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PHPT1 Blocking Peptide (Y93)

Synthetic peptide
Catalog # BP2721d

Specification

PHPT1 Blocking Peptide (Y93) - Product Information

Primary Accession	Q9NRX4
Other Accession	NP_054891.2

PHPT1 Blocking Peptide (Y93) - Additional Information

Gene ID 29085

Other Names
14 kDa phosphohistidine phosphatase, 313-, Phosphohistidine phosphatase 1, Protein janus-A homolog, PHPT1, PHP14

Target/Specificity
The synthetic peptide sequence is selected from aa 85-102 of HUMAN PHPT1

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.

PHPT1 Blocking Peptide (Y93) - Protein Information

Name PHPT1

Synonyms PHP14

Function
Exhibits phosphohistidine phosphatase activity.

Cellular Location
Cytoplasm.

Tissue Location
Expressed abundantly in heart and skeletal muscle.

PHPT1 Blocking Peptide (Y93) - Protocols

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

- Blocking Peptides

PHPT1 Blocking Peptide (Y93) - Images

PHPT1 Blocking Peptide (Y93) - 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.

PHPT1 Blocking Peptide (Y93) - References

Ikuta, S., et al., J. Gastroenterol. 29(6):727-732 (1994).
Arimura, Y., et al., Tumour Biol. 13(3):180-186 (1992).
Yang, Q., et al., Proc. Natl. Acad. Sci. U.S.A. 88(14):5949-5953 (1991).