

NEIL1 Polyclonal Antibody

Catalog number: 12145-1-AP

Size: 20 µg/150 µl

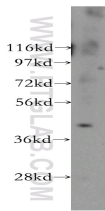
Source: Rabbit

Isotype: IgG

Synonyms:

NEIL1; NEIL1, hFPG1, Nei

homolog 1, NEIL1, FPG1



A375 cells were subjected to SDS PAGE followed by western blot with 12145-1-AP (NEIL1 antibody) at dilution of 1:300

Background

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>

Applications

Tested applications:	ELISA, WB
Cited applications:	IHC
Species specificity:	Human, mouse, rat; other species not tested.
Cited species:	Rat
Calculated NEIL1 MW:	390aa, 44 kDa
Observed NEIL1 MW:	44kd
Positive WB detected in	A375 cells
Recommended dilution:	WB: 1:200-1:2000

Application key: WB = Western blotting, IHC = Immunohistochemistry, IF = Immunofluorescence, IP = Immunoprecipitation

Immunogen information

Immunogen:	Ag2793
GenBank accession number:	BC010876
Gene ID (NCBI):	79661
Full name:	Nei endonuclease VIII-like 1 (E. coli)

Product information

Purification method:	Antigen affinity purification
Storage:	PBS with 0.02% sodium azide and 50% glycerol pH 7.3. Store at -20°C.