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NEIL1 Rabbit pAb

Catalog # AP98081

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q96FI4
Other Accession	Q96FI4
Predicted	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	43684
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NEIL1
Epitope Specificity	51-150/390
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the FPG family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene is a member of the Nei endonuclease VIII-like gene family which encodes DNA glycosylases. The encoded enzyme participates in the DNA repair pathway by initiating base excision repair by removing damaged bases, primarily oxidized pyrimidines. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2012]

Additional Information

Gene ID	79661
Other Names	FPG1; NEI1; hFPG1; 2810450N13Rik; NEH1; NEIL1_HUMAN; NEIL1; DNA glycosylase/AP lyase Neil1; DNA-(apurinic or apyrimidinic site) lyase Neil1; Endonuclease VIII-like 1; Nei homolog 1 (NEH1); Nei-like protein 1; 3.2.2.-; 4.2.99.18; NEIL1_MOUSE; nei like DNA glycosylase 1; nei endonuclease VIII-like 1 (E. coli); DNA endonuclease eight-like glycosylase 1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	NEIL1
Function	Involved in base excision repair of DNA damaged by oxidation or by mutagenic agents. Acts as a DNA glycosylase that recognizes and removes damaged bases. Has a preference for oxidized pyrimidines, such as thymine glycol, formamidopyrimidine (Fapy) and 5-hydroxyuracil. Has marginal activity towards 8-oxoguanine. Has AP (apurinic/apyrimidinic) lyase activity and introduces nicks in the DNA strand. 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. Has DNA glycosylase/lyase activity towards mismatched uracil and thymine, in particular in U:C and T:C mismatches. Specifically binds 5- hydroxymethylcytosine (5hmC), suggesting that it acts as a specific reader of 5hmC.
Cellular Location	Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Nucleus. Chromosome. Note=During mitosis, associates with centrosomes and condensed chromatin
Tissue Location	Ubiquitous..

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.