





# Respiratory Pathogen Panel

MOLECULAR (DNA) BASED DETECTION

## Respiratory Testing Panels

### BACTERIAL TARGETS

#### Pneumonia Panel

- Chlamydia pneumoniae
- Streptococcus pneumoniae
- Klebsiella pneumoniae
- Haemophilus influenzae
- Legionella pneumophila
- Moraxella Catarrhalis
- Bordetella pertusis (whooping cough)
- Bordetella pan
- Bordetella holmesii
- Staphylococcus aureus
- MRSA

### FUNGAL TARGETS

- Pneumocystis Jirovecii

### VIRAL TARGETS

#### Influenza Panel

- Influenza (A Pan, H1N1, H3N2)
- Influenza B Pan
- Parainfluenza (1, 2, 3, 4)

#### Common Cold Panel

- Adenovirus 1 and 2 Alpha
- Adenovirus 1 and 2 Beta
- Human Bocavirus
- Coronavirus (229E, HKU1, NL63, OC43)
- Enterovirus Pan
- Enterovirus D68
- Human Rhinovirus 1
- Human Rhinovirus 2
- Human Parechovirus

#### Respiratory Syncytial Virus A/B

#### Human Metapneumovirus

#### SARS (Severe Acute Resp Syndrome)

#### MERS (Middle East Resp Syndrome)

- Varicella-zoster Virus
- Epstein-Barr Virus
- Cytomegalovirus
- Human Herpesvirus 6
- Measles
- Mumps

### COVID-19

- SARS-COV-2

Other viral and bacterial tests for respiratory infections are often limited to testing for one specific category of pathogen (bacteria, virus, fungus), where several samples are needed. The process can be difficult and time consuming, which also increases costs. Our RPP can target over 45 different respiratory related pathogens. Additionally, our configured TaqMan® cards or OpenArray™ plates increase target count while decreasing costs per sample.

## Testing Methods Comparison

### Rapid Bacterial

- |               |   |
|---------------|---|
| ✓ Speed       | ✗ Lack specificity                                    |
| ✓ Cost        | ✗ No information on resistance or virulence           |
| ✓ Ease of Use | ✗ Speciation is difficult and potentially confounding |

### Culture & Sensitivity

- |   |   |
|---|---|
| ✓ Sensitivity analysis can provide antibiotic MIC | ✗ Up to 1-2 weeks to isolate individual pathogens from routine normal flora |
| ✓ Allows for quantization of bacterial population | ✗ Highly variable between technologist experience and training              |
|   | ✗ Not all organisms of infectious biofilms will grow in culture             |

### Molecular (DNA) Based Diagnosis

- ✓ Speed
- ✓ Ultra-high Accuracy (>95%)
- ✓ Consistency
- ✓ Precision
- ✓ Ultra-high detection sensitivity (>95%)
- ✓ Ease of use (automated opportunities)
- ✓ Can detect numerous individual entities in a biofilm without loss to culture