For Research Use Only

NEIL1 Monoclonal antibody

Catalog Number:67012-1-Ig

proteintech®
Antibodies | ELISA kits | Proteins
www.ptglab.com

Basic Information

Catalog Number:
67012-1-Ig

Size:
2100 μg/ml

Source:
Mouse

Isotype:
IgG2a

Immunogen Catalog Number:
AG8307

GenBank Accession Number:
BC010876

GeneID (NCBI):
79661

UNIPROT ID:
Q96FI4

Full Name:
nei endonuclease VIII-like 1 (E. coli)

Calculated MW:
390 aa, 44 kDa

Observed MW:
44 kDa

Purification Method:
Protein A purification

CloneNo.:
1C6D6

Recommended Dilutions:
WB 1:1000-1:6000
IHC 1:150-1:600
IF/ICC 1:50-1:500

Applications

Tested Applications:
IF/ICC, IHC, WB, ELISA

Species Specificity:
Human, mouse

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HeLa cells, A375 cells, COLO 320 cells

IHC : mouse spleen tissue,

IF/ICC : HepG2 cells,

Background Information

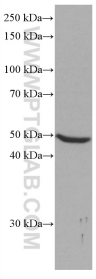
NEIL1, also named as NEH1 and FPG1, belongs to the FPG family. It is involved in base excision repair of DNA damaged by oxidation or by mutagenic agents. NEIL1 acts as DNA glycosylase that recognizes and removes damaged bases. It has a preference for oxidized pyrimidines, such as thymine glycol, formamidopyrimidine (Fapy) and 5-hydroxyuracil. NEIL1 has marginal activity towards 8-oxoguanine. It has AP (apurinic/apyrimidinic) 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)

Storage

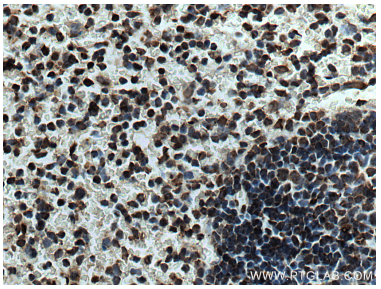
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

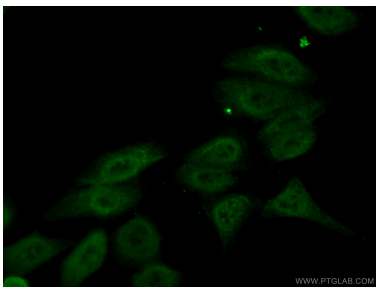
Selected Validation Data



HeLa cells were subjected to SDS PAGE followed by western blot with 67012-1-Ig (NEIL1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse spleen tissue slide using 67012-1-Ig (NEIL1 antibody) at dilution of 1:300 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using 67012-1-Ig (NEIL1 antibody) at dilution of 1:100 and CoraLite488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).