For Research Use Only

Notch1 Polyclonal antibody

Catalog Number:10062-2-AP Featured Product 18 Publications

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Basic Information

Catalog Number:
10062-2-AP

Size:
150ul , Concentration: 900 μg/ml by Nanodrop and 400 μg/ml by Bradford method using BSA as the standard;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG0107

GenBank Accession Number:
BC138441

GeneID (NCBI):
18128

Full Name:
Notch gene homolog 1 (Drosophila)

Calculated MW:
272 kDa

Observed MW:
120 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:1000-1:4000
IHC 1:50-1:500
IF 1:50-1:500

Applications

Tested Applications:
IF, IHC, WB, ELISA

Cited Applications:
IF, IHC, IP, WB

Species Specificity:
human, mouse

Cited Species:
human, mouse, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : mouse brain tissue,

IHC : mouse brain tissue,

IF : mouse brain tissue,

Background Information

NOTCH1, also named as TAN1, belongs to the NOTCH family. NOTCH1 functions as a receptor for membrane-bound ligands Jagged1, Jagged2 and Delta1 to regulate cell-fate determination. Upon ligand activation through the released notch intracellular domain (NICD) it forms a transcriptional activator complex with RBP-J kappa and activates genes of the enhancer of split locus. NOTCH1 affects the implementation of differentiation, proliferation and apoptotic programs. It may be important for normal lymphocyte function. In altered form, may contribute to transformation or progression in some T-cell neoplasms. NOTCH1 is involved in the maturation of both CD4+ and CD8+ cells in the thymus. May be important for follicular differentiation and possibly cell fate selection within the follicle. During cerebellar development, may function as a receptor for neuronal DNER and may be involved in the differentiation of Bergmann glia. Defects in NOTCH1 are a cause of bicuspid aortic valve (BAV).

Notch is synthesized in the endoplasmic reticulum as an inactive form which is proteolytically cleaved by a furin-like convertase (S1 cleavage) in the trans-golgi network before it reaches the plasma membrane to yield an active, ligand-accessible form. Cleavage results in a C-terminal fragment N(TM) and a N-terminal fragment N(EC). Following ligand binding, it is cleaved (S2 cleavage) by TNF-alpha converting enzyme (TACE) to yield a membrane-associated intermediate fragment called Notch extracellular truncation (NEXT). This fragment is then cleaved by presenilin-dependent gamma-secretase (S3 cleavage) to release the intracellular domain (NICD) from the membrane. The antibody is specific to NOTCH1. It can recognize the full length NOTCH1(270 kDa) and cleaved NOTCH1 forms 120 kDa.

Notable Publications

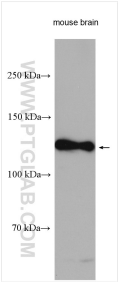
Author	Pubmed ID	Journal	Application
Yuheng Du	30250219	Cell Death Dis	IHC
Lin-Lin Yin	30405763	Oncol Lett	WB
Min Liu	28871079	Nat Commun	WB,IF

Storage

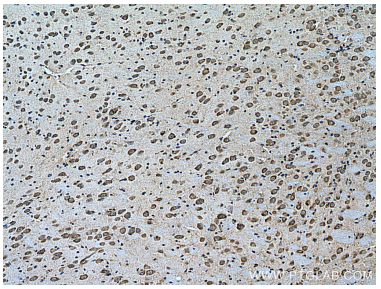
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

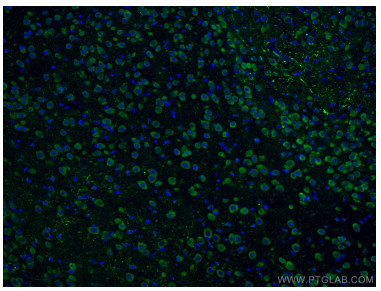
Selected Validation Data



mouse brain tissue were subjected to SDS PAGE followed by western blot with 10062-2-AP (Notch1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 10062-2-AP (Notch1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using 10062-2-AP (Notch1 antibody), at dilution of 1:100 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).