VIRAL PCR ANALYSIS

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The detection of viral genomic nucleic acid sequences by polymerase chain reaction (PCR) or reverse transcription (RT)-PCR provides a highly sensitive and specific method of diagnosis of viral infection. These techniques have facilitated the association of different virus types with acute and chronic disease that was either unclear or overlooked using the classical virologic techniques of culture, serology, or immunohistochemistry. The limitations of these techniques were due to various reasons, including but not limited to, sensitivity, the latent or persistent state of the virus, and the immunocompetence of the host. In addition, these techniques often required several weeks for the accumulation and interpretation of the data. PCR is extremely sensitive and rapid, and when associated with other molecular biological methods can facilitate an accurate description of the state of the infecting virus at the molecular level.

A variety of tissue and fluid samples can be analyzed for the presence of virus genomic sequences. These include myocardial samples (biopsy, explant, or autopsy), lung, liver, brain, tracheal aspirates, and amniotic fluid. For tissue samples, the method of preservation is important for the ability to amplify genetic material. Please carefully read the Viral Specimen Handling instructions.

VIRAL TESTS OFFERED

- Adenovirus
- Cytomegalovirus (CMV)
- Epstein-Barr virus (EBV)
- Enterovirus
- Influenza A virus
- Mumps virus
- Parvovirus
- Rubella virus
- Respiratory syncytial virus (RSV)

REASON FOR REFERRAL

Molecular confirmation of viral infection

METHODOLOGY

Both RNA and DNA are isolated simultaneously from the specimen. PCR primers are used to detect a portion of the genomic DNA of adenovirus, cytomegalovirus, parvovirus, and Epstein-Barr virus, as well as the RNA genomes of the enteroviruses, rubella virus, respiratory syncytial virus, influenza A virus, and mumps virus.

SERVICE FEES

Testing For Individual Viruses: $370/virus
Viral Panel Testing (Adenovirus, enterovirus, CMV, EBV, and parvovirus): $740

CPT CODES

Testing for a single DNA virus: 83891, 83898x4, 83912
Testing for a single RNA virus: 83891, 83902, 83898x4, 83912
Viral Panel Testing: 83891, 83902, 83898x14, 83912