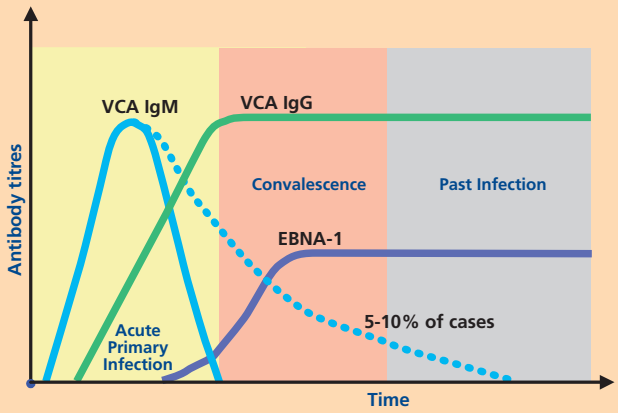
Acute Infection or Long-Lasting IgM?

LIAISON® EBV is the solution

EBV differential diagnosis and staging of the infection

Epstein-Barr Virus (EBV) is a member of the herpes virus family and is the causative agent of infectious mononucleosis.
Symptoms of infectious mononucleosis are sore throat, fever and swollen lymph nodes. In children the disease is often subclinical and indistinguishable from other mild diseases of childhood; in adults, the illness lasts usually longer and is often associated with a prolonged fatigue syndrome.
Heart problems and involvement of CNS occurs rarely and recovery usually occurs without treatment within 4 to 8 weeks from the infection. The clinical diagnosis is suggested on the basis of the symptoms along with the serological testing used to exclude other diseases. In fact, EBV infection share the same symptoms with other agents like *Toxoplasma gondii*, adenovirus and CMV which cause much more severe diseases especially if the infection occurs during pregnancy.
The typical serological assays measure IgG and IgM antibodies directed against different components of EBV. Antigens derived from the Viral Capsid (VCA) are used to detect antibodies generally produced during the acute phase of the infection whereas the EBNA-1 protein is used to detect IgG produced during convalescence. IgG to the early antigen D (EA-D) appears in the acute phase and generally falls to undetectable levels after 3 to 6 months. In many people, detection of antibody to the early antigen is a sign of active infection, but in 20-30% of healthy individuals IgG to EA-D remain detectable for life. EA rises again if reactivation of infection occurs.
It has also been demonstrated that IgM antibodies to VCA components of EBV tend to persist for several months after the infection in 5 to 10% of the cases. It is therefore important to provide the clinician a way to better define the stage of the infection.
Parallel determination of VCA IgG, EBNA IgG and EBV IgM levels enables, through the use of a differential cut-off for the interpretation of EBNA IgG and EBV IgM results, better discrimination among different phases of EBV infection.



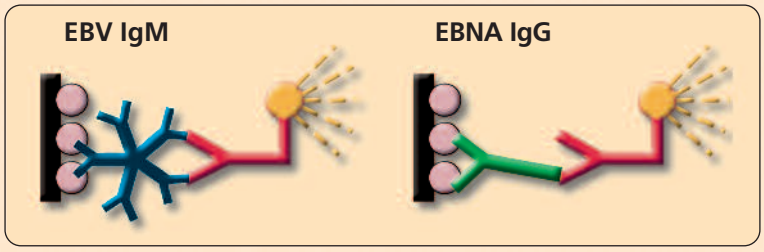
VCA IgG	EBV IgM	EBNA IgG	EA IgG	DIAGNOSIS
-	-	-	-	Not exposed
-	+	-	-	Early phase
+	+	-	-/+	Acute primary infection
+	+	+	-/+	Transient phase/Reactivation
+	-	+	+/-	Past infection

Epstein-B

Confidence in Your Results

A unique selection of raw materials

- **Use of synthetic peptides excludes cross-reactions with other Herpes viruses**
- **The p18 synthetic peptide, derived from a component of the viral capsid antigen, uses an amino acid sequence specific to EBV**
- **The EBNA-1 peptide is designed to exclude the Gly-Ala repeat to avoid interference with non-specific autoantibodies**



Assay format ensures reliable results

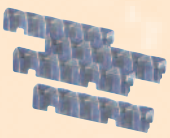
- **Superior sensitivity** allows earlyphase of infection
- **Superior diagnostic and analytical specificity** allows curbing of interference from other Herpes viruses and rheumatoid factor (RF)
- **Luminescence technology** in combination with magnetic microparticles
- **Wide measuring ranges**
- **Quantitative determination** of IgG and IgM (U/mL)
- **Controlled reagent** cooling and incubation conditions

Ease of use

- **Full automation** makes your daily routine convenient and easy
- **Barcoded** samples and reagents
- **Two-point recalibration** stable for 4 weeks
- **Flexible assay protocols**
- **Continuous reagent inventory**
- **Calibrators included**
- **Ready-to-use** reagent cartridge

Flexibility enables quick results

- **High throughput:**
  - VCA IgG, EBNA IgG, EA IgG: 90 results/hour
  - EBV IgM up to 45 results/hour
- **Time to first result:**
  - VCA IgG, EBNA IgG, EA IgG, EBV IgM: 35 min
- **Stored master curve**
- **Small sample volume**



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