

Report MQ 2023/3 Microbiology: Molecular diagnostics

Summary

Sample	Results	Good	% Good
B11 Chlamydia trachomatis/Neisseria gonorrhoe	91	91	100.00
B12 Staphylococcus aureus, MRSA	33	33	100.00
B13 Clostridium difficile	32	32	100.00
B14 Streptococcus Gruppe B	39	39	100.00
B15 Norovirus	66	66	100.00
B16 Influenzavirus/RSV	199	199	100.00
B17 Mycobacterium tuberculosis	19	19	100.00
B25 Carba-R	46	46	100.00
B26 Enterovirus	5	5	100.00
B29 VanA/VanB	9	9	100.00
B31 SARS-CoV-2	84	81	96.43
B36 SARS-CoV2+Flu+RSV	161	158	98.14
B18 Gastrointestinall Panel NAT	839	834	99.40
B19 Respiratory Panel NAT	885	879	99.32
B23 Meningitis Panel NAT	423	418	98.82
Total	2931	2909	99.25

B11 Chlamydia trachomatis/Neisseria gonorrhoeae

Chlamydia trachomatis (CT)	Target Value	negative	positive	% Conform
Genexpert	positive	0	31	100.00
Other methods	positive	0	15	100.00
Total		0	46	100.00

Neisseria gonorrhoeae (NG)	Target Value	negative	positive	% Conform
Genexpert	negative	30	0	100.00
Other methods	negative	15	0	100.00
Total		45	0	100.00

B12 Staphylococcus aureus, MRSA

Staphylococcus aureus (SA)	Target Value	negative	positive	% Conform
Genexpert	positive	0	2	100.00

MRSA	Target Value	negative	positive	% Conform
Genexpert	negative	31	0	100.00

B13 Clostridium difficile

	Target Value	negative	positive	% Conform
Genexpert	positive	0	28	100.00
Other methods	positive	0	4	100.00
Total		0	32	100.00

B14 Streptococcus Gruppe B

	Target Value	negative	positive	% Conform
Genexpert	positive	0	39	100.00

B15 Norovirus

	Target Value	negative	positive	% Conform
Genexpert	positive	0	66	100.00

B16 Influenzavirus/RSV

Influenza A	Target Value	negative	positive	% Conform
Genexpert	negative	54	0	100.00
Abbott ID NOW	negative	4	0	100.00
cobas Liat	negative	6	0	100.00
Other methods	negative	5	0	100.00
Total		69	0	100.00

Influenza B	Target Value	negative	positive	% Conform
Genexpert	negative	55	0	100.00
Abbott ID NOW	negative	4	0	100.00
cobas Liat	negative	6	0	100.00
Other methods	negative	4	0	100.00
Total		69	0	100.00

RSV	Target Value	negative	positive	% Conform
Genexpert	not rateable	9	44	100.00
cobas Liat	positive	0	5	100.00
Other methods	not rateable	1	2	100.00
Total		10	51	100.00

Commentary B16

The sample contained RSV. However, the ct values were close to the decision limit, so we did not evaluate the sample for the determination of the RSV.

B17 Mycobacterium tuberculosis

	Target Value	negative	positive	% Conform
Genexpert	negative	19	0	100.00

B25 Carba-R

Carba R (all)	Target Value	negative	positive	% Conform
GeneXpert alt	positive	0	1	100.00

Carba-R (IMP1)	Target Value	negative	positive	% Conform
Genexpert	negative	9	0	100.00

Carba-R (VIM)	Target Value	negative	positive	% Conform
Genexpert	negative	9	0	100.00

Carba-R (NDM)	Target Value	negative	positive	% Conform
Genexpert	negative	9	0	100.00

Carba-R (KPC)	Target Value	negative	positive	% Conform
Genexpert	negative	9	0	100.00

Carba-R (OXA48)	Target Value	negative	positive	% Conform
Genexpert	positive	0	9	100.00

B26 Enterovirus

	Target Value	negative	positive	% Conform
Genexpert	positive	0	5	100.00

B29 VanA/VanB

	Target Value	negative	positive	% Conform
Genexpert	positive	0	9	100.00

B31 SARS-CoV-2

	Target Value	negative	positive	% Conform
Genexpert	positive	0	52	100.00
BD MAX	positive	1	3	75.00
MDX liaison DiaSorin	positive	0	10	100.00
cobas Liat	positive	0	6	100.00
Other methods	positive	2	10	83.33
Total		3	81	96.43

B36 SARS-CoV2+Flu+RSV

SARS CoV-2	Target Value	negative	positive	% Conform
Genexpert	positive	0	30	100.00
Other methods	positive	2	13	86.67
Total		2	43	95.56

Influenza A	Target Value	negative	positive	% Conform
Genexpert	negative	27	0	100.00
Other methods	negative	14	0	100.00
Total		41	0	100.00

Influenza B	Target Value	negative	positive	% Conform
Genexpert	negative	26	0	100.00
Other methods	negative	13	0	100.00
Total		39	0	100.00

RSV	Target Value	negative	positive	% Conform
Genexpert	negative	26	0	100.00
Other methods	negative	9	1	90.00
Total		35	1	97.22

B18 Gastrointestinal Panel NAT

Campylobacter	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	31	0	100.00
QIAstat-DX	negative	8	0	100.00
BD MAX	negative	3	0	100.00
MDX liaison DiaSorin	negative	1	0	100.00
Total		43	0	100.00

Clostridium difficile	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	30	0	100.00
QIAstat-DX	negative	8	0	100.00
Total		38	0	100.00

Plesiomonas shigelloides	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	29	0	100.00
QIAstat-DX	negative	7	0	100.00
BD MAX	negative	2	0	100.00
Total		38	0	100.00

Salmonella	Target Value	negative	positive	% Conform
Biofire/Filmarray	positive	0	31	100.00
QIAstat-DX	positive	0	8	100.00
BD MAX	positive	0	3	100.00
MDX liaison DiaSorin	negative	1	0	100.00
Total		1	42	100.00

Vibrio	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	29	0	100.00
BD MAX	negative	2	0	100.00
Total		31	0	100.00

Vibrio cholerae	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	28	0	100.00
QIAstat-DX	negative	7	0	100.00
Total		35	0	100.00

Yersinia enterocolitica	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	30	0	100.00
QIAstat-DX	negative	8	0	100.00
BD MAX	negative	2	0	100.00
Total		40	0	100.00

E. coli (EAEC)	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	30	0	100.00
QIAstat-DX	negative	7	0	100.00
Total		37	0	100.00

E. coli (EPEC)	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	29	0	100.00
QIAstat-DX	negative	6	0	100.00
Total		35	0	100.00

E. coli (ETEC)	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	31	0	100.00
QIAstat-DX	negative	7	0	100.00
BD MAX	negative	2	0	100.00
Total		40	0	100.00

E. coli (STEC)	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	32	0	100.00
QIAstat-DX	negative	8	0	100.00
BD MAX	negative	3	0	100.00
Total		43	0	100.00

E. coli O157	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	26	0	100.00
QIAstat-DX	negative	6	0	100.00
Total		32	0	100.00

E. coli (EIEC) / Shigella	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	32	0	100.00
QIAstat-DX	negative	8	0	100.00
BD MAX	negative	3	0	100.00
MDX liaison DiaSorin	negative	1	0	100.00
Total		44	0	100.00

Cryptosporidium	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	30	0	100.00
QIAstat-DX	negative	7	0	100.00
Total		37	0	100.00

Cyclospora cayetanensis	Target Value	negative	positive	% Conform
Biofire/Filmarray	positive	0	28	100.00
QIAstat-DX	negative	8	0	100.00
Total		8	28	100.00

Entamoeba histolytica	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	30	0	100.00
QIAstat-DX	negative	7	0	100.00
Total		37	0	100.00

Giardia lamblia	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	30	0	100.00
QIAstat-DX	negative	7	0	100.00
Total		37	0	100.00

Adenovirus F40/41	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	29	0	100.00
QIAstat-DX	negative	7	0	100.00
Total		36	0	100.00

Astrovirus	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	29	0	100.00
QIAstat-DX	negative	7	0	100.00
Total		36	0	100.00

Norovirus GI/GII	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	29	0	100.00
QIAstat-DX	negative	8	0	100.00
Total		37	0	100.00

Rotavirus A	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	29	0	100.00
QIAstat-DX	negative	8	0	100.00
Total		37	0	100.00

Sapovirus	Target Value	negative	positive	% Conform
Biofire/Filmarray	positive	0	29	100.00
QIAstat-DX	positive	5	2	28.57
Total		5	31	86.11

Vibrio parahaemolyticus	Target Value	negative	positive	% Conform
QIAstat-DX	negative	5	0	100.00

Vibrio vulnificus	Target Value	negative	positive	% Conform
QIAstat-DX	negative	6	0	100.00

B19 Respiratory Panel NAT

Adenovirus	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	36	0	100.00
QIAstat-DX	negative	9	0	100.00
Total		45	0	100.00

Bocavirus	Target Value	negative	positive	% Conform
QIAstat-DX	negative	8	0	100.00

Coronavirus 229E	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	35	0	100.00
QIAstat-DX	negative	9	0	100.00
Total		44	0	100.00

Coronavirus HKU1	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	34	0	100.00
QIAstat-DX	negative	9	0	100.00
Total		43	0	100.00

Coronavirus NL63	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	36	0	100.00
QIAstat-DX	negative	9	0	100.00
Total		45	0	100.00

Coronavirus OC43	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	35	0	100.00
QIAstat-DX	negative	9	0	100.00
Total		44	0	100.00

MERS-CoV	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	34	0	100.00

SARS-Cov-2	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	34	0	100.00
QIAstat-DX	negative	9	0	100.00
Total		43	0	100.00

Metapneumovirus	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	35	1	97.22
QIAstat-DX	negative	9	0	100.00
Total		44	1	97.78

Rhinovirus/Enterovirus	Target Value	negative	positive	% Conform
Biofire/Filmarray	positive	1	35	97.22
QIAstat-DX	positive	0	9	100.00
Total		1	44	97.78

Influenza A	Target Value	negative	positive	% Conform
Biofire/Filmarray	positive	2	34	94.44
QIAstat-DX	positive	0	9	100.00
Total		2	43	95.56

Influenza B	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	36	0	100.00
QIAstat-DX	negative	9	0	100.00
Total		45	0	100.00

Parainfluenza Virus 1	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	35	0	100.00
QIAstat-DX	negative	9	0	100.00
Total		44	0	100.00

Parainfluenza Virus 2	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	35	0	100.00
QIAstat-DX	negative	9	0	100.00
Total		44	0	100.00

Parainfluenza Virus 3	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	34	0	100.00
QIAstat-DX	negative	9	0	100.00
Total		43	0	100.00

Parainfluenza Virus 4	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	35	0	100.00
QIAstat-DX	negative	9	0	100.00
Total		44	0	100.00

Respiratory Syncytial Virus	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	36	0	100.00
QIAstat-DX	negative	9	0	100.00
Total		45	0	100.00

Bordetella parapertussis	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	36	0	100.00

Bordetella pertussis	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	34	0	100.00
QIAstat-DX	negative	9	0	100.00
MDX liaison DiaSorin	negative	1	0	100.00
Total		44	0	100.00

Legionella pneumophilia	Target Value	negative	positive	% Conform
Other methods	negative	1	0	100.00
QIAstat-DX	negative	7	0	100.00
Total		8	0	100.00

Chlamydomphila pneumoniae	Target Value	negative	positive	% Conform
Biofire/Filmarray	positive	2	35	94.59
MDX liaison DiaSorin	positive	0	1	100.00
Total		2	36	94.74

Mycoplasma pneumoniae	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	36	0	100.00
QIAstat-DX	negative	10	0	100.00
MDX liaison DiaSorin	negative	1	0	100.00
Total		47	0	100.00

Parainfluenza	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	1	0	100.00

Chlamydomphila pneumoniae	Target Value	negative	positive	% Conform
QIAstat-DX	positive	0	5	100.00

B23 Meningitis Panel NAT

Escherichia coli K1	Target Value	negative	positive	% Conform
QIAstat-DX	negative	3	0	100.00
Biofire/Filmarray	negative	25	0	100.00
Total		28	0	100.00

Haemophilus influenzae	Target Value	negative	positive	% Conform
QIAstat-DX	positive	0	3	100.00
Biofire/Filmarray	positive	3	22	88.00
Total		3	25	89.29

Listeria monocytogenes	Target Value	negative	positive	% Conform
QIAstat-DX	negative	3	0	100.00
Biofire/Filmarray	negative	25	0	100.00
Total		28	0	100.00

Neisseria meningitidis	Target Value	negative	positive	% Conform
QIAstat-DX	negative	3	0	100.00
Biofire/Filmarray	negative	25	0	100.00
Total		28	0	100.00

Streptococcus agalactiae	Target Value	negative	positive	% Conform
QIAstat-DX	negative	3	0	100.00
Biofire/Filmarray	negative	25	0	100.00
Total		28	0	100.00

Streptococcus pneumoniae	Target Value	negative	positive	% Conform
QIAstat-DX	negative	3	0	100.00
Biofire/Filmarray	negative	25	0	100.00
Total		28	0	100.00

Zytomegalievirus	Target Value	negative	positive	% Conform
Biofire/Filmarray	negative	27	0	100.00

Enterovirus	Target Value	negative	positive	% Conform
QIAstat-DX	negative	4	0	100.00
Biofire/Filmarray	negative	26	0	100.00
Total		30	0	100.00

Herpes-simplex-Virus 1	Target Value	negative	positive	% Conform
QIAstat-DX	negative	4	0	100.00
Biofire/Filmarray	negative	28	0	100.00
MDX liaison DiaSorin	negative	5	0	100.00
other methods NAT	negative	1	0	100.00
Total		38	0	100.00

Herpes-simplex-Virus 2	Target Value	negative	positive	% Conform
QIAstat-DX	negative	4	0	100.00
Biofire/Filmarray	negative	28	0	100.00
MDX liaison DiaSorin	negative	5	0	100.00
other methods NAT	negative	1	0	100.00
Total		38	0	100.00

Herpesvirus 6	Target Value	negative	positive	% Conform
QIAstat-DX	negative	4	0	100.00
Biofire/Filmarray	negative	25	0	100.00
Total		29	0	100.00

Parechovirus	Target Value	negative	positive	% Conform
QIAstat-DX	negative	3	0	100.00
Biofire/Filmarray	negative	25	0	100.00
Total		28	0	100.00

Varizella-Zoster-Virus	Target Value	negative	positive	% Conform
QIAstat-DX	positive	0	4	100.00
Biofire/Filmarray	positive	1	26	96.30
MDX liaison DiaSorin	positive	0	4	100.00
other methods NAT	positive	0	2	100.00
Total		1	36	97.30

Cryptococcus neoformans/gattii	Target Value	negative	positive	% Conform
QIAstat-DX	positive	0	3	100.00
Biofire/Filmarray	positive	1	21	95.45
Total		1	24	96.00

Streptococcus pyogenes	Target Value	negative	positive	% Conform
QIAstat-DX	negative	2	0	100.00

Mycoplasma pneumoniae	Target Value	negative	positive	% Conform
QIAstat-DX	negative	1	0	100.00