

# NEIL1 Recombinant antibody

Catalog Number: 83376-7-RR

## Basic Information

<b>Catalog Number:</b> 83376-7-RR	<b>GenBank Accession Number:</b> BC010876	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 79661	<b>CloneNo.:</b> 240322G10
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q96FI4	<b>Recommended Dilutions:</b> WB 1:500-1:2000
<b>Isotype:</b> IgG	<b>Full Name:</b> nei endonuclease VIII-like 1 (E. coli)	
<b>Immunogen Catalog Number:</b> AG2793	<b>Calculated MW:</b> 390 aa, 44 kDa	
	<b>Observed MW:</b> 40-45 kDa	

## Applications

<b>Tested Applications:</b> WB, ELISA	<b>Positive Controls:</b> WB : PC-3 cells, COLO 320 cells, DU145 cells
<b>Species Specificity:</b> human	

## 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

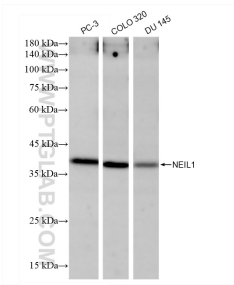
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
**Aliquoting is unnecessary for -20°C storage**

**\*\*\* 20ul sizes contain 0.1% BSA**

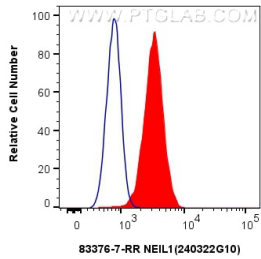
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
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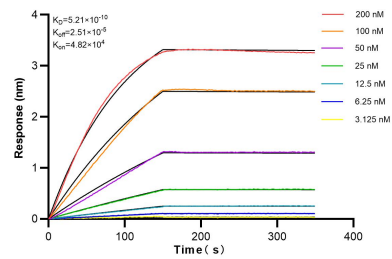
Selected Validation Data



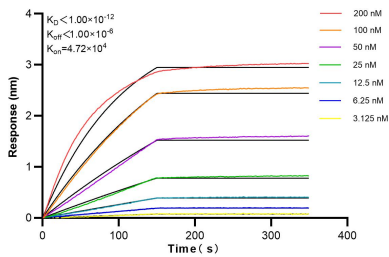
Various lysates were subjected to SDS PAGE followed by western blot with 83376-7-RR (NEIL1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



1x10<sup>6</sup> HEK-293 cells were intracellularly stained with 0.25 ug NEIL1 Recombinant antibody (83376-7-RR, Clone:240322G10) and Coralite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2) (red), or 0.25 ug Rabbit IgG Isotype Control Recombinant Antibody (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).



Biolayer interferometry (BLI) kinetic assays of 83376-7-RR against Human NEIL1 were performed. The affinity constant is 0.521 nM.



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