

Goat Anti-Bisphosphate 3'-nucleotidase Antibody
Peptide-affinity purified goat antibody
Catalog # AF1157a**Specification**

Goat Anti-Bisphosphate 3'-nucleotidase Antibody - Product Information

Application	WB, E
Primary Accession	O95861
Other Accession	NP_006076 , 10380 , 23827 (mouse) , 64473 (rat)
Reactivity	Human
Predicted	Mouse, Rat
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	33392

Goat Anti-Bisphosphate 3'-nucleotidase Antibody - Additional Information**Gene ID** 10380**Other Names**

3'(2'), 5'-bisphosphate nucleotidase 1, 3.1.3.7, Bisphosphate 3'-nucleotidase 1, PAP-inositol 1, 4-phosphatase, PIP, BPNT1

Dilution

WB~~1:1000

E~~N/A

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-Bisphosphate 3'-nucleotidase Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-Bisphosphate 3'-nucleotidase Antibody - Protein Information**Name** BPNT1**Function**

Phosphatase that converts 3'(2')-phosphoadenosine 5'- phosphate (PAP) to AMP and inositol

1,4-bisphosphate (Ins(1,4)P₂) to inositol 4-phosphate (PubMed:10675562). Is also able to hydrolyze adenosine 3'-phosphate 5'-phosphosulfate (PAPS) to adenosine 5'- phosphosulfate (APS) (By similarity). Probably prevents the toxic accumulation of PAP, a compound which inhibits a variety of proteins, including PAPS-utilizing enzymes such as sulfotransferases, and RNA processing enzymes. Could also play a role in inositol recycling and phosphoinositide metabolism. Is not active on 3'-AMP, inositol-1- phosphate and inositol-1,4,5-triphosphate (PubMed:10675562).

Tissue Location

Highly expressed in kidney, liver, pancreas and heart. Detected at lower levels in brain, placenta, lung and skeletal muscle.

Goat Anti-Bisphosphate 3'-nucleotidase 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 Cytometry](#)
- [Cell Culture](#)

Goat Anti-Bisphosphate 3'-nucleotidase Antibody - Images



AF1157a (1 µg/ml) staining of Human Liver lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-Bisphosphate 3'-nucleotidase Antibody - Background

BPNT1, also called bisphosphate 3-prime-nucleotidase, or BPntase, is a member of a magnesium-dependent phosphomonoesterase family. Lithium, a major drug used to treat manic depression, acts as an uncompetitive inhibitor of BPntase. The predicted human protein is 92% identical to mouse BPntase. BPntase's physiologic role in nucleotide metabolism may be regulated by inositol signaling pathways. The inhibition of human BPntase may account for lithium-induced nephrotoxicity.

Goat Anti-Bisphosphate 3'-nucleotidase Antibody - References

Evaluation of candidate stromal epithelial cross-talk genes identifies association between risk of serous ovarian cancer and TERT, a cancer susceptibility hot-spot. Johnatty SE, et al. PLoS Genet, 2010 Jul 8. PMID 20628624.

The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). Gerhard DS, et al. Genome Res, 2004 Oct. PMID 15489334.

Complete sequencing and characterization of 21,243 full-length human cDNAs. Ota T, et al. Nat Genet, 2004 Jan. PMID 14702039.

Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Strausberg RL, et al. Proc Natl Acad Sci U S A, 2002 Dec 24. PMID 12477932.

Cloning and characterization of a mammalian lithium-sensitive bisphosphate 3'-nucleotidase inhibited by inositol 1,4-bisphosphate. Spiegelberg BD, et al. J Biol Chem, 1999 May 7. PMID 10224133.