# abcam

## Product datasheet

# Anti-Notchl antibody ab27526

\*\*\* 16 Abreviews 81 References 2 Images

#### Overview

Product name Anti-Notch1 antibody

**Description** Rabbit polyclonal to Notch1

Host species Rabbit

**Tested applications** Suitable for: IHC-P

Species reactivity Reacts with: Human

Predicted to work with: Mouse, Rat

**Immunogen** Synthetic peptide within Human Notch1 aa 2400-2500 (C terminal). The exact sequence is

proprietary.

Database link: P46531

General notes

This product is FOR RESEARCH USE ONLY. For commercial use, please contact

partnerships@abcam.com.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

**Properties** 

Form Liquid

**Storage instructions** Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C.

Avoid freeze / thaw cycle.

Storage buffer pH: 7.60

Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA

Purity Immunogen affinity purified

**Clonality** Polyclonal

**Isotype** IgG

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#### **Applications**

#### The Abpromise quarantee

Our Abpromise quarantee covers the use of ab27526 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	★★★★☆ (6)	1/200. for 10 minutes at room temperature. Staining of Formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0 for 10 minutes followed by cooling at room temperature for 20 minutes.

#### **Target**

#### **Function**

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 RBPJ/RBPSUH and activates genes of the enhancer of split locus. Affects the implementation of differentiation, proliferation and apoptotic programs. May be important for normal lymphocyte function. In altered form, may contribute to transformation or progression in some T-cell neoplasms. 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.

#### Tissue specificity

In fetal tissues most abundant in spleen, brain stem and lung. Also present in most adult tissues where it is found mainly in lymphoid tissues.

#### Involvement in disease

Defects in NOTCH1 are a cause of bicuspid aortic valve (BAV) [MIM:109730]. A common defect in the aortic valve in which two rather than three leaflets are present. It is often associated with aortic valve calcification and insufficiency. In extreme cases, the blood flow may be so restricted that the left ventricle fails to grow, resulting in hypoplastic left heart syndrome.

#### Sequence similarities

Belongs to the NOTCH family.
Contains 5 ANK repeats.
Contains 36 EGF-like domains.
Contains 3 LNR (Lin/Notch) repeats.

# Post-translational modifications

Synthesized in the endoplasmic reticulum as an inactive form which is proteolytically cleaved by a furin-like convertase 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 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 to release a notch-derived peptide containing the intracellular domain (NICD) from the membrane.

Phosphorylated.

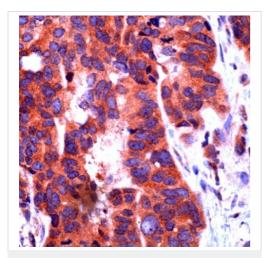
O-glycosylated on the EGF-like domains. Contains both O-linked fucose and O-linked glucose.

Ubiquitinated; undergoes 'Lys-29'-linked polyubiquitination catalyzed by ITCH.

#### **Cellular localization**

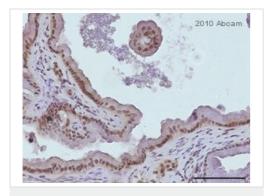
Cell membrane and Nucleus. Following proteolytical processing NICD is translocated to the nucleus.

lmana



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Notch1 antibody (ab27526)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human ovarian carcinoma labelling Notch1 with ab27526.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Notch1 antibody (ab27526)

This image is courtesy of an anonymous Abreview

ab27526 staining Notch 1 in Human pancreatic neoplastic lesion tissue sections by Immunohistochemistry (IHC-P - formaldehydefixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and blocked with 10% serum for 1 hour at room temperature; antigen retrieval was by heat mediation in antigen unmasking solution. Samples were incubated with primary antibody (1/100 in PBS) for 8 hours at 4°C. A Biotin-conjugated Goat antirabbit IgG polyclonal (ab6720) (1/1000) was used as the secondary antibody.

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