

PPM1A Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP14313a

Product Information

Application	WB, E
Primary Accession	P35813
Other Accession	P35814 , O62829 , NP_066283.1 , NP_808820.1
Reactivity	Human
Predicted	Bovine, Rabbit, Mouse, Rat, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB11054
Calculated MW	42448
Antigen Region	355-382

Additional Information

Gene ID	5494
Other Names	Protein phosphatase 1A, Protein phosphatase 2C isoform alpha, PP2C-alpha, Protein phosphatase 1A, PPM1A, PPPM1A
Target/Specificity	This PPM1A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 355-382 amino acids from human PPM1A.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PPM1A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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-mediated NF-kappa-B activation through dephosphorylating and inactivating IKKB/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}

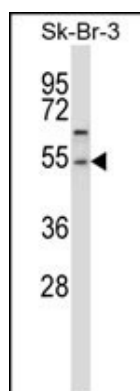
Background

The protein encoded by this gene 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. Three alternatively spliced transcript variants encoding distinct isoforms have been described.

References

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Zhang, B., et al. Histochem. Cell Biol. 132(2):169-179(2009)
Sun, W., et al. Cell. Signal. 21(1):95-102(2009)
Wang, Y., et al. J. Biol. Chem. 283(48):33578-33584(2008)
Bu, S., et al. J. Biol. Chem. 283(28):19593-19602(2008)

Images



PPM1A Antibody (pS) (Cat. #AP14313a) western blot analysis in SK-BR-3 cell line lysates (35ug/lane). This demonstrates the PPM1A antibody detected the PPM1A protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.