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PP2CA Rabbit pAb

Catalog # AP97639

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P35813
Other Accession	P35813
Host	Rabbit
Clonality	Polyclonal
Calculated MW	42448
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PP2CA/PPM1A
Epitope Specificity	101-200/382
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the PP2C family.
SUBUNIT	Monomer. Interacts with SMAD2; the interaction dephosphorylates SMAD2 in its C-terminal SXS motif resulting in disruption of the SMAD2/SMAD4 complex, SMAD2 nuclear export and termination of the TGF-beta-mediated signaling. Interacts with SMAD2; the interaction dephosphorylates SMAD2 in its C-terminal SXS motif resulting in disruption of the SMAD2/SMAD4 complex, SMAD2 nuclear export and termination of the TGF-beta-mediated signaling.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	5494
Other Names	PP2C-ALPHA; PP2CA; PP2Calpha; 2310003C21Rik; 2900017D14Rik; MMPa-2; MPPa-1; PPM1A_HUMAN; PPM1A; Protein phosphatase 2C isoform alpha (PP2C-alpha); Protein phosphatase IA; 3.1.3.16; PPPM1A; PPM1A_MOUSE; protein phosphatase, Mg2+/Mn2+ dependent 1A; protein phosphatase 1A (formerly 2C), magnesium-dependent, alpha isoform; protein phosphatase,

	Mg2+/Mn2+ dependent, 1A; phosphatase 2C alpha; protein phosphatase 2C, alpha isoform
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,Flow-Cyt=3ug/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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 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}

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