EBV viral capsid antigen (5E267): sc-71030



The Power to Question

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

- 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.
- 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. Zhongquo Yi Xue Ke Xue Yuan Xue Bao 11: 381-387.
- 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.
- 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.
- 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.
- 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.
- 8. Gan, Y.Y., Fones-Tan, A., Chan, S.H. and Gan, L.H. 2001. Epstein-Barr viral antigens used in the diagnosis of nasopharyngeal carcinoma. J. Biomed. Sci. 3: 159-169.
- 9. Spender, L.C., Lucchesi, W., Bodelon, G., Bilancio, A., Karstegl, C.E., Asano, T., Dittrich-Breiholz, O., Kracht, M., Vanhaesebroeck, B. and Farrell, P.J. 2006. Cell target genes of Epstein-Barr virus transcription factor EBNA-2: induction of the p55 α regulatory subunit of Pl3-kinase and its role in survival of EREB2.5 cells. J. Gen. Virol. 87: 2859-2867.

SOURCE

EBV viral capsid antigen (5E267) is a mouse monoclonal antibody raised against Epstein-Barr Virus.

PRODUCT

Each vial contains 100 $\mu g\ lgG_1$ in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

EBV viral capsid antigen (5E267) is recommended for detection of the gly-coprotein region of viral capsid antigen of Epstein-Barr virus origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**