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WISP1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6255A

Product Information

Application	WB, IHC-P, E
Primary Accession	O95388
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	40331
Antigen Region	171-200

Additional Information

Gene ID	8840
Other Names	WNT1-inducible-signaling pathway protein 1, WISP-1, CCN family member 4, Wnt-1-induced secreted protein, WISP1, CCN4
Target/Specificity	This WISP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 171-200 amino acids from the Central region of human WISP1.
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	WISP1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CCN4 (HGNC:12769)
Synonyms	WISP1
Function	Downstream regulator in the Wnt/Frizzled-signaling pathway. Associated with cell survival. Attenuates p53-mediated apoptosis in response to DNA damage through activation of AKT kinase. Up-regulates the anti-apoptotic

	Bcl-X(L) protein. Adheres to skin and melanoma fibroblasts. In vitro binding to skin fibroblasts occurs through the proteoglycans, decorin and biglycan.
Cellular Location	Secreted.
Tissue Location	Expressed in heart, kidney, lung, pancreas, placenta, ovary, small intestine and spleen. Isoform 2 is expressed predominantly in scirrhous gastric carcinoma and, weakly in placenta Overexpression is associated with several cancers including breast cancer and colon tumors. Isoform 2 is overexpressed in scirrhous gastric carcinoma

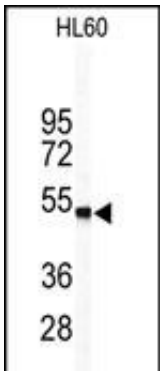
Background

Wisp1 is a member of the WNT1 inducible signaling pathway (WISP) protein subfamily, which belongs to the connective tissue growth factor (CTGF) family. WNT1 is a member of a family of cysteine-rich, glycosylated signaling proteins that mediate diverse developmental processes. The CTGF family members are characterized by four conserved cysteine-rich domains: insulin-like growth factor-binding domain, von Willebrand factor type C module, thrombospondin domain and C-terminal cystine knot-like domain. Wisp1 may be downstream in the WNT1 signaling pathway that is relevant to malignant transformation. It is expressed at a high level in fibroblast cells, and overexpressed in colon tumors. The encoded protein binds to decorin and biglycan, two members of a family of small leucine-rich proteoglycans present in the extracellular matrix of connective tissue, and possibly prevents the inhibitory activity of decorin and biglycan in tumor cell proliferation. It also attenuates p53-mediated apoptosis in response to DNA damage through activation of the Akt kinase. It is 83% identical to the mouse protein at the amino acid level.

References

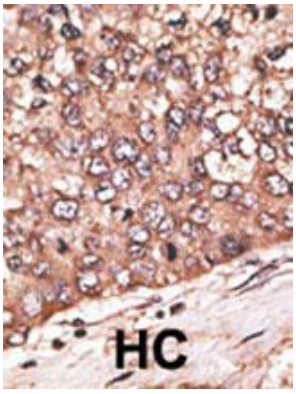
Hocevar, B.A., et al., EMBO J. 22(12):3084-3094 (2003).
Tanaka, S., et al., Hepatology 37(5):1122-1129 (2003).
Soon, L.L., et al., J. Biol. Chem. 278(13):11465-11470 (2003).
Su, F., et al., Genes Dev. 16(1):46-57 (2002).
Xie, D., et al., Cancer Res. 61(24):8917-8923 (2001).

Images



Western blot analysis of WISP1 Antibody (Center) (Cat.#AP6255a) in HL60 cell line lysates (35ug/lane). WISP1 (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, 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. BC = breast carcinoma; HC = hepatocarcinoma.



Citations

- WISP-2 in human gastric cancer and its potential metastatic suppressor role in gastric cancer cells mediated by JNK and PLC-γ pathways.