

#### **PPM1D Antibody**

Catalog # ASC11875

## **Specification**

## **PPM1D Antibody - Product Information**

Application WB, IHC, IF Primary Accession Q8IVR6

Other Accession
Reactivity
Human, Mouse, Rat
Rabbit

Clonality Polyclonal Isotype IgG

Calculated MW Predicted: 67 kDa

Observed: 68 kDa KDa

Application Notes

PPM1D antibody can be used for detection of PPM1D by Western blot at 1 - 2 µg/ml.

Antibody can also be used for

immunohistochemistry starting at 5  $\mu$ g/mL. For immunofluorescence start at 20  $\mu$ g/mL.

### **PPM1D Antibody - Additional Information**

Gene ID 8493

**Target/Specificity** 

PPM1D; PPM1D antibody is human, mouse and rat reactive. At least two isoforms of PPM1D are known to exist; this antibody will only detect the larger isoform.

### **Reconstitution & Storage**

PPM1D antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

#### **Precautions**

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

## **PPM1D Antibody - Protein Information**

## **PPM1D Antibody - Protocols**

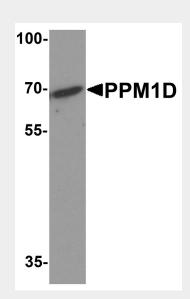
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

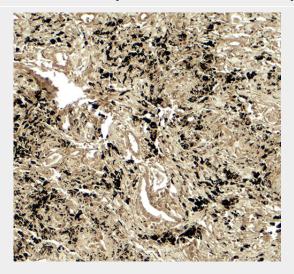


- Flow Cytomety
- Cell Culture

# **PPM1D Antibody - Images**



Western blot analysis of PPM1D in 3T3 cell lysate with PPM1D antibody at 1  $\mu$ g/ml.



Immunohistochemistry of PPM1D in human lung carcinoma tissue with PPM1D antibody at 5  $\,\mu g/ml.$ 





Immunofluorescence of PPM1D in human lung carcinoma tissue with PPM1D antibody at 20 μg/ml.

## PPM1D Antibody - Background

Wild-type p53 induced phosphatase 1 (WIP1) / protein phosphatase magnesium-dependent 1 delta (PPM1D), a protein identified in the p53 DNA response pathway, is a member of the PP2C family of serine/threonine protein phosphatases which selectively inactivates p38 MAPK and dephosphorylates the ATM/ATR targets, Chk1 and p53 (1,2). Studies have shown that it is overexpressed in human cancers and is involved in the regulation of multiple DNA damage signaling pathways (2,3). PPM1D deletion results in a reduction of T and B cell function and compromised cell division, rendering cells resistant to becoming cancerous and slowing tumor development (4,5).

### **PPM1D Antibody - References**

Fiscella M, Zhang H, Fan S, et al. Wip1, a novel human protein phosphatase that is induced in response to ionizing radiation in a p53-dependent manner. Proc. Natl. Acad. Sci. USA. 1997; 94:6048-53.

Zhu YH and Bulavin DV. Wip1-dependent signaling pathways in health and diseases. Prog. Mol. Biol. Transl. Sci. 2012; 106:307-25.

Lu X, Nguyen TA, Moon SH, et al. The type 2C phosphatase Wip1: an oncogenic regulator of tumor suppressor and DNA damage response pathways. Cancer Metastasis Rev. 2008; 27:123-35. Liang C, Guo E, Lu S, et al. Over-expression of wild-type p53-induced phosphatase 1 confers poor prognosis of patients with gliomas. Brain Res. 2012; 1444:65-75.