

## Goat Anti-Bisphosphate 3'-nucleotidase Antibody

Peptide-affinity purified goat antibody Catalog # AF1157a

## **Specification**

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

Application WB
Primary Accession O95861

Other Accession NP 006076, 10380, 23827 (mouse), 64473 (rat)

Reactivity
Predicted
Host
Clonality
Concentration

Human
Mouse, Rat
Goat
Polyclonal
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

#### **Format**

0.5~mg lgG/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:<a href="http://www.uniprot.org/citations/10675562" target="\_blank">10675562</a>). 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



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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:<a href="http://www.uniprot.org/citations/10675562" target="\_blank">10675562</a>).

### **Tissue Location**

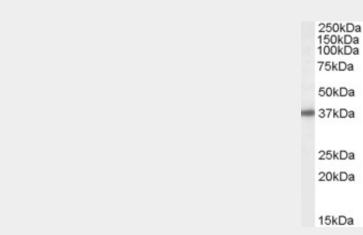
Highly expressed in kidney, liver, pancreas and heart. Detected at lower levels in brain, placenta, lung and skeletal muscle.

## 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 Cytomety
- Cell Culture

## Goat Anti-Bisphosphate 3'-nucleotidase Antibody - Images



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

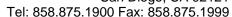
## Goat Anti-Bisphosphate 3'-nucleotidase Antibody - Background

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.