

For Research Use Only

NEIL1 Polyclonal antibody

Catalog Number: 12145-1-AP

Featured Product

9 Publications



Basic Information

Catalog Number: 12145-1-AP	GenBank Accession Number: BC010876	Purification Method: Antigen affinity purification
Size: 150ul , Concentration: 900 µg/ml by Nanodrop;	GeneID (NCBI): 79661	Recommended Dilutions: WB 1:500-1:3000
Source: Rabbit	Full Name: nei endonuclease VIII-like 1 (E. coli)	
Isotype: IgG	Calculated MW: 390 aa, 44 kDa	
Immunogen Catalog Number: AG2793	Observed MW: 44 kDa	

Applications

Tested Applications: WB, ELISA	Positive Controls: WB : HeLa cells, MCF-7 cells
Cited Applications: IHC, WB	
Species Specificity: human, mouse, rat	
Cited Species: human, rat	

Background Information

NEIL1, also named as NEH1 and FPG1, belongs to the FPG family. It is involved in base excision repair of DNA damaged by oxidation or by mutagenic agents. NEIL1 acts as DNA glycosylase that recognizes and removes damaged bases. It has a preference for oxidized pyrimidines, such as thymine glycol, formamidopyrimidine (Fapy) and 5-hydroxyuracil. NEIL1 has marginal activity towards 8-oxoguanine. It has AP (apurinic/aprimidinic) lyase activity and introduces nicks in the DNA strand. It cleaves the DNA backbone by beta-delta elimination to generate a single-strand break at the site of the removed base with both 3'- and 5'-phosphates. NEIL1 has DNA glycosylase/lyase activity towards mismatched uracil and thymine, in particular in U:C and T:C mismatches. The increased BER activity of NEILs may represent an adaptive response against ROS-induced DNA damage resulting from aniline exposure, and could be an important mechanism for the removal of oxidative DNA lesions. (PMID:21145906)

Read more about this antibody on the blog: <http://blog.ptglab.com/index.php/proteintechs-anti-neil3-antibody-used-investigate-mechanisms-of-dna-repair/?preview=true>

Notable Publications

Author	Pubmed ID	Journal	Application
Alisa Petriina Olkinuora	36387175	Front Oncol	WB
Xueqing Zou	29717121	Nat Commun	WB
Feng Ye	32198476	Sci Rep	WB

Storage

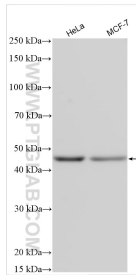
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 12145-1-AP (NEIL1 antibody) at dilution of 1:1500 incubated at room temperature for 1.5 hours.