

Rabbit Anti-phospho-PPM1a (Ser375)/AP Conjugated antibody

SL5586R-AP

Product Name	Anti-phospho-PPM1A(Ser375)/AP
Chinese Name	碱性磷酸酶 (AP) 标记的磷酸化蛋白磷酸酶 2C 亚型 α 抗体
Alias	PPM1A(phospho S375); Mpp alpha; PP2C alpha; PP2C-alpha; PP2CA; PPM 1A; PPM1A; PPM1A_HUMAN; PPPM1A; Protein phosphatase 1A (formerly 2C) magnesium dependent alpha isoform; Protein phosphatase 1A; Protein phosphatase 1A magnesium dependent alpha; Protein phosphatase 2C alpha; Protein phosphatase 2C alpha isoform; Protein phosphatase 2C isoform alpha; Protein phosphatase IA; Protein phosphatase 2C isoform alpha; IA antibody.
Product Type	Phosphorylated anti
Research Area	immunology Chromatin and nuclear signals Signal transduction Kinases and Phosphatases
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human(predicted:Dog,Cow,Sheep,GuineaPig) IHC-P=1:100-500,IHC-F=1:100-500
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	42kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated Synthesised phosphopeptide derived from human PPM1A around the phosphorylation site of Ser375
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks

at 2-4 °C.

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. 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. [provided by RefSeq, Jul 2008].

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.

Product Detail

Subunit:

Monomer. Interacts with SMAD2; the interaction dephosphorylates SMAD2 in its C-terminal SXS motif resulting in disruption of the SMAD2/SMAD4 complex, SMAD2 nuclear export and termination of the TGF-beta-mediated signaling. Interacts with SMAD2; the interaction dephosphorylates SMAD2 in its C-terminal SXS motif resulting in disruption of the SMAD2/SMAD4 complex, SMAD2 nuclear export and termination of the TGF-beta-mediated signaling.

Subcellular Location:

Nucleus.

Similarity:

Belongs to the PP2C family.

Database links:

[Entrez Gene: 5494](#) Human

[Entrez Gene: 19042](#) Mouse

[Omim: 606108](#) Human



[SwissProt: P35813](#) Human

[SwissProt: P49443](#) Mouse

[Unigene: 130036](#) Human

[Unigene: 261045](#) Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.