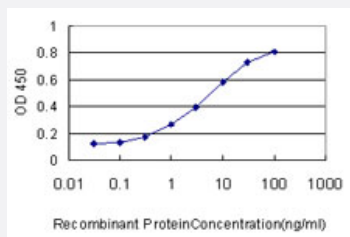


NOTCH3 monoclonal antibody (M01), clone 1G5

Catalog # H00004854-M01

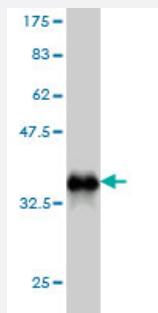
Size 100 ug

Applications



Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged NOTCH3 is approximately 0.03ng/ml as a capture antibody.



Western Blot detection against Immunogen (37.84 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a partial recombinant NOTCH3.
Immunogen	NOTCH3 (NP_000426, 47 a.a. ~ 156 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	SPCANGGRCTQLPSREAACLCPPGWVGERCQLEDPC HSGPCAGRGVCQSSVVAGTARFSCR CPRGFRGPDCSLPDCLSSPCA HGARCSVGP DGRFLCSCPPGYQGRSCR
Host	Mouse
Reactivity	Human

Interspecies Antigen Sequence	Mouse (86)
Isotype	IgG2a Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (37.84 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Recombinant protein)

[Protocol Download](#)

- Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged NOTCH3 is approximately 0.03ng/ml as a capture antibody.

[Protocol Download](#)

- ELISA

Gene Info — NOTCH3

Entrez GeneID	4854
GeneBank Accession#	NM_000435
Protein Accession#	NP_000426
Gene Name	NOTCH3
Gene Alias	CADASIL, CASIL
Gene Description	Notch homolog 3 (Drosophila)
Omim ID	125310 600276
Gene Ontology	Hyperlink

Gene Summary

This gene encodes the third discovered human homologue of the *Drosophila melanogaster* type I membrane protein notch. In *Drosophila*, notch interaction with its cell-bound ligands (delta, serrate) establishes an intercellular signalling pathway that plays a key role in neural development. Homologues of the notch-ligands have also been identified in human, but precise interactions between these ligands and the human notch homologues remains to be determined. Mutations in NOTCH3 have been identified as the underlying cause of cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL). [provided by RefSeq]

Other Designations

Notch homolog 3

Publication Reference

- [A mid-position NOTCH3 truncation in inherited cerebral small vessel disease may affect the protein interactome.](#)

Soo Jung Lee, Xiaojie Zhang, Gang Xu, Jimo Borjigin, Michael M Wang.

The Journal of Biological Chemistry 2023 Jan; 299(1):102772.

Application: WB-Ce, Human, HEK 293T cells

- [NOTCH3-targeted antibody drug conjugates regress tumors by inducing apoptosis in receptor cells and through transendocytosis into ligand cells.](#)

Kenneth G Geles, Yijie Gao, Andreas Giannakou, Latha Sridharan, Ting-Ting Yamin, Jing Zhang, Riyez Karim, Joel Bard, Nicole Piche-Nicholas, Manoj Charati, Andreas Maderna, Judy Lucas, Jonathon Golas, Magali Guffroy, Steven Pirie-Shepherd, Marc Roy, Jessie Qian, Tania Franks, Wenyan Zhong, Christopher J O'Donnell, Lioudmila Tchistiakova, Hans-Peter Gerber, Puja Sapra.

Cell Reports. Medicine 2021 May; 2(5):100279.

Application: WB-Ce, WB-Tr, Human, MDA-MB-468 cells

- [Lunatic fringe promotes the aggregation of CADASIL NOTCH3 mutant proteins.](#)

Shodai Suzuki, Satoshi Hiura, Taiki Mashiko, Takemi Matsumoto, Motoyuki Itoh.

Biochemical and Biophysical Research Communications 2021 Jun; 557:302.

Application: WB-Tr, Human, HEK 293T, JAG1-3T3, MIG-3T3 cells

- [Anti-osteoarthritis effect of a combination treatment with human adipose tissue-derived mesenchymal stem cells and thrombospondin 2 in rabbits.](#)

Shin K, Cha Y, Ban YH, Seo DW, Choi EK, Park D, Kang SK, Ra JC, Kim YB.

World Journal of Stem Cells 2019 Dec; 11(12):1115.

Application: IF, IHC-Fr, Human, Human adipose tissue-derived mesenchymal stem cells

- [Serum amyloid P component: A novel potential player in vessel degeneration in CADASIL.](#)

Nagatoshi A, Ueda M, Ueda A, Tasaki M, Inoue Y, Ma Y, Masuda T, Mizukami M, Matsumoto S, Kosaka T, Kawano T, Ito T, Ando Y.

Journal of the Neurological Sciences 2017 May; 379:69.

Application: IF, IHC-P, Human, Artery from patients with leukoencephalopathy

- [Von Willebrand Factor Inhibits Mature Smooth Muscle Gene Expression through Impairment of Notch Signaling.](#)

Meng H, Zhang X, Lee SJ, Wang MM.

PLoS One. 2013 Sep; 8(9):e75808.

Application: WB, Human, 293A cells

- [Functional analysis of the Notch ligand Jagged1 missense mutant proteins underlying Alagille syndrome.](#)

Tada M, Itoh S, Ishii-Watabe A, Suzuki T, Kawasaki N.

The FEBS Journal 2012 Jun; 279(12):2096.

Application: WB-Tr, Human, HeLa cells

- [Bidirectional encroachment of collagen into the tunica media in cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy.](#)

Dong H, Blaivas M, Wang MM.

Brain Research 2012 May; 1456:64.

Application: IHC-P, Human, Brain

- [Cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy affecting an African American man: identification of a novel 15-base pair NOTCH3 duplication.](#)

Lee SJ, Meng H, Elmadhoun O, Blaivas M, Wang MM.

Archives of Neurology 2011 Dec; 68(12):1584.

Application: WB-Ti, Human, Frontal cortex

- [Transendocytosis is impaired in CADASIL-mutant NOTCH3.](#)

Watanabe-Hosomi A, Watanabe Y, Tanaka M, Nakagawa M, Mizuno T.

Experimental Neurology 2012 Jan; 233(1):303.

Application: IF, WB-Ce, Human, HEK 293 cells

- [Thrombospondin2 potentiates notch3/Jagged1 signaling.](#)

Meng H, Zhang X, Hankenson KD, Wang MM.

The Journal of Biological Chemistry 2009 Mar; 284(12):7866.

Application: WB-Ce, Human, H460 cells

- [Identification of Pbx1, a Potential Oncogene, as a Notch3 Target Gene in Ovarian Cancer.](#)

Park JT, Shih leM, Wang TL.

Cancer Research 2008 Nov; 68(21):8852.

Application: WB-Ce, Human, A2780, ES-2, MCF7, MPSC1, OVCAR3, SK-OV-3, TOV21G cells

Pathway

- [Dorso-ventral axis formation](#)
- [Notch signaling pathway](#)

Disease

- [Brain Infarction](#)
- [Brain Ischemia](#)
- [CADASIL](#)
- [Cardiovascular Diseases](#)
- [Cerebral Hemorrhage](#)
- [Cerebral Infarction](#)
- [Cerebrovascular Accident](#)
- [Cerebrovascular Disorders](#)
- [Chromosome Aberrations](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Cognition Disorders](#)
- [Dementia](#)
- [Diabetes Mellitus](#)
- [Disease Progression](#)
- [Dominance](#)

- [Edema](#)
- [Genetic Predisposition to Disease](#)
- [Hypertension](#)
- [Ischemic Attack](#)
- [Mental Disorders](#)
- [Migraine Disorders](#)
- [Neuropsychological Tests](#)
- [Ovarian Neoplasms](#)
- [Periodontal Diseases](#)
- [Schizophrenia](#)