

TEST DESCRIPTION: EPSTEIN-BARR VIRUS AB PANEL (includes EBCAG, EBCAM, EBNAG, EBVEA)

Label text/Epic Synonym: **EBVAP**

- **Viral capsid antigen (VCA)**
 - Anti-VCA IgM appears early in EBV infection and usually disappears within 4 to 6 weeks.
 - Anti-VCA IgG appears in the acute phase of EBV infection, peaks at 2 to 4 weeks after onset, declines slightly then persists for the rest of a person's life.
- **Early antigen (EA)**

Anti-EA IgG appears in the acute phase of illness and generally falls to undetectable levels after 3 to 6 months. In many people, detection of antibody to EA is a sign of active infection. However, 20% of healthy people may have antibodies against EA for years.
- **EBV nuclear antigen (EBNA)**

Antibody to EBNA, determined by the standard immunofluorescent test, is not seen in the acute phase of EBV infection but slowly appears 2 to 4 months after onset of symptoms and persists for the rest of a person's life. Other EBNA enzyme immunoassays may report false positive results.

Susceptibility to infection

People are considered susceptible to EBV infection if they do not have antibodies to the VCA.

Primary (new or recent) infection

People are considered to have a primary EBV infection if they have anti-VCA IgM but do not have antibody to EBNA. Other results that strongly suggest a primary infection are a high or rising level of anti-VCA IgG and no antibody to EBNA after at least 4 weeks of illness.

Resolution of the illness may occur before the diagnostic antibody levels appear. In rare cases, people with active EBV infections may not have detectable EBV-specific antibodies.

Past infection

The presence of antibodies to both VCA and EBNA suggests past infection (from several months to years earlier). Since over 90% of adults have been infected with EBV, most adults will show antibodies to EBV from infection years earlier. High or elevated antibody levels may be present for years and are not diagnostic of recent infection.

VCA-IgM	VCA-IgG	EA-IgG	EBNA-IgG	Interpretation
-	-	-	-	Negative; Susceptible
+	+/-	+/-	-	Primary (recent) infection
-	+	-	+	Past infection
-	+	+/-	+	Longer persistence of EA-IgG or reactivation