

GEN1 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP9493a**Specification**

GEN1 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q17RS7](#)**GEN1 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 348654**Other Names**

Flap endonuclease GEN homolog 1, 31--, GEN1

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.

GEN1 Antibody (N-term) Blocking Peptide - Protein Information**Name** GEN1**Function**

Endonuclease which resolves Holliday junctions (HJs) by the introduction of symmetrically related cuts across the junction point, to produce nicked duplex products in which the nicks can be readily ligated. Four-way DNA intermediates, also known as Holliday junctions, are formed during homologous recombination and DNA repair, and their resolution is necessary for proper chromosome segregation (PubMed: [19020614](http://www.uniprot.org/citations/19020614), PubMed: [26682650](http://www.uniprot.org/citations/26682650)). Cleaves HJs by a nick and counter-nick mechanism involving dual coordinated incisions that lead to the formation of ligatable nicked duplex products. Cleavage of the first strand is rate limiting, while second strand cleavage is rapid. Largely monomeric, dimerizes on the HJ and the first nick occurs upon dimerization at the junction (PubMed: [26578604](http://www.uniprot.org/citations/26578604)). Efficiently cleaves both single and double HJs contained within large recombination intermediates. Exhibits a weak sequence preference for incision between two G residues that reside in a T-rich region of DNA (PubMed: [28049850](http://www.uniprot.org/citations/28049850)). Has also endonuclease activity on 5'-flap and replication fork (RF) DNA substrates (PubMed: [26578604](http://www.uniprot.org/citations/26578604)).

Cellular Location
Nucleus**GEN1 Antibody (N-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

GEN1 Antibody (N-term) Blocking Peptide - Images**GEN1 Antibody (N-term) Blocking Peptide - Background**

Endonuclease which cleaves flap structures at the junction between single-stranded DNA and double-stranded DNA. Specific for 5'-overhanging flap structures in which the 5'-upstream of the flap is completely double-stranded. Prefers the blocked-flap structures similar to those occurring at replication forks, in which the 5' single-strand overhang of the flap is double-stranded (By similarity).

GEN1 Antibody (N-term) Blocking Peptide - References

Ip, S.C., et al. Nature 456(7220):357-361(2008) Ishikawa, G., et al. Nucleic Acids Res. 32(21):6251-6259(2004)