

### **PPM1D Antibody (Center)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP13875C

### Specification

### **PPM1D** Antibody (Center) - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Isotype Calculated MW Antigen Region WB,E <u>O15297</u> <u>O9OZ67</u>, <u>NP\_003611.1</u> Human Mouse Rabbit Polyclonal Rabbit IgG 66675 183-212

### **PPM1D** Antibody (Center) - Additional Information

### Gene ID 8493

Other Names

Protein phosphatase 1D, Protein phosphatase 2C isoform delta, PP2C-delta, Protein phosphatase magnesium-dependent 1 delta, p53-induced protein phosphatase 1, PPM1D, WIP1

#### Target/Specificity

This PPM1D antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 183-212 amino acids from the Central region of human PPM1D.

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

PPM1D Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

### **PPM1D** Antibody (Center) - Protein Information

Name PPM1D



## Synonyms WIP1

**Function** Involved in the negative regulation of p53 expression (PubMed:<u>23242139</u>). Required for the relief of p53-dependent checkpoint mediated cell cycle arrest. Binds to and dephosphorylates 'Ser-15' of TP53 and 'Ser-345' of CHEK1 which contributes to the functional inactivation of these proteins (PubMed:<u>15870257</u>, PubMed:<u>16311512</u>). Mediates MAPK14 dephosphorylation and inactivation (PubMed:<u>21283629</u>). Is also an important regulator of global heterochromatin silencing and critical in maintaining genome integrity (By similarity).

**Cellular Location** Nucleus. Cytoplasm, cytosol

**Tissue Location** 

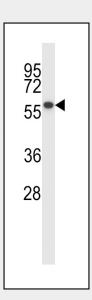
Expressed in fetal and adult brain. Also detected in fetal liver and skeletal muscle, but not in their adult counterparts.

### **PPM1D Antibody (Center) - Protocols**

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

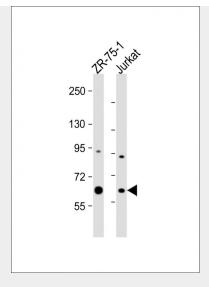
- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### PPM1D Antibody (Center) - Images



PPM1D Antibody (Center) (Cat. #AP13875c) western blot analysis in Hela cell line lysates (35ug/lane).This demonstrates the PPM1D antibody detected the PPM1D protein (arrow).





All lanes : Anti-PPM1D Antibody (Center) at 1:1000 dilution Lane 1: ZR-75-1 whole cell lysate Lane 2: Jurkat whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 67 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

### PPM1D Antibody (Center) - 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. The expression of this gene is induced in a p53-dependent manner in response to various environmental stresses. While being induced by tumor suppressor protein TP53/p53, this phosphatase negatively regulates the activity of p38 MAP kinase, MAPK/p38, through which it reduces the phosphorylation of p53, and in turn suppresses p53-mediated transcription and apoptosis. This phosphatase thus mediates a feedback regulation of p38-p53 signaling that contributes to growth inhibition and the suppression of stress induced apoptosis. This gene is located in a chromosomal region known to be amplified in breast cancer. The amplification of this gene has been detected in both breast cancer cell line and primary breast tumors, which suggests a role of this gene in cancer development.

# **PPM1D Antibody (Center) - References**

Zhang, X., et al. Cancer Res. 70(18):7176-7186(2010) Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) : Moon, S.H., et al. J. Biol. Chem. 285(17):12935-12947(2010) Macurek, L., et al. Oncogene 29(15):2281-2291(2010) Yang, D.H., et al. Zhonghua Yi Xue Za Zhi 90(8):519-522(2010) **PPM1D Antibody (Center) - Citations** 

• Protein phosphatase 2C6/Wip1 regulates phospho-p90RSK2 activity in lesional psoriatic skin.