## SANTA CRUZ BIOTECHNOLOGY, INC.

# EBV Bam HI Z (5E265): sc-71021



#### 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 in a role of 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. Bam HI E, K, N and Z represent regions in the in EBV genome. Bam HI Z is an immediate early open reading frame that contains the BZLF1 gene, a key gene for EBV replicative cycle. BZLF1 represents a switch from latent infection to lytic EBV infection.

#### 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.
- 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.
- 4. Oikawa, O. 1996. Studies on tissue distribution and expression of Epstein-Barr virus using polymerase chain reaction. Hokkaido Igaku Zasshi 70: 729-742.
- 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's lymphoma. Mol. Cell. Biol. 19: 1651-1660.
- 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.
- Noorali, S., Pervez, S., Moatter, T., Soomro, I.N., Kazmi, S.U., Nasir, M.I. and Smith, J.L. 2003. Characterization of T cell non-Hodgkin's lymphoma and its association with Epstein-Barr virus in Pakistani patients. Leuk. Lymphoma 44: 807-813.
- 8. 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 $\alpha$  regulatory subunit of Pl 3-kinase and its role in survival of EREB2.5 cells. J. Gen. Virol. 87(Pt. 10): 2859-2867.
- Wen, W., Iwakiri, D., Yamamoto, K., Maruo, S., Kanda, T. and Takada, K. 2006. Epstein-Barr virus BZLF1 gene, a switch from latency to lytic infection, is expressed as an immediate-early gene after primary infection of B lymphocytes. J. Virol. 81: 1037-1042.

#### SOURCE

EBV Bam HI Z (5E265) is a mouse monoclonal antibody raised against EBV Bam HI Z from an infected cell lysate.

## PRODUCT

Each vial contains 100  $\mu g~lg G_2$  in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

EBV Bam HI Z (5E265) is recommended for detection of Bam HI Z of Epstein-Barr Virus origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of EBV Bam HI Z: 35 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.