

Datasheet for ABIN996988

EBV NA IgG ELISA Kit

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Overview

Quantity:	96 tests
Target:	EBV NA IgG
Reactivity:	Epstein-Barr Virus (EBV)
Method Type:	Competition ELISA
Application:	ELISA

Product Details

Purpose:	Epstein-Barr Virus Nuclear Antigen (EBNA-1) IgG Enzyme- Linked Immunosorbent Assay (ELISA) is intended for the qualitative and semi-quantitative determination of IgG antibody in human serum to EBNA-1 recombinant antigen.
Sample Type:	Serum
Analytical Method:	Qualitative and Semi-Quantitative
Detection Method:	Colorimetric
Specificity:	100%
Sensitivity:	97.8 %

Target Details

Target:	EBV NA IgG
Alternative Name:	Epstein Barr Virus Nuclear Antigen (EBNA) IgG (EBV NA IgG Products)
Target Type:	Antibody

Target Details

Background: Epstein-Barr virus (EBV) is a common human pathogen, affecting 80% of adults in the US. Since the discovery of Epstein-Barr virus in 1964, EBV has been etiologically implicated in an increasing number of human diseases, such as infectious mononucleosis, Burkitt's lymphoma and nasopharyngeal carcinoma. EBV has also been associated with B cell lymphomas in immunosuppressed individuals, including both transplant patients and patients with AIDS. EBV is classified as a member of the herpesvirus family based upon its characteristic morphology. All herpesviruses share the ability to establish a latent infection in their hosts. Although primary infection with EBV during childhood is usually asymptomatic, nearly one-half to two-thirds of primary infections with the virus in older adolescents and young adults result in overt clinical disease such as infectious mononucleosis (IM). Infectious mononucleosis is an acute, self-limited lympho-proliferative disease caused by EBV. When primary infection is delayed until young adulthood and adolescence, however, there is about a 50% chance that it will occur with the classic clinical manifestations associated with IM.

Infection of the target cells leads to two forms of viral cycles: 1) latent, nonproductive and 2) productive, replicative infections. In both cycles, one of the earliest antigens expressed is lymphocyte-detected membrane antigen, a cell-surface antigen recognized by T-cells. It has been well established that most individuals exposed to EBV develop a heterophile antibody response. Expression of EBNA-1 either follows or parallels membrane antigen at 12 to 24 hours post infection. EBNA-1 is found as nonstructural, intranuclear antigen(s), present in all EBV-transformed cell lines as in tumors from Burkitt's and nasopharyngeal carcinoma patients. In the fully productive, replicative cycle, the synthesis of antigen follows EBNA-1. The viral capsid antigen complex (VCA) appears late in the replicative cycle. It has recently become apparent that EBNA-1 is probably not a single antigenic moiety, but a multicomponent antigen complex, on the basis of reactivities of sera from different classes of patients. The major component EBNA-1 has been purified and sequenced in its entirety.

Antibody levels of EBNA-1 IgG, are diagnostic in determining acute and convalescent stages in IM. IgG antibodies to EBNA-1 are rarely present in acute IM and rise during convalescence. They will rise to a plateau level in three months to a year and will normally persist for life. The DAI EBNA-1 IgG kit utilizes the ELISA technology where a purified recombinant EBNA-1 antigen is bound to the wells of a microplate. A peroxidase coupled anti-human IgG conjugate is used as the detection system.

Application Details

Sample Volume: 100 µL

Application Details

Assay Time:	1 h
Plate:	Pre-coated
Restrictions:	For Research Use only

Handling

Storage:	4 °C
Expiry Date:	18 months