

Summary

Production Name	FEN-1 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC,IF,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	FEN1
Alternative Names	FEN1; RAD2; Flap endonuclease 1; FEN-1; DNase IV; Flap structure-specific endonuclease 1; Maturation factor 1; MF1; hFEN-1
Gene ID	2237.0
SwissProt ID	P39748.The antiserum was produced against synthesized peptide derived from human FEN1. AA range:86-135

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:20000. Not yet tested in other applications.
Molecular Weight	42kD

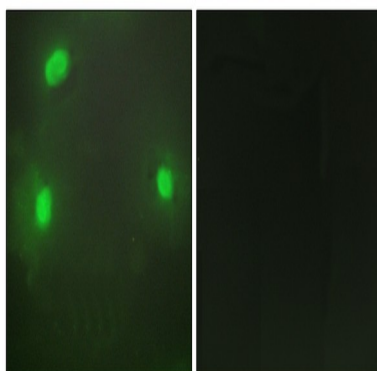
Background

The protein encoded by this gene removes 5' overhanging flaps in DNA repair and processes the 5' ends of Okazaki fragments in lagging strand DNA synthesis. Direct physical interaction between this protein and AP endonuclease 1 during long-patch base excision repair provides coordinated loading of the proteins onto the substrate, thus passing the substrate from one enzyme to another. The protein is a member of the XPG/RAD2 endonuclease family and is one of ten proteins essential for cell-free DNA replication. DNA secondary structure can inhibit flap processing at certain trinucleotide repeats in a length-dependent manner by concealing the 5' end of the flap that is necessary for both binding and cleavage by the protein encoded by this gene. Therefore, secondary structure can deter the protective function of this protein, leading to site-specific trinucleotide expansions. cofactor: Binds 2 magnesium ions per subunit. They probably participate in the reaction catalyzed by the enzyme. May bind an additional third magnesium ion after substrate binding. function: Endonuclease that cleaves the 5'-overhanging flap structure that is generated by displacement synthesis when DNA polymerase encounters the 5'-end of a downstream Okazaki fragment. Also possesses 5' to 3' exonuclease activity on nicked or gapped double-stranded DNA, and exhibits RNase H activity. PTM: Acetylated by EP300. Acetylation inhibits both endonuclease and exonuclease activity. Acetylation also reduces DNA-binding activity but does not affect interaction with PCNA or EP300. similarity: Belongs to the XPG/RAD2 endonuclease family. FEN1 subfamily. subunit: Interacts with PCNA. The C-terminal domain binds EP300. Can bind simultaneously to both PCNA and EP300.

Research Area

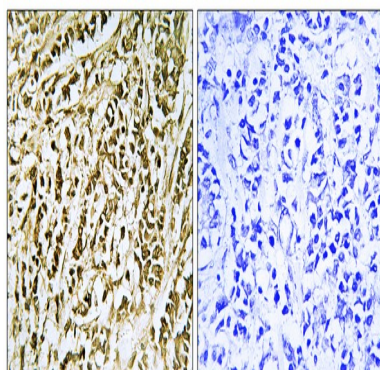
DNA replication; Base excision repair; Non-homologous end-joining;

Image Data

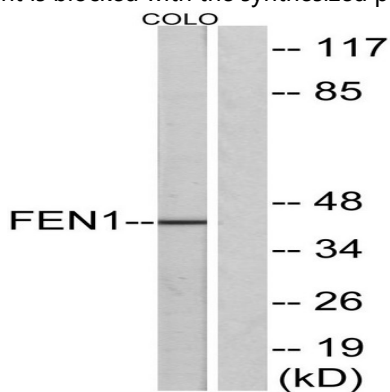


Immunofluorescence analysis of HeLa cells, using FEN1 Antibody. The picture on the right is blocked with the synthesized peptide.

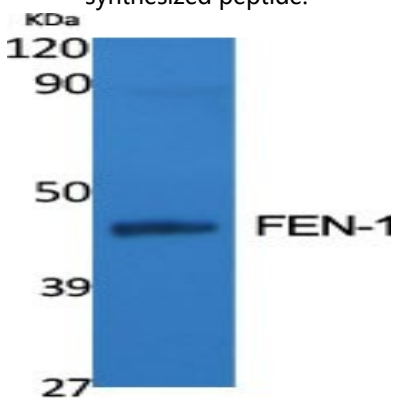
Product Name: FEN-1 Rabbit Polyclonal Antibody
Catalog #: APRab10901



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using FEN1 Antibody. The picture on the right is blocked with the synthesized peptide.

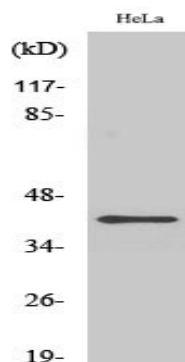


Western blot analysis of lysates from COLO205 cells, using FEN1 Antibody. The lane on the right is blocked with the synthesized peptide.

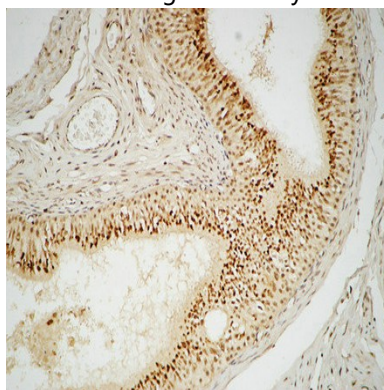


Western Blot analysis of various cells using FEN-1 Polyclonal Antibody diluted at 1: 500

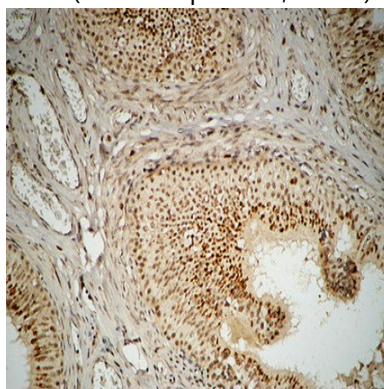
Product Name: FEN-1 Rabbit Polyclonal Antibody
Catalog #: APRab10901



Western Blot analysis of HuvEc cells using FEN-1 Polyclonal Antibody diluted at 1 : 500

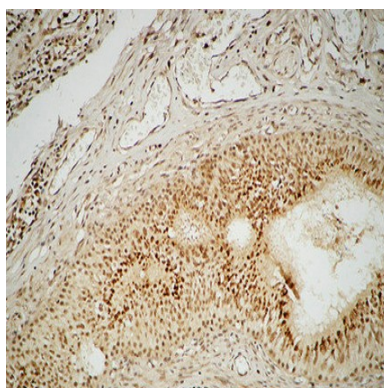


Immunohistochemical analysis of paraffin-embedded Human testis. 1, Antibody was diluted at 1:100 (4°,overnight) . 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200 (room temperature, 30min) .



Immunohistochemical analysis of paraffin-embedded Human testis. 1, Antibody was diluted at 1:100 (4°,overnight) . 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200 (room temperature, 30min) .

Product Name: FEN-1 Rabbit Polyclonal Antibody
Catalog #: APRab10901



Immunohistochemical analysis of paraffin-embedded Human testis. 1, Antibody was diluted at 1:100 (4°,overnight) . 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200 (room temperature, 30min) .

Note

For research use only.