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Anti-NEI3 / NEIL3 Antibody (aa491-540)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS18360

Product Information

Application	WB, IHC-P, E
Primary Accession	Q8TAT5
Predicted	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	67769

Additional Information

Gene ID	55247
Alias Symbol	NEIL3
Other Names	NEIL3, DNA glycosylase/AP lyase Neil3, FGP2, DNA glycosylase FPG2, DNA glycosylase hFPG2, FPG2, HFPG2, Endonuclease 8-like 3, Endonuclease VIII-like 3, HNEI3, Nei-like protein 3, NEI3
Target/Specificity	NEIL3 Antibody detects endogenous levels of total NEIL3 protein.
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-NEI3 / NEIL3 Antibody (aa491-540) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NEIL3
Function	DNA glycosylase which prefers single-stranded DNA (ssDNA), or partially ssDNA structures such as bubble and fork structures, to double-stranded DNA (dsDNA) (PubMed:12433996, PubMed:19170771, PubMed:22569481, PubMed:23755964). Mediates interstrand cross-link repair in response to replication stress: acts by mediating DNA glycosylase activity, cleaving one of the two N-glycosyl bonds comprising the interstrand cross-link, which avoids the formation of a double-strand break but generates an abasic site that is bypassed by translesion synthesis polymerases (By similarity). In vitro, displays strong glycosylase activity towards the hydantoin lesions spiroiminodihydantoin (Sp) and guanidinohydantoin (Gh) in both ssDNA and dsDNA; also recognizes FapyA, FapyG, 5-OHU, 5-OHC, 5-OHMH, Tg and 8-oxoA lesions in ssDNA (PubMed:12433996, PubMed:19170771, PubMed:22569481, PubMed:23755964). No activity on 8-oxoG detected (PubMed:12433996,

PubMed:19170771, PubMed:22569481, PubMed:23755964). Also shows weak DNA-(apurinic or apyrimidinic site) lyase activity (PubMed:12433996, PubMed:19170771, PubMed:22569481, PubMed:23755964). In vivo, appears to be the primary enzyme involved in removing Sp and Gh from ssDNA in neonatal tissues (PubMed:12433996, PubMed:19170771, PubMed:22569481, PubMed:23755964).

Cellular Location

Nucleus. Chromosome {ECO:0000250|UniProtKB:A0A1L8HU22}. Note=Recruited to replication stress sites via interaction with ubiquitinated CMG helicase {ECO:0000250|UniProtKB:A0A1L8HU22}

Tissue Location

Expressed in keratinocytes and embryonic fibroblasts (at protein level). Also detected in thymus, testis and fetal lung primary fibroblasts.