10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GEN1 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9493a

Specification

GEN1 Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	Q17RS7
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**102884**
Antigen Region	**60-89**

GEN1 Antibody (N-term) - Additional Information

Gene ID 348654

Other Names
Flap endonuclease GEN homolog 1, 31--, GEN1

Target/Specificity
This GEN1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 60-89 amino acids from the N-terminal region of human GEN1.

Dilution
WB~~1:2000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
GEN1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

GEN1 Antibody (N-term) - 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, PubMed: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). 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). Has also endonuclease activity on 5'-flap and replication fork (RF) DNA substrates (PubMed:26578604).

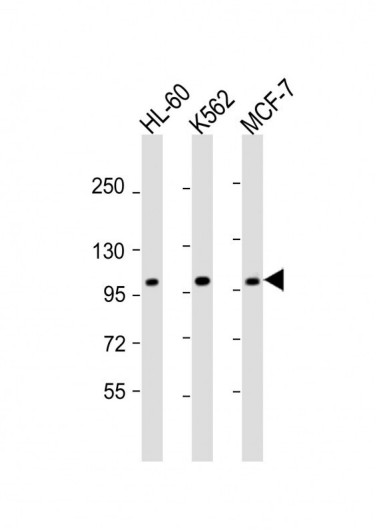
Cellular Location
Nucleus

GEN1 Antibody (N-term) - Protocols

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

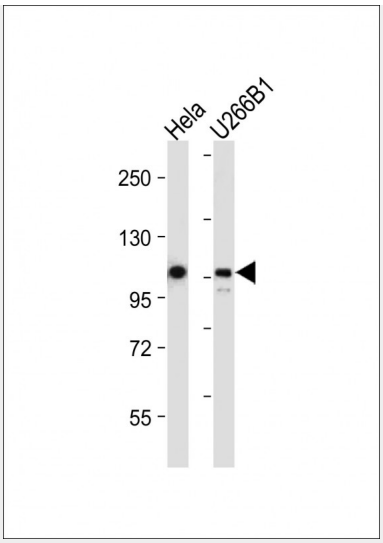
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GEN1 Antibody (N-term) - Images



All lanes : Anti-GEN1 Antibody (N-term) at 1:2000 dilution Lane 1: HL-60 whole cell lysate Lane 2: K562 whole cell lysate Lane 3: MCF-7 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 103 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



All lanes : Anti-GEN1 Antibody (N-term) at 1:2000 dilution Lane 1: Hela whole cell lysate Lane 2: U266B1 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 103 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

GEN1 Antibody (N-term) - 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) - References

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

GEN1 Antibody (N-term) - Citations

- ATRX and RECQ5 define distinct homologous recombination subpathways