Product Datasheet

NTH1 Antibody - BSA Free
NB100-108

Unit Size: 0.2 ml

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

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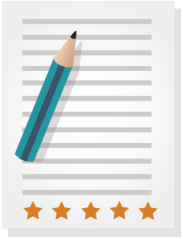
Publications: 8

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB100-108

Updated 9/9/2025 v.20.1



NB100-108

NTH1 Antibody - BSA Free

Product Information

Unit Size	0.2 ml
Concentration	1.0 mg/ml
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	37 kDa

Product Description

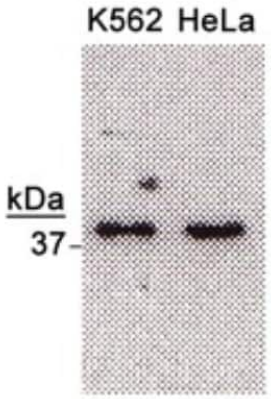
Description	Novus Biologicals Rabbit NTH1 Antibody - BSA Free (NB100-108) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-NTH1 Antibody: Cited in 8 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	4913
Gene Symbol	NTHL1
Species	Human, Mouse, Rat
Reactivity Notes	Immunogen sequence has 93% identity with bovine proteins.
Immunogen	A peptide derived from human NTH1, conjugated to KLH. [UniProt# P78549]

Product Application Details

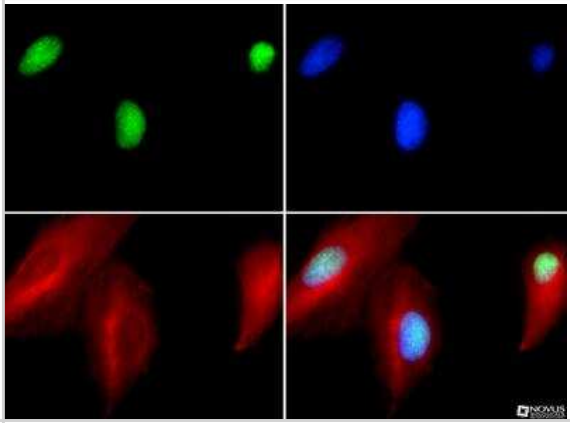
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 1:500, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:800, Immunohistochemistry-Paraffin 1:200
Application Notes	In Western Blot, a single band is detected at 37 kDa representing NTH1. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.

Images

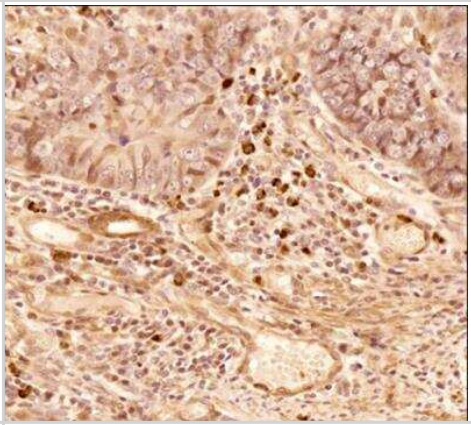
Western Blot: NTH1 Antibody [NB100-108] - Detection of NTH1 (37 kDa) from Hela & K562 cell extracts using NB100-108 (1:500). WB data courtesy of Mark Kelly, Indiana Univ.



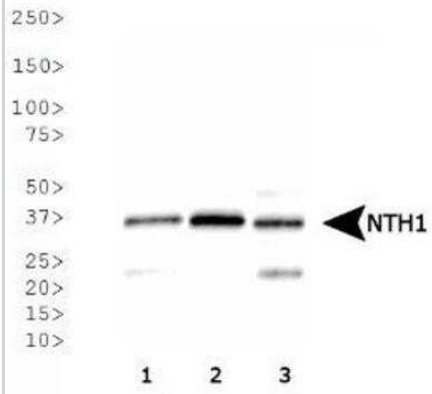
Immunocytochemistry/Immunofluorescence: NTH1 Antibody [NB100-108] - NTH1 antibody was tested in HeLa cells with FITC (green). Nuclei and alpha-tubulin were counterstained with Dapi (blue) and Dylight 550 (red).



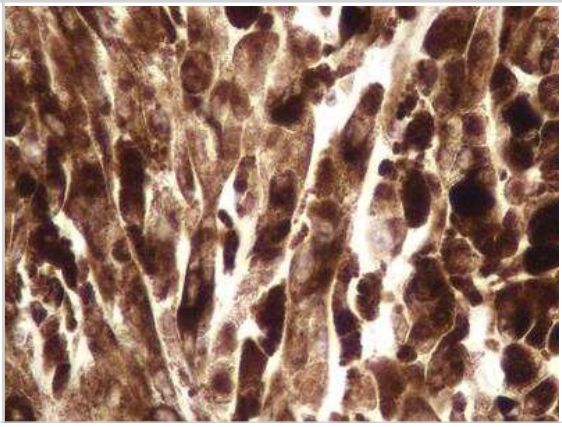
Immunohistochemistry-Paraffin: NTH1 Antibody [NB100-108] - IHC analysis of a formalin fixed paraffin embedded (FFPE) tissue section of human colon adenocarcinoma using NTH1 antibody at 5ug/ml concentration (1:200 dilution). The primary antibody binding to NTH1/ NTHL1 antigen was detected using HRP conjugated anti-rabbit secondary antibody with DAB reagent, and the sections were further counterstained with hematoxylin for labeling cellular nuclei. The NTH1 antibody generated an expected nuclear cytoplasmic staining of NTH1 protein in colon cancer cells as well as the cells of tumor stroma including cancer associated fibroblasts. The nuclear staining of NTH1 was very strong in a sub-set of colon cancer cells.

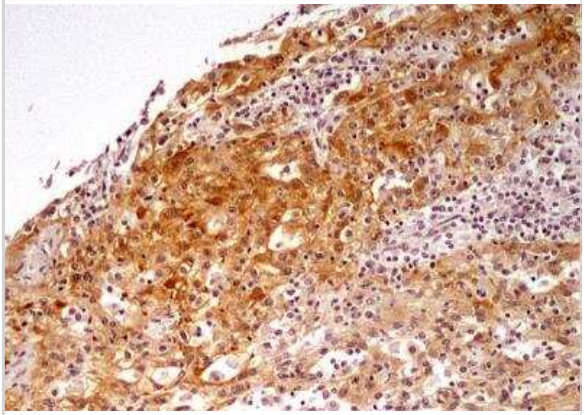
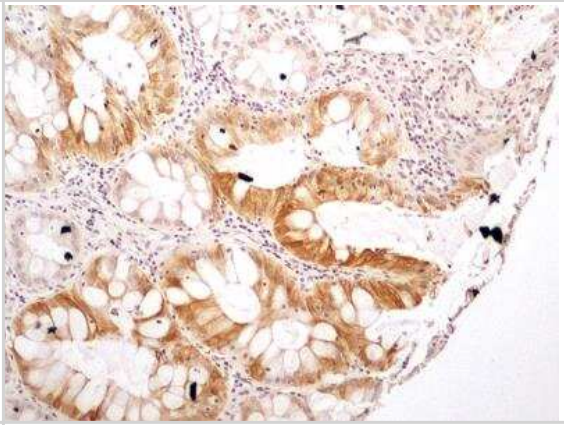
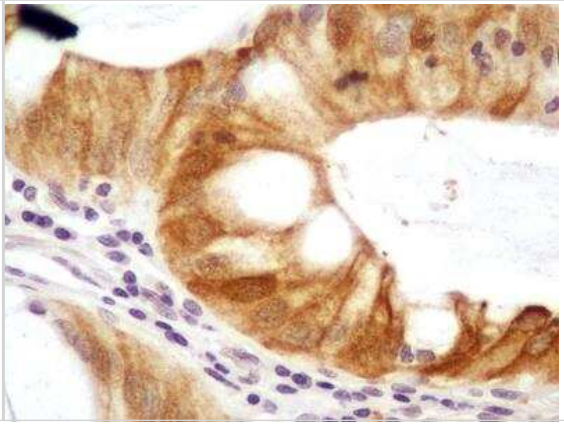


Western Blot: NTH1 Antibody [NB100-108] - Analysis of NTH1 expression in 1) HeLa, 2) A-431, 3) MCF7 whole cell lysates.



Immunohistochemistry-Paraffin: NTH1 Antibody [NB100-108] - IHC analysis of formalin-fixed paraffin-embedded tissue section of human lymph node cancer using 5 ug/ml concentration of NTH1 antibody. The representative image shows strong nuclear and cytoplasmic positivity of NTH1 protein in the lymph node cancer cells.



Immunohistochemistry-Paraffin: NTH1 Antibody [NB100-108] - IHC analysis of formalin-fixed paraffin-embedded tissue section of human kidney cancer using 5 ug/ml concentration of NTH1 antibody. The renal cancer cells showed nuclear and cytoplasmic positivity for NTH1 protein, whereas, the tumor stroma was largely negative for immunostaining.	
Immunohistochemistry-Paraffin: NTH1 Antibody [NB100-108] - IHC analysis of formalin-fixed paraffin-embedded tissue section of human rectal cancer using 5 ug/ml concentration of NTH1 antibody. The rectal cancer cells as well as the goblet cells in glandular areas showed nuclear-cytoplasmic positivity for NTH1 protein. The cells of tumor stroma did not develop immunostaining for this protein.	
Immunohistochemistry-Paraffin: NTH1 Antibody [NB100-108] - IHC analysis of formalin-fixed paraffin-embedded tissue section of human rectal cancer using 5 ug/ml concentration of NTH1 antibody. This representative image at high resolution depicts nuclear-cytoplasmic positivity for NTH1 protein in rectal cancer cells and the goblet cells. The cells of tumor stroma did not develop any immunostaining for this protein.	

Publications

Limpose KL, Trego KS, Li Z et al. Overexpression of the base excision repair NTHL1 glycosylase causes genomic instability and early cellular hallmarks of cancer. Nucleic Acids Res. 2018-03-07 [PMID: 29522130] (IHC-P, Human)

Lindberg C, Eriksson C, Van Dam AM et al. Neuronal expression of caspase-1 immunoreactivity in the rat central nervous system. J Neuroimmunol 2004-01-01 [PMID: 14698852]

Tarry-Adkins JL, Martin-Gronert MS, Fernandez-Twinn DS et al. Poor maternal nutrition followed by accelerated postnatal growth leads to alterations in DNA damage and repair, oxidative and nitrosative stress, and oxidative defense capacity in rat heart. FASEB J. 2013-01-01 [PMID: 23024373] (WB, Rat)

Ma H, Wang J, Abdel-Rahman SZ Et cl. Induction of base excision repair enzymes NTH1 and APE1 in rat spleen following aniline exposure. Toxicol Appl Pharmacol 2013-01-23 [PMID: 23352893] (IHC-P, Rat)

Chang C-L, Ho M-C, Lee P-H et al. S1P5 is required for sphingosine 1-phosphate-induced autophagy in human prostate cancer PC-3 cells. Am J Physiol Cell Physiol 297(2):C451-458. 2009-01-01 [PMID: 19474291] (WB, Human)

Goto M, Shinmura K, Igarashi H et al. Altered expression of the human base excision repair gene NTH1 in gastric cancer. Carcinogenesis 30(8):1345-1352. 2009-01-01 [PMID: 19414504] (IF/IHC, Human)

Wang AL, Lukas TJ et al. Age-related increase in mitochondrial DNA damage and loss of DNA repair capacity in the neural retina. Neurobiol Aging. 31(11):2002-10. 2010-11-01 [PMID: 1908429] (IF/IHC, Mouse, Rat)

O'reilly, M et al. p21(Cip1/WAF1/Sdi1) does not affect expression of base excision DNA repair enzymes during chronic oxidative stress. Antioxid Redox Signal. 7(5-6):719-25. 2005-05-01 [PMID: 15890018]

Procedures

Serum protocol for NTH1 Antibody (NB100-108)
NTH1 Antibody:
Procedure Guide for NB 100-108 (Anti-NTH1)

Western Blot Procedure

1. Gels, Whatman, and membranes are soaked in electroblotting buffer (25 mM Tris-HCl; 193 mM glycine; 20% methanol) for 15 minutes prior to transferring.

2. Proteins separated on SDS-polyacrylamide gels, are transferred to 0.22 micron nitrocellulose sheets by electroblotting in a Transblot BioRad transfer apparatus in 25 mM Tris, 192 mM Glycine, 20% Methanol at 150 mA (70 V). The transfer is carried out for 1 hour at 4 degrees C.

3. Following protein transfer, the filter is blocked with Blotto [1X TBST (10X TBST = 1.5 M NaCl; 100 mM Tris-HCl, pH 8.0; 0.5% Tween 20; 2% NP-40; 0.2% SDS); 5% Carnation dried milk; 0.02% sodium azide] for 1 hour at room temperature on a rotator.

4. Dilute NB 100-108 1:500 in Blotto and incubate with the filter at 4C overnight on a rotator.

5. Wash filter 3 times in 1X TBST (50 mM Tris-HCl, 150 mM NaCl, 0.1% Tween 20, pH 7.5) for 10 minutes at 4 degrees C.

Secondary antibody (peroxidase conjugated goat anti-rabbit, Boehringer-Mannheim) is incubated with the blot for 30 minutes at room temperature. Cross-reacting proteins are detected using the Chemiluminescence Western Blotting Kit from Boehringer-Mannheim.

NOTE: HeLa whole cell extracts (NB800-PC1) were used as a positive control for this antibody.

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Products Related to NB100-108

NB800-PC1	HeLa Whole Cell 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.

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