

Product Datasheet

TNF-alpha Antibody - Azide Free NB600-587

Unit Size: 0.2 ml

Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.

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NB600-587

TNF-alpha Antibody - Azide Free

Product Information	
Unit Size	0.2 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	No Preservative
Isotype	Serum
Purity	Whole Antiserum
Buffer	Antiserum

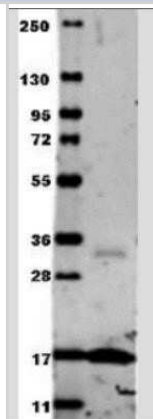
Product Description	
Description	Store vial at -20C prior to opening. Aliquot contents and freeze at -20C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4C as an undiluted liquid. Dilute only prior to immediate use.
Host	Rabbit
Gene ID	7124
Gene Symbol	TNF
Species	Human, Mouse, Rat, Chicken, Primate
Reactivity Notes	Rat reactivity reported in scientific literature (PMID: 25894537), Mouse reactivity reported in scientific literature (PMID:22567116). Chicken reactivity reported in scientific literature (PMID: 30298003).
Specificity/Sensitivity	The antiserum is directed against mature 17,000 MW human TNF α and is useful in determining its presence in various assays. In general, this antibody also detects primate TNF α in the same formats using similar dilutions. The antibody does not recognize human TNF β (lymphotoxin). This antiserum will recognize the cell-bound precursor of TNF α as a 26,000 protein in immunoblots, particularly in denatured samples. This antibody is also useful for neutralization of human and primate TNF α activity in bioassays. It does not neutralize the biological activity of lymphotoxin. For neutralization, it is recommended to incubate the sample with a 1:200 dilution of the antibody for at least 4 hours before being tested. A control of similarly diluted normal rabbit IgG is recommended.
Immunogen	The whole rabbit serum was prepared by repeated immunizations with recombinant human TNF-alpha produced in E.coli. (Uniprot: P01375)

Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:500-1:2000, ELISA 1:1000-1:5000, Immunohistochemistry 1:100-1:500, Immunocytochemistry/ Immunofluorescence 1:100, Immunohistochemistry-Paraffin 1:100-1:500
Application Notes	This product has been tested for use in immunohistochemistry, immunofluorescence, and immunoblotting. It recognizes the 17,000 MW TNF α . Reactivity in other immunoassays is unknown.

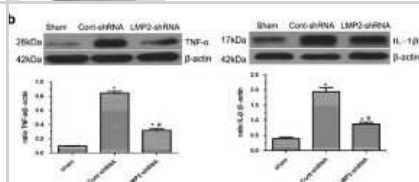


Images

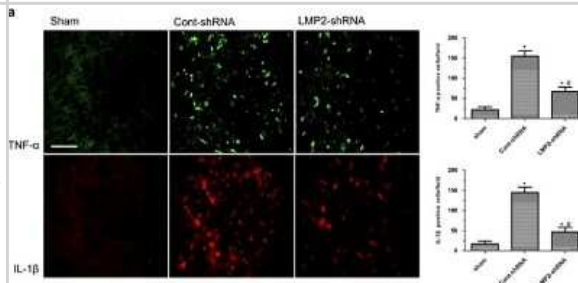
Western Blot: TNF-alpha Antibody - Azide Free [NB600-587] - Analysis using Azide/BSA FREE version of NB600-587. Membrane blocked in 1% BSA-TBS-T 30 min RT, 1:1000 dilution in 1% BSA-TBS-T 4C.



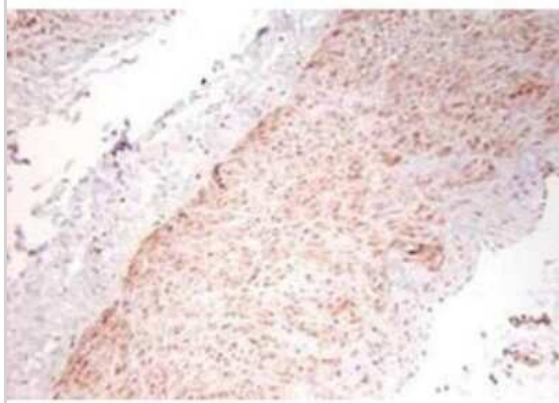
Western Blot: TNF-alpha Antibody - Azide Free [NB600-587] - Expression of TNF-alpha, IL-1beta and NF-kappaB in the brains of MCAO rats. Western blot confirmed that protein levels of TNF-alpha increased as early as 4 h after reperfusion, further increased at 24 h, peaked at 72 h and decreased at 7 days, respectively (*P<0.001, compared with the controls; #P<0.001 compared with the previous time point). Five rats in each group were used for western blot (n=5), sham, sham-operated control rats Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/cddis2014586>), licensed under a CC-BY license.



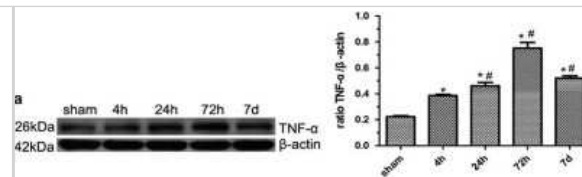
Immunocytochemistry/Immunofluorescence: TNF-alpha Antibody - Azide Free [NB600-587] - LMP2 knockdown by shRNA reduced the expression of TNF-alpha and IL-1beta after MCAO. Immunofluorescence labeling revealed that both TNF-alpha and IL-1beta immunoreactivity was significantly upregulated in the ipsilateral ischemic hemisphere compared with sham-operated animals. In contrast, LMP2 knockdown by shRNA significantly reduced the expression of TNF-alpha and IL-1beta. Five rats in each group were used for immunofluorescent assays (n=5). Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/cddis2014586>), licensed under a CC-BY license.



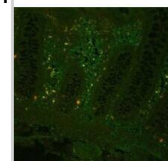
Immunohistochemistry: TNF-alpha Antibody - Azide Free [NB600-587] - Staining of formalin/PFA-fixed paraffin-embedded sections of human artery tissue sections. Sections were fixed in formaldehyde and subjected to heat mediated antigen retrieval in citrate buffer (pH 6.0). Slides were blocked for ten minutes with 1.5% serum. Primary antibody was diluted 1:100 and incubated with samples for 24 hours at 4C. HRP-conjugated goat anti-rabbit antibody was used as the secondary antibody.



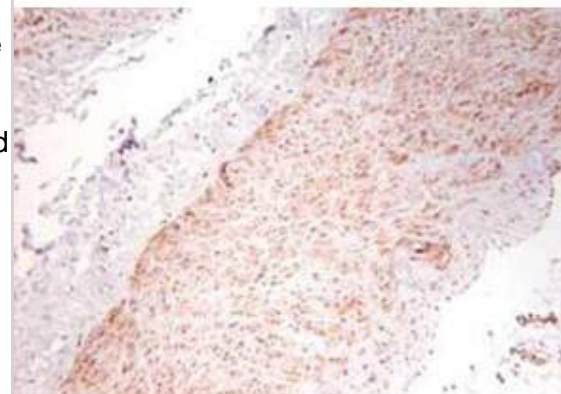
Western Blot: TNF-alpha Antibody - Azide Free [NB600-587] - Expression of TNF-alpha, IL-1beta and NF-kappaB in the brains of MCAO rats. Western blot confirmed that protein levels of TNF-alpha increased as early as 4 h after reperfusion, further increased at 24 h, peaked at 72 h and decreased at 7 days, respectively (*P<0.001, compared with the controls; #P<0.001 compared with the previous time point). Five rats in each group were used for western blot (n=5), sham, sham-operated control rats Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/cddis2014586>), licensed under a CC-BY license.



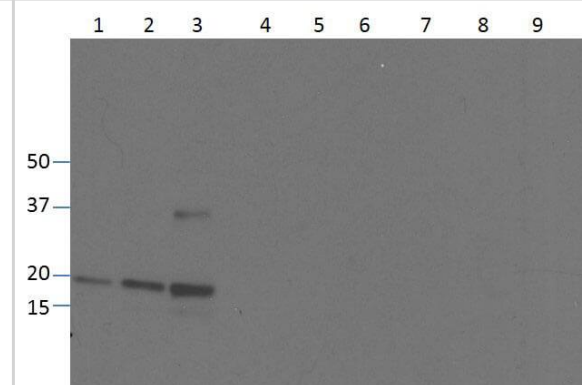
Fluorescent immunohistochemistry showing staining of human colon by anti-TNF alpha (formalin/PFA-fixed paraffin-embedded sections). Samples were formaldehyde-fixed, then blocked in 10% serum for 2 hours at 20C. The primary antibody was diluted 1:100 and incubated with the sample for 2 hours at 20C. Alexa Fluor(R) 680 goat polyclonal secondary antibody was used diluted 1:5000.



Immunohistochemistry using polyclonal TNFα antibody showing staining of formalin/PFA-fixed paraffin-embedded sections of human artery tissue sections. Sections were fixed in formaldehyde and subjected to heat mediated antigen retrieval in citrate buffer (pH 6.0). Slides were blocked for ten minutes with 1.5% serum. Primary antibody was diluted 1:100 and incubated with samples for 24 hours at 4C. HRP-conjugated goat anti-rabbit antibody was used as the secondary antibody.



Western blot of TNF-alpha Antibody - Azide Free. Lane 1: 250ng human recombinant TNF. Lane 2: 500ng human recombinant TNF. Lane 3: 1000ng human recombinant TNF. Membrane blocked in Blotto



Publications

Ya□Li Zhang, Ya□Lei Wang, Ke Yan, Haiyan Li, Xinyu Zhang, Julien Milon Essola, Chengcheng Ding, Kexin Chang, Guangchao Qing, Fuxue Zhang, Yan Tan, Tiantian Peng, Xu Wang, Miao Jiang, Xing□Jie Liang, Qian Hua Traditional Chinese Medicine Formulae QY305 Reducing Cutaneous Adverse Reaction and Diarrhea by its Nanostructure Advanced Science 2023-12-03 [PMID: 38044276]

T. Ollewagen, R.M. Benecke, C. Smith High species homology potentiates quantitative inflammation profiling in zebrafish using immunofluorescence Heliyon 2023-12-13 [PMID: 38187273]

Anna Flavia Cantone, Chiara Burgaletto, Giulia Di Benedetto, Anna Pannaccione, Agnese Secondo, Carlo Maria Bellanca, Egle Augello, Antonio Munafò, Paola Tarro, Renato Bernardini, Giuseppina Cantarella Taming Microglia in Alzheimer's Disease: Exploring Potential Implications of Choline Alphoscerate via $\alpha 7$ nAChR Modulation. Cells 2024-02-26 [PMID: 38391922]

Omar AE, Al-Khalaifah HS, Osman A et al. Modulating the Growth, Antioxidant Activity, and Immunoexpression of Proinflammatory Cytokines and Apoptotic Proteins in Broiler Chickens by Adding Dietary Spirulina platensis Phycocyanin Antioxidants (Basel) 2022-05-19 [PMID: 35624855] (Block/Neutralize)

Albadawy R, Hasanin AH, Agwa SHA et al. Rosavin Ameliorates Hepatic Inflammation and Fibrosis in the NASH Rat Model via Targeting Hepatic Cell Death International Journal of Molecular Sciences 2022-09-05 [PMID: 36077546] (Immunohistochemistry)

Conti F, Romano GL, Eandi CM et al. Brimonidine is Neuroprotective in Animal Paradigm of Retinal Ganglion Cell Damage Frontiers in Pharmacology 2021-07-21 [PMID: 34366858] (Western Blot)

Corsetti G, Romano C, Pasini E et al. Essential Amino Acids-Rich Diet Increases Cardiomyocytes Protection in Doxorubicin-Treated Mice Nutrients 2023-05-12 [PMID: 37242170] (IHC, Mouse)

Kaya D, Micili SC, Kizmazoglu C et al. Allopurinol attenuates repeated traumatic brain injury in old rats: A preliminary report Experimental neurology 2022-08-02 [PMID: 35931122] (IHC-P, Rat)

Gomez-Lopez N, Romero R, Panaitescu B et al. Zinc gluconate-loaded chitosan nanoparticles reduce severity of collagen-induced arthritis in Wistar rats ACS Biomater Sci Eng 2021-01-06 [PMID: 33405580]

Gutziet O, Iluz R, Ben Asher H et al. Maternal N-Acetyl-Cysteine Prevents Neonatal Hypoxia-Induced Brain Injury in a Rat Model International journal of molecular sciences 2021-12-20 [PMID: 34948425] (WB, Rat)

Ollewagen T, Powrie YSL, Myburgh KH, Smith C Unresolved intramuscular inflammation, not diminished skeletal muscle regenerative capacity, is at the root of rheumatoid cachexia: insights from a rat CIA model Physiological reports 2021-11-01 [PMID: 34806343] (WB, Rat)

Ongoş Dede F, Bozkurt Dogan S, Balli U Et al. The effect of ellagic acid on the repair process of periodontal defects related to experimental periodontitis in rats Journal of applied oral science : revista FOB 2021-09-27 [PMID: 34586188] (IF/IHC, Rat)

More publications at <http://www.novusbio.com/NB600-587>



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Products Related to NB600-587

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-35076-10ug	Recombinant Human TNF-alpha Protein
M6000B-1	IL-6 [HRP]

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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