



# ASSAY OPTIONS

## INFLUENZA, COVID-19 & RSV

Does Not Include Antibiotic Resistance Genes

COVID-19 Coronavirus (SARS-CoV-2)      Influenza virus A, B      Respiratory syncytial virus

**SAMPLE TYPE:** Nasopharynx Swab, Cough Sputum Swab, Throat Swab

## VIRAL RESPIRATORY INFECTION

Does Not Include Antibiotic Resistance Genes

Adenovirus HAdV-B      Enterovirus (pan)      Influenza virus A, B      Rhinovirus A, C  
Coronavirus (229E, NL63, OC43, and HKU1)      Enterovirus D68      Parainfluenza virus (types 1, 2,3, 4)  
COVID-19 Coronavirus (SARS-CoV-2)      Human metapneumovirus      Respiratory syncytial virus

**SAMPLE TYPE:** Nasopharynx Swab, Cough Sputum Swab, Throat Swab

## RESPIRATORY TRACT INFECTION PLUS INCLUDING COVID-19

Antibiotic Resistance Genes Below

Acinetobacter baumannii      Enterobacter aerogenes, cloacae      Parainfluenza virus      Streptococcus pyogenes<sup>2</sup>  
Adenovirus HAdV-B      Enterovirus (pan)      (types 1, 2, 3, 4)  
Aspergillus flavus, fumigatus,      Enterovirus D68      Proteus mirabilis, vulgaris  
niger, terreus      Escherichia coli      Pseudomonas aeruginosa  
Bordetella pertussis,      Haemophilus influenzae      Respiratory syncytial virus  
parapertussis, bronchiseptica      Human metapneumovirus      Rhinovirus A, C  
Candida albicans, glabrata,      Influenza virus A, B      Rhizopus spp., Mucor spp.  
parapsilosis, tropicalis      Klebsiella pneumoniae, oxytoca      Serratia marcescens  
Chlamydia pneumoniae      Legionella pneumophila      Staphylococcus aureus  
Coronavirus (229E, NL63, OC43, and HKU1)      Moraxella catarrhalis      Streptococcus agalactiae<sup>1</sup>  
COVID-19 Coronavirus (SARS-CoV-2)      Mycoplasma pneumoniae      Streptococcus pneumoniae

**SAMPLE TYPE:** Nasopharynx Swab, Cough Sputum Swab, Throat Swab

## GROUP B STREP

Does Not Include Antibiotic Resistance Genes

Streptococcus agalactiae<sup>3</sup>

**SAMPLE TYPE:** Vaginal Swab, Anorectal Swab

## STI-VAGINITIS

Antibiotic Resistance Genes Below

Atopobium vaginae      Enterococcus faecalis, faecium      Neisseria gonorrhoeae      **Add-on Only**  
Bacteroides fragilis      Escherichia coli      Staphylococcus aureus      Candida albicans, glabrata.  
BVAB 2, 3 (bacterial vaginosis associated      Gardnerella vaginalis      Streptococcus agalactiae<sup>3</sup>      parapsilosis, tropicalis  
bacteria 2, 3); Mobiluncus spp.      Herpes simplex virus 1, 2'      Trichomonas vaginalis      Candida auris  
Chlamydia trachomatis      Mycoplasma genitalium, hominis      Ureaplasma urealyticum. parvum      High Risk HPV types 16, 39, 26, 18, 51, 53,  
31, 52, 66, 33, 58, 73, 35, 59, 82, 45, 56, 68,  
67, 69, 70

**SAMPLE TYPE:** Urine Swab, Vaginal Swab, Genital Region Ulcer Swab, Prostatic Fluid, Pelvic Abscess Material, Endocervical Brushing, Penile Swab, Endometrial Sampling, Urethral Swab, Anorectal Swab, Cervical Brushing

## VAGINITIS

Antibiotic Resistance Genes Below

Atopobium vaginae      Escherichia coli      Ureaplasma urealyticum, parvum      Candida auris  
Bacteroides fragilis      Mycoplasma genitalium, hominis      **Add-on Only**      High Risk HPV types 16, 39, 26, 18, 51, 53,  
BVAB 2,3 (bacterial vaginosis associated      Staphylococcus aureus      Candida albicans, glabrata, parapsilosis,      31, 52,66, 33, 58, 73, 35, 59, 82, 45, 56, 68,  
bacteria 2,3); Mobiluncus spp.      Streptococcus agalactiae<sup>3</sup>      tropicalis      67, 69, 70  
Enterococcus faecalis, faecium      Trichomonas vaginalis

**SAMPLE TYPE:** Vaginal Swab



# ASSAY OPTIONS

## SEXUALLY TRANSMITTED INFECTION

Atopobium vaginae  
Chlamydia trachomatis  
Gardnerella vaginalis

Herpes simplex virus 1, 2'  
Mycoplasma genitalium, hominis  
Neisseria gonorrhoeae

Trichomonas vaginalis  
Ureaplasma urealyticum. parvum

### Antibiotic Resistance Genes Below

**Add-on Only**  
High Risk HPV types 16, 39, 26, 18, 51, 53, 31, 52, 66, 33, 58, 73, 35, 59, 82,45, 56, 68, 67, 69, 70

**SAMPLE TYPE:** Urine Swab, Vaginal Swab, Genital Region Ulcer Swab, Prostatic Fluid, Pelvic Abscess Material, Endocervical Brushing, Penile Swab, Endometrial Sampling, Urethral Swab, Anorectal Swab, Cervical Brushing

## GENITO/STI

Acinetobacter baumannii  
Actinomyces israelii  
Atopobium vaginae  
Bacteroides fragilis  
BVAB 2, 3 (bacterial vaginosis associated bacteria 2,3); Mobiluncus spp.  
Candida albicans, glabrata, parapsilosis, tropicalis  
Chlamydia trachomatis  
Citrobacter freundii  
Enterobacter aerogenes, cloacae

Enterococcus faecalis, faecium  
Escherichia coli  
Gardnerella vaginalis  
Haemophilus ducreyi  
Herpes simplex virus 1, 2'  
Klebsiella (Calymmatobacterium) granulomatis  
Klebsiella pneumoniae, oxytoca  
Megasphaera (Types 1, 2)  
Morganella morganii  
Mycoplasma genitalium, hominis

Neisseria gonorrhoeae  
Peptostreptococcus anaerobius, asaccharolyticus, magnus, prevotii  
Proteus mirabilis, vulgaris  
Pseudomonas aeruginosa  
Serratia marcescens  
Staphylococcus aureus  
Staphylococcus spp.<sup>2</sup>  
Streptococcus agalactiae<sup>3</sup>  
Streptococcus pyogenes<sup>4</sup>  
Treponema pallidum<sup>5</sup>

### Antibiotic Resistance Genes Below

Trichomonas vaginalis  
Ureaplasma urealyticum, parvum  
**Add-on Only**  
Candida auris  
High Risk HPV types 16, 39, 26, 18, 51, 53, 31, 52, 66, 33, 58, 73, 35, 59,82,45, 56, 68, 67,69, 70

**SAMPLE TYPE:** Urine Swab, Prostatic Fluid, Penile Swab, Anorectal Swab, Vaginal Swab, Pelvic Abscess Material, Endometrial Sampling, Cervical Brushing, Genital Region Ulcer Swab, Endocervical Brushing, Urethral Swab

## OPHTHALMOLOGY INFECTION

Acanthamoeba castellanii, polyphaga;  
Vermamoeba (Hartmannella) vermiformis  
Acinetobacter baumannii  
Adenovirus  
Aiternaria spp., Curvularia lunata,  
Pénicillium spp.  
Aspergillus flavus, fumigatus, niger, terreus  
Bacillus cereus, thuringiensis  
Candida albicans, glabrata, parapsilosis, tropicalis  
Chlamydia trachomatis  
Citrobacter freundii  
Corynebacterium jeikeium, striatum, tuberculostearicum

Cutibacterium (Propionibacterium) acnes  
Cytomegalovirus<sup>4</sup>  
Demodex folliculorum  
Enterobacter aerogenes, cloacae  
Enterococcus faecalis, faecium  
Enterovirus (pan)  
Epstein-Barr virus<sup>5</sup>  
Escherichia coli  
Fusarium oxysporum, solani  
Fusobacterium nucleatum, necrophorum  
Haemophilus influenzae  
Herpes simplex virus 1, 2<sup>6</sup>  
Klebsiella pneumoniae, oxytoca

Microsporidia (Encephalitozoon helium cuniculi, Nosema (Vittaforma) ocularum)  
Moraxella catarrhalis  
Morganella morganii  
Mycobacterium spp.  
Neisseria gonorrhoeae  
Peptostreptococcus anaerobius, asaccharolyticus, magnus, prevotii  
Proteus mirabilis, vulgaris  
Pseudomonas aeruginosa  
Rhizopus spp., Mucor spp.  
Staphylococcus aureus  
Staphylococcus spp.<sup>1</sup>

### Antibiotic Resistance Genes Below

Streptococcus agalactiae<sup>2</sup>  
Streptococcus anginosus, constellatus, intermedius<sup>7</sup>  
Streptococcus mitis, sanguis, mutans<sup>8</sup>  
Streptococcus pneumoniae  
Streptococcus pyogenes<sup>3</sup>  
Toxoplasma gondii  
Varicella zoster virus<sup>9</sup>

**SAMPLE TYPE:** Eye Swab, Vitreous Fluid, Lacrimal Fluid

## URINARY TRACT INFECTION

Acinetobacter baumannii  
Candida albicans, glabrata, parapsilosis, tropicalis  
Citrobacter freundii  
Enterobacter aerogenes, cloacae  
Enterococcus faecalis, faecium

Escherichia coli  
Klebsiella pneumoniae, oxytoca  
Morganella morganii  
Mycoplasma genitalium, hominis  
Proteus mirabilis, vulgaris  
Pseudomonas aeruginosa

Serratia marcescens  
Staphylococcus aureus  
Staphylococcus spp.<sup>1</sup>  
Streptococcus agalactiae<sup>2</sup>  
Streptococcus pyogenes<sup>3</sup>  
Trichomonas vaginalis

### Antibiotic Resistance Genes Below

Ureaplasma urealyticum, parvum  
**Add-on Only**  
Candida auris

**SAMPLE TYPE:** Urine Swab, Catheter Swab

## MRSA

Staphylococcus aureus

**SAMPLE TYPE:** Nasopharynx Swab

### Antibiotic Resistance Genes: Meca Only

## ONYCHOMYCOSIS

### Antibiotic Resistance Genes Below

Aspergillus flavus, fumigatus, niger, terreus  
Blastomyces dermatitidis  
Candida albicans, glabrata, parapsilosis, tropicalis  
Epidermophyton floccosum  
Fusarium oxysporum, solani

Malassezia furfur, restricta, sympodialis, globosa  
Microsporum audouinii, canis, gypseum  
Pseudomonas aeruginosa  
Staphylococcus aureus  
Trichophyton mentagraphophytes/

interdigitale, rubrum, soudanense, terrestre, tonsurans, verrucosum, violaceum  
Trichosporon mucoides, asahii

**Add-on Only**  
Candida auris

**SAMPLE TYPE:** Nail Clipping

## NAIL/PARONYCHIA, HAIR

### Antibiotic Resistance Genes Below

### Bacterial/Viral

Bacteroides fragilis, vulgatus  
Enterobacter aerogenes, cloacae  
Enterococcus faecalis, faecium  
Escherichia coli  
Klebsiella pneumoniae, oxytoca  
Peptostreptococcus anaerobius, asaccharolyticus, magnus, prevotii  
Proteus mirabilis, vulgaris

Pseudomonas aeruginosa  
Serratia marcescens  
Staphylococcus aureus  
Staphylococcus spp.<sup>2</sup>  
Streptococcus agalactiae<sup>3</sup>  
Streptococcus pyogenes<sup>4</sup>

### Fungal

Aspergillus flavus, fumigatus, niger, terreus

Blastomyces dermatitidis  
Candida albicans, glabrata, parapsilosis, tropicalis  
Epidermophyton floccosum  
Fusarium oxysporum, solani  
Malassezia furfur, restricta, sympodialis, globosa  
Microsporum audouinii, canis, gypseum  
Trichophyton mentagraphophytes/

interdigitale, rubrum, soudanense, terrestre, tonsurans, verrucosum, violaceum  
Trichosporon mucoides, asahii

**Add-on Only**  
Candida auris

**SAMPLE TYPE:** Nail Clipping, Paronychial Tissue, Hair

## WOUND

### Antibiotic Resistance Genes Below

### Bacterial/Viral

Acinetobacter baumannii  
Bacteroides fragilis, vulgatus  
Burkholderia cepacia, pseudomallei  
Citrobacter freundii  
Clostridium perfringens, novyi, septicum  
Corynebacterium jeikeium, striatum, tuberculostearicum  
Cutibacterium (Propionibacterium) acnes  
Enterobacter aerogenes, cloacae  
Enterococcus faecalis, faecium  
Escherichia coli  
Finegoldia magna  
Haemophilus influenzae

Herpes simplex virus 1, <sup>21</sup>  
Klebsiella pneumoniae, oxytoca  
Mycobacterium abscessus, chelonae, fortuitum  
Mycobacterium avium-intracellulare, kansasii  
Mycobacterium marinum, ulcerans  
Mycoplasma genitalium, hominis  
Peptostreptococcus anaerobius, asaccharolyticus, magnus, prevotii  
Proteus mirabilis, vulgaris  
Pseudomonas aeruginosa  
Salmonella enterica  
Serratia marcescens  
Staphylococcus aureus

Staphylococcus spp.<sup>2</sup>  
Stenotrophomonas maltophilia  
Streptococcus agalactiae<sup>3</sup>  
Streptococcus pneumoniae  
Streptococcus pyogenes<sup>4</sup>  
Varicella zoster virus<sup>5</sup>  
Vibrio cholerae, parahaemolyticus, vulnificus  
**Fungal**  
Aspergillus flavus, fumigatus, niger, terreus  
Blastomyces dermatitidis  
Candida albicans, glabrata, parapsilosis, tropicalis  
Epidermophyton floccosum  
Fusarium oxysporum, solani

Malassezia furfur, restricta, sympodialis, globosa  
Microsporum audouinii, canis, gypseum  
Sporothrix schenckii  
Trichophyton mentagraphophytes/  
interdigitale, rubrum, soudanense, terrestre, tonsurans, verrucosum, violaceum  
Trichosporon mucoides, asahii

**Add-on Only**  
Candida auris

**SAMPLE TYPE:** Wound Swab, Joint Aspiration, Wound Tissue

## Antibiotic Resistance Genes

VanA. VanB<sup>6</sup>  
ermB. C; mef A<sup>7</sup>  
SHV. KPC Groups<sup>8</sup>

dfr (AI. A5), sul (1. 2)<sup>9</sup>  
mecA<sup>10</sup>  
qnrA1. qnrA2. qnrB2<sup>11</sup>

tet B, tet M<sup>12</sup>  
IMP, NDM, VIM Groups<sup>13</sup>  
ACT, MIR. FOX. ACC Groups<sup>14</sup>

OXA-48,-51<sup>15</sup>  
CTX-M1 (15), M2 (2), M9 (9), M8/25 Groups<sup>8</sup>

<sup>1</sup>Group B Strep (GBS)

<sup>2</sup>Group A Strep

<sup>3</sup>Human Herpesvirus 4, EBV

<sup>4</sup>Viridans anginosus group

<sup>5</sup>Viridans group

<sup>6</sup>Vancomycin

<sup>7</sup>Macrolide, Lincosamide,

Streptogramin

<sup>8</sup>Class A beta-lactamase

<sup>9</sup>Trimethoprim/Sulfamethoxazole

<sup>10</sup>Methicillin

<sup>11</sup>Fluoroquinolone

<sup>12</sup>Tetracycline

<sup>13</sup>Class B metallo-beta-lactamase

<sup>14</sup>AmpC beta-lactamase

<sup>15</sup>Class D oxacillinase