Product Datasheet

Jagged 1 Antibody (1E12)
H00000182-M01A

Unit Size: 0.2 ml

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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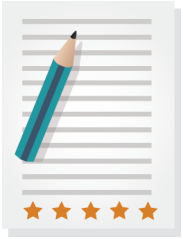
Updated 10/23/2024 v.20.1



H00000182-M01A

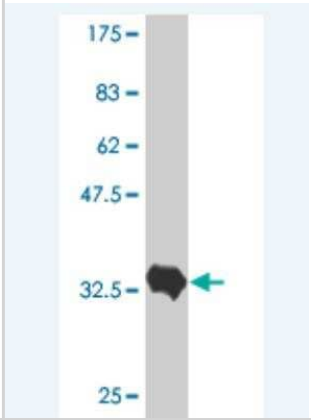
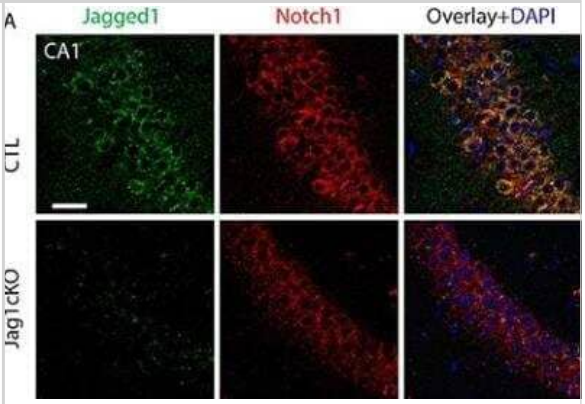
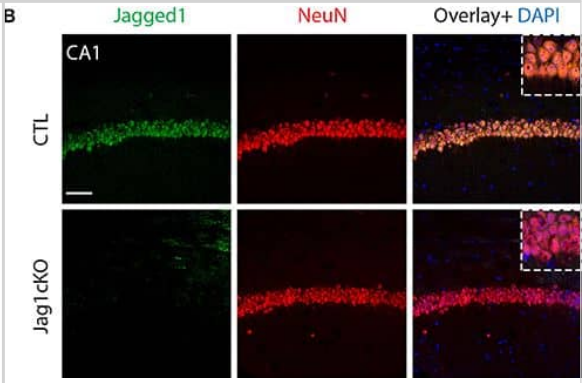
Jagged 1 Antibody (1E12)

Product Information	
Unit Size	0.2 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	1E12
Preservative	No Preservative
Isotype	IgG1 Kappa
Purity	Unpurified
Buffer	Ascites

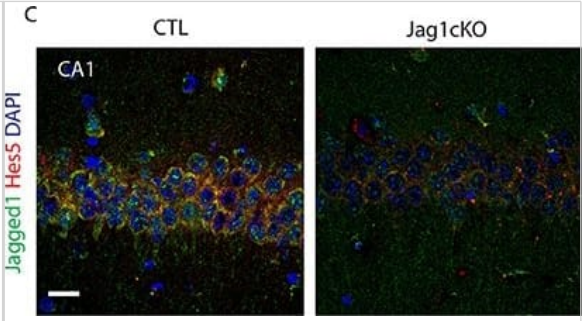
Product Description	
Description	Quality control test: Antibody Reactive Against Recombinant Protein.
Host	Mouse
Gene ID	182
Gene Symbol	JAG1
Species	Human, Mouse
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 28848392).
Specificity/Sensitivity	JAG1 (1E12)
Immunogen	JAG1 (NP_000205, 531 a.a. ~ 620 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa. PNPCQNGAQCYNRASDYFCKCPEDYEGKNCSHLKDHCRTTPCEVIDSCTVAM ASNDTPEGVRYISSNVCGPHGKCKSQSGGKFTCDCNKG
Notes	This product is produced by and distributed for Abnova, a company based in Taiwan.

Product Application Details	
Applications	Western Blot, ELISA, Immunohistochemistry, Knockout Validated
Recommended Dilutions	Western Blot 1:500, ELISA, Immunohistochemistry, Knockout Validated
Application Notes	Antibody reactivity against Recombinant Protein with GST tag on ELISA and WB. GST tag alone is used as a negative control. Use in Immunohistochemistry reported in scientific literature (PMID: 30708185).

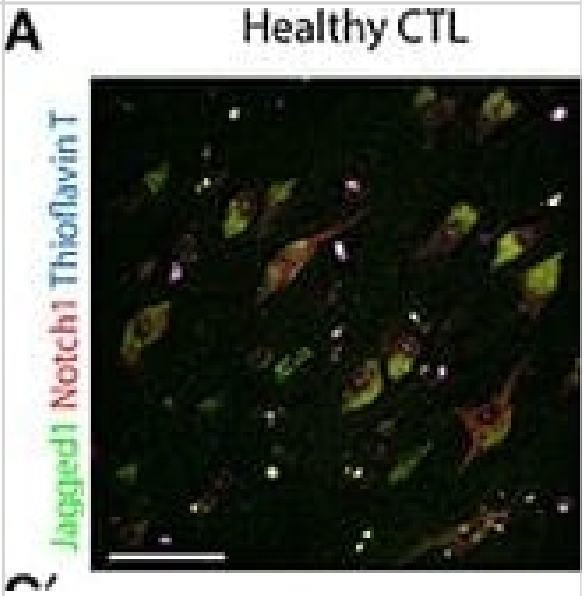
Images

Western Blot: Jagged 1 Antibody (1E12.) [H00000182-M01A] - Western Blot detection against Immunogen (35.64 KDa) .	
Knockout Validated: Jagged 1 Antibody (1E12) [H00000182-M01A] - Jagged 1 regulates learning-dependent Notch induction and is enriched presynaptically. Fluorescent double-labeling shows the expression of Notch1 (red) following spatial exploration in CTLs and Jagged 1cKO. Jagged 1 labeling (green) is used to validate the absence of Jagged 1 in the Jagged 1cKO (Jag1cKOs). Image collected and cropped by CiteAb from the following publication (www.journal.frontiersin.org/article/10.3389/fncel.2017.00220/full) licensed under a CC-BY license.	
Immunocytochemistry/ Immunofluorescence: Jagged 1 Antibody (1E12) [H00000182-M01A] - Targeted loss of Jagged1 in adult mouse neurons causes a spatial memory deficit. A schematic representation of the Jagged1 floxed allele used to generate the mice with TAM-inducible loss of Jagged1 gene (A). Representative immunofluorescence images of single confocal z-plane showing a near complete loss of Jagged1 protein (green) from hippocampal pyramidal neurons labeled by NeuN (red) of Jagged1cKO mice (B). Representative images from immunoblots showing the expression of Jagged1, DNER in Jagged1cKO mice & control mice (C). GAPDH is used as a loading control. Bar graph showing the quantitation of optical densities of Jagged1 & DNER bands in CTLs & Jagged1cKO mice (D). A graphic showing the behavioral arena for Y-maze spontaneous alternation test (E). Jagged1cKO mice show a significant deficit in hippocampus dependent working memory in the Y-maze spontaneous alternation test (F). A diagram showing the experimental arena for the hidden arm version of the Y-maze (G). Jagged1cKO mice show a significant reduction in the time spent in the hidden arm, suggesting a spatial memory defect (H). A schematic showing the experimental setup for the Novel Object Displacement test (I). Jagged1cKO mice exhibit a statistical significant reduction in discrimination index, a measure of spatial memory defect (J). Scale bar in (B) is 50 µm. Graphs are represented as mean ± SEM, *p < 0.05, **p < 0.01, & ***p < 0.001. Image collected & cropped by CiteAb from the following publication (http://journal.frontiersin.org/article/10.3389/fncel.2017.00220/full), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Immunocytochemistry/ Immunofluorescence: Jagged 1 Antibody (1E12) [H00000182-M01A] - Jagged1 regulates learning-dependent Notch induction & is enriched presynaptically. Fluorescent double-labeling shows the expression of Notch1 (red) following spatial exploration in CTLs & Jagged1cKO (A). Jagged1 labeling (green) is used to validate the absence of Jagged1 in the Jagged1cKO (Jag1cKOs) (A,C). Diagram summarizing the Notch1 fluorescence intensities distribution in randomly picked 69 & 71 CA1 neurons in CTLs & Jagged1cKOs, respectively ($p < 0.001$) (B). Double immunofluorescence of the Notch1 transcriptional target, Hes5, in CTLs & JaggedcKOs following spatial exploration (C). Diagram summarizing the Hes5 fluorescence intensity distribution in randomly picked 64 & 70 CA1 neurons in CTL & Jagged1cKO, respectively ($p < 0.001$) (D). Representatives gold Immuno-electron microscopy panels from three WT mice show that Jagged1 particles are localized in presynaptic terminals, bound to presynaptic vesicles (Pre) (E–E‴). Immunogold particles are also apparent at the Postsynaptic density (Post) (E,E″,E‴). Box Plot summarizing the particle counts in presynaptic & postsynaptic terminal areas drawn on Immunoelectromicroscopy micrograph for Jagged1 indicates that the presynapse is enriched with Jag1 particles as compared to the postsynaptic terminal ($p < 0.001$) (F). Scale bars are: 20 µm in (A), 10 µm in (C), 400 nm in (E–E‴). AU, arbitrary units; Pre, presynaptic; Post, postsynaptic; & Ax, axon. Image collected & cropped by CiteAb from the following publication (http://journal.frontiersin.org/article/10.3389/fncel.2017.00220/full), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: Jagged 1 Antibody (1E12) [H00000182-M01A] - Jagged1 expression in brains & CSF of AD patients. Representative double fluorescent immunolabelings for Jagged1 (green) & Notch1 (red) counterstained with Thioflavin-T or DAPI (blue) on postmortem brain sections comprising the hippocampal CA fields from healthy age-matched controls & AD patients (A–C). in healthy controls, Jagged1 is localized to somata of neurons where also Notch1 is expressed. As expected, Thioflavin-T labeling is negligible (A,A′). AD sections show fibrillary aggregates (B,B′) & (C,C′) core plaques double positive for Notch1 & Thioflavin-T. Jag1 expression is scattered in parenchyma & low in, degenerated neurons (white arrows) (B,B′). Jag1 overlays in small double positive aggregates for Notch1 & Thioflavin-T (100x magnification) in radiating plaques with a visible reduction in Jagged1 cellular expression (B–C′). Box plots summarizing the quantification of fluorescence intensities of Jagged1 immunolabeled neurons shows a significant reduction in Jagged1 expression in AD patients ($p < 0.001$). Image collected & cropped by CiteAb from the following publication (http://journal.frontiersin.org/article/10.3389/fncel.2017.00220/full), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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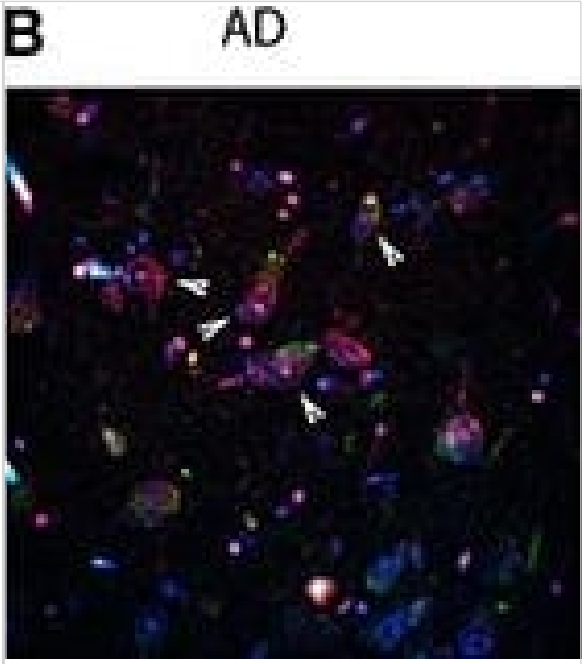

Publications

Bathini P, Mottas A, Jaquet M et al. Progressive signaling changes in the olfactory nerve of patients with Alzheimer's disease Neurobiol. Aging 2019-04-01 [PMID: 30708185] (IF/IHC, Human)

Marathe S, Jaquet M, Annoni JM, Alberi L. Jagged1 Is Altered in Alzheimer's Disease and Regulates Spatial Memory Processing Front Cell Neurosci 2017-08-29 [PMID: 28848392] (WB, Mouse)

Brai Emanuele, Marathe Swananda, Zentilin Lorena et al. Notch1 activity in the olfactory bulb is odour-dependent and contributes to olfactory behaviour. Eur J Neurosci. 2014-09-19 [PMID: 25234246]

Hashimi ST, Fulcher JA, Chang MH et al. MicroRNA profiling identifies miR-34a miR-21 their target genes JAG1 WNT1 in the coordinate regulation of dendritic cell differentiation. Blood;114(2):404-414. 2009-01-01 [PMID: 19398721]

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

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HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)
NBP1-90208PEP	Jagged 1 Recombinant Protein Antigen

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