

Product Datasheet

iNOS Antibody (K13-A) NBP1-33780-0.1ml

Unit Size: 0.1 ml

Store at 4C. Do not freeze.

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NBP1-33780-0.1ml

iNOS Antibody (K13-A)

Product Information

Unit Size	0.1 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C. Do not freeze.
Clonality	Monoclonal
Clone	K13-A
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	20mM Tris-HCl (pH 8.0) and 20mg/ml BSA

Product Description

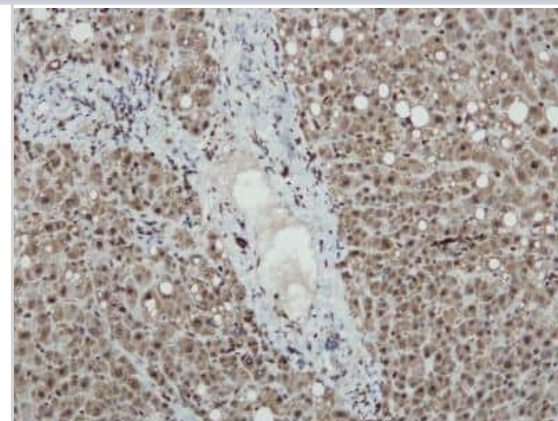
Description	This antibody is immunoaffinity purified with immunogenic peptide as a ligand.
Host	Rabbit
Gene ID	4843
Gene Symbol	NOS2
Species	Human, Mouse, Rat, Porcine
Reactivity Notes	This antibody also recognizes nNOS (neuronal nitric oxide synthase). Porcine reactivity reported per verified customer review.
Immunogen	Peptide derived from human iNOS sequence. Antibody recognizes the epitope between Ser1118 - Gly1129.
Notes	This antibody is immunoaffinity purified with immunogenic peptide as a ligand.

Product Application Details

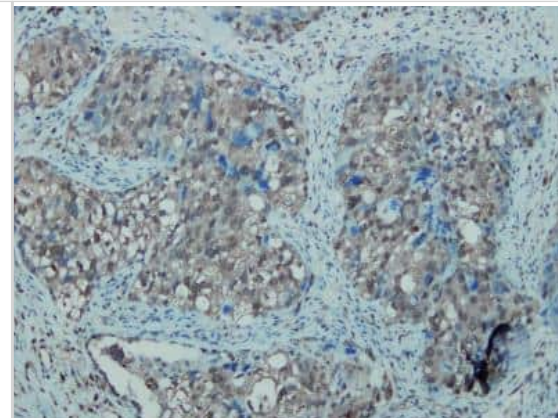
Applications	Western Blot, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:2000, Immunohistochemistry 1:10-1:500, Immunohistochemistry-Paraffin 1:100-1:200, Immunohistochemistry-Frozen
Application Notes	Use in IHC-P reported in scientific literature (PMID:34496231).

Images

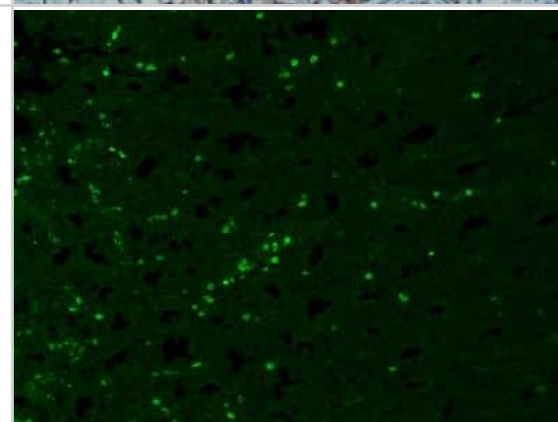
Immunohistochemistry-Paraffin: iNOS Antibody (K13-A) [NBP1-33780] - Liver tissue stained with anti-iNOS antibody shows strong positive immunostaining of hepatocytes. Formalin fixed, paraffin embedded human tissues (4 um sections) stained according to IHC-P Protocol for NBP1-33780.



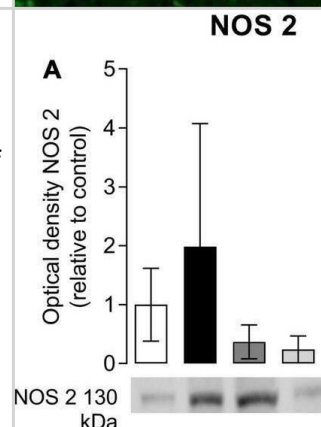
Immunohistochemistry-Paraffin: iNOS Antibody (K13-A) [NBP1-33780] - Lung adenocarcinoma tissue stained with anti-iNOS antibody shows strong positive immunostaining of hepatocytes. Formalin fixed, paraffin embedded human tissues (4 um sections) stained according to IHC-P Protocol for NBP1-33780.



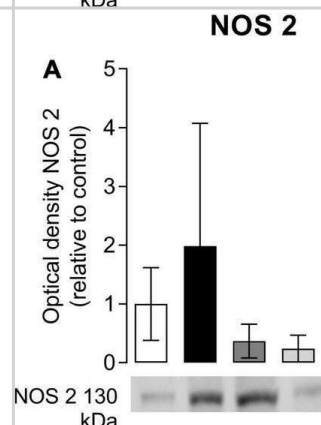
Immunohistochemistry-Paraffin: iNOS Antibody (K13-A) [NBP1-33780] - Inflamed porcine intestine. Antibody dilution 1:200, overnight 4C. Secondary anti-rabbit Alexa 488 (1:1000) 2 hr incubation. Image from verified customer review.



Effects of omega-3 supplementation on the immunocontent of macrophages M1 markers: nitric oxide synthase 2 (NOS-2) (A) and CD86 (B), and M2 marker: Arginase-1 (C) on the mouse paw muscle 48 h after the model induction in Saline/Sham, Saline/CPIP, Omega-3/CPIP, and Corn oil/CPIP groups. Data are expressed as mean \pm SD of 6 animals per group, statistically assessed by the one-way ANOVA followed by Tukey's test. $###p < 0.01$ vs. the Saline/Sham group.



Western Blot: iNOS Antibody (K13-A) [NBP1-33780] - Effects of omega-3 supplementation on the immunocontent of macrophages M1 markers: nitric oxide synthase 2 (NOS-2) (A) & CD86 (B), & M2 marker: Arginase-1 (C) on the mouse paw muscle 48 h after the model induction in Saline/Sham, Saline/CPIP, Omega-3/CPIP, & Corn oil/CPIP groups. Data are expressed as mean \pm SD of 6 animals per group, statistically assessed by the one-way ANOVA followed by Tukey's test. $###p < 0.01$ vs. the Saline/Sham group. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/35391753>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Paula Franson Fernandes, Taynah de Oliveira Galassi, Verônica Vargas Horewicz, Afonso Shiguemi Inoue Salgado, Josiel Mileno Mack, Heloiza dos Santos Baldaça, Ana Paula Ferreira da Silva, Stephen Bruehl, Edsel B. Bittencourt, Lynsey A. Seim, Daniel Fernandes Martins, Franciane Bobinski Immunoregulatory Effect of Preventive Supplementation of Omega-3 Fatty Acid in a Complex Regional Pain Syndrome Type I Model in Mice *Frontiers in Integrative Neuroscience* 2022-03-22 [PMID: 35391753]

Li X, Ke Y, Hernandez AL et al. Inducible nitric oxide synthase (iNOS)-activated Cxcr2 signaling in myeloid cells promotes TGF β -dependent squamous cell carcinoma lung metastasis *Cancer Letters* 2023-07-01 [PMID: 37524225] (IHC-P, Mouse)

Details:

1:500 IHC-P dilution

Sun A, Lin J, Wang L et al. Involvement of iNOS-induced Reactive Enteric Glia Cells in Gastrointestinal Motility Disorders of Postoperative Ileus Mice *Journal of chemical neuroanatomy* 2023-07-15 [PMID: 37459999] (IHC, Mouse)

Salm DC, Horewicz VV, Tanaka F et al. Electrical Stimulation of the Auricular Branch Vagus Nerve Using Random and Alternating Frequencies Triggers a Rapid Onset and Pronounced Antihyperalgesia via Peripheral Annexin A1-Formyl Peptide Receptor 2/ALX Pathway in a Mouse Model of Persistent Inflammatory Pain *Molecular neurobiology* 2023-02-06 [PMID: 36745336]

Omura CM, LUDtke DD, Horewicz VV et al. Decrease of IL-1 beta and TNF in the Spinal Cord Mediates Analgesia Produced by Ankle Joint Mobilization in Complete Freund Adjuvant-Induced Inflammation Mice Model *Frontiers in physiology* 2022-01-14 [PMID: 35095573] (WB, Mouse)

Chung AW, Anand K, Anselme AC et al. A phase 1/2 clinical trial of the nitric oxide synthase inhibitor L-NMMA and taxane for treating chemoresistant triple-negative breast cancer *Science translational medicine* 2021-12-15 [PMID: 34910551]

Anderson-Baucum E, PiNeros AR, Kulkarni A et al. Deoxyhypusine synthase promotes a pro-inflammatory macrophage phenotype *Cell metabolism* 2021-09-07 [PMID: 34496231] (IHC-P, Mouse)

de Brito RN, Ludtke DD, de Oliveira BH et al. Balneotherapy decreases mechanical hyperalgesia by reversing BDNF and NOS2 immunocontent in spinal cord of mice with neuropathic pain *J. Neuroimmunol.* 2020-08-16 [PMID: 32862113]

Inhibition of iNOS as a novel effective targeted therapy against triple negative breast cancer Granados-Principal S, Liu Y *Breast Cancer Res* [PMID: 25849745] (KD, IHC-P, Human)

Imamichi Y, Sekiguchi T, Kitano T et al. Diethylstilbestrol administration inhibits theca cell androgen and granulosa cell estrogen production in immature rat ovary *Sci Rep* 2017-08-21 [PMID: 28827713] (IF/IHC, Rat)

Lee M, Wang C, Jin SW et al. Expression of human inducible nitric oxide synthase in response to cytokines is regulated by hypoxia-inducible factor-1 *Free Radic. Biol. Med.* 2019-01-01 [PMID: 30391674] (WB, Human)

Yan J, Tie G, Wang S et al. Diabetes impairs wound healing by Dnmt1-dependent dysregulation of hematopoietic stem cells differentiation towards macrophages *Nat Commun* 2018-01-02 [PMID: 29295997] (IHC-Fr, Mouse)

More publications at <http://www.novusbio.com/NBP1-33780>



Procedures

Immunohistochemistry-Paraffin protocol for iNOS Antibody (NBP1-33780)

Immunohistochemistry-Paraffin protocol for iNOS Antibody (NBP1-33780):

Immunohistochemistry-Paraffin

1. Deparaffinize the section in 3 changes of xylene, 5 minutes each.
2. Wash the section in 96%, 80% and 70% ethyl alcohol for 10 minutes each.
3. Rinse in distilled water.
4. Block the endogenous peroxidase by incubating the tissue in 3% hydrogen peroxide (H₂O₂) for 10 minutes.
5. Wash in distilled water.
6. For antigen retrieval: Immerse the slide in Tris-EDTA buffer*, pH 9.0 and incubate at 95-97°C in water bath for 25 minutes. (Alternatively adjust to your own protocol, keeping the required pH)
7. Remove the staining to room temperature and let the slide to cool (in Tris-EDTA buffer, pH 9.0) for 15 minutes.
8. Rinse in distilled water, 2 x 5 minutes.
9. Wash in PBS (phosphate buffer saline, pH 7.0-7.5) supplemented with 0.05% of Tween-20 (buffer A), 2 x 5 minutes.
10. Incubate the section with primary antibody at the dilution 1:100 - 1:200 for 1 hour in the closed wet chamber.
11. Wash 3 x 5 minutes with buffer A.
12. Apply the secondary antibody (the protocol depends on the supplier), and proceed with immunohistochemistry protocol (HRP - Peroxide - DAB).
13. Wash 3 x 5 minutes with buffer A.
14. Apply the chromogen (DAB), 1-3 minutes.
15. Wash in water, 2 x 5 minutes.
16. Stain in hematoxylin for 5 minutes.
17. Wash in water, 2 x 5 minutes.
18. Stain in hematoxylin for 5 minutes.
19. Wash in distilled water, 3 x 2 minutes.
20. Mount the slide for observation.

* Tris-EDTA Buffer (10mM Tris Base, 1mM EDTA solution, pH 9.0)

Tris -- 1.21 g; EDTA -- 0.37 g; Distilled water -- 1000 ml

Mix to dissolve in 700 ml of distilled water. Adjust pH to 9.0 with 1M HCl and mix well.

Adjust the final volume to 1 liter with distilled water.

Store this solution at room temperature for 3 months or at 4°C for longer storage.





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Products Related to NBP1-33780-0.1ml

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
H00004843-Q01-10ug	Recombinant Human iNOS GST (N-Term) Protein

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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