SANTA CRUZ BIOTECHNOLOGY, INC.

HIVEP1 (M-106): sc-98395

BACKGROUND

HIVEP1 (human immunodeficiency virus type I enhancer binding protein 1), also known as CIRIP (cirhin interaction protein), MBP-1 (major histocompatibility complex binding protein 1), ZNF40, CRYBP1 (αA-crystallin binding protein 1) or PRDII-BF1 (positive regulatory domain II binding factor 1), is a large DNA-binding protein that belongs to the ZAS family. HIVEP1 contains a pair of C2H2 zinc fingers with a serine/threonine-rich sequence and an acidic-rich region, as well as a ZAS domain. It is ubiquitously expressed and is directly involved in the transcriptional regulation of a variety of genes. There are homologs of this gene in *D. melanogaster* and *C. elegans*. In humans, HIVEP1 interacts with the IFN-β promoter and enhancer in the HIV-1 long terminal repeat. It specifically binds to the DNA sequence 5'-GGGACTTTCC-3'. Various isoforms of HIVEP1 exist due to alternative splicing events. HIVEP1 may also participate in T cell activation.

REFERENCES

1. Otsuka, M., Fujita, M., Aoki, T., Ishii, S., Sugiura, Y., Yamamoto, T. and Inoue, J. 1995. Novel zinc chelators with dual activity in the inhibition of the κB site-binding proteins HIVEP1 and NFκB. J. Med. Chem. 38: 3264-3270.
2. Fujita, M., Otsuka, M. and Sugiura, Y. 1996. Metal-chelating inhibitors of a zinc finger protein HIVEP1. Remarkable potentiation of inhibitory activity by introduction of SH groups. J. Med. Chem. 39: 503-507.
3. Xu, G., Sze, S.H., Liu, C.P., Pevzner, P.A. and Arnheim, N. 1998. Gene hunting without sequencing genomic clones: finding exon boundaries in cDNAs. Genomics 47: 171-179.
4. Tanaka, K., Matsumoto, Y., Nakatani, F., Iwamoto, Y. and Yamada, Y. 2000. A zinc finger transcription factor, αA-crystallin binding protein 1, is a negative regulator of the chondrocyte-specific enhancer of the α1(II) collagen gene. Mol. Cell. Biol. 20: 4428-4435.
5. Hicar, M.D., Liu, Y., Allen, C.E. and Wu, L.C. 2001. Structure of the human zinc finger protein HIVEP3: molecular cloning, expression, exon-intron structure, and comparison with paralogous genes HIVEP1 and HIVEP2. Genomics 71: 89-100.
6. Dürr, U., Henningfeld, K.A., Hollemann, T., Knöchel, W. and Pieler, T. 2004. Isolation and characterization of the *Xenopus* HIVEP gene family. Eur. J. Biochem. 271: 1135-1144.
7. Yamagiwa, H., Yamada, Y., Bolander, M.E. and Sarkar, G. 2004. Oligonucleotide decoy mimicking αA-crystallin-binding protein 1 binding site on mouse Col2a1 enhancer stimulates transcription from the adjacent Col2a1 promoter in chondrogenic ATDC5 cell. Mol. Biotechnol. 28: 1-8.
8. Yang, X., Li, J., Qin, H., Yang, H., Li, J., Zhou, P., Liang, Y. and Han, H. 2005. Mint represses transactivation of the type II collagen gene enhancer through interaction with αA-crystallin-binding protein 1. J. Biol. Chem. 280: 18710-18716.
9. Richter, A., Mitchell, G.A. and Rasquin, A. 2007. North American Indian childhood cirrhosis (NAIC). 23: 1002-1007.

RESEARCH USE

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

CHROMOSOMAL LOCATION

Genetic locus: HIVEP1 (human) mapping to 6p24.1; Hivep1 (mouse) mapping to 13 A4.

SOURCE

HIVEP1 (M-106) is a rabbit polyclonal antibody raised against amino acids 2478-2583 mapping near the C-terminus of HIVEP1 of mouse origin.

PRODUCT

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

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98395 X, 200 µg/0.1 ml.

APPLICATIONS

HIVEP1 (M-106) is recommended for detection of HIVEP1 of mouse, rat and, to a lesser extent, 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).

Suitable for use as control antibody for HIVEP1 siRNA (h): sc-95382, HIVEP1 siRNA (m): sc-146039, HIVEP1 shRNA Plasmid (h): sc-95382-SH, HIVEP1 shRNA Plasmid (m): sc-146039-SH, HIVEP1 shRNA (h) Lentiviral Particles: sc-95382-V and HIVEP1 shRNA (m) Lentiviral Particles: sc-146039-V.

HIVEP1 (M-106) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HIVEP1: 300 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.

PROTOCOLS

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