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DUSP7 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP14393c

Specification

DUSP7 Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q16829

DUSP7 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 1849

Other Names
Dual specificity protein phosphatase 7, Dual specificity protein phosphatase PYST2, DUSP7, PYST2

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.

DUSP7 Antibody (Center) Blocking Peptide - Protein Information

Name DUSP7 (HGNC:3073)

Function
Dual specificity protein phosphatase (PubMed:9788880). Shows high activity towards MAPK1/ERK2 (PubMed:9788880). Also has lower activity towards MAPK14 and MAPK8 (PubMed:9788880). In arrested oocytes, plays a role in meiotic resumption (By similarity). Promotes nuclear envelope breakdown and activation of the CDK1/Cyclin-B complex in oocytes, probably by dephosphorylating and inactivating the conventional protein kinase C (cPKC) isozyme PRKCB (By similarity). May also inactivate PRKCA and/or PRKCG (By similarity). Also important in oocytes for normal chromosome alignment on the metaphase plate and progression to anaphase, where it might regulate activity of the spindle-assembly checkpoint (SAC) complex (By similarity).

Cellular Location
Cytoplasm.

Tissue Location
Strongly expressed in liver (PubMed:8670865). Expressed at significantly higher levels in malignant hematopoietic cells than in corresponding non-malignant cells (PubMed:14576828)

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DUSP7 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

DUSP7 Antibody (Center) Blocking Peptide - Images

DUSP7 Antibody (Center) Blocking Peptide - Background

Dual-specificity phosphatases (DUSPs) constitute a largeheterogeneous subgroup of the type I cysteine-basedprotein-tyrosine phosphatase superfamily. DUSPs are characterizedby their ability to dephosphorylate both tyrosine andserine/threonine residues. DUSP7 belongs to a class of DUSPs,designated MKPs, that dephosphorylate MAPK (mitogen-activatedprotein kinase) proteins ERK (see MIM 601795), JNK (see MIM601158), and p38 (see MIM 600289) with specificity distinct fromthat of individual MKP proteins. MKPs contain a highly conservedC-terminal catalytic domain and an N-terminal Cdc25 (see MIM116947)-like (CH2) domain. MAPK activation cascades mediate variousphysiologic processes, including cellular proliferation, apoptosis,differentiation, and stress responses (summary by Patterson et al.,2009 [PubMed 19228121]).

DUSP7 Antibody (Center) Blocking Peptide - References

Patterson, K.I., et al. Biochem. J. 418(3):475-489(2009)Amit, I., et al. Nat. Genet. 39(4):503-512(2007)Orlev, L.N., et al. Immunol. Lett. 92 (1-2), 149-156 (2004) :Levy-Nissenbaum, O., et al. Genes Chromosomes Cancer 39(1):37-47(2004)Pasquali, C., et al. Mol. Endocrinol. 17(11):2228-2239(2003)