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

Specification

PPM1A Antibody - Product Information

Application	**WB, FC, E**
Primary Accession	P35813
Reactivity	**Human, Monkey**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**42.4kDa KDa**

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

PPM1A Antibody - 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.

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PPM1A Antibody - Protein Information

Name PPM1A

Synonyms PPPM1A

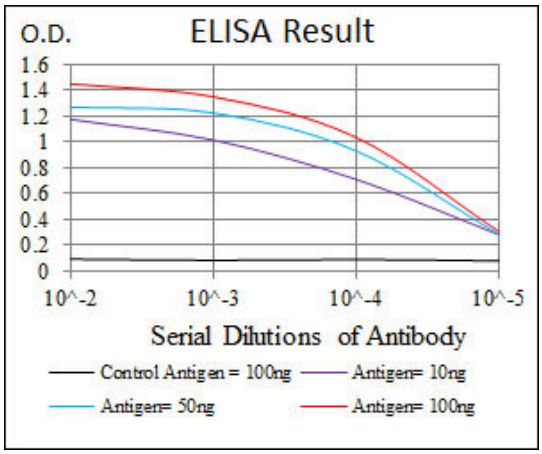
Function
Enzyme with a broad specificity. Negatively regulates TGF- beta signaling through dephosphorylating SMAD2 and SMAD3, resulting in their dissociation from SMAD4, nuclear export of the SMADs and termination of the TGF-beta-mediated signaling. Dephosphorylates PRKAA1 and PRKAA2. Plays an important 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}

PPM1A Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



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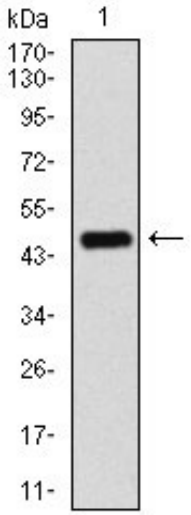

Figure 1: Western blot analysis using PPM1A mAb against human PPM1A recombinant protein. (Expected MW is 45.9 kDa)

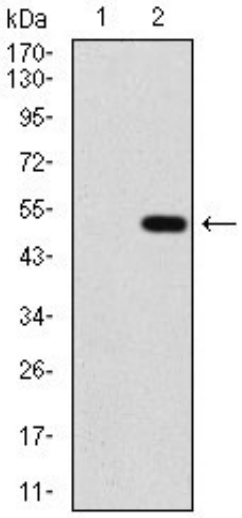

Figure 2: Western blot analysis using PPM1A mAb against HEK293 (1) and PPM1A (AA: 202-382)-hIgGFc transfected HEK293 (2) cell lysate.

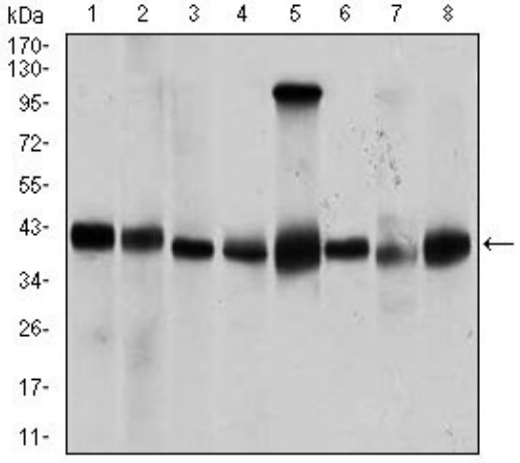

Figure 3: Western blot analysis using PPM1A mouse mAb against Jurkat (1), Jurkat (2), A431 (3), HeLa (4), HEK293 (5), Raji (6), MCF-7 (7), and COS7 (8) cell lysate.

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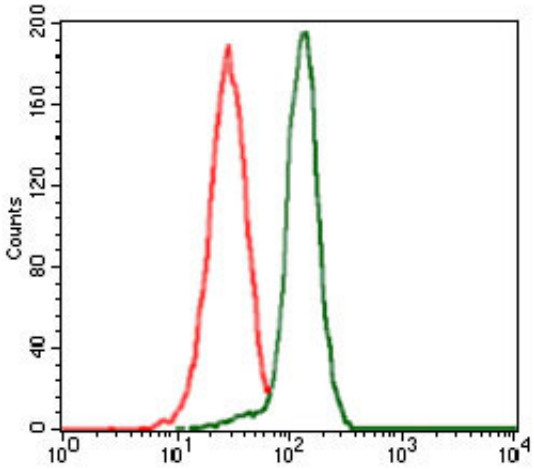

Figure 4: Flow cytometric analysis of HeLa cells using PPM1A mouse mAb (green) and negative control (red).

PPM1A Antibody - References

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