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AXIN1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12033b

Product Information

Application	WB, IHC-P, E
Primary Accession	O15169
Other Accession	NP_851393.1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31751
Calculated MW	95635
Antigen Region	710-738

Additional Information

Gene ID	8312
Other Names	Axin-1, Axis inhibition protein 1, hAxin, AXIN1, AXIN
Target/Specificity	This AXIN1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 710-738 amino acids from the C-terminal region of human AXIN1.
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 purified through a protein A column, followed by peptide affinity purification.
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	AXIN1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	AXIN1
Synonyms	AXIN
Function	Component of the beta-catenin destruction complex required for regulating CTNNB1 levels through phosphorylation and ubiquitination, and modulating

Wnt-signaling (PubMed:12192039, PubMed:27098453, PubMed:28829046). Controls dorsoventral patterning via two opposing effects; down-regulates CTNNB1 to inhibit the Wnt signaling pathway and ventralize embryos, but also dorsalizes embryos by activating a Wnt-independent JNK signaling pathway (PubMed:12192039). In Wnt signaling, probably facilitates the phosphorylation of CTNNB1 and APC by GSK3B (PubMed:12192039). Likely to function as a tumor suppressor. Enhances TGF-beta signaling by recruiting the RNF111 E3 ubiquitin ligase and promoting the degradation of inhibitory SMAD7 (PubMed:16601693). Also a component of the AXIN1- HIPK2-TP53 complex which controls cell growth, apoptosis and development (PubMed:17210684). Facilitates the phosphorylation of TP53 by HIPK2 upon ultraviolet irradiation (PubMed:17210684).

Cellular Location

Cytoplasm. Nucleus. Membrane {ECO:0000250|UniProtKB:O35625} Cell membrane {ECO:0000250|UniProtKB:O35625}. Note=MACF1 is required for its translocation to cell membrane (By similarity). On UV irradiation, translocates to the nucleus and colocalizes with DAAX (PubMed:17210684). {ECO:0000250|UniProtKB:O35625, ECO:0000269|PubMed:17210684}

Tissue Location

Ubiquitously expressed.

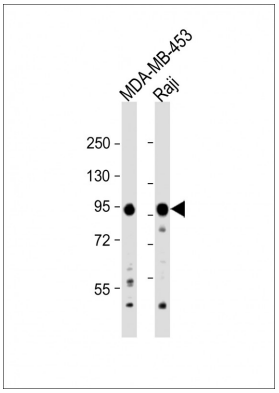
Background

This gene encodes a cytoplasmic protein which contains a regulation of G-protein signaling (RGS) domain and a dishevelled and axin (DIX) domain. The encoded protein interacts with adenomatosis polyposis coli, catenin beta-1, glycogen synthase kinase 3 beta, protein phosphate 2, and itself. This protein functions as a negative regulator of the wingless-type MMTV integration site family, member 1 (WNT) signaling pathway and can induce apoptosis. The crystal structure of a portion of this protein, alone and in a complex with other proteins, has been resolved. Mutations in this gene have been associated with hepatocellular carcinoma, hepatoblastomas, ovarian endometriod adenocarcinomas, and medullablastomas. Two transcript variants encoding distinct isoforms have been identified for this gene.

References

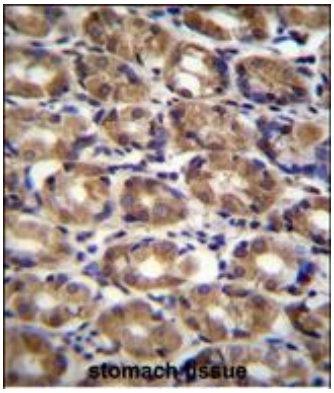
Sue Ng, S., et al. Biol. Chem. 391 (2-3), 171-180 (2010) :
Yang, L.H., et al. Mol. Cancer 9, 25 (2010) :
Wooten, E.C., et al. PLoS ONE 5 (1), E8830 (2010) :
Kameoka, M., et al. AIDS Res. Hum. Retroviruses 25(10):1005-1011(2009)
Li, Q., et al. Nat. Cell Biol. 11(9):1128-1134(2009)

Images



All lanes : Anti-AXIN1 Antibody (C-term) at 1:1000 dilution Lane 1: MDA-MB-453 whole cell lysate Lane 2: Raji whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 96 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

AXIN1 Antibody (C-term) (Cat.



#AP12033b)immunohistochemistry analysis in formalin fixed and paraffin embedded human stomach tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of AXIN1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.