

**NEIL1 Antibody (Center) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP9696c****Specification**

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**NEIL1 Antibody (Center) Blocking Peptide - Product Information**Primary Accession [Q96FI4](#)**NEIL1 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 79661**Other Names**

Endonuclease 8-like 1, 322-, DNA glycosylase/AP lyase Neil1, DNA-(apurinic or apyrimidinic site) lyase Neil1, Endonuclease VIII-like 1, FPG1, Nei homolog 1, NEH1, Nei-like protein 1, NEIL1

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**NEIL1 Antibody (Center) Blocking Peptide - 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..

## **NEIL1 Antibody (Center) Blocking Peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

## **NEIL1 Antibody (Center) Blocking Peptide - Images**

## **NEIL1 Antibody (Center) Blocking Peptide - Background**

NEIL1 belongs to a class of DNA glycosylases homologous to the bacterial Fpg/Nei family. These glycosylases initiate the first step in base excision repair by cleaving bases damaged by reactive oxygen species and introducing a DNA strand break via the associated lyase reaction (Bandaru et al., 2002 [PubMed 12509226]).

## **NEIL1 Antibody (Center) Blocking Peptide - References**

Zhao, X., et al. Biochemistry 49(8):1658-1666(2010) Forsbring, M., et al. Carcinogenesis 30(7):1147-1154(2009) Couve, S., et al. J. Biol. Chem. 284(18):11963-11970(2009) Muftuoglu, M., et al. J. Biol. Chem. 284(14):9270-9279(2009) Horikawa, Y., et al. Clin. Cancer Res. 14(23):7956-7962(2008)