

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

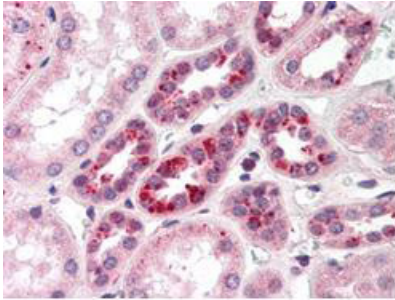
Product Name	Anti-NOTCH 2 Antibody
Reactive Species	Human
Description	Boster Bio Anti-NOTCH 2 Antibody (Catalog # A00518). Tested in ELISA, IHC, WB applications. This antibody reacts with Human.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, 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

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	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>ELISA: 1:30,000 - 1:90,000</p> <p>IHC: 1:200-1:800</p> <p>WB: 1:400 - 1:2,000</p>

Anti-NOTCH 2 Antibody (A00518) Images



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.

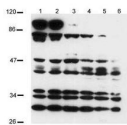


Figure 2. Western blot analysis of NOTCH2 using anti-NOTCH2 antibody (A00518). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NOTCH2 antigen affinity purified polyclonal antibody (Catalog # A00518) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system.

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