10320 Camino Santa Fe, Suite G
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KD-Validated Anti-Nth Like DNA Glycosylase 1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1344

Specification

KD-Validated Anti-Nth Like DNA Glycosylase 1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	P78549
Reactivity	**Human**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 34 kDa; observed, 34 kDa KDa**
Gene Name	**NTHL1**
Aliases	**NTHL1; Nth Like DNA Glycosylase 1; OCTS3; NTH1; Bifunctional DNA N-Glycosylase/DNA-(Apurinic Or Apyrimidinic Site) Lyase; Endonuclease III-Like Protein 1; DNA Glycosylase/AP Lyase; HNTH1; Bifunctional DNA N-Glycoslyase/DNA-(Apurinic Or Apyrimidinic Site) Lyase; Nth Endonuclease III-Like 1 (E. Coli); Nth (E.Coli Endonuclease III)-Like 1; Nth Endonuclease III-Like 1; DNA Glycoslyase/AP Lyase; EC 4.2.99.18; EC 3.2.2.-; FAP3**
Immunogen	**A synthesized peptide derived from human NTH1**

KD-Validated Anti-Nth Like DNA Glycosylase 1 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**4913**

Other Names
Endonuclease III-like protein 1 {ECO:0000255|HAMAP-Rule:MF_03183}, hNTH1, 3.2.2.- {ECO:0000255|HAMAP-Rule:MF_03183, ECO:0000269|PubMed:9927729}, 4.2.99.18 {ECO:0000255|HAMAP-Rule:MF_03183, ECO:0000269|PubMed:9927729}, Bifunctional DNA N-glycosylase/DNA-(apurinic or apyrimidinic site) lyase {ECO:0000255|HAMAP-Rule:MF_03183}, DNA glycosylase/AP lyase {ECO:0000255|HAMAP-Rule:MF_03183}, NTHL1 {ECO:0000255|HAMAP-Rule:MF_03183}, NTH1, OCTS3

KD-Validated Anti-Nth Like DNA Glycosylase 1 Rabbit Monoclonal Antibody - Protein Information

Name NTHL1 {ECO:0000255|HAMAP-Rule:MF_03183}

Synonyms NTH1, OCTS3

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Function
Bifunctional DNA N-glycosylase with associated apurinic/apyrimidinic (AP) lyase function that catalyzes the first step in base excision repair (BER), the primary repair pathway for the repair of oxidative DNA damage (PubMed:29610152, PubMed:9927729). The DNA N-glycosylase activity releases the damaged DNA base from DNA by cleaving the N-glycosidic bond, leaving an AP site. The AP-lyase activity cleaves the phosphodiester bond 3' to the AP site by a beta- elimination. Primarily recognizes and repairs oxidative base damage of pyrimidines. Also has 8-oxo-7,8-dihydroguanine (8-oxoG) DNA glycosylase activity. Acts preferentially on DNA damage opposite guanine residues in DNA. Is able to process lesions in nucleosomes without requiring or inducing nucleosome disruption.

Cellular Location
Nucleus {ECO:0000255|HAMAP-Rule:MF_03183, ECO:0000269|PubMed:10882850, ECO:0000269|PubMed:12531031, ECO:0000269|PubMed:9611236}. Mitochondrion {ECO:0000255|HAMAP- Rule:MF_03183, ECO:0000269|PubMed:9611236}

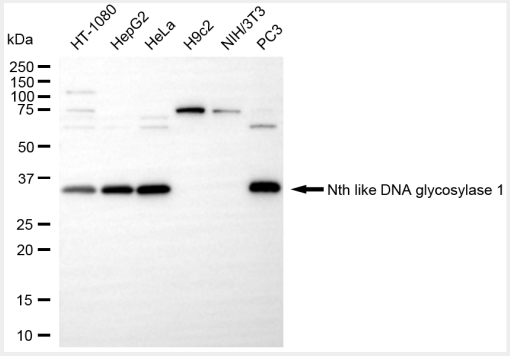
Tissue Location
Widely expressed with highest levels in heart and lowest levels in lung and liver.

KD-Validated Anti-Nth Like DNA Glycosylase 1 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-Nth Like DNA Glycosylase 1 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-nth like DNA glycosylase 1 antibody (Cat#AGI1344). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-nth like DNA glycosylase 1 antibody (Cat#AGI1344, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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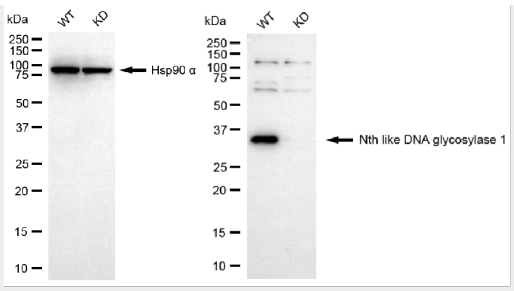
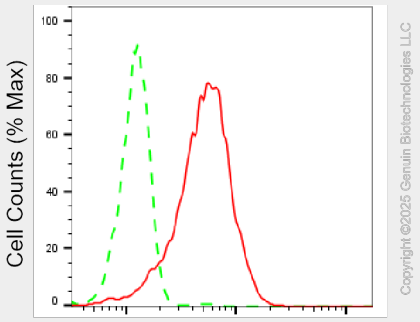
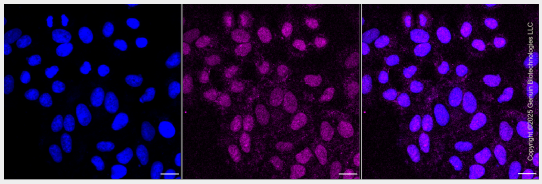


Western blotting analysis using anti-nth like DNA glycosylase 1 antibody (Cat#AGI1344). Nth like DNA glycosylase 1 expression in wild-type (WT) and nth like DNA glycosylase 1 (NTHL1) knockdown (KD) HT-1080 cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-nth like DNA glycosylase 1 antibody (Cat#AGI1344, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Nth like DNA glycosylase 1-Alexa Fluor® 647

Flow cytometric analysis of Nth like DNA glycosylase 1 expression in HepG2 cells using anti-Nth like DNA glycosylase 1c antibody (Cat#AGI1344, 1:2,000). Green, isotype control; red, Nth like DNA glycosylase 1.



Immunocytochemical staining of Nth like DNA glycosylase 1 cells with Nth like DNA glycosylase 1antibody (Cat#AGI1344, 1:1,000). Nuclei were stained blue with DAPI; Nth like DNA glycosylase 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.