

EBV EBNA-1 (1EB2): sc-81579

BACKGROUND

Epstein-Barr virus, frequently referred to as EBV, is a member of the herpesvirus family and is one of the most common human viruses. Epstein-Barr virus, an agent with growth transforming potential for human B cells, is associated with certain human cancers (e.g. B cell lymphomas and Burkitt's lymphoma) and one type of epithelial tumor, designated NPC (undifferentiated nasopharyngeal carcinoma). EBV nuclear antigen 1 protein (EBV EBNA-1) is expressed in all EBV-associated tumors, including Burkitt's lymphoma and nasopharyngeal carcinoma tumors. EBV EBNA-1 is also required for synthesis and maintenance of the Epstein-Barr virus genome. Epstein-Barr virus nuclear antigen 2 (EBV EBNA-2) activates transcription of specific genes and is essential for B lymphocyte transformation. EBV EBNA-2 is specifically bound to a novel nuclear protein, p100, which can co-activate gene expression mediated by the EBV EBNA-2 acidic domain. It is generally accepted that the Epstein-Barr nuclear antigen latent genes EBNA-2, -3A, -3C, -LP and LMP-1 are essential for growth transformation and immortalization of B lymphocytes. EBNA-3A and EBNA-3B co-activation are at most 40% that of EBNA-3C.

REFERENCES

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3. Tong, X., Drapkin, R., Yalamanchili, R., Mosialos, G. and Kieff, E. 1995. The Epstein-Barr virus nuclear protein 2 acidic domain forms a complex with a novel cellular co-activator that can interact with TFIIIE. *Mol. Cell. Biol.* 15: 4735-4744.
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SOURCE

EBV EBNA-1 (1EB2) is a mouse monoclonal antibody raised against Epstein-Barr virus nuclear antigen 1, with epitope mapping to amino acids 451-641.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

EBV EBNA-1 (1EB2) is recommended for detection of EBV EBNA-1 by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Molecular Weight of EBV EBNA-1: 88 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

SELECT PRODUCT CITATIONS

1. Xin, S., Du, S., Liu, L., Xie, Y., Zuo, L., Yang, J., Hu, J., Yue, W., Zhang, J., Cao, P., Zhu, F. and Lu, J. 2019. Epstein-Barr virus nuclear antigen 1 recruits cyclophilin A to facilitate the replication of viral DNA genome. *Front. Microbiol.* 10: 2879.

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.



See **EBV EBNA-1 (1EB2): sc-81581** for EBV EBNA-1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.