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PIM3 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7171a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q86V86
Other Accession	O70444, P58750
Reactivity	Human, Rat, Mouse
Predicted	Rat, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	35891
Antigen Region	259-288

Additional Information

Gene ID	415116
Other Names	Serine/threonine-protein kinase pim-3, PIM3
Target/Specificity	This PIM3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 259-288 amino acids from the C-terminal region of human PIM3.
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	PIM3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PIM3
Function	Proto-oncogene with serine/threonine kinase activity that can prevent apoptosis, promote cell survival and protein translation. May contribute to tumorigenesis through: the delivery of survival signaling through phosphorylation of BAD which induces release of the anti- apoptotic protein

Bcl-X(L), the regulation of cell cycle progression, protein synthesis and by regulation of MYC transcriptional activity. Additionally to this role on tumorigenesis, can also negatively regulate insulin secretion by inhibiting the activation of MAPK1/3 (ERK1/2), through SOCS6. Involved also in the control of energy metabolism and regulation of AMPK activity in modulating MYC and PPARGC1A protein levels and cell growth.

Cellular Location Cytoplasm.

Tissue Location Detected in various tissues, including the heart, brain, lung, kidney, spleen, placenta, skeletal muscle, and peripheral blood leukocytes. Not found or barely expressed in the normal adult endoderm-derived organs such as colon, thymus, liver, or small intestine. However, expression is augmented in premalignant and malignant lesions of these organs.

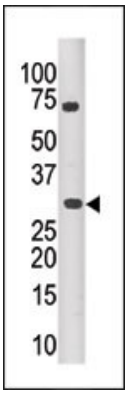
Background

PIM3 is a memberof the Ser/Thr protein kinase family that may be involved in cell cycle progression and anti-apoptosis process. This protein has been implicated in proliferation of human hepatoma cell lines. PIM3 is widely expressed, with the exception of no expression observed in colon, thymus, and small intestine. PIM3 is expressed in human hepatoma cell lines but not in normal liver tissues.

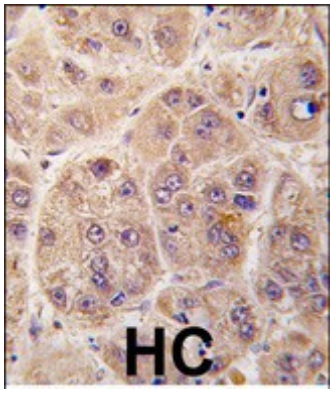
References

Mikkers, H., et al., Mol. Cell. Biol. 24(13):6104-6115 (2004). Eichmann, A., et al., Oncogene 19(9):1215-1224 (2000).

Images

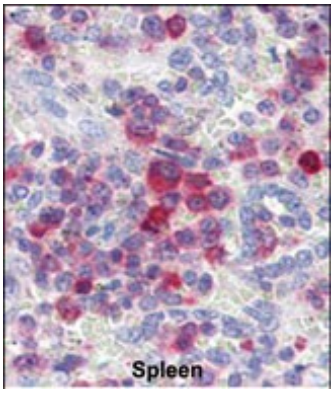


The anti-PIM3 Pab (Cat. #AP7171a) is used in Western blot to detect PIM3 in mouse kidney tissue lysate.



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with PIM3 antibody (C-term)(Cat.#AP7171a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Formalin-fixed and paraffin-embedded human Spleen tissue reacted with PIM3 antibody



(C-term)(Cat.#AP7171a), 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.

Citations

- Pim kinase inhibitor, SGI-1776, induces apoptosis in chronic lymphocytic leukemia cells.
- KSHV reactivation from latency requires Pim-1 and Pim-3 kinases to inactivate the latency-associated nuclear antigen LANA.
- PIM kinases are progression markers and emerging therapeutic targets in diffuse large B-cell lymphoma.
- PIM kinases are essential for chronic lymphocytic leukemia cell survival (PIM2/3) and CXCR4-mediated microenvironmental interactions (PIM1).
- Expression and significance of Pim-3 kinase in adult T-cell leukemia.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.