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Anti-NOTCH 2 Antibody

Catalog Number: A00518

About NOTCH2

Anti Notch 2 Antibody recognizes Notch 2 that 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. Notch 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. Affects the implementation of differentiation, proliferation and apoptotic programs.

Overview

Product Name	Anti-NOTCH 2 Antibody
Reactive Species	Human
Description	Boster Bio Anti-NOTCH 2 Antibody (Catalog # A00518). Tested in ELISA, IHC, WB applications. This antibody reacts with Human.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.1% (w/v) Sodium Azide
Storage Instructions	Store vial at -20°C prior to opening. Aliquot contents and freeze at -20°C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4°C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	Q04721

Technical Details

Immunogen	This whole rabbit serum was prepared by repeated immunizations with a synthetic peptide corresponding to an internal region near amino acid residues 2390-2415 of human Notch 2 (the total protein is 2471 aa). A residue of cysteine was added to the amino terminal end to facilitate coupling.
Predicted Reactive Species	Mouse, Rat
Isotype	Antiserum

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Form	Liquid (sterile filtered)
Concentration	75 mg/mL by Refractometry
Purification	This antiserum is directed against human NOTCH 2. The peptide sequence shows 100% alignment with human, dog and chimpanzee sequence. Only one (1) amino acid difference is found in mouse and this change is non-conservative. Based on the sequence we expect this antibody to react as well with rat and mouse NOTCH 2. No specific information is available for other reactivities.
Suggested Dilutions	ELISA: 1:30,000 - 1:90,000 IHC: 1:200-1:800 WB: 1:400 - 1:2,000 This antibody has been tested for use in ELISA and western blot. For western blot experiments, one can expect a band of ≈110 kDa in size corresponding to active Notch 2 in the appropriate cell lysate. A 1:500 dilution was effective for staining FFPE human kidney tissue by Immunohistochemistry (IHC). Specific conditions for reactivity should be optimized by the end user.

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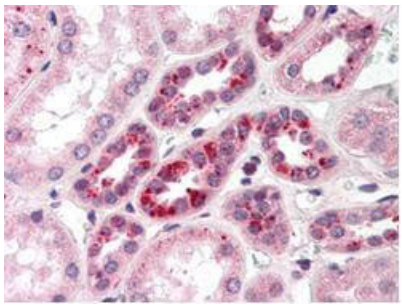
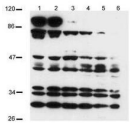
Anti-NOTCH 2 Antibody (A00518) Images



Boster's Anti-Notch 2 antibody was diluted 1:500 to detect NOTCH 2 in human kidney tissue. Tissue was formalin fixed and paraffin embedded. No pre-treatment of sample was required. The image shows the localization of antibody as the precipitated red signal, with a hematoxylin purple nuclear counter stain.



Western blot using Boster's anti-Notch 2 (intra) antibody shows detection of a band at ~110 kDa corresponding to active Notch 2 protein. Western Blot analysis was performed for Notch 2 expression using 100µg of total protein lysate obtained from human mesothelial SV40 cells transfected with a plasmid encoding a constitutively active Notch 2 (intra cellular Notch 2). Lanes 1-3 contain lysate 24 h (1), 48 h (2), and 72 h (3) post transfection. Lanes 4-6 are the corresponding control cells (untransfected) taken at similar time points. The band at about 110kD represents active Notch 2. This band is not seen in the control cell. The intracellular domain of Notch 2 has a predicted band size of 110kD, corresponding to this band. Protein cell lysates were run on a 10% SDS-page gel, blotted onto Hybond C membrane, blocked overnight in PBS-Tween 20 supplemented with 5% Non-fat Milk and probed with anti-Notch 2 at a 1:400 dilution. ECL was used as visualization method.

Anti-NOTCH 2 Antibody

For Research Use Only. Not for use in diagnostic procedures.