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GLEPP1 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP8403a

Specification

GLEPP1 Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q16827

GLEPP1 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 5800

Other Names
Receptor-type tyrosine-protein phosphatase O, R-PTP-O, Glomerular epithelial protein 1, Protein tyrosine phosphatase U2, PTP-U2, PTPase U2, PTPRO, GLEPP1, PTPU2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8403a was selected from the Center region of human GLEPP1 . 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.

GLEPP1 Antibody (Center) Blocking Peptide - Protein Information

Name PTPRO

Synonyms GLEPP1, PTPU2

Function
Possesses tyrosine phosphatase activity. Plays a role in regulating the glomerular pressure/filtration rate relationship through an effect on podocyte structure and function (By similarity).

Cellular Location
Membrane; Single-pass type I membrane protein.

Tissue Location
Glomerulus of kidney. Also detected in brain, lung and placenta.

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GLEPP1 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

GLEPP1 Antibody (Center) Blocking Peptide - Images

GLEPP1 Antibody (Center) 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.

GLEPP1 Antibody (Center) Blocking Peptide - References

Seimiya, H., et al., Oncogene 10(9):1731-1738 (1995).Wiggins, R.C., et al., Genomics 27(1):174-181 (1995).