

Respiratory Pathogen ID Panel - Multiplex PCR

Acute respiratory tract infections are a leading cause of disease worldwide [3].

Lower respiratory tract infections are estimated to be responsible for 4.4% of all deaths worldwide in people of all ages, with higher rates in the young, old, and immunocompromised [4].

An estimated 55% of antibiotic prescriptions for acute respiratory tract infections are unnecessary, facilitating the development of antibiotic-resistant infections (1).

Each year in the US, 2 million people acquire serious bacterial infections resistant to one or more prescribed antibiotics, and at least 23,000 people die directly from these antibiotic-resistant infections (2).

Athena Esoterix is pleased to announce the addition of the Respiratory Pathogen ID Panel- Multiplex PCR, utilizing nasopharyngeal swab and BAL specimens for a comprehensive set of 22 respiratory pathogens commonly associated with respiratory infections.

Quickly identifying pathogens facilitates appropriate treatment and patient management decisions.

RPIP- PCR

22 Targets in One Test

A comprehensive panel of 22 respiratory viral and bacterial pathogens. With its innovative PCR technology, the RPIP- PCR panel identifies the most common viral and bacterial pathogens that cause respiratory infections with an overall 97.1% sensitivity and 99.3% specificity (prospective specimens)

Impact on Clinical Workflow

- Distinguishes specifically between viral and bacterial infections
- quickly and accurately Allows for informed diagnosis and therapy
- Facilitates appropriate utilization of antibiotics

Viral Targets

- Adenovirus
- Coronavirus HKU1
- Coronavirus NL63
- Coronavirus 229E
- Coronavirus OC43
- Human
- Metapneumovirus
- Human
- Rhinovirus/Enterovirus
- Influenza A
- Influenza A/H1
- Influenza A/H3
- Influenza A/H1-2009
- Influenza B
- Parainfluenza Virus 1
- Parainfluenza Virus 2
- Parainfluenza Virus 3
- Parainfluenza Virus 4
- Respiratory Syncytial Virus
- SARS-CoV-2

Bacterial Targets

- Bordetella pertussis
- Bordetella parapertussis
- Chlamydia pneumoniae
- Mycoplasma pneumoniae



ADVANTAGES TO ORDERING RPIP- PCR

- **Better Results** – Compared to traditional or targeted methods, a syndromic approach increases the probability of identifying a pathogen in patients with symptoms of an infectious disease, and it increases the capability of detection of co-infections.
- **Accurate Organism Identification** – PCR technology for the detection of bacteria and viruses offers increased sensitivity and specificity over traditional methods, particularly for viruses and difficult-to-culture organisms.
- **Specimen Requirements** – NPS in transport medium or BAL. The PCR format minimizes sample requirements increasing efficiency. A single specimen can be tested for multiple infectious agents simultaneously.

For Additional Information on Respiratory Infections:

Clinical care of severe acute respiratory infections – Tool kit- (Updated 2022)
<https://www.who.int/publications/i/item/clinical-care-of-severe-acute-respiratory-infections-tool-kit>

National Center for Immunization and Respiratory Diseases
<https://www.cdc.gov/ncird/index.html>

Test Name:	RPIP- PCR
Methodology:	PCR
Specimen Requirements:	Nasopharyngeal Swab BAL

REFERENCES

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3. Vos T, Allen C, Arora M, et al. Global, regional, and national incidence, prevalence, and years lived with disability for 310 diseases and injuries, 1990– 2015: a systematic analysis for the global burden of disease study 2015. *Lancet* 2016; 388:1545–602.
4. GBD 2016 Lower Respiratory Infections Collaborators. Estimates of the global, regional, and national morbidity, mortality, and aetiologies of lower respiratory infections in 195 countries, 1990–2016: a systematic analysis for the global burden of disease study 2016. *Lancet Infect Dis* 2018; 18:1191–210.



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