

HBP1 (H-300): sc-25390

BACKGROUND

The HMG-box protein-1 (HBP1) is a member of the HMG family of transcription factors, which are characterized by the presence of a conserved protein motif, the high mobility group (HMG) 1 box, that mediates DNA binding. HBP1 binds to the tumor suppressor proteins Rb and p130 and initiates cell cycle arrest. Terminal cell differentiation requires this initial cell cycle arrest followed by the coordinated expression of genes defined as tissue-specific markers. Along with initiating the commitment to cell differentiation, the continued activity of HBP1 abrogates the expression of tissue-specific genes by associating with the MyoD proteins. In muscle cell differentiation, the MyoD family of transcription factors, which include Myf-5, MyoD and myogenin, induce the expression of these cell-type specific proteins and contribute to the development of cell phenotypes. The progression of terminal differentiation is, therefore, dependent on both a decrease in HBP1 activity and the corresponding activation of MyoD-induced gene transcription.

CHROMOSOMAL LOCATION

Genetic locus: HBP1 (human) mapping to 7q22.3; Hbp1 (mouse) mapping to 12 A3.

SOURCE

HBP1 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 of HBP1 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-25390 X, 200 µg/0.1 ml.

APPLICATIONS

HBP1 (H-300) is recommended for detection of HBP1 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HBP1 (H-300) is also recommended for detection of HBP1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HBP1 siRNA (h): sc-35532, HBP1 siRNA (m): sc-35533, HBP1 shRNA Plasmid (h): sc-35532-SH, HBP1 shRNA Plasmid (m): sc-35533-SH, HBP1 shRNA (h) Lentiviral Particles: sc-35532-V and HBP1 shRNA (m) Lentiviral Particles: sc-35533-V.

HBP1 (H-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of HBP1: 58 kDa.

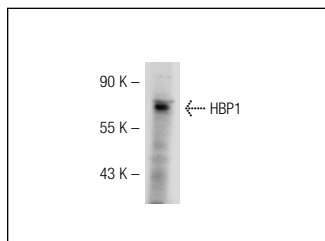
Molecular Weight (observed) of HBP1: 83 kDa.

Positive Controls: Y79 cell lysate: sc-2240 or HeLa whole cell lysate: sc-2200.

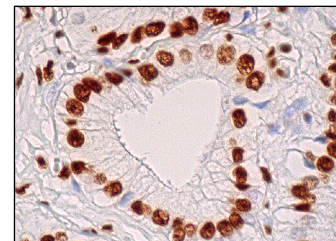
STORAGE

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

DATA



HBP1 (H-300): sc-25390. Western blot analysis of HBP1 expression in Y79 whole cell lysate.



HBP1 (H-300): sc-25390. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

- Escamilla-Powers, J.R., et al. 2010. The tumor suppressor protein HBP1 is a novel c-Myc-binding protein that negatively regulates c-Myc transcriptional activity. *J. Biol. Chem.* 285: 4847-4858.
- Ren, Y.R., et al. 2012. Unbiased discovery of interactions at a control locus driving expression of the cancer-specific therapeutic and diagnostic target, mesothelin. *J. Proteome Res.* 11: 5301-5310.
- Tseng, R.C., et al. 2014. HBP1 promoter methylation augments the oncogenic β -catenin to correlate with prognosis in NSCLC. *J. Cell. Mol. Med.* 18: 1752-1761.

RESEARCH USE

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

PROTOCOLS

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

MONOS
Satisfaction
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Try **HBP1 (G-8): sc-515281** or **HBP1 (A-5): sc-376831**, our highly recommended monoclonal alternatives to HBP1 (H-300).