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DUSP12 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP8454a

Specification

DUSP12 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q9UNI6

DUSP12 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 11266

Other Names
Dual specificity protein phosphatase 12, Dual specificity tyrosine phosphatase YVH1, DUSP12

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8454a was selected from the N-term region of human DUSP12. 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.

DUSP12 Antibody (N-term) Blocking Peptide - Protein Information

Name DUSP12

Function
Dual specificity phosphatase; can dephosphorylate both phosphotyrosine and phosphoserine or phosphothreonine residues. Can dephosphorylate glucokinase (in vitro) (By similarity). Has phosphatase activity with the synthetic substrate 6,8-difluoro-4-methylumbelliferyl phosphate and other in vitro substrates (PubMed:10446167, PubMed:24531476).

Cellular Location
Nucleus. Cytoplasm, cytosol. Note=Primarily nuclear. Detected in a mesh-like pattern in the cytosol.

Tissue Location

Ubiquitous, highest expression in spleen, testis, ovary, and peripheral blood leukocytes and lower expression in liver and lung

DUSP12 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

DUSP12 Antibody (N-term) Blocking Peptide - Images

DUSP12 Antibody (N-term) Blocking Peptide - Background

DUSP12 is a member of the dual specificity protein phosphatase subfamily. These phosphatases inactivate their target kinases by dephosphorylating both the phosphoserine/threonine and phosphotyrosine residues. They negatively regulate members of the mitogen-activated protein (MAP) kinase superfamily (MAPK/ERK, SAPK/JNK, p38), which is associated with cellular proliferation and differentiation. Different members of the family of dual specificity phosphatases show distinct substrate specificities for various MAP kinases, different tissue distribution and subcellular localization, and different modes of inducibility of their expression by extracellular stimuli. DUSP12 is the human ortholog of the Saccharomyces cerevisiae YVH1 protein tyrosine phosphatase. It is localized predominantly in the nucleus, and is novel in that it contains, and is regulated by a zinc finger domain.

DUSP12 Antibody (N-term) Blocking Peptide - References

Muda, M., et al., J. Biol. Chem. 274(34):23991-23995 (1999).Groom, L.A., et al., EMBO J. 15(14):3621-3632 (1996).