

**PPM1D Antibody (Center) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP13875c****Specification**

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**PPM1D Antibody (Center) Blocking peptide - Product Information**Primary Accession [O15297](#)**PPM1D Antibody (Center) Blocking peptide - 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**

The synthetic peptide sequence used to generate the antibody AP13875c was selected from the Center region of PPM1D. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**PPM1D Antibody (Center) Blocking peptide - Protein Information**

Name PPM1D

Synonyms WIP1

**Function**

Involved in the negative regulation of p53 expression (PubMed:<a href="http://www.uniprot.org/citations/23242139" target="\_blank">23242139</a>). 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:<a href="http://www.uniprot.org/citations/15870257" target="\_blank">15870257</a>, PubMed:<a href="http://www.uniprot.org/citations/16311512" target="\_blank">16311512</a>). Mediates MAPK14 dephosphorylation and inactivation (PubMed:<a href="http://www.uniprot.org/citations/21283629" target="\_blank">21283629</a>). 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) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

**PPM1D Antibody (Center) Blocking peptide - Images****PPM1D Antibody (Center) Blocking peptide - 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) Blocking peptide - 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)