

## HBP1 (C-20): sc-8489

### 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 Myf5, 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.

### REFERENCES

1. Yee, S.P. and Rigby, P.W. 1993. The regulation of myogenin gene expression during the embryonic development of the mouse. *Genes Dev.* 7: 1277-1289.
2. Lesage, F., Hugnot, J.P., Amri, E.Z., Grimaldi, P., Barhanin, J. and Lazdunski, M. 1994. Expression cloning in K<sup>+</sup> transport defective yeast and distribution of HBP1, a new putative HMG transcriptional regulator. *Nucleic Acids Res.* 22: 3685-3688.
3. Lavender, P., Vandell, L., Bannister, A.J. and Kouzarides, T. 1997. The HMG-box transcription factor HBP1 is targeted by the pocket proteins and E1A. *Oncogene* 14: 2721-2728.

### CHROMOSOMAL LOCATION

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

### SOURCE

HBP1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus 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-8489 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-8489 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### 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.

### APPLICATIONS

HBP1 (C-20) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HBP1 (C-20) is also recommended for detection of HBP1 in additional species, including equine, canine, bovine, porcine and avian.

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 (C-20) 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 nuclear extract: sc-2126, HeLa whole cell lysate: sc-2200 or Y79 cell lysate: sc-2240.

### 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.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

**MONOS**  
Satisfaction  
Guaranteed

Try **HBP1 (G-8): sc-515281** or **HBP1 (A-5): sc-376831**, our highly recommended monoclonal alternatives to HBP1 (C-20).