

Certificate of Analysis

Product: Anti-Human NOTCH 2 (intra) (Rabbit)

Code: 100-401-406

Lot #: 11172

Size: 200 µl

Physical State: Liquid (sterile filtered)

Protein Concentration: 85 mg/ml (by Refractometry)

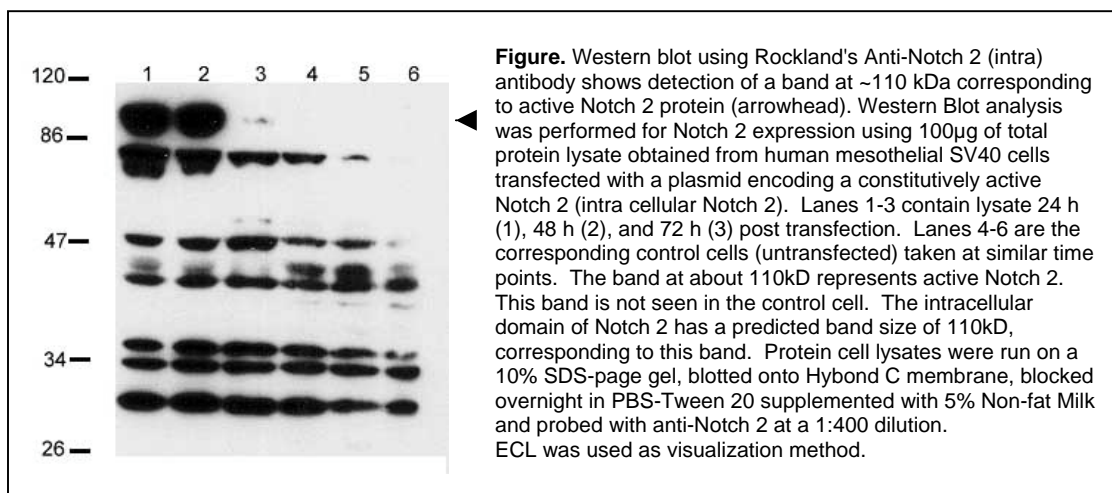
Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None

Preservative: 0.1% (w/v) Sodium Azide

Storage Conditions: Store vial at -20° C prior to opening. Dilute only prior to immediate use. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is one (1) year from date of opening if stored frozen.

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. 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.



Recommended Dilutions:

ELISA	1:30,000 - 1:90,000
WESTERN BLOT	1:400 - 1:2,000
IF MICROSCOPY	User Optimized
OTHER APPLICATIONS	User Optimized

Application Note(s): This antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. For western blot experiments, one can expect a band of ≈110 kDa in size corresponding to active Notch 2 in the appropriate cell lysate.

Purity and Specificity: 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.

Immunogen: This whole rabbit serum was prepared by repeated immunizations with a synthetic peptide corresponding to amino acid residues 2396-2409 of human Notch 2 (the total protein is 2471 aa). A residue of cysteine was added to the amino terminal end to facilitate coupling.

Relevant Link(s): Swis-Prot [Q04721](#) NCBI Link [NP_077719](#)

Protein Sequence: Human Notch 2 (preprotein), 2471 aa, predicted MW 110.0 kDa

1	mpalrpallw	allalwcca	apahalqcrd	gyepcvnegm	cvtyhngtgy	ckcpegflge
61	ycqhrdpcek	nrcqnggtcv	aqamlgkac	rcasgftged	cqystshpcf	vsrpclnggt
121	chmlsrdtype	ctcqvgtgk	ecqwtocl	hpcangstct	tvantfscck	ltgftgkce
181	tdvnedcipg	hcqhggctln	lpgsyqcqcp	qgftgqycds	lyvpcapspc	vnggtcrqtg
241	dftfecncip	gfegstcern	idcpcnhrcq	nggvcvdgvn	tyncrcppqw	tgqfctedvd
301	ecllqpnacq	nggtcanrng	gygcvcvngw	sgddcseid	dcafascpg	stcidvasf
...						
2101	kksrpsaks	tmptslpnla	keakdakgsr	rkkslsekvq	lsssvtlsp	vdslesphty
2161	vsdtstspmi	tspgilqasp	npmlataapp	apvhaqhals	fsnlhemqpl	ahgastvlps
2221	vsqllshhhi	vspgsgsags	lsrlhpvpvp	adwmnrmevn	etqynemfgm	vlapaegthp
2281	giapqsrppe	gkhittprep	lppivtfqli	pkgsiaqpag	apqpqstcpp	avagplptmy
2341	qipemarlps	vafptammpq	qdgqvaqtil	payhpfpasv	gkytppsqs	syassnaaer
2401	tpshsghlqg	ehpyltpspe	spdqwssssp	hsasdwsdvt	tsptpggagg	gqrgpgthms
2461	epphnmqvq	a				

Related Product(s):

#000-000-409	CONTROL PEPTIDE for Rabbit-anti-NOTCH 1/2 (intra)
#000-000-408	CONTROL PEPTIDE for Rabbit-anti-NOTCH 2 (Cleaved)
#000-000-407	CONTROL PEPTIDE for Rabbit-anti-NOTCH 1 (Cleaved)
#000-000-406	CONTROL PEPTIDE for Rabbit-anti-NOTCH 2 (intra)
#000-000-405	CONTROL PEPTIDE for Rabbit-anti-NOTCH 1 (intra)
#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.