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# BANP Antibody
**Catalog # ASC11203**

## Specification

### BANP Antibody - Product Information

| | |
|---|---|
| Application | **WB, IHC-P, IF, E** |
| Primary Accession | Q8N9N5 |
| Other Accession | NP_001167014, 291084803 |
| Reactivity | **Human, Mouse, Rat** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **IgG** |
| Application Notes | **BANP antibody can be used for detection of BANP by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 10 µg/mL. For immunofluorescence start at 20 µg/mL.** |

### BANP Antibody - Additional Information

Gene ID **54971**

**Target/Specificity**
BANP;

**Reconstitution & Storage**
BANP antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**
BANP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### BANP Antibody - Protein Information

**Name** BANP

**Synonyms** BEND1, SMAR1

**Function**
Controls V(D)J recombination during T-cell development by repressing T-cell receptor (TCR) beta enhancer function (By similarity). Binds to scaffold/matrix attachment region beta (S/MARbeta), an ATC-rich DNA sequence located upstream of the TCR beta enhancer (By similarity). Represses cyclin D1 transcription by recruiting HDAC1 to its promoter, thereby diminishing H3K9ac, H3S10ph and H4K8ac levels (PubMed:<a href="http://www.uniprot.org/citations/16166625" target="_blank">16166625</a>). Promotes TP53 activation, which causes cell cycle arrest (By similarity). Plays a role in the regulation of alternative splicing (PubMed:<a href="http://www.uniprot.org/citations/26080397" target="_blank">26080397</a>). Binds to

CD44 pre-mRNA and negatively regulates the inclusion of CD44 proximal variable exons v2-v6 but has no effect on distal variable exons v7-v10 (PubMed:<a href="http://www.uniprot.org/citations/26080397" target="_blank">26080397</a>).

**Cellular Location**
Nucleus. Nucleus speckle. Cytoplasm Note=Primarily nuclear but translocates to the cytoplasm following MAPK1/MAPK3-mediated phosphorylation.

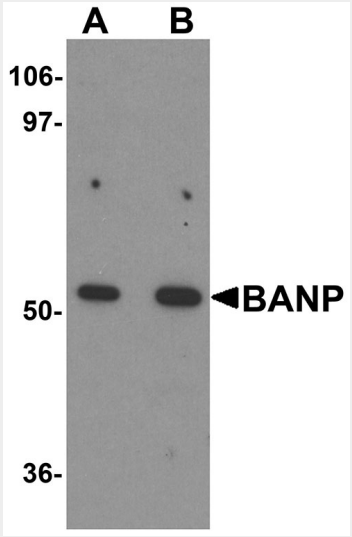
**Tissue Location**
Down-regulated in breast cancer cell lines.

## BANP Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## BANP Antibody - Images




Western blot analysis of BANP in mouse kidney tissue lysate with BANP antibody at (A) 1 and (B) 2 µg/mL.

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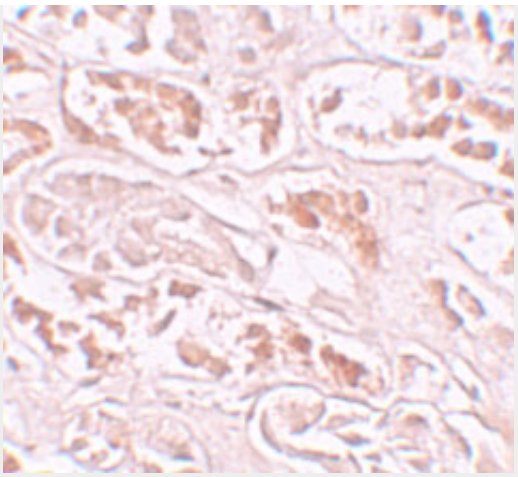
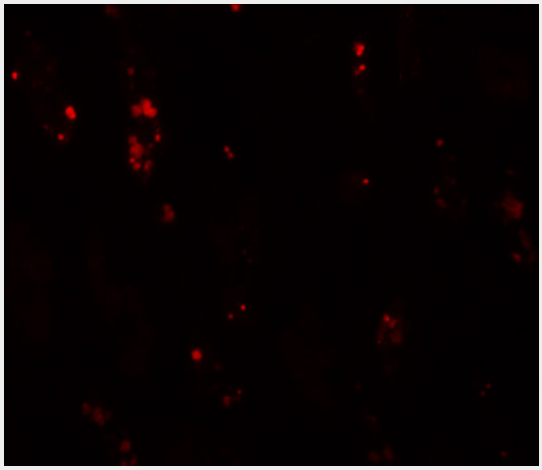


Immunohistochemistry of BANP in human kidney tissue with BANP antibody at 10 µg/mL.



Immunofluorescence of BANP in human kidney tissue with BANP antibody at 20 µg/mL.

**BANP Antibody - Background**

BANP Antibody: BANP was initially identified as a binding protein to BTG3 in a yeast two-hybrid screen. BANP acts as a tumor suppressor by stabilizing p53 expression and leading to cell cycle arrest. p53 in turn binds to upstream elements of the BANP promoter, thereby forming a feedback loop. BANP is down-regulated in advanced stages of human breast cancer, and its overexpression in breast cancer cell lines inhibits their ability to metastasize by modulating TGF-beta signaling. Furthermore, BANP can modulate NF-κB transactivation and can inhibit tumorigenesis by regulating NF-κB target genes. Recent experiments have shown that BANP can also repress HIV-1 LTR mediated transcription by tethering the LTR matrix attachment region to nuclear matrix.

**BANP Antibody - References**

Birot A, Duret L, Bartholin L, et al. Identification and molecular analysis of BANP. Gene2000; 253:189-96.
Kaul R, Mukherjee S, Ahmed F, et al. 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. Cancer2003; 103:606-15.
Singh K, Mogare D, Giridharagopalan RO, et al. P%3 target gene SMAR1 is dysregulated in breast cancer: its role in cancer cell migration and invasion. PLoS One2007; 2:e660.
Signh K, Sinha S, Malonia SK, et al. Tumor suppressor SMAR1 repsses IkBa expression and inhibits p65 transactivation through matrix attachment regions. J. Biol. Chem.2009; 284:1267-78.