abcam

Product datasheet

Anti-NOTCH3 antibody [NIZ 8G5] ab213632

[1 Image]

Overview

Product name	Anti-NOTCH3 antibody [NIZ 8G5]
Description	Rat monoclonal [NIZ 8G5] to NOTCH3
Host species	Rat
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Human
	Predicted to work with: Mouse, Rat
Immunogen	Recombinant full length protein corresponding to Human NOTCH3 aa 1-2321. Database link: **Q9UM47**
Positive control	T47D or Jurkat cell extract
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.
	If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.09% Sodium azide Constituent: 99% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	NIZ 8G5
Isotype	IgG2a

Applications

The Abpromise guarantee   Our **Abpromise guarantee** covers the use of ab213632 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

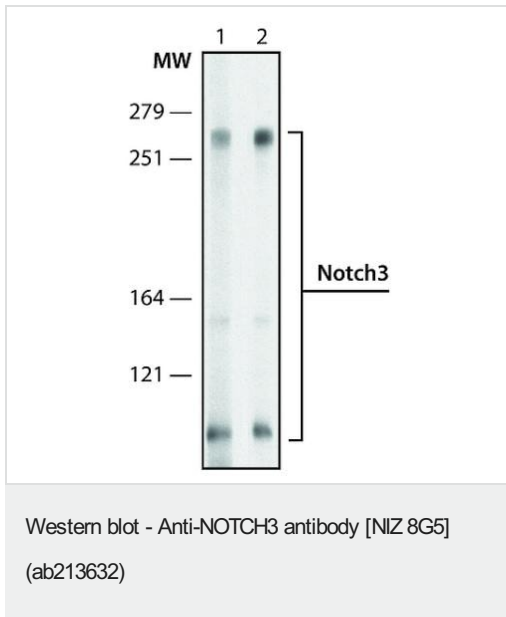| Application	Abreviews	Notes
WB		Use a concentration of 2 - 4 µg/ml. Predicted molecular weight: 244 kDa.

Target

Function

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 RBPJ/RBPSUH and activates genes of the enhancer of split locus. Affects the implementation of differentiation, proliferation and apoptotic programs.

Tissue specificity

Ubiquitously expressed in fetal and adult tissues.

Involvement in disease

Defects in NOTCH3 are the cause of cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL) [MIM:125310]. CADASIL causes a type of stroke and dementia of which key features include recurrent subcortical ischemic events and vascular dementia. The disorder affects relatively young adults of both sexes. Mutations affect highly conserved cysteine residues within epidermal growth factor (EGF)-like repeat domains in the extracellular part of the receptor.

Sequence similarities

Belongs to the NOTCH family.
Contains 5 ANK repeats.
Contains 34 EGF-like domains.
Contains 3 LNR (Lin/Notch) repeats.

Post-translational modifications

Synthesized in the endoplasmic reticulum as an inactive form which is proteolytically cleaved by a furin-like convertase 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 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 to release a notch-derived peptide containing the intracellular domain (NICD) from the membrane. Phosphorylated.

Cellular localization

Cell membrane and Nucleus. Following proteolytical processing NICD is translocated to the nucleus.

Images

Western blot - Anti-NOTCH3 antibody [NIZ 8G5] (ab213632)

All lanes : Anti-NOTCH3 antibody [NIZ 8G5] (ab213632) at 0.5 µg/ml

Lane 1 : T47D cell extract

Lane 2 : Jurkat cell extract

Secondary

All lanes : Rabbit Anti-Rat IgG-Peroxidase

Predicted band size: 244 kDa

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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