Product Datasheet

BDNF Antibody
NB100-98682

Unit Size: 0.1 ml

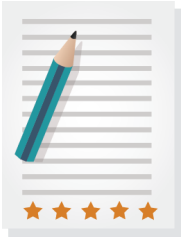
Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Publications: 32

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB100-98682

Updated 4/21/2024 v.20.1



NB100-98682

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
Target Molecular Weight	28 kDa

Product Description

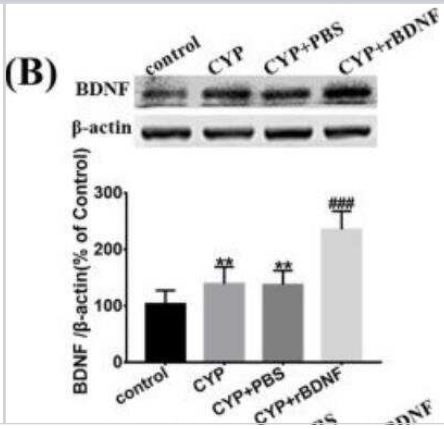
Host	Rabbit
Gene Symbol	BDNF
Species	Human, Mouse, Rat, Zebrafish
Reactivity Notes	Zebrafish reactivity reported in scientific literature (PMID: 30222997).
Specificity/Sensitivity	Specific for mature BDNF.
Immunogen	A synthetic peptide from n-terminal region of human mature BDNF conjugated to blue carrier protein was used as the antigen. The peptide is homologous in many other species including rat, mouse, zebra fish and xenopus.

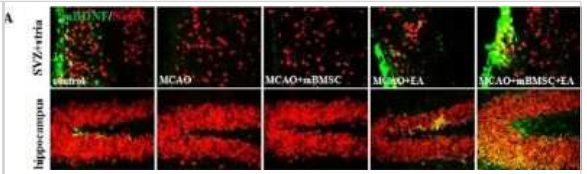
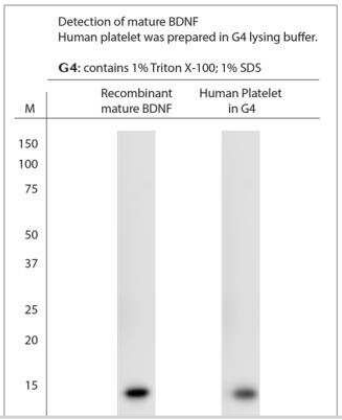
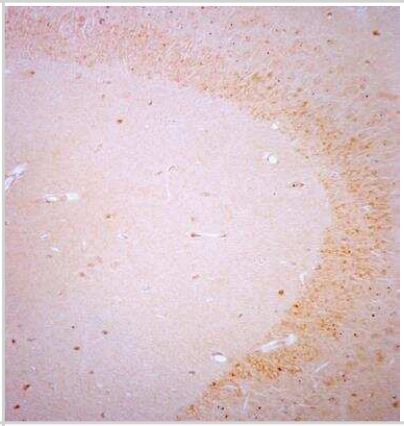
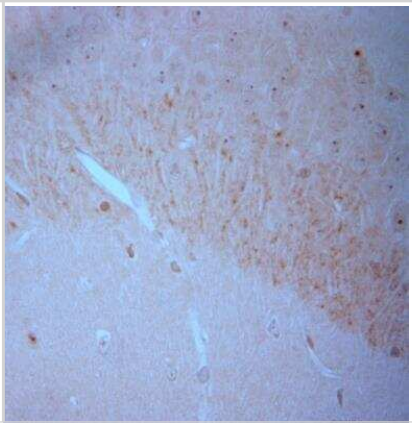
Product Application Details

Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:1000, Immunohistochemistry 1:1000, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunohistochemistry-Paraffin 1:1000
Application Notes	Use in IHC-P reported in scientific literature (PMID: 30222997). ICC/IF reported in scientific literature (PMID: 27914953).

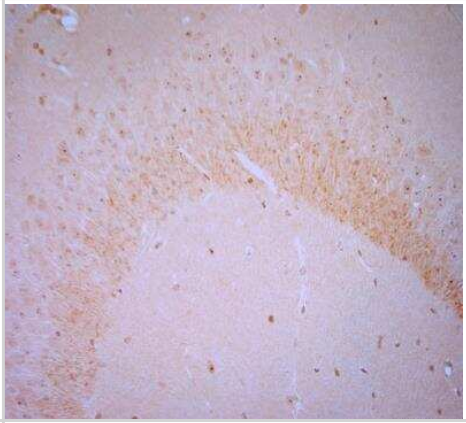
Images

Western Blot: BDNF Antibody [NB100-98682] - BDNF lowered the mechanical withdrawal threshold further and promoted activation of astrocytes and microglia, and enhanced the p38/JNK pathway to aggravate the release of IL-1beta and TNF-alpha in the SDH of CYP-induced cystitis. Western blots showing the expression of BDNF was further upregulated when compared with the CYP + PBS group. Data of mechanical withdrawal threshold were analyzed using a two-way analysis of variance (ANOVA) followed by the Sidak's multiple comparisons test. All data were calculated as mean +/- SEM (n = 10 per group). **p < 0.01, ***p < 0.001 vs. the control group. #p < 0.05, ##p < 0.01, ###p < 0.001 vs. the CYP + rBDNF group. $p < 0.05, $$p < 0.01, $$$p < 0.001 vs. the CYP + PBS group.

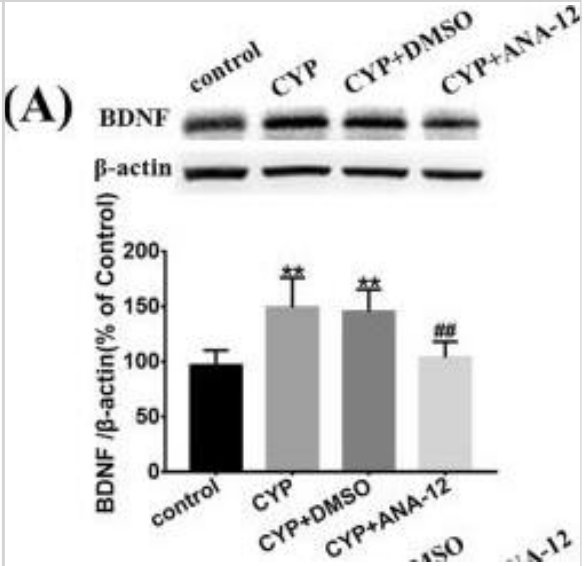


Immunohistochemistry: BDNF Antibody [NB100-98682] - Effects of mBMSC and EA treatment on the expression of mBDNF and NT4 in neurons. Photomicrographs for mBDNF/NeuN or NT4/NeuN double-positive cells in the striatum and hippocampus (n = 5). The number of mBDNF/NeuN double-positive cells in the SVZ + striatum and hippocampus was significantly higher in the EA-treated MCAO group and the combined mBMSC + EA-treated MCAO group, compared to the number in the other groups. The number of NT4/NeuN double-positive cells in the hippocampus was significantly higher in the EA-treated MCAO group than in the vehicle-treated MCAO group. #p < 0.05 and ##p < 0.01 versus control group; *p < 0.05, **p < 0.01, and ***p < 0.001 versus vehicle-treated MCAO group; &&p < 0.01 versus mBMSC-treated MCAO group. Scale bar = 100 um. Image collected and cropped by CiteAb from the following publication (www.nature.com/articles/s41598-018-20481-3) licensed under a CC-BY license.	
Western Blot: BDNF Antibody [NB100-98682] - Human platelet lysate and recombinant mature BDNF. Blocking: 1% LFDM for 30 min at RT; primary antibody (1:1000) incubated at 4C overnight.	
Immunohistochemistry-Paraffin: BDNF Antibody [NB100-98682] - Mouse hippocampus. The animal was perfused 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 Novolink HRP polymer from Leica following manufacturers instructions; DAB chromogen: Candela DAB chromogen. Primary antibody: dilution 1: 1000, incubated 30 min at RT. Sections were counterstained with Harris Hematoxylin.	
Immunohistochemistry-Paraffin: BDNF Antibody [NB100-98682] - Mouse hippocampus. The animal was perfused 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 Novolink HRP polymer from Leica following manufacturers instructions; DAB chromogen: Candela DAB chromogen. Primary antibody: dilution 1: 1000, incubated 30 min at RT. Sections were counterstained with Harris Hematoxylin.	

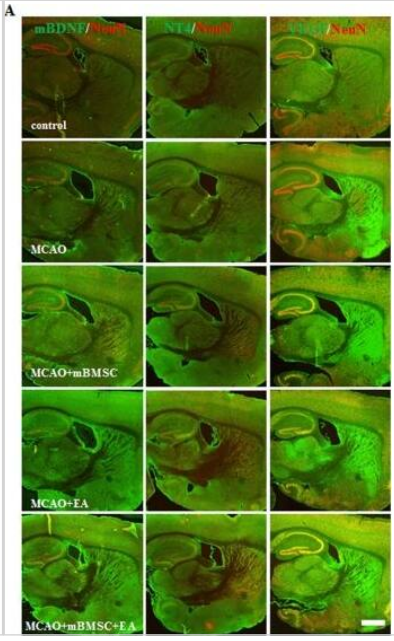
Immunohistochemistry-Paraffin: BDNF Antibody [NB100-98682] - Mouse hippocampus. The animal was perfused at a pressure of 130 mmHg with 300 ml 4% FA before being processed for paraffin embedding. HIER: Tris-EDTA, pH 9 for 20 min. Blocking: 0.2% LFDM in TBST filtered thru 0.2 um. Detection was done using Novolink HRP polymer from Leica following manufacturers instructions; DAB chromogen: Candela DAB chromogen. Primary antibody: dilution 1: 1000, incubated 30 min at RT. Sections were counterstained with Harris Hematoxylin.



Effect of USP15 on cell growth in LN-229(a) Structure of the wildtype USP15 construct with the V5 protein tag, and the respective catalytic mutant USP15C298S. (b) Protein expression by Western blot using an anti-V5 AB, loading control tubulin for the selected clones from LN-229 and LN-428 with stable expression of USP15, or USP15C298S (USPC/S), or empty vector controls. (c) Growth of USP15, or USP15C298S (USPC/S) overexpressing clones, and respective empty vector control (pIRES2/EGFP) followed over 5 days in culture. The error bars indicate standard deviations of triplicate samples. (d) Adhesion-independent growth in soft agar, representative images, and quantification of total colony numbers. Empty vector control, eV, black; USP15, blue; USP15C/S, green. Histogram shows data as mean +/-SD. Image collected and cropped by CiteAb from the following open publication (https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.22798), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Liver-specific disruption of Chrebp in mice. A: Quantitative real-time PCR analysis of ChREBP mRNA. Total RNA was isolated from various tissues of control and liver-specific Chrebp knockout (L-Chrebp−/−) mice and subjected to real-time PCR analysis with 36B4 as the invariant control. Each value represents the mean ± SEM of four mice relative to that of controls, which was arbitrarily defined as 1.0. #P < 0.01 denotes the level of statistical significance (two-tailed Student's t-test) between control and L-Chrebp−/− mice. B: Immunoblot analysis of ChREBP in liver lysates of control and L-Chrebp−/− mice. Aliquots (60 μg of protein) of liver whole-cell lysates were subjected to SDS-PAGE and immunoblot analysis with anti-ChREBP and anti-calnexin antibodies. ChREBPΔ denotes a truncated aberrant ChREBP protein present only in lysates prepared from L-Chrebp−/− livers. The functional domains of ChREBP, including the glucose-sensing proline-rich bHLH-Zip DNA-binding and ZIP-like domains, are denoted. NLS, nuclear localization sequence. Image collected and cropped by CiteAb from the following open publication (https://linkinghub.elsevier.com/retrieve/pii/S0022227520331369), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Ferguson L, Giza CC, Serpa RO et al. Sex Differences in Neurophysiological Changes Following Voluntary Exercise in Adolescent Rats Frontiers in Neurology 2021-07-22 [PMID: 34367052] (WB)

Filimonova EA, Pashkov AA, Moysak GI et al. Brain but not serum BDNF levels are associated with structural alterations in the hippocampal regions in patients with drug-resistant mesial temporal lobe epilepsy Frontiers in Neuroscience 2023-07-19 [PMID: 37539386] (IHC)

Doboszewska U, Soca?a K, Pier□g M et al. Dietary Zinc Differentially Regulates the Effects of the GPR39 Receptor Agonist, TC-G 1008, in the Maximal Electroshock Seizure Test and Pentylenetetrazole-Kindling Model of Epilepsy Cells 2023-01-09 [PMID: 36672199] (B/N)

Poon CH, Liu Y, Pak S et al. Prelimbic Cortical Stimulation with L-methionine Enhances Cognition through Hippocampal DNA Methylation and Neuroplasticity Mechanisms Aging and disease 2023-02-01 [PMID: 36818556] (WB, Rat)

Staszkiewicz R, G?adysz D, Gralewski M et al. Usefulness of Detecting Brain-Derived Neurotrophic Factor in Intervertebral Disc Degeneration of the Lumbosacral Spine Medical science monitor : international medical journal of experimental and clinical research 2023-01-16 [PMID: 36642939] (IHC-Fr, Human)

Details:
1:200 dilution

Gadsielinski M, Gladyszz D, Gralewski M Relationship between BDNF-positive number of nerve fibers and pain in intervertebral disc degeneration Sciforum 2023-01-01 (ICC/IF)

Gao F, Wang J, Yang S et al. Fear extinction induced by activation of PKA ameliorates anxiety-like behavior in PTSD mice Neuropharmacology 2023-01-01 [PMID: 36341808] (WB, Mouse)

Details:
Dilution used in WB 1:1000

Doboszewska U, Socala K, PierOg M et al. The Effects and Mechanisms of Action of TC-G 1008, GPR39 Agonist, in Animal Models of Seizures and Epilepsy Cells 2022-07-09 [PMID: 35805072]

Ma W, Wei X, Gu H et al. Intra-amniotic transplantation of brain-derived neurotrophic factor-modified mesenchymal stem cells treatment for rat fetuses with spina bifida aperta Stem cell research & therapy 2022-08-13 [PMID: 35964077]

Details:
Dilution used 1:25, Outbred Wistar rats

Fanarioti E, Tsarouchi M, Vasilakopoulou PB et al. Brain polar phenol content, behavioural and neurochemical effects of Corinthian currant in a rotenone rat model of Parkinson's disease Nutritional neuroscience 2022-06-03 [PMID: 35656969]

Saleem S, Banerjee R, Rajesh Kannan R Chrysin-Loaded Chitosan Nanoparticle-Mediated Neuroprotection in A beta 1-42-Induced Neurodegenerative Conditions in Zebrafish ACS chemical neuroscience 2022-06-13 [PMID: 35696319]

Pak M, Park y, yang H et al. Samhwangsasim-tang attenuates neuronal apoptosis and cognitive decline through BDNF-mediated activation of tyrosin kinase B and p75-neurotrophin receptors Phytomedicine 2022-02-01 [PMID: 35279612] (IF/IHC, Mouse)

More publications at http://www.novusbio.com/NB100-98682

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

Products Related to NB100-98682

NBL1-07961	BDNF Overexpression Lysate
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.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NB100-98682

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications