SANTA CRUZ BIOTECHNOLOGY, INC.

EBV Bcl-2 (0235): sc-58120

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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 B cells and, though often asymptomatic, it can cause infectious mononucleosis, a disease characterized by fatigue, fever, sore throat and muscle soreness. Bcl-2 is an anti-apoptotic cell cycle regulator that is highly expressed in EBV-positive lymphomas and may be associated with oncogenesis. During the early lytic cycle of EBV infection, the virus expresses the BHRF1 gene which encodes for a homologus viral Bcl-2 protein. This transmembrane protein may act to prevent apoptosis during EBV infection, thereby maximizing virus particle production and facilitating the establishment of virus persistence.

REFERENCES

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2. Khanim, F., et al. 1997. BHRF-1, a viral homologue of the Bcl-2 oncogene, is conserved at both the sequence and functional level in different Epstein-Barr virus isolates. J. Gen. Virol. 78: 2987-2999.
3. McCarthy, N.J., et al. 1997. The Epstein-Barr virus gene BHRF-1, a homologue of the cellular oncogene Bcl-2, inhibits apoptosis induced by γ radiation and chemotherapeutic drugs. Adv. Exp. Med. Biol. 406: 83-97.
4. Chang, M.S., et al. 2005. Cell-cycle regulators, Bcl-2 and NFκB in Epstein-Barr virus-positive gastric carcinomas. Int. J. Oncol. 27: 1265-1272.
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6. Tomlin, J.L., et al. 2005. Bcl-2 and c-Myc cooperate in the Epstein-Barr virus-immortalized human B cell line GM607 but do not confer tumorigenicity. Leuk. Lymphoma 46: 581-592.
7. Guo, L., et al. 2006. Expression of Etk/Bmx tyrosine kinase in the tumorigenicity of nasopharyngeal epithelium and its relation with EB virus infection and the apoptosis-related protein Bcl-2. Cancer Lett. 232: 255-261.
8. Lacy, J., et al. 2006. Systemic Bcl-2 antisense oligodeoxynucleotide in combination with cisplatin cures EBV^+ nasopharyngeal carcinoma xenografts in SCID mice. Int. J. Cancer 119: 309-316.
9. Li, LY., et al. 2006. Human cellular protein VRK2 interacts specifically with Epstein-Barr virus BHRF1, a homologue of Bcl-2, and enhances cell survival. J. Gen. Virol. 87(Pt. 10): 2869-2878.

STORAGE

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

PROTOCOLS

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

SOURCE

EBV Bcl-2 (0235) is a mouse monoclonal antibody raised against Epstein-Barr virus.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

EBV Bcl-2 (0235) is recommended for detection of the early antigen homologue Bcl-2 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 Bcl-2: 22 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

RESEARCH USE

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