

BPNT1 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP16536b**Specification**

BPNT1 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [O95861](#)**BPNT1 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 10380**Other Names**

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

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

BPNT1 Antibody (C-term) Blocking Peptide - 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.

BPNT1 Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

BPNT1 Antibody (C-term) Blocking Peptide - Images

BPNT1 Antibody (C-term) Blocking Peptide - Background

BPNT1, also called bisphosphate 3-prime-nucleotidase, orBPntase, is a member of a magnesium-dependent phosphomonoesterasefamily. Lithium, a major drug used to treat manic depression, actsas an uncompetitive inhibitor of BPntase. The predicted humanprotein is 92% identical to mouse BPntase. BPntase's physiologicrole in nucleotide metabolism may be regulated by inositolsignaling pathways. The inhibition of human BPntase may account forlithium-induced nephrotoxicity.

BPNT1 Antibody (C-term) Blocking Peptide - References

Johnatty, S.E., et al. PLoS Genet. 6 (7), E1001016 (2010) :Spiegelberg, B.D., et al. J. Biol. Chem. 274(19):13619-13628(1999)