NSBP1 (M-16): sc-102042



The Power to Question

BACKGROUND

The high-mobility group (HMG) proteins -14 and -17 are abundant chromosomal proteins that bind to nucleosomes and enhance transcription. HMG-14 and HMG-17 also function as architectural elements, which alter the structure of the chromatin fiber and enhance transcription from chromatin templates. HMG-14/17 proteins modify the nucleosomal organization of the 30 nm chromatin fiber and mediate the unfolding of the higher order chromatin structure, thereby facilitating access to the underlying DNA sequence. The nucleosomal binding protein 1 (NSBP1) is highly homologous to the HMG-14 and HMG-17 proteins and plays a pivotal role in chromatin remodeling. The human NSBP1 gene produces three mRNA transcripts with alternate polyadenylated sites, which are thought to mediate the stability of the mRNA. In androgen-independent prostate cancer cells, NSBP1 promotes cell growth and viability, which, subsequently, makes NSBP1 a potential target for therapeutic purposes.

REFERENCES

- Bustin, M., Trieschmann, L. and Postnikov, Y.V. 1995. The HMG-14/-17 chromosomal protein family: architectural elements that enhance transcription from chromatin templates. Semin. Cell Biol. 6: 247-255.
- Postnikov, Y.V., Herrera, J.E., Hock, R., Scheer, U. and Bustin, M. 1997. Clusters of nucleosomes containing chromosomal protein HMG-17 in chromatin. J. Mol. Biol. 274: 454-465.
- Shirakawa, H., Landsman, D., Postnikov, Y.V. and Bustin, M. 2000. NBP-45, a novel nucleosomal binding protein with a tissue-specific and developmentally regulated expression. J. Biol. Chem. 275: 6368-6374.
- 4. King, L.M. and Francomano, C.A. 2001. Characterization of a human gene encoding nucleosomal binding protein NSBP1. Genomics 71: 163-173.
- 5. Song, G., Zhou, L.Q., Weng, M., He, Q., He, Z.S., Hao, J.R., Pan, B.N. and Na, Y.Q. 2006. Expression of nucleosomal binding protein 1 in normal prostate benign prostate hyperplasia, and prostate cancer and significance thereof. Zhonghua Yi Xue Za Zhi 86: 1962-1965.
- Zhou, L.Q., Song, G., He, Z.S., Hao, J.R. and Na, Y.Q. 2007. Effects of inhibiting nucleosomal binding protein 1 on proliferation of human prostate cancer cells. Zhonghua Yi Xue Za Zhi 87: 404-408.
- Huang, C., Zhou, L.Q. and Song, G. 2008. Effect of nucleosomal binding protein 1 in androgen-independent prostatic carcinoma. Zhonghua Yi Xue Za Zhi 88: 657-660.

CHROMOSOMAL LOCATION

Genetic locus: NSBP1 (human) mapping to Xq21.1.

SOURCE

NSBP1 (M-16) is a purified rabbit polyclonal antibody raised against NSBP1 of human origin.

PRODUCT

Each vial contains 50 μg lgG in 500 μl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

NSBP1 (M-16) is recommended for detection of NSBP1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NSBP1 siRNA (h): sc-90899, NSBP1 shRNA Plasmid (h): sc-90899-SH and NSBP1 shRNA (h) Lentiviral Particles: sc-90899-V.

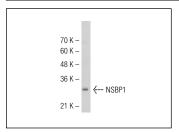
Molecular Weight of NSBP1: 64 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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).

DATA



NSBP1 (M-16): sc-102042. Western blot analysis of NSBP1 expression in Hep G2 whole cell lysate.

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 or our catalog for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com