SANTA CRUZ BIOTECHNOLOGY, INC.

EBV viral capsid antigen (0241): sc-58123



BACKGROUND

Epstein-Barr virus (EBV), also designated human herpesvirus 4 (HHV-4), is a member of the herpesvirus family and is one of the most common human viruses, infecting about 90% of the population. EBV infects only B lymphocytes and, though often asymptomatic, it can cause infectious mononucleosis, a disease characterized by fatigue, fever, sore throat and muscle soreness. The linear genome of EBV circularizes once it enters the cell and exists there as an episome. EBV may play a role in the development of both Burkitt lymphoma, a disease in which a tumor can form on the mandible or maxilla, and nasopharyngeal carcinoma, a tumor found in the upper respiratory tract, most commonly in the nasopharynx. The viral capsid antigen (VCA) of EBV is used as a marker for screening for viral infection as well as nasopharyngeal carcinoma and many antigens from the viral capsid are used in diagnostic tests.

REFERENCES

- 1. Luka, J., Miller, G., Jörnvall, H. and Pearson, G.R. 1986. Characterization of the restricted component of Epstein-Barr virus early antigens as a cytoplasmic filamentous protein. J. Virol. 58: 748-756.
- 2. Goldschmidts, W.L., Ginsburg, M. and Pearson, G.R. 1989. Neutralization of Epstein-Barr virus-induced ribonucleotide reductase with antibody to the major restricted early antigen polypeptide. Virology 170: 330-333.
- 3. Fan, J.A. 1989. Expression of the Epstein-Barr virus P150 viral capsid antigen in Escherichia coli for the use as antigen in diagnostic tests. Zhongguo Yi Xue Ke Xue Yuan Xue Bao 11: 381-387.
- 4. Gorgievski-Hrisoho, M., Hinderer, W., Nebel-Schickel, H., Horn, J., Vornhagen, R., Sonneborn, H.H., Wolf, H. and Siegl, G. 1990. Serodiagnosis of infectious mononucleosis by using recombinant Epstein-Barr virus antigens and enzyme-linked immunosorbent assay technology. J. Clin. Microbiol. 28: 2305-2311.
- 5. Gan, Y.Y., Fones-Tan, A., Chan, S.H. and Gan, L.H. 1996. Epstein-Barr viral antigens used in the diagnosis of nasopharyngeal carcinoma. J. Biomed. Sci. 3: 159-169.
- 6. Tranchand-Bunel, D., Auriault, C., Diesis, E. and Gras-Masse, H. 1998. Detection of human antibodies using "convergent" combinatorial peptide libraries or "mixotopes" designed from a nonvariable antigen: application to the EBV viral capsid antigen p18. J. Pept. Res. 52: 495-508.
- 7. Ruf, I.K., Rhyne, P.W., Yang, H., Borza, C.M., Hutt-Fletcher, L.M., Cleveland, J.L. and Sample, J.T. 1999. Epstein-Barr virus regulates c-Myc, apoptosis, and tumorigenicity in Burkitt lymphoma. Mol. Cell. Biol. 19: 1651-1660.
- 8. Kantakamalakul, W., Chongkolwatana, C., Naksawat, P., Muangsomboon, S., Sukpanichnant, S., Chongvisal, S., Metheetrairat, C., Kositanont, U. and Puthavathana, P. 2000. Specific IgA antibody to Epstein-Barr viral capsid antigen: a better marker for screening nasopharyngeal carcinoma than EBV-DNA detection by polymerase chain reaction. Asian Pac. J. Allergy Immunol. 18: 221-226.

SOURCE

EBV viral capsid antigen (0241) is a mouse monoclonal antibody raised against Epstein-Barr virus.

PRODUCT

Each vial contains 100 μ g lgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

EBV viral capsid antigen (0241) is recommended for detection of glycoprotein region of viral capsid antigen of Epstein-Barr virus origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of nonglycosylated major EBV viral capsid antigen: 150 kDa.

Molecular Weight of EBV viral capsid antigen glycoprotein: 110 kDa.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.