

### Certificate of Analysis

**Product:** Anti-Human NOTCH 1 (Cleaved N Terminal) [Rabbit]

**Code:** 100-401-407

**Lot #** 20117

**Size:** 200 µl

**Physical State:** Liquid (sterile filtered)

**Protein Concentration:** 80 mg/ml (by Refractometry)

**Buffer:** 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

**Stabilizer:** None

**Preservative:** 0.1% (w/v) Sodium Azide

**Storage Conditions:** Store vial at -20° C prior to opening. For extended storage, aliquot contents and freeze at -20° C or below. 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.

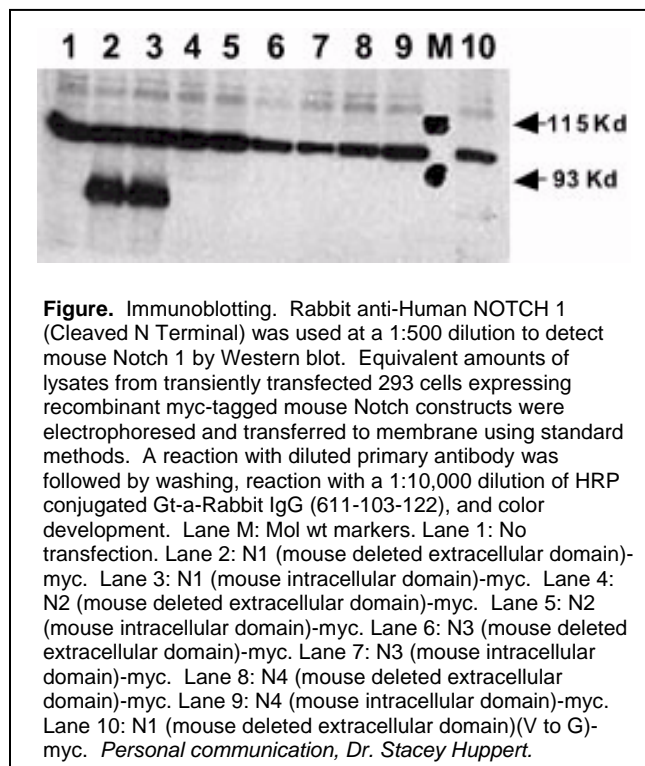
**Background Information:** Notch is synthesized in the endoplasmic reticulum as an inactive form which is proteolytically cleaved by a furin-like convertase (S1 cleavage) in the trans-golgi network before it reaches the plasma membrane to yield an active, ligand-accessible form. Cleavage results in 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.

**Application Note(s):** This antibody is reactive with Notch 1 by western blotting. A strong response was also detected by ELISA against the immunizing peptide.

**Recommended Dilution(s):** This product was assayed by immunoblot against recombinant mouse Notch constructs in 293 cells. An 80 kDa band corresponding to Notch 1 was observed at a 1:500 dilution. This product was also assayed against the peptide immunogen in a standard capture ELISA using Peroxidase conjugated anti-Rabbit IgG (H&L) [Goat] (code #611-1302) and ABTS (2,2'-azino-bis-[3-ethylbenthiazoline-6-sulfonic acid]) (code # ABTS-100) as a substrate for 30 minutes at room temperature. A working dilution of 1:20,000 to 1:60,000 is suggested for this product. Optimal titers for other applications should be determined by the researcher.

**Purity and Specificity:** 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.

**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).



**Swiss-Prot Accession Number(s):** P46531 (human). Alternative names: Neurogenic locus Notch homolog protein 1, hN1, Translocation-associated Notch protein TAN-1.

**Related Product(s):**

<a href="#">#000-000-408</a>	CONTROL PEPTIDE for Rabbit-anti-NOTCH 2 (Cleaved)
<a href="#">#000-000-407</a>	CONTROL PEPTIDE for Rabbit-anti-NOTCH 1 (Cleaved)
<a href="#">#000-000-405</a>	CONTROL PEPTIDE for Rabbit-anti-NOTCH 1 (intra)
<a href="#">#100-401-408</a>	Anti-NOTCH 2 (Cleaved N terminal) (Human specific) (Rabbit)
<a href="#">#100-401-407</a>	Anti-NOTCH 1 (Cleaved N terminal) (Human specific) (Rabbit)
<a href="#">#100-401-406</a>	Anti-NOTCH 2 (intra) (Human specific) (Rabbit)
<a href="#">#100-401-405</a>	Anti-NOTCH 1 (intra) (Human specific) (Rabbit)
<a href="#">#611-103-122</a>	HRP Anti-Rabbit IgG [H&L] MX10 (GOAT)
<a href="#">#611-132-122</a>	IRDye800 Anti-Rabbit IgG [H&L] MX10 (GOAT)

**General References:**

Bertrand FE, Eckfeldt CE, Lysholm AS, LeBien TW (2000) Notch-1 and Notch-2 exhibit unique patterns of expression in human B-lineage cells. *Leukemia* **12**: 2095-2102.

Gridley T (2003) Notch signaling and inherited disease syndromes. *Hum. Mol. Genet.* **12**: Suppl 1, R9-R13.

**Note:** This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.

All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation.

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