

Product Datasheet

BDNF Antibody NBP1-46750

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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Updated 9/9/2025 v.20.1

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NBP1-46750

BDNF Antibody

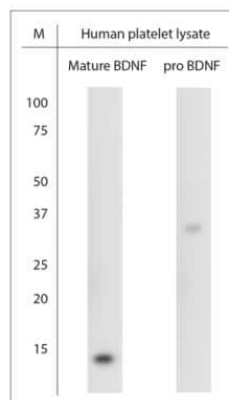
Product Information	
Unit Size	0.1 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	No Preservative
Reconstitution Instructions	Reconstitute in 0.1 ml of sterile water. Centrifuge to remove any insoluble material. Glycerol may be added (1:1) for additional stability. Please note the sample size is provided in reconstituted format.
Isotype	IgG
Purity	Unpurified
Buffer	Lyophilized from whole antisera

Product Description	
Description	Novus Biologicals Rabbit BDNF Antibody (NBP1-46750) is a polyclonal antibody validated for use in IHC and WB. Anti-BDNF Antibody: Cited in 7 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	627
Gene Symbol	BDNF
Species	Human, Mouse, Rat
Specificity/Sensitivity	Specific for mature BDNF.
Immunogen	A synthetic peptide from internal region of human mature BDNF conjugated to blue carrier protein was used as the antigen. The peptide is homologous in rat and mouse.

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunohistochemistry
Recommended Dilutions	Western Blot 1:1000-1:2000, Immunohistochemistry 1:1000-1:2000, Immunohistochemistry-Paraffin 1:1000-1:2000

Images

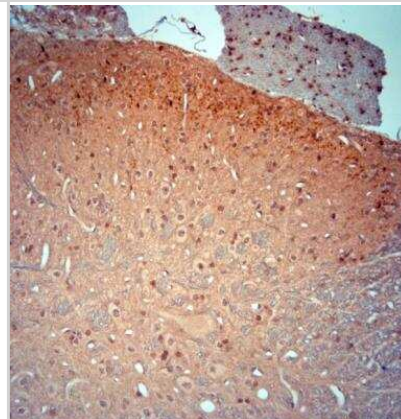
Western Blot: BDNF Antibody [NBP1-46750] - Human platelet lysate. Blocking: 1% LFDM for 30 min at RT; primary antibody incubated at 4C overnight. Click on eLAB BOOK tab to see the details. Mature BDNF: (1:2000 dilution) ; proBDNF: (1:1000 dilution)



Immunohistochemistry-Paraffin: BDNF Antibody [NBP1-46750] - IHC-P on paraffin sections of rat hippocampus. The animal was perfused using Autoperfuser at a pressure of 130 mmHg with 300 ml 4% FA before being processed for paraffin embedding. HIER: Tris-EDTA, pH 9 for 20 min. Blocking: 0.2% LFDM in TBST filtered thru 0.2 um. Detection was done using HRP polymer following manufacturers instructions; DAB chromogen. Primary antibody: dilution 1: 1000, incubated 30 min at RT using Autostainer. Sections were counterstained with Harris Hematoxylin. Small neurons are stained and also some nuclear staining is observed.



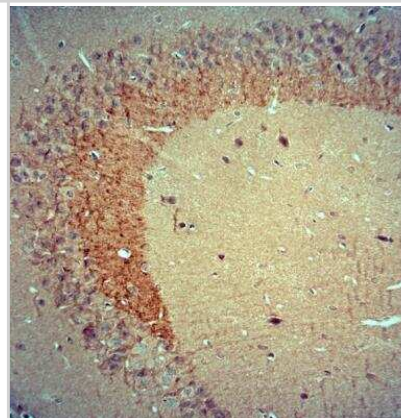
Immunohistochemistry-Paraffin: BDNF Antibody [NBP1-46750] - Paraffin sections of rat spinal cord. Dilution 1: 1000.



Immunohistochemistry-Paraffin: BDNF Antibody [NBP1-46750] - Paraffin sections of rat hippocampus. Dilution 1: 1000.



Immunohistochemistry-Paraffin: BDNF Antibody [NBP1-46750] - Paraffin sections of mouse hippocampus. Dilution 1: 1000.

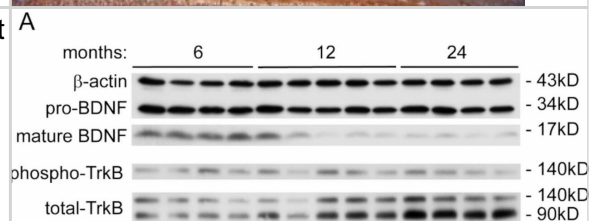


Immunohistochemistry-Paraffin: BDNF Antibody [NBP1-46750] - IHC-P on paraffin sections of rat hippocampus. The animal was perfused using Autoperfuser at a pressure of 130 mmHg with 300 ml 4% FA before being processed for paraffin embedding. HIER: Tris-EDTA, pH 9 for 20 min. Blocking: 0.2% LFDM in TBST filtered thru 0.2 μ m. Detection was done using HRP polymer following manufacturers instructions; DAB chromogen. Primary antibody: dilution 1: 1000, incubated 30 min at RT using Autostainer. Sections were counterstained with Harris Hematoxylin. Small neurons are stained and also some nuclear staining is observed.



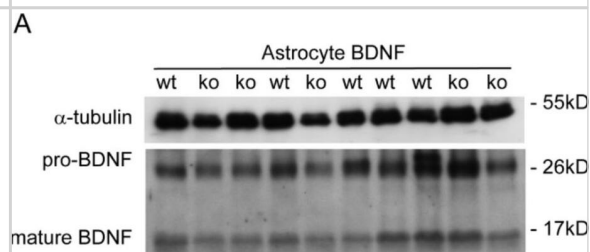
Ageing reduces BDNF maturation in the brain. Brains of C57BL/6J mice at 6, 12 and 24 months of age were homogenized for quantitative Western blot of BDNF (A). Normal aging significantly reduced the protein levels of matured BDNF, but not pro-BDNF (B and C; One-way ANOVA followed by Bonferroni post-hoc test; $n = 5-11$ per group). Aging did not decrease phosphorylated TrkB (D; One-way ANOVA; $n = 4-5$ per group), but significantly increased the protein level of total TrkB (E; One-way ANOVA followed by Bonferroni post-hoc test; $n = 4-5$ per group) Image collected and cropped by CiteAb from the following open publication

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Deficiency of astrocyte BDNF reduces vasculature and pericytes in the brain. Brain homogenates from 10 month-old C57BL/6 mice with (ko) and without (wt) knockout of Bdnf gene in astrocytes for 3 months were detected for protein levels of BDNF (A). Knockout of Bdnf gene significantly reduced mature BDNF but not pro-BDNF (B and C; t-test, $n = 9-11$ per group). Brain sections were then stained for collagen type IV and quantified for the vasculature (D). Deficiency of astrocyte BDNF significantly reduced both the length and density of branch points of cerebral vessels (E and F; t-test, $n = 8$ per group). Additionally, microvessels were isolated from brains and detected with Western blot for pericyte markers and relevant signaling molecules (G and J). Deficiency of astrocyte BDNF decreased the protein level of PDGFR β , but not CD13 (H and I; t-test, $n = 11-12$ per group), and reduced the phosphorylation of both Akt and Erk1/2 (K and L; t-test, $n = 4-9$ per group) Image collected and cropped by CiteAb from the following open publication

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Publications

Maria B. Goncalves, Julien Moehlin, Earl Clarke, John Grist, Carl Hobbs, Antony M. Carr, Julian Jack, Marco Antonio Mendoza-Parra, Jonathan P.T. Corcoran RAR β Agonist Drug (C286) Demonstrates Efficacy in a Pre-clinical Neuropathic Pain Model Restoring Multiple Pathways via DNA Repair Mechanisms *iScience* 2019-09-17 [PMID: 31655065]

Hao W, Luo Q, Menger M et al. Treatment With CD52 Antibody Protects Neurons in Experimental Autoimmune Encephalomyelitis Mice During the Recovering Phase *Frontiers in Immunology* 2021-12-16 [PMID: 34975892] (WB, IHC-P, Mouse)

Kwon O, Lee S Ishige okamurae Suppresses Trimethyltin-Induced Neurodegeneration and Glutamate-Mediated Excitotoxicity by Regulating MAPKs/Nrf2/HO-1 Antioxidant Pathways *Antioxidants* 2021-03-12 [PMID: 33809381] (WB)

Murueta-Goyena A, Ortuzar N, Lafuente JV, Bengoetxea H Enriched Environment Reverts Somatostatin Interneuron Loss in MK-801 Model of Schizophrenia *Mol. Neurobiol.* [PMID: 31506899] (WB)

Wulamu W, Yisireyili M, Aili A et al. Hindbrain Estrogen Receptor Regulation of Ventromedial Hypothalamic Glycogen Metabolism and Glucoregulatory Transmitter Expression in the Hypoglycemic Female Rat *Neuroscience* 2019-05-12 [PMID: 31085279] (WB, Rat)

Hasan Mahmood A, Uddin M, Ibrahim M et al. Sex differences in forebrain estrogen receptor regulation of hypoglycemic patterns of counter-regulatory hormone secretion and ventromedial hypothalamic nucleus glucoregulatory neurotransmitter and astrocyte glycogen metabolic enzyme expression. *Neuropeptides*. 2018-10-01 [PMID: 30396594] (WB, Rat)

Shao Z, Lv G, Wen P et al. Silencing of PHLPP1 promotes neuronal apoptosis and inhibits functional recovery after spinal cord injury in mice *Life Sci.* 2018-08-13 [PMID: 30114409] (WB, Mouse)





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Products Related to NBP1-46750

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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