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Phospho-PPM1A(S375) Antibody Blocking peptide
Synthetic peptide
Catalog # BP3436a

Specification

Phospho-PPM1A(S375) Antibody Blocking peptide - Product Information

Primary Accession P35813

Phospho-PPM1A(S375) Antibody Blocking peptide - Additional Information

Gene ID 5494

Other Names
Protein phosphatase 1A, Protein phosphatase 2C isoform alpha, PP2C-alpha, Protein phosphatase IA, PPM1A, PPPM1A

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP3436a was selected from the region of human Phospho-PPM1A-pS375. 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.

Phospho-PPM1A(S375) Antibody Blocking peptide - Protein Information

Name PPM1A

Synonyms PPPM1A

Function
Enzyme with a broad specificity. Negatively regulates TGF- beta signaling through dephosphorylating SMAD2 and SMAD3, resulting in their dissociation from SMAD4, nuclear export of the SMADs and termination of the TGF-beta-mediated signaling. Dephosphorylates PRKAA1 and PRKAA2. Plays an important role in the termination of TNF-alpha- mediated NF-kappa-B activation through dephosphorylating and inactivating IKBKB/IKKB.

Cellular Location
Nucleus. Cytoplasm, cytosol. Membrane; Lipid- anchor Note=Weakly associates at the membrane and N-myristoylation mediates the membrane localization. {ECO:0000250|UniProtKB:P49443}

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Phospho-PPM1A(S375) Antibody Blocking peptide - Protocols

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

- Blocking Peptides

Phospho-PPM1A(S375) Antibody Blocking peptide - Images

Phospho-PPM1A(S375) Antibody Blocking peptide - Background

PPM1A is a member of the PP2C family of Ser/Thr protein phosphatases. PP2C family members are known to be negative regulators of cell stress response pathways. This phosphatase dephosphorylates, and negatively regulates the activities of, MAP kinases and MAP kinase kinases. It has been shown to inhibit the activation of p38 and JNK kinase cascades induced by environmental stresses. This phosphatase can also dephosphorylate cyclin-dependent kinases, and thus may be involved in cell cycle control. Overexpression of this phosphatase is reported to activate the expression of the tumor suppressor gene TP53/p53, which leads to G2/M cell cycle arrest and apoptosis.

Phospho-PPM1A(S375) Antibody Blocking peptide - References

Yoshizaki, T., et al., J. Biol. Chem. 279(21):22715-22726 (2004).Flajolet, M., et al., Proc. Natl. Acad. Sci. U.S.A. 100(26):16006-16011 (2003).Ofek, P., et al., J. Biol. Chem. 278(16):14299-14305 (2003).Matsuda, A., et al., Oncogene 22(21):3307-3318 (2003).Cheng, A., et al., Genes Dev. 13(22):2946-2957 (1999).