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NTHL1 Antibody (Center R103)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11554c

Product Information

Application	WB, E
Primary Accession	P78549
Other Accession	NP_002519.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB17473
Calculated MW	33570
Antigen Region	88-117

Additional Information

Gene ID	4913
Other Names	Endonuclease III-like protein 1 {ECO:0000255|HAMAP-Rule:MF_03183}, hNTH1, 322- {ECO:0000255|HAMAP-Rule:MF_03183}, 429918 {ECO:0000255|HAMAP-Rule:MF_03183}, 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
Target/Specificity	This NTHL1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 88-117 amino acids from the Central region of human NTHL1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NTHL1 Antibody (Center R103) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NTHL1 {ECO:0000255|HAMAP-Rule:MF_03183}
Synonyms	NTH1, OCTS3
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.

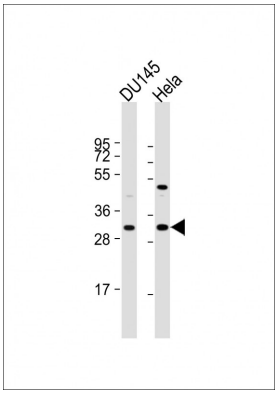
Background

The protein encoded by this gene is a DNA N-glycosylase of the endonuclease III family. Like a similar protein in E. coli, the encoded protein has DNA glycosylase activity on DNA substrates containing oxidized pyrimidine residues and has apurinic/apyrimidinic lyase activity.

References

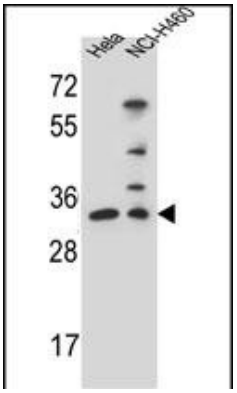
Wang, W., et al. Nucleic Acids Res. (2010) In press :
Arora, M., et al. Leukemia 24(8):1470-1475(2010)
Thyagarajan, B., et al. Biol. Blood Marrow Transplant. 16(8):1084-1089(2010)
Briggs, F.B., et al. Am. J. Epidemiol. 172(2):217-224(2010)
Goto, M., et al. Carcinogenesis 30(8):1345-1352(2009)

Images



All lanes : Anti-NTHL1 Antibody (Center R103) at 1:1000 dilution Lane 1: DU145 whole cell lysate Lane 2: Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 34 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

NTHL1 Antibody (Center R103) (Cat. #AP11554c) western blot analysis in Hela,NCI-H460 cell line lysates (35ug/lane).This demonstrates the NTHL1 antibody



detected the NTHL1 protein (arrow).