
Respiratory Virus Panel by RT-PCR

Effective Date: January 1, 2012

Performing Department: Molecular Pathology

Clinical Significance: Respiratory viruses are among the most common causes of acute illness. Since most viral respiratory tract infections can present with similar symptoms and signs, it is important to determine the type of virus quickly and specifically for patient management and infection control. The Respiratory Virus Panel is a comprehensive assay for the detection of a broad range of viruses simultaneously by using an automated multiplex PCR technology.

Method: FilmArray Respiratory Panel is performed on a FilmArray instrument using reverse transcription Polymerase Chain Reaction (RT-PCR). It is a multiplex nucleic acid test that simultaneously detects and identifies 15 respiratory viral nucleic acids. The following virus types and subtypes are identified using this method: Adenovirus, Coronavirus HKU1, Coronavirus NL63, Human Metapneumovirus, Influenza A, Influenza A subtype H1, Influenza A subtype H3, Influenza A subtype 2009 H1, Influenza B, Parainfluenza Virus 1, Parainfluenza Virus 2, Parainfluenza Virus 3, Parainfluenza Virus 4, Rhinovirus/Enterovirus (due to the genetic similarity of these viruses, the method cannot reliably differentiate them), and Respiratory Syncytial Virus.

Use: The detection and identification of specific viral nucleic acids from individuals exhibiting signs and symptoms of a respiratory infection aids in the diagnosis of respiratory viral infection if used in conjunction with other clinical and epidemiological information.

Reference Range: Virus Not Detected. A “Not Detected” result indicates that there is not a detectable amount of the corresponding virus in the specimen submitted for testing but does not completely rule out the presence of the corresponding virus. The test result does not rule out presence of other viruses that are **not** included in this panel. The virus detected may not be the specific cause of the disease or patient symptoms. Results should be correlated with other clinical findings for diagnosis, treatment or other management decisions.

Specimen Collection Requirements:

Specimen requirement: Nasopharyngeal swab (specimen type that is used within FDA approved label). Other specimen types, such as nasal wash or aspirate, tracheal aspirate, BAL, are performed off FDA label. The performance characteristics have been validated and established by the South Bend Medical Foundation.

Type Container: Swabs in viral transport medium (VTM).

Preferred Volume: 2 mL

Minimum Volume: 300 ul

Stability: 4 hours at room temperature (18-30 °C), 3 days at refrigerator temperature (2-8 °C), or 30 days at freezer temperature (<-15 °C)

Transport: Refrigerated temperature (2-8 °C)

Causes for Rejection: Calcium alginate or wood-shafted swab; time and /or temperature instructions not followed as specified; quantity not sufficient (QNS) for analysis.