)</i>	Fungal
30	<i>Microascus cinereus (Scopulariopsis cinereus)</i>	Fungal
31	<i>Microascus cirrosus (Scopulariopsis paisii)</i>	Fungal
32	<i>Microascus paisii (Scopulariopsis brumptii)</i>	Fungal
33	<i>Mucor circinelloides</i>	Fungal
34	<i>Mucor indicus</i>	Fungal
35	<i>Mucor racemosus</i>	Fungal
36	<i>Paracoccidioides brasiliensis</i>	Fungal
37	<i>Pneumocystis jirovecii</i>	Fungal
38	<i>Purpureocillium lilacinum (Paecilomyces lilacinus)</i>	Fungal
39	<i>Rasamsonia aegroticola</i>	Fungal
40	<i>Rasamsonia argillacea</i>	Fungal
41	<i>Rhizomucor pusillus</i>	Fungal
42	<i>Rhizopus azygosporus</i>	Fungal
43	<i>Rhizopus microsporus</i>	Fungal
44	<i>Rhizopus oryzae (Rhizopus arrhizus)</i>	Fungal
45	<i>Saksenaea vasiformis</i>	Fungal
46	<i>Sarocladium kiliense</i>	Fungal
47	<i>Scedosporium apiospermum</i>	Fungal
48	<i>Schizophyllum commune</i>	Fungal
49	<i>Scopulariopsis brevicaulis</i>	Fungal
50	<i>Sporothrix schenckii</i>	Fungal
51	<i>Syncephalastrum racemosum</i>	Fungal
52	<i>Talaromyces marneffeii</i>	Fungal
53	<i>Trichosporon asahii</i>	Fungal

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	Reporting Name	Class
1	Coxsackievirus A	Viral
2	Coxsackievirus B	Viral
3	Cytomegalovirus (CMV)	Viral
4	Enterovirus A71	Viral
5	Enterovirus D68	Viral
6	Epstein-Barr virus (EBV)	Viral
7	Herpes simplex virus 1 (HSV-1)	Viral
8	Human adenovirus B	Viral
9	Human adenovirus C	Viral
10	Human adenovirus E	Viral
11	Human bocavirus 1	Viral
12	Human coronavirus 229E	Viral
13	Human coronavirus HKU1	Viral
14	Human coronavirus NL63	Viral
15	Human coronavirus OC43	Viral
16	Human herpesvirus 6 (HHV-6)	Viral
17	Human metapneumovirus	Viral
18	Human parainfluenza virus 1	Viral
19	Human parainfluenza virus 2	Viral
20	Human parainfluenza virus 3	Viral
21	Human parainfluenza virus 4	Viral

	Reporting Name	Class
22	Human parechovirus	Viral
23	Human rhinovirus A	Viral
24	Human rhinovirus B	Viral
25	Human rhinovirus C	Viral
26	Influenza A virus (H1N1)	Viral
27	Influenza A virus (H3N2)	Viral
28	Influenza A virus (H5N1)	Viral
29	Influenza A virus (H7N9)	Viral
30	Influenza A virus (H9N2)	Viral
31	Influenza B virus	Viral
32	Influenza C virus	Viral
33	Measles virus	Viral
34	MERS coronavirus (MERS-CoV)	Viral
35	Mumps virus	Viral
36	Parvovirus B19	Viral
37	Respiratory syncytial virus A	Viral
38	Respiratory syncytial virus B	Viral
39	Rubella virus	Viral
40	SARS coronavirus	Viral
41	SARS-CoV-2 (2019-nCoV)	Viral
42	Varicella-zoster virus (VZV)	Viral

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	AMR Gene Family	Number of Alleles	Variant Calling	TB-specific	Influenza A-specific
1	16S RMTase	8			
2	AAC(2')	5			
3	AAC(3)	6			
4	AAC(6')	5			
5	ABC-F	12			
6	ANT(3'')	29			
7	ANT(4')	4			
8	ANT(6)	5			
9	ANT(9)	2			
10	APH(2'')	3			
11	APH(3')	1			
12	APH(4)	2			
13	blaACC	5			
14	blaADC	1			
15	blaAIM	1			
16	blaBIC	1			
17	blaCARB	16			
18	blaCGB	1			
19	blaCMY	104			
20	blaCphA	1			
21	blaCTX-M	125			
22	blaDHA	18			
23	blaGES	11			
24	blaGIM	1			
25	blaGOB	1			
26	blaIMI	1			
27	blaIMP	44			
28	blaIND	1			
29	blaKHM	1			
30	blaKPC	19			
31	blaNDM	27			
32	blaNmcA	2			
33	blaOXA	313			
34	blaSCO	1			
35	blaSHV	67			
36	blaSME	1			
37	blaSPM	1			
38	blaTEM	114			
39	blaVIM	38			
40	blaZ	1			

	AMR Gene Family	Number of Alleles	Variant Calling	TB-specific	Influenza A-specific
41	Cfr	3			
42	CrpP	1			
43	Dfr	33			
44	Ere	3			
45	Erm	30			
46	LNU	10			
47	MCR	15			
48	mec	3			
49	MPH	7			
50	parC	1	YES		
51	PBP	3	YES		
52	Qnr	94			
53	Sul	3			
54	Tet	10			
55	Van	7			
56	eis	1	YES	YES	
57	embA	1	YES	YES	
58	embB	1	YES	YES	
59	embC	1	YES	YES	
60	embR	1	YES	YES	
61	ethA	1	YES	YES	
62	fabG1 (mabA)	1	YES	YES	
63	folC	1	YES	YES	
64	gidB	1	YES	YES	
65	gyrA	1	YES	YES	
66	gyrB	1	YES	YES	
67	inhA	1	YES	YES	
68	kasA	1	YES	YES	
69	katG	1	YES	YES	
70	ndh	1	YES	YES	
71	pncA	1	YES	YES	
72	ribD	1	YES	YES	
73	rpoB	1	YES	YES	
74	rpsA	1	YES	YES	
75	rpsL	1	YES	YES	
76	rrs	1	YES	YES	
77	thyA	1	YES	YES	
78	tlyA	1	YES	YES	
79	NA	1	YES		YES
80	PA	1	YES		YES

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