

## Anti-NOTCH 1 Antibody

Catalog Number: A00033

### About NOTCH1

Anti-Notch 1 Antibody recognizes Notch 1 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.

### Overview

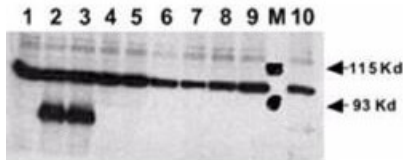
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|----------------------|---|
| Product Name         | Anti-NOTCH 1 Antibody   |
| Reactive Species     | Human, Mouse  |
| Description          | Boster Bio Anti-NOTCH 1 Antibody (Catalog # A00033). Tested in Dot blot, ELISA, IHC, WB applications. This antibody reacts with Human, Mouse.   |
| Application          | ELISA, IP, IF, 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           | P46531  |

### Technical Details

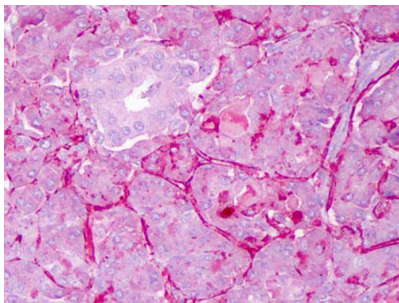
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|----------------------------|--|
| Immunogen                  | This whole rabbit serum was prepared by repeated immunizations with a synthetic peptide corresponding to amino acid residues of human Notch 1 located near the N-terminal sequence of the cleaved N intracellular domain (NICD). |
| Predicted Reactive Species | Bovine, C. elegans, Chicken, Drosophila, Hamster, Human, Monkey, Pig, Xenopus  |
| Isotype                    | Antiserum  |
| Form                       | Liquid (sterile filtered)  |
| Concentration              | 90 mg/mL by Refractometry  |

|                     |  |
|---------------------|--|
| Purification        | This antiserum is directed against human NOTCH 1. Based on the immunogen sequence, we expect this antibody to react as well with mouse and rat NOTCH 1 (100% sequence homology). This antibody reacts with mouse Notch constructs present in lysates of HEK 293 cells. Only the cleaved intracellular (activated) form (NICD) is detected. No reactivity is detected against mouse N2, N3 or N4. The immunogen epitope is only exposed after gamma secretase cleavage and is not accessible in the uncleaved form. |
| Suggested Dilutions | ELISA: 1:20,000 - 1:60,000<br>IHC: 1:200<br>IF Microscopy: User optimized<br>IP: User optimized<br>WB: 1:500- 1:2,000<br>Anti-Notch 1 has been tested by ELISA, dot blot, western blot and immunohistochemistry. An 80 kDa band corresponding to Notch 1 was observed at a 1:500 dilution. Specific conditions for reactivity should be optimized by the end user.   |

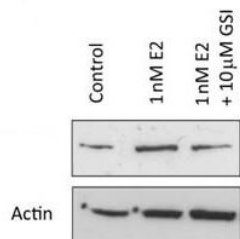
## Anti-NOTCH 1 Antibody (A00033) Images



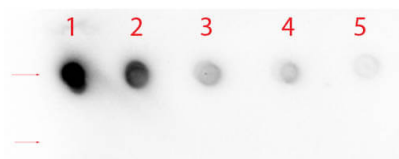
Rabbit anti-Human NOTCH 1 (Cleaved N Terminal) was used at a 1:500 dilution to detect mouse Notch 1 by Western blot. Equivalent amounts of lysates from transiently transfected 293 cells expressing recombinant myc-tagged mouse Notch constructs were electrophoresed and transferred to membrane using standard methods. A reaction with diluted primary antibody was followed by washing; reaction with a 1:10,000 dilution of HRP conjugated Gt-a-Rabbit IgG (611-103-122), and color development. Lane M: Mol wt markers. Lane 1: No transfection. Lane 2: N1 (mouse deleted extracellular domain)-myc. Lane 3: N1 (mouse intracellular domain)-myc. Lane 4: N2 (mouse deleted extracellular domain)-myc. Lane 5: N2 (mouse intracellular domain)-myc. Lane 6: N3 (mouse deleted extracellular domain)-myc. Lane 7: N3 (mouse intracellular domain)-myc. Lane 8: N4 (mouse deleted extracellular domain)-myc. Lane 9: N4 (mouse intracellular domain)-myc. Lane 10: N1 (mouse deleted extracellular domain)(V to G)-myc. Personal communication, Dr. Stacey Huppert.



Immunohistochemistry of Rabbit anti-Notch1 antibody. Tissue: Exocrine glands of human pancreas. Fixation: FFPE. Primary antibody: Notch1 antibody at 1:200. Staining: moderate to strong membranous staining and faint to moderate cytoplasmic staining. Islets showed faint staining.



Western Blot of Rabbit anti-Notch1 antibody. Lane 1: MCF-7 control lysate. Lane 2: MCF-7 +1 nM 17beta-estradiol. Lane 3: MCF-7 + 10 uM gamma secretase inhibitor. Load: 35 μg per lane. Primary antibody: Notch1 antibody at 1:500 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 80 kDa for Notch1.



Dot Blot of Rabbit anti-Notch 1 (Cleaved N Terminal) (Human Specific) Antibody. Antigen: Row 1 - Notch 1 Peptide (Cleaved N Terminal) Row 2 - Notch 1 (Intra) Peptide. Load: Lane 1 - 200 ng Lane 2 - 66.67 ng Lane 3 - 22.22 ng Lane 4 - 7.41 ng Lane 5 - 2.47 ng. Primary antibody: Rabbit anti-Notch 1 (Cleaved N Terminal) (Human Specific) Antibody at 1:1,000 for 60 min at RT. Secondary antibody: HRP Rabbit Secondary at 1:40,000 for 30 min at RT. Block: 1 HR at RT.

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### Anti-NOTCH 1 Antibody

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