

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

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

Application	WB
Primary Accession	<a href="#">O95861</a>
Other Accession	<a href="#">NP_006076</a> , <a href="#">10380</a> , <a href="#">23827 (mouse)</a> , <a href="#">64473 (rat)</a>
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

**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:&lt;a href="http://www.uniprot.org/citations/10675562" target="\_blank"&gt;10675562&lt;/a&gt;). 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:<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 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.