

EPSTEIN-BARR VIRUS

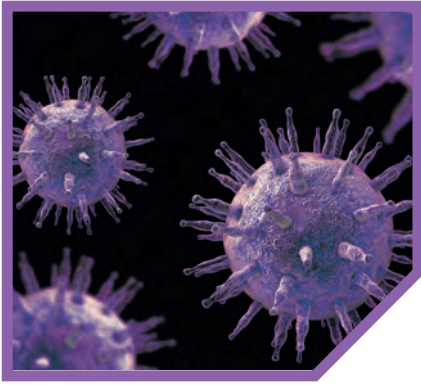
ELISA DETECTION OF IgG, IgM AND IgA ANTIBODIES

- Infectious mononucleosis diagnostics
- Diagnostics of the diseases caused by or associated with Epstein-Barr virus



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EPSTEIN-BARR VIRUS

Differential diagnostics

- Infectious mononucleosis
- Lymphadenitis and lymphadenopathy
- Hodgkin's lymphoma
- Burkitt's lymphoma
- Nasopharyngeal carcinoma
- Waldayer's ring lymphoma

Epstein-Barr virus (human herpesvirus 4, EBV) is an enveloped DNA virus, which belongs to *Gammaherpesvirinae* subfamily. The EBV infections are very common mostly in children and young adults. In children the infection is usually asymptomatic, while in young adults it progress to infectious mononucleosis (pseudomembranous tonsillitis with cervical lymphadenitis).

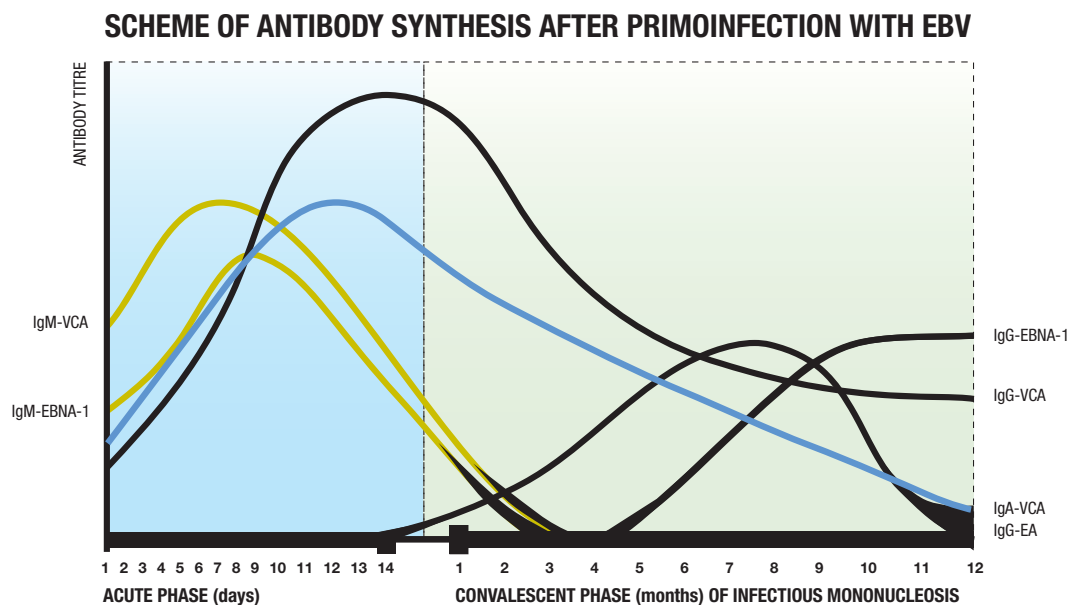
The virus enters into the human body through mucous membranes of respiratory tract. It replicates in epithelium of salivary gland ducts and in lymphatic tissue of nasopharynx, where it attacks B-lymphocytes. Immune system responds to the infection by strong activation, associated with lymphocyte proliferation in lymphatic organs, elevation of lymphocyte counts in peripheral blood, hypergammaglobulinemia and heterophile antibodies production. Specific antibodies against various EBV antigens also appear. These antibodies are used as markers of EBV infection:

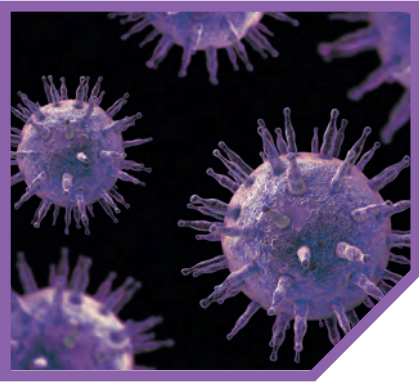
Viral capsid antigen – VCA: structural protein or protein complex, the compound of the viral capsid

EB-viral nuclear antigen 1 – EBNA-1: nonstructural nuclear protein, present in latently infected cells

Early antigen – EA: nonstructural protein or protein complex, synthetized in early phase of viral replication cycle. Based on the structure and localization in the infected cells, two components of EA can be distinguished. EA-R (restricted) component is present in distinct regions of cytoplasm and methanol-resistant EA-D (diffuse) component is dispersed both in the cytoplasm and in the nucleus.

Antibody responses against VCA, EA and EBNA-1 in the course of EBV infection display different dynamics.





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Intended use and testing

ELISA-VIDITEST anti-EBNA-1 EBV IgG, IgM, ELISA-VIDITEST anti-VCA EBV IgG (CSF), avidity IgG, IgM and IgA, ELISA-VIDITEST EA (D) EBV IgG, IgM and IgA kits are intended for the diagnosis of EBV-associated diseases, mainly for infectious mononucleosis. The kits can be used also for the diagnostics Burkitt's lymphoma, nasopharyngeal carcinoma, Hodgkin's lymphoma and Waldayer's ring carcinomas. They can be applied also for complex characterisation of various immunodeficiency disorders, where EBV is often reactivated.

ELISA-VIDITEST kits contain ready to use conjugate, controls and interchangeable VIDIA buffers, which make the kits user-friendly and easy to use. ELISA-VIDITEST anti-VCA EBV IgM kit includes RF-sorbent to eliminate interfering antibodies and rheumatoid factor. Avidity determination using ELISA-VIDITEST anti-VCA EBV IgG and avidity IgG enables differentiation between primary and past infection.

Intrathecal antibodies determination gives the information about the anti-EBV antibodies production in central nervous system. For this purpose ELISA-VIDITEST anti-VCA EBV IgG (CSF) should be used.

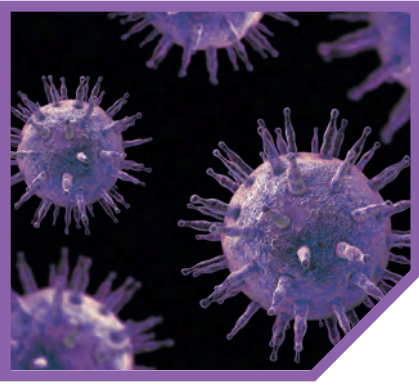
- Samples: serum, plasma, cerebrospinal fluid
- Quantitative determination using 5 standards
- Semiquantitative (qualitative) IgM and IgA determination
- Incubation times 30'/30'/15' at 37 °C
- CE IVD certified



Advantages



- Complete panel for EBV diagnostics
- Interchangeable VIDIA buffers and ready to use controls and conjugate
- Compatible with VIDIMAT
- Determination of IgG, IgM and IgA
- Determination of IgG and avidity IgG in one kit
- Intrathecal synthesis anti-VCA EBV IgG calculation



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ELISA DETECTION OF IgG, IgM AND IgA ANTIBODIES

Ordering information

REF	Product	Wells	Evaluation
ODZ-015	ELISA-VIDITEST anti-EBNA-1 IgG	96	semiquant.
ODZ-001	ELISA-VIDITEST anti-EBNA-1 IgG	96	semiquant., quant.*
ODZ-002	ELISA-VIDITEST anti-EBNA-1 IgM	96	semiquant.
ODZ-265	ELISA-VIDITEST anti-VCA EBV IgG	96	semiquant.
ODZ-084	ELISA-VIDITEST anti-VCA EBV IgG (CSF)	96	semiquant., quant.*
ODZ-175	ELISA-VIDITEST anti-VCA EBV IgG and IgG avidity	96	semiquant.
ODZ-005	ELISA-VIDITEST anti-VCA EBV IgM	96	semiquant.
ODZ-096	ELISA-VIDITEST anti-VCA EBV IgA	96	semiquant.
ODZ-006	ELISA-VIDITEST anti-EA (D) EBV IgG	96	semiquant.
ODZ-007	ELISA-VIDITEST anti-EA (D) EBV IgM	96	semiquant.
ODZ-254	ELISA-VIDITEST anti-EA (D) EBV IgA	96	semiquant.

* quantification with 5 standards, not adapted to VIDIMAT