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BDP1 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP8401a

Specification

BDP1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q99952

BDP1 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 26469

Other Names
Tyrosine-protein phosphatase non-receptor type 18, Brain-derived phosphatase, PTPN18, BDP1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8401a was selected from the N-term region of human BDP1 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

BDP1 Antibody (N-term) Blocking Peptide - Protein Information

Name PTPN18

Synonyms BDP1

Function
Differentially dephosphorylate autophosphorylated tyrosine kinases which are known to be overexpressed in tumor tissues.

Cellular Location
Nucleus. Cytoplasm.

Tissue Location
Expressed in brain, colon and several tumor-derived cell lines.

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BDP1 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

BDP1 Antibody (N-term) Blocking Peptide - Images

BDP1 Antibody (N-term) Blocking Peptide - Background

Phosphorylation of receptors by protein kinases is a process that can be reversed by a group of enzymes called protein phosphatases. Coordinated control of kinases and phosphatases provides the cell with the capacity to rapidly switch between phosphorylated and dephosphorylated protein states in dynamic response to environmental stimuli. Activation of critical enzymes by kinase phosphorylation alone is not enough to provide adequate regulation ? it is the combination with phosphatase dephosphorylation that effectively creates on/off switches to control cellular events. Errors in control, either through kinases or their counterpart phosphatases, can lead to unchecked cell growth attributable to human cancers and developmental disorders. Potential mechanisms to control dephosphorylation include changes in the expression of protein phosphatases, their subcellular localization, phosphorylation of phosphatase catalytic and regulatory subunits and regulation by endogenous phosphatase inhibitors. Most protein phosphatases are not stringently specific for their substrates. Consequently, changes in phosphatase activity may have a broad impact on dephosphorylation and turnover of phosphoproteins that are substrates for different kinases. This may be an important point of control to connect cellular circuitry of interrelated signaling pathways, and to synchronize physiological responses.

BDP1 Antibody (N-term) Blocking Peptide - References

Kim, Y.W., et al., Oncogene 13(10):2275-2279 (1996).