

# EBP2 (N-13): sc-46316

## BACKGROUND

The replication and stable maintenance of latent Epstein-Barr virus DNA episomes in human cells requires only one viral protein, Epstein-Barr nuclear antigen 1 (EBNA1). EBNA1 binding protein 2, also designated p40/EBP2, is a nuclear protein required for the processing of the 27S pre-rRNA. EBP2 has high conservation across species and is ubiquitously expressed in human tissues, especially myelogenous leukemia K-562. EBP2 specifically interacts with EBNA1, supporting the long-term maintenance of EBV plasmids in human cells. The EBNA1-EBP2 complex is important for the stable segregation of EBV episomes during cell division.

## REFERENCES

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- Henning, D., et al. 2001. Expression of p40/Epstein-Barr virus nuclear antigen 1 binding protein 2. *Biochem. Biophys. Res. Commun.* 283: 430-436.
- Narum, D.L., et al. 2002. A novel *Plasmodium falciparum* erythrocyte binding protein 2 (EBP2/BAEBL) involved in erythrocyte receptor binding. *Mol. Biochem. Parasitol.* 119: 159-168.
- Kapoor, P., 2003. EBNA1 partitions Epstein-Barr virus plasmids in yeast cells by attaching to human EBNA1-binding protein 2 on mitotic chromosomes. *J. Virol.* 77: 6946-6956.
- Sears, J., 2004. The amino-terminus of Epstein-Barr Virus (EBV) nuclear antigen 1 contains AT hooks that facilitate the replication and partitioning of latent EBV genomes by tethering them to cellular chromosomes. *J. Virol.* 78: 11487-11505.
- Habel, M.E., et al. 2004. Maintenance of Epstein-Barr virus-derived episomal vectors in the murine Sp2/0 myeloma cell line is dependent upon exogenous expression of human EBP2. *Biochem. Cell Biol.* 82: 375-380.
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## CHROMOSOMAL LOCATION

Genetic locus: EBNA1BP2 (human) mapping to 1p34.2; Ebn1bp2 (mouse) mapping to 4 D2.1.

## SOURCE

EBP2 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of EBP2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-46316 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

EBP2 (N-13) is recommended for detection of EBP2 of mouse, rat and human 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

EBP2 (N-13) is also recommended for detection of EBP2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for EBP2 siRNA (h): sc-45622, EBP2 siRNA (m): sc-45623, EBP2 shRNA Plasmid (h): sc-45622-SH, EBP2 shRNA Plasmid (m): sc-45623-SH, EBP2 shRNA (h) Lentiviral Particles: sc-45622-V and EBP2 shRNA (m) Lentiviral Particles: sc-45623-V.

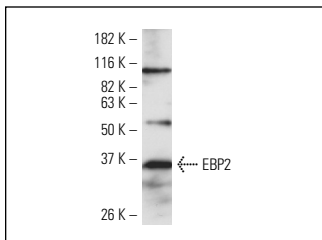
Molecular Weight of EBP2: 35 kDa.

Positive Controls: T24 cell lysate: sc-2292, HeLa whole cell lysate: sc-2200 or HeLa nuclear extract: sc-2120.

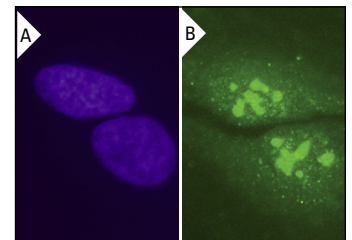
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



EBP2 (N-13): sc-46316. Western blot analysis of EBP2 expression in HeLa nuclear extract. Kindly provided by Dr. Nobuaki Kikyo, Stem Cell Institute, University of Minnesota.



EBP2 (N-13): sc-46316. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing Hoechst nuclear staining (A) and nucleolar localization (B). Kindly provided by Dr. Nobuaki Kikyo, Stem Cell Institute, University of Minnesota.

## 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.