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Certificate of Analysis

Product: Anti-Human NOTCH 1 (intra) (Rabbit)

Code: 100-401-405

Lot #: 18722

Size: 200 µl

Physical State: Liquid (sterile filtered)

Protein Concentration: 75 mg/ml (by Refractometry)

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

Stabilizer: None

Preservative: 0.01% (w/v) Sodium Azide

Storage Conditions: 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.

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): Preliminary experiments show reactivity at a 1:1000 dilution by western blot. A strong response was detected by ELISA against the immunizing peptide.

Recommended Dilution(s):

ELISA	1:20,000 - 1:100,000
WESTERN BLOT	1:2,000 - 1:10,000
IMMUNOHISTOCHEMISTRY	1:1,000 - 1:5,000
OTHER APPLICATIONS	User Optimized

Purity and Specificity: This antiserum is directed against human NOTCH 1. No reaction is detected against NOTCH 2. No reactivity was observed against Mouse Notch. Other species have not been tested.

Immunogen: This whole rabbit serum was prepared by repeated immunizations with a synthetic peptide corresponding to amino acid residues 2488-2502 of human Notch 1. A residue of cysteine was added to the amino terminal end to facilitate coupling.

Peptide Sequence: C-Q-H-S-Y-S-S-P-V-D-N-T-P-S-H-Q

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

Related Product(s):

#100-401-409	Anti-NOTCH 1/2 (intra) (Human specific) (Rabbit)
#100-401-408	Anti-NOTCH 2 (Cleaved N terminal) (Human specific) (Rabbit)
#100-401-407	Anti-NOTCH 1 (Cleaved N terminal) (Human specific) (Rabbit)
#100-401-406	Anti-NOTCH 2 (intra) (Human specific) (Rabbit)
#100-401-405	Anti-NOTCH 1 (intra) (Human specific) (Rabbit)
#611-103-122	HRP Anti-Rabbit IgG [H&L] MX10 (GOAT)
#611-132-122	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**: 2095-102.

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

USDA Certification: 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.

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.