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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:16166625). Promotes TP53 activation, which causes cell cycle arrest (By similarity). Plays a role in the regulation of alternative splicing (PubMed:26080397). 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:26080397).

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

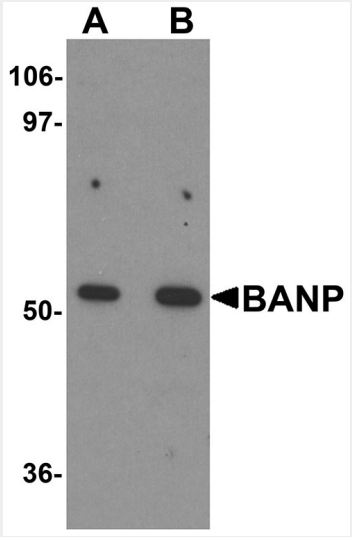
Tissue Location
Down-regulated in breast cancer cell lines.

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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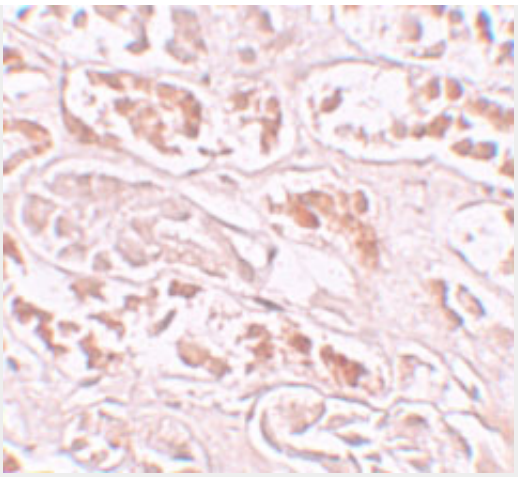
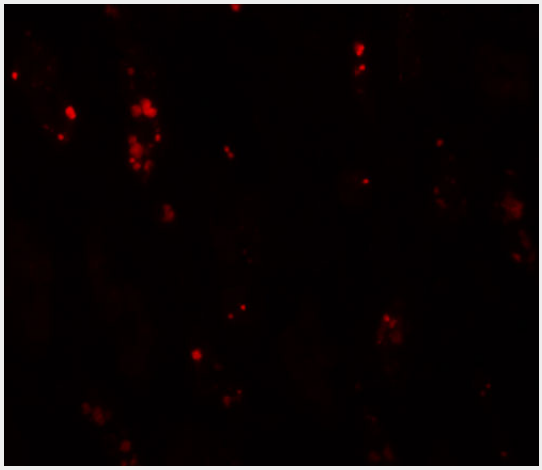


Immunohistochemistry of BANP in human kidney tissue with BANP antibody at 10 µg/mL.



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.