# LABORATORY REPORT

Redcliffe labs

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|---|---|---|---|
| Patient Name | : | Bill Date | : |
| DOB/Age/Gender | : | Sample Collected | : |
| Patient ID / UHID | : | Sample Received | : |
| Referred By | : | Report Date | : |
| Sample Type | : | Barcode No | : |
| Client | : | Report Status | : |

## Test Report

| Test Name | Results | Units | Bio. Ref. Interval |
|---|---|---|---|
| **NEUROVIRUSES PANEL, QUALITATIVE PCR** | | | |
| **ADENOVIRUS, QUALITATIVE PCR** (Real Time PCR) | Not Detected | | |

**Interpretation**

| RESULT | REMARKS |
|---|---|
| Detected | Indicates presence of Adenovirus DNA in the sample submitted |
| Indeterminate | Indicates presence of inherent inhibitors in the sample submitted |
| Not Detected | Indicates absence of Adenovirus DNA in the sample submitted |

**Note**

1. A negative result does not necessarily indicate the absence of Adenovirus infection
2. This assay may detect viremia or viral shedding in asymptomatic individuals also
3. PCR is a highly sensitive technique; common reasons for paradoxical results are contamination during specimen collection, selection of inappropriate specimen & inherent PCR inhibitors in the sample.
4. Test conducted on CSF or EDTA whole blood.

**Comment**

Adenoviruses (HAdV) consist of non-enveloped dsDNA and are a common cause of respiratory illness. The symptoms can range from the common cold to pneumonia, croup and bronchitis. Depending on the type, adenoviruses can cause other illnesses such as gastroenteritis, conjunctivitis, cystitis, and less commonly neurological diseases. Adenoviral infections affect infants and young children much more frequently than adults. Severe disseminated infection can occur in immunocompromised subjects.

| | | |
|---|---|---|
| **ENTEROVIRUSES, QUALITATIVE PCR** (Real Time PCR) | Not Detected | |

**Interpretation**

| RESULT | REMARKS |
|---|---|
| Detected | Indicates presence of Enteroviruses RNA in the sample submitted |
| Indeterminate | Indicates presence of inherent inhibitors in the sample submitted |
| Not Detected | Indicates absence of Enteroviruses RNA in the sample submitted |

**Note**

1. A negative result does not necessarily indicate the absence of Enteroviruses infection

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**Test Report**

| Test Name | Results | Units | Bio. Ref. Interval |
|---|---|---|---|

2. This assay may detect viremia or viral shedding in asymptomatic individuals also
3. PCR is a highly sensitive technique; common reasons for paradoxical results are contamination during specimen collection, selection of inappropriate specimen and inherent PCR inhibitors in the sample
4. Test conducted on CSF or EDTA whole blood

**Comment**

Enteroviruses are positive-sense RNA viruses in the Picornaviridae family. These viruses were initially classified by serotype as Polioviruses (3 types), Echoviruses (31 types, including types 22 and 23, which are now classified as Parechoviruses), Coxsackie virus A (23 types), and Coxsackie virus B (6 types).
The normal site of enterovirus replication is the gastrointestinal tract where the infection is typically subclinical. However, in a proportion of cases, the virus spreads to other organs, causing systemic manifestations, including mild respiratory disease (eg, the common cold); conjunctivitis; hand, foot, and mouth disease; aseptic meningitis; myocarditis; and acute flaccid paralysis. Collectively, enteroviruses are the most common cause of upper respiratory tract disease in children. In addition, the enteroviruses are the most common cause of central nervous system (CNS) disease; they account for almost all viruses recovered in culture from spinal fluid. Differentiation of enteroviruses from other viruses and bacteria that cause CNS disease is important for the appropriate medical management of these patients. Detection of enterovirus nucleic acid by PCR is also the most sensitive diagnostic method for the diagnosis of CNS infection caused by these viruses.

| | | |
|---|---|---|
| **EPSTEIN BARR VIRUS (EBV), QUALITATIVE PCR** (Real Time PCR) | Not Detected | |

**Interpretation**

| RESULT | REMARKS |
|---|---|
| Detected | Indicates presence of EBV DNA in the sample submitted |
| Indeterminate | Indicates presence of inherent inhibitors in the sample submitted |
| Not Detected | Indicates absence of EBV DNA in the sample submitted |

**Note**

1. A negative result does not necessarily indicate the absence of EBV infection
2. This assay may detect viremia or viral shedding in asymptomatic individuals also
3. PCR is a highly sensitive technique; common reasons for paradoxical results are contamination during specimen collection, selection of inappropriate specimen and inherent PCR inhibitors in the sample
4. Test conducted on CSF or EDTA whole blood

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## Test Report

| Test Name | Results | Units | Bio. Ref. Interval |
|---|---|---|---|

**Comment**

Epstein Barr virus (EBV) is the causative agent of Infectious mononucleosis (Glandular fever), Burkitt's lymphoma and Nasopharyngeal carcinoma. Symptoms of Infectious mononucleosis are fever, sore throat and swollen lymph glands. It may involve spleen or liver also. EBV associated central nervous system (CNS) disease is most commonly associated with Primary CNS Lymphoma in patients with AIDS. CNS infection may also be detected in immunocompetent patients.

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|---|---|---|---|
| **HUMAN PARECHOVIRUS. QUALITATIVE PCR** (Real Time PCR) | Not Detected | | |

**Interpretation**

| RESULT | REMARKS |
|---|---|
| Detected | Indicates presence of Human Parechovirus in the sample submitted |
| Indeterminate | Indicates presence of inherent inhibitors in the sample submitted |
| Not Detected | Indicates absence of Human Parechovirus in the sample submitted |

**Note**

1. A negative result does not necessarily indicate the absence of Human Parechovirus infection.
2. This assay may detect viremia or viral shedding in asymptomatic individuals also.
3. PCR is a highly sensitive technique; common reasons for paradoxical results are contamination during specimen collection, selection of inappropriate specimen and inherent PCR inhibitors in the sample
4. Test conducted on CSF or EDTA whole blood

**Comment**

Human Parechoviruses (HPeV) belong to the Picornaviridae, a highly diverse family of small, non-enveloped RNA viruses, many of which are associated with human disease. Since their first identification in 1956, Parechoviruses have been associated with mild respiratory and gastrointestinal disease in young children. They have been associated with respiratory disease, including upper and lower respiratory tract disease. It has also been claimed that they commonly cause mild gastroenteritis and less frequently, meningitis and neonatal sepsis

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| Sample Type | : | Barcode No | : |
| Client | : | Report Status | : |

## Test Report

| Test Name | Results | Units | Bio. Ref. Interval |
|---|---|---|---|
| **PARVOVIRUS B19, QUALITATIVE PCR** (Real Time PCR) | Not Detected | | |

**Interpretation**

| RESULT | REMARKS |
|---|---|
| Detected | Indicates presence of Parvovirus B19 DNA in the sample submitted |
| Indeterminate | Indicates presence of inherent inhibitors in the sample submitted |
| Not Detected | Indicates absence of Parvovirus B19 DNA in the sample submitted |

**Note**

1. A negative result does not necessarily indicate the absence of Parvovirus B19 infection
2. This assay may detect viremia or viral shedding in asymptomatic individuals also
3. False negative results may be obtained if the viral copies are below the detectable levels or presence of inhibitors in the submitted sample
4. Test conducted on CSF or EDTA whole blood

**Comment**

Parvovirus B19 (B19) is the only member of the family Parvoviridae known to be pathogenic in humans. The virus is widespread, and manifestations of infection vary with the immunologic and hematologic status of the host. Infection with B19 occurs early in life and virus is transmitted by respiratory secretions and occasionally by blood products. Infection in adults is sometimes associated with an acute symmetric polyarthropathy that may mimic Rheumatoid arthritis.

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| **VARICELLA ZOSTER VIRUS (VZV), QUALITATIVE PCR** (Real Time PCR) | Not Detected | | |

**Interpretation**

| RESULT | REMARKS |
|---|---|
| Detected | Indicates presence of VZV in the sample submitted |
| Indeterminate | Indicates presence of inherent inhibitors in the sample submitted |
| Not Detected | Indicates absence of VZV in the sample submitted |

**Note**

1. A negative result does not necessarily indicate the absence of VZV infection
2. This assay may detect viremia or viral shedding in asymptomatic individuals also
3. PCR is a highly sensitive technique; common reasons for paradoxical results are contamination during specimen collection, selection of inappropriate specimen and inherent PCR inhibitors in the

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| Patient ID / UHID | : | Sample Received | : |
| Referred By | : | Report Date | : |
| Sample Type | : | Barcode No | : |
| Client | : | Report Status | : |

**Test Report**

| Test Name | Results | Units | Bio. Ref. Interval |
|---|---|---|---|

sample

4. Test conducted on CSF or EDTA whole blood

**Comment**

Varicella-zoster virus (VZV) causes both Varicella (Chickenpox) and Herpes zoster (Shingles). VZV produces a generalized vesicular rash on the dermis (Chickenpox) in normal children, usually before 10 years of age. After primary infection with VZV, the virus persists in latent form and may emerge, usually in adults 50 years of age and older clinically to cause a unilateral vesicular eruption, generally in a dermatomal distribution (Shingles). VZV DNA is detected in cerebrospinal fluid from patients with central nervous system disease caused by this virus.

| **CYTOMEGALOVIRUS (CMV) PCR , QUALITATIVE**<br>(Real Time PCR) | |
|---|---|
| Type of Specimen | CSF |
| CMV DNA | Negative |

**Interpretation**

| RESULT | COMMENTS |
|---|---|
| Positive | Sample provided contains CMV DNA |
| Indeterminate | Presence of inhibitors in the sample |
| Negative | Sample provided does not contain CMV DNA or number of viral DNA copies are below the detection limit of the assay |

**Note**

1. All Indeterminate results should be retested.
2. The detection limit of the assay is 600 copies per mL
3. Contaminated samples may be falsely positive
4. This is an in house developed assay

**Comments**

Cytomegalovirus (CMV) formally designated as Human Herpes Virus 5 (HHV-5) belongs to the family Herpesviridae. It has a worldwide distribution and infects humans of all ages with no seasonal or epidemic patterns of transmission. Seroprevalence of CMV increases with age ranging from 40-100%; highest being among lower socioeconomic groups. The infections can be congenital, perinatal or postnatal. CMV is the most

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| Patient ID / UHID | : | Sample Received | : |
| Referred By | : | Report Date | : |
| Sample Type | : | Barcode No | : |
| Client | : | Report Status | : |

**Test Report**

| Test Name | Results | Units | Bio. Ref. Interval |
|---|---|---|---|

common intra-uterine infection detected in 0.2-2.5% newborn infants. CMV infection in transplant recipients has been associated with delayed or failed graft, increased incidence of graft versus host disease and increased risk of graft rejection. It is recommended to screen organ donors for asymptomatic CMV infection.

**Uses**

- In the diagnosis and monitoring of CMV infections
- Continued surveillance of immunocompromised patients
- Evaluation of therapeutic efficacy of antiviral drugs

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| Sample Type | : | Barcode No | : |
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## Test Report

| Test Name | Results | Units | Bio. Ref. Interval |
|---|---|---|---|
| **HERPES SIMPLEX VIRUS (HSV) TYPE 1, PCR, QUALITATIVE** (Real Time PCR) | | | |
| Type of Specimen | CSF | | |
| HSV-1 DNA | Negative | | |

**Interpretation**

| RESULT | COMMENTS |
|---|---|
| Positive | Sample provided contains HSV-1 DNA |
| Indeterminate | Presence of inhibitors in the sample |
| Negative | Sample provided does not contain HSV-1 DNA or number of viral DNA copies are below the detection limit of the assay |

**Note**

1. All Indeterminate results should be retested
2. The detection limit of the assay is 2-10 genome equivalents per PCR reaction
3. Contaminated samples may be falsely positive
4. This is an in-house developed assay

**Comments**

Herpes simplex virus (HSV) Type 1 belongs to the family Herpesviridae. HSV infections occur worldwide with no seasonal distribution. The prevalence of HSV-1 infection increases gradually from childhood, reaching 80% or more in later years. A large percentage of individuals seropositive for HSV-1 are unaware of the infection, thereby comprising an important reservoir of infection. HSV-1 infections are characterized by oral lesions like gingivostomatitis & pharyngitis. Proportion of primary genital infections due to HSV-1 is increasing the world over due to changing sexual practices including increased oral genital exposure.

**Uses**

Early diagnosis of HSV-1 infections helps in timely anti-viral therapy which can prevent life threatening complications especially in immunocompromised individuals.

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| DOB/Age/Gender | : | Sample Collected | : |
| Patient ID / UHID | : | Sample Received | : |
| Referred By | : | Report Date | : |
| Sample Type | : | Barcode No | : |
| Client | : | Report Status | : |

## Test Report

| Test Name | Results | Units | Bio. Ref. Interval |
|---|---|---|---|
| **HERPES SIMPLEX VIRUS (HSV) TYPE 2, PCR, QUALITATIVE** (Real Time PCR) | | | |
| Type of Specimen | CSF | | |
| HSV-2 DNA | Negative | | |

**Interpretation**

| RESULT | COMMENTS |
|---|---|
| Positive | Sample provided contains HSV-2 DNA |
| Indeterminate | Presence of inhibitors in the sample |
| Negative | Sample provided does not contain HSV-2 DNA or number of viral DNA copies are below the detection limit of the assay |

**Note**

1. All Indeterminate results should be retested
2. The detection limit of the assay is 2-10 genome equivalents per PCR reaction
3. Contaminated samples may be falsely positive
4. This is an in-house developed test

**Comments**

Herpes simplex virus (HSV) Type 2 belongs to the family Herpesviridae. HSV infections occur worldwide with no seasonal distribution. The prevalence of HSV-2 infection remains low until adolescence and the onset of sexual activity. A large percentage of individuals seropositive for HSV-2 are unaware of the infection, thereby comprising an important reservoir of infection. HSV-2 infections are found principally in genitalia and transmitted through sexual contact. Primary infection with HSV-2 classically presents as Herpes genitalis.

**Uses**

Early diagnosis of HSV-2 infections helps in timely anti-viral therapy which can prevent life threatening complications especially in immunocompromised individuals.

NOTE- **This test is processed and validated at the partner lab of Redcliffe Labs.

Reviewed by

Sonali Sharma
Section Incharge
PG (Biotechnology)

*** End of Report ***

Approved by

Dr. Himani Pandey
Lab Head- Genomics
Post -Doc Fellowship
(Medical Genetics), SGPGIMS

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1. The presented findings in the Reports are intended solely for informational and interpretational purposes by the referring physician or other qualified medical professionals possessing a comprehensive understanding of reporting units, reference ranges, and technological limitations. The laboratory shall not be held liable for any interpretation or misinterpretation of the results, nor for any consequential or incidental damages arising from such interpretation.

2. It is to be presumed that the tests performed pertain to the specimen/sample attributed to the Customer's name or identification. It is presumed that the verification particulars have been cleared out by the customer or his/her representation at the point of generation of said specimen / sample. It is hereby clarified that the reports furnished are restricted solely to the given specimen only.

3. It is to be noted that variations in results may occur between different laboratories and over time, even for the same parameter for the same Customer. The assays are performed and conducted in accordance with standard procedures, and the reported outcomes are contingent on the specific individual assay methods and equipment(s) used, as well as the quality of the received specimen.

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