

BANP (N-13): sc-82783

BACKGROUND

BANP (BTG3 associated nuclear protein), also known as BEND1, SMARBP1 or SMAR1, is a 519 amino acid protein that localizes to the nucleus and belongs to the BANP/SMAR1 family. Interacting with CDP and p53, BANP functions to control V(D)J recombination during T cell development, specifically by binding to a scaffold/matrix DNA attachment region and repressing the enhancer function of TCR β (T cell receptor β). Additionally, BANP promotes p53 serine phosphorylation, resulting in the subsequent nuclear accumulation of p53 and, ultimately, cell cycle arrest. BANP is downregulated in breast cancer cells, suggesting a role in tumor suppression. Three isoforms of BANP exist due to alternative splicing events.

REFERENCES

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2. Chattopadhyay, S., et al. 2000. SMAR1, a novel, alternatively spliced gene product, binds the Scaffold/ Matrix-associated region at the T cell receptor β locus. *Genomics* 68: 93-96.
3. Kaul, R., et al. 2003. Direct interaction with and activation of p53 by SMAR1 retards cell-cycle progression at G₂/M phase and delays tumor growth in mice. *Int. J. Cancer* 103: 606-615.
4. Kaul-Ghanekar, R., et al. 2004. SMAR1 and Cux/CDP modulate chromatin and act as negative regulators of the TCR β enhancer (E β). *Nucleic Acids Res.* 32: 4862-4875.
5. Kaul-Ghanekar, R., et al. 2005. Abnormal V(D)J recombination of T cell receptor β locus in SMAR1 transgenic mice. *J. Biol. Chem.* 280: 9450-9459.
6. Jalota, A., et al. 2005. Tumor suppressor SMAR1 activates and stabilizes p53 through its arginine-serine-rich motif. *J. Biol. Chem.* 280: 16019-16029.
7. Rampalli, S., et al. 2005. Tumor suppressor SMAR1 mediates cyclin D1 repression by recruitment of the SIN3/histone deacetylase 1 complex. *Mol. Cell. Biol.* 25: 8415-8429.
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CHROMOSOMAL LOCATION

Genetic locus: BANP (human) mapping to 16q24.2; Banp (mouse) mapping to 8 E1.

SOURCE

BANP (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BANP of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-82783 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BANP (N-13) is recommended for detection of BANP of mouse, rat and 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)], 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).

Suitable for use as control antibody for BANP siRNA (h): sc-72607, BANP siRNA (m): sc-72608, BANP shRNA Plasmid (h): sc-72607-SH, BANP shRNA Plasmid (m): sc-72608-SH, BANP shRNA (h) Lentiviral Particles: sc-72607-V and BANP shRNA (m) Lentiviral Particles: sc-72608-V.

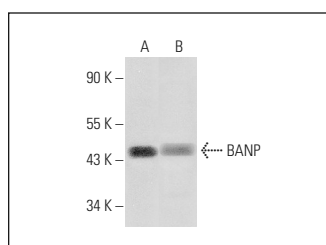
Molecular Weight of BANP: 56 kDa.

Positive Controls: U-251-MG whole cell lysate: sc-364176 or HeLa whole cell lysate: sc-2200.

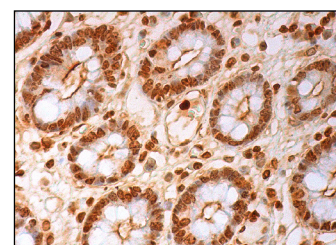
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



BANP (N-13): sc-82783. Western blot analysis of BANP expression in U-251-MG (A) and HeLa (B) whole cell lysates.



BANP (N-13): sc-82783. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing nuclear staining of glandular cells and endothelial cells.

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.