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

NOTCH3 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6220a

Product Information

Application	WB, IF, IHC-P, E
Primary Accession	Q9UM47
Reactivity	Mouse, Rat, Human
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	243631
Antigen Region	2291-2321

Additional Information

Gene ID	4854
Other Names	Neurogenic locus notch homolog protein 3, Notch 3, Notch 3 extracellular truncation, Notch 3 intracellular domain, NOTCH3
Target/Specificity	This NOTCH3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 2291-2321 amino acids from the C-terminal region of human NOTCH3.
Dilution	WB~~1:1000 IF~~1:10~50 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	NOTCH3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NOTCH3
Function	Functions as a receptor for membrane-bound ligands Jagged1, Jagged2 and Delta1 to regulate cell-fate determination (PubMed:15350543). Upon ligand activation through the released notch intracellular domain (NICD) it forms a

	transcriptional activator complex with RBPJ/RBPSUH and activates genes of the enhancer of split locus. Affects the implementation of differentiation, proliferation and apoptotic programs (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Ubiquitously expressed in fetal and adult tissues.

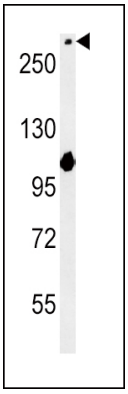
Background

NOTCH3 is the third discovered human homologue of the Drosophilia melanogaster type I membrane protein notch. In Drosophilia, notch interaction with its cell-bound ligands (delta, serrate) establishes an intercellular signalling pathway that plays a key role in neural development. Homologues of the notch-ligands have also been identified in human, but precise interactions between these ligands and the human notch homologues remains to be determined. Mutations in NOTCH3 have been identified as the underlying cause of cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL).

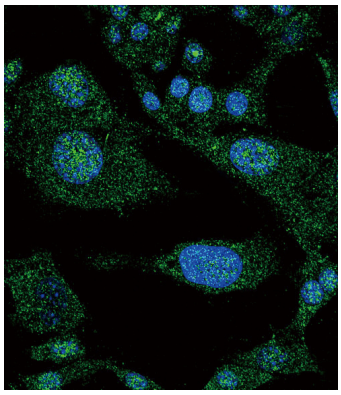
References

Suwanwela, N., et al., J Med Assoc Thai 86(2):178-182 (2003). Ahearn, E.P., et al., Am. J. Med. Genet. 114(6):652-658 (2002). Bellavia, D., et al., Proc. Natl. Acad. Sci. U.S.A. 99(6):3788-3793 (2002). Ito, D., et al., J. Neurol. Neurosurg. Psychiatr. 72(3):382-384 (2002). Joutel, A., et al., Lancet 350(9090):1511-1515 (1997).

Images

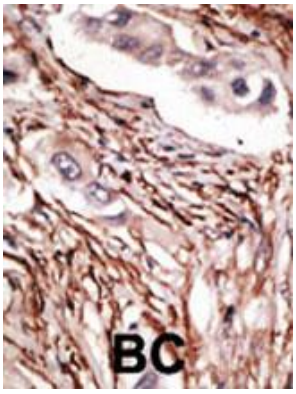


NOTCH3-Q2306 (Cat. #AP6220a) western blot analysis in mouse NIH-3T3 cell line lysates (15ug/lane).This demonstrates the NOTCH3 antibody detected the NOTCH3 protein (arrow).



Confocal immunofluorescent analysis of NOTCH3 Antibody (C-term)(Cat#AP6220a) with HepG2 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).

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

- The Expression of Notch 1 and Notch 3 in Gallbladder Cancer and Their Clinicopathological Significance.