10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PPM1A Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1726a

Product Information

Application	WB, FC, E
Primary Accession	P35813
Reactivity	Human, Monkey
Host	Mouse
Clonality	Monoclonal
Clone Names	7F12
Isotype	IgG1
Calculated MW	42448
Description	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.
Immunogen	Purified recombinant fragment of human PPM1A (AA: 202-382) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	5494
Other Names	Protein phosphatase 1A, 3.1.3.16, Protein phosphatase 2C isoform alpha, PP2C-alpha, Protein phosphatase IA, PPM1A, PPPM1A
Dilution	WB~~1/500 - 1/2000 FC~~1/200 - 1/400 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. 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-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}

References

1.Biol Psychiatry. 2011 Feb 15;69(4):360-5. 2.Cell Signal. 2009 Jan;21(1):95-102.

Images

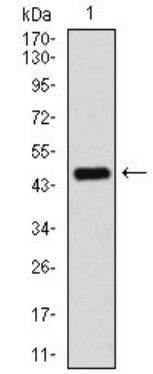

Figure 1: Western blot analysis using PPM1A mAb against human PPM1A recombinant protein. (Expected MW is 45.9 kDa)

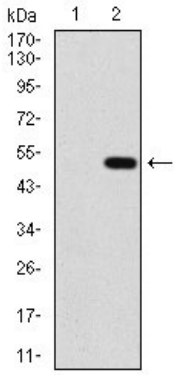

Figure 2: Western blot analysis using PPM1A mAb against HEK293 (1) and PPM1A (AA: 202-382)-hIgGFc transfected HEK293 (2) cell lysate.

Figure 3: Western blot analysis using PPM1A mouse mAb against Jurkat (1), Jurkat (2), A431 (3), HeLa (4), HEK293 (5), Raji (6), MCF-7 (7), and COS7 (8) cell lysate.

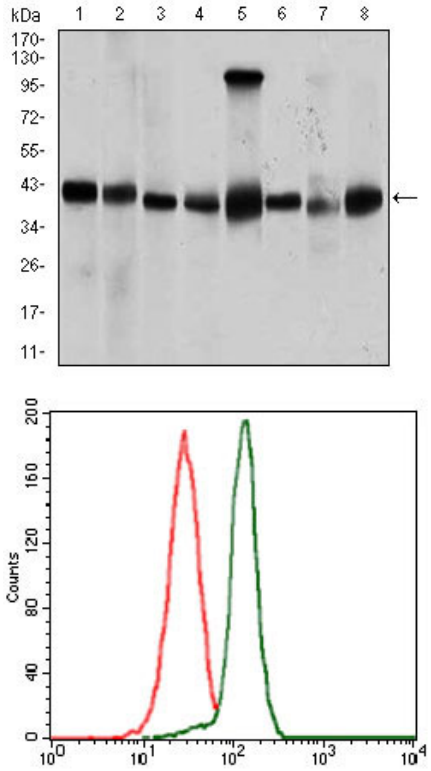

Figure 4: Flow cytometric analysis of HeLa cells using PPM1A mouse mAb (green) and negative control (red).