10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PPM1F Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8459b

Product Information

Application	WB, IHC-P, E
Primary Accession	P49593
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB5987
Calculated MW	49831
Antigen Region	409-439

Additional Information

Gene ID	9647
Other Names	Protein phosphatase 1F, Ca(2+)/calmodulin-dependent protein kinase phosphatase, CaM-kinase phosphatase, CaMKPase, Partner of PIX 2, Protein fem-2 homolog, hFem-2, PPM1F, KIAA0015, POPX2
Target/Specificity	This PPM1F antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 409-439 amino acids from the C-terminal region of human PPM1F.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	PPM1F Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PPM1F
Synonyms	KIAA0015, POPX2
Function	Dephosphorylates and concomitantly deactivates CaM-kinase II activated

upon autophosphorylation, and CaM-kinases IV and I activated upon phosphorylation by CaM-kinase kinase. Promotes apoptosis.

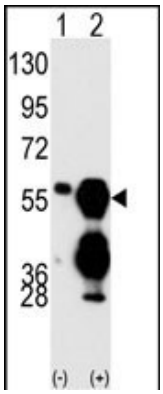
Background

PPM1F 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 can interact with Rho guanine nucleotide exchange factors (PIX), and thus block the effects of p21-activated kinase 1 (PAK), a protein kinase mediating biological effects downstream of Rho GTPases. Calcium/calmodulin-dependent protein kinase II gamma (CAMK2G/CAMK-II) is found to be one of the substrates of this phosphatase. The overexpression of this phosphatase or CAMK2G has been shown to mediate caspase-dependent apoptosis.

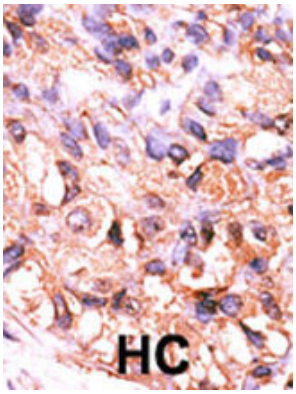
References

Harvey, B.P., et al., J. Biol. Chem. 279(23):24889-24898 (2004).
Izmailova, E., et al., Nat. Med. 9(2):191-197 (2003).
Koh, C.G., et al., Curr. Biol. 12(4):317-321 (2002).
Tan, K.M., et al., J. Biol. Chem. 276(47):44193-44202 (2001).

Images



Western blot analysis of PPM1F (arrow) using PPM1F Antibody (C-term) (Cat.#AP8459b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the PPM1F gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.