Best Tools for immunology Research

Rad2/FEN1 (Phospho Ser187) rabbit pAb

Catalog No :	YP1733
Reactivity :	Human;Mouse;Rat
Applications :	WB
Target :	FEN-1
Fields :	>>DNA replication;>>Base excision repair;>>Non-homologous end-joining
Gene Name :	FEN1 RAD2
Protein Name :	Rad2/FEN1 (Phospho-Ser187)
Human Gene Id :	2237
Human Swiss Prot No :	P39748
Mouse Swiss Prot No :	P39749
Rat Gene Id :	84490
Rat Swiss Prot No :	Q5XIP6
Immunogen :	Synthesized peptide derived from human Rad2/FEN1 (Phospho-Ser187)
Specificity :	This antibody detects endogenous levels of Rad2/FEN1 (Phospho-Ser187) at Human, Mouse,Rat
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500-2000
Purification :	The antibody was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 42kD

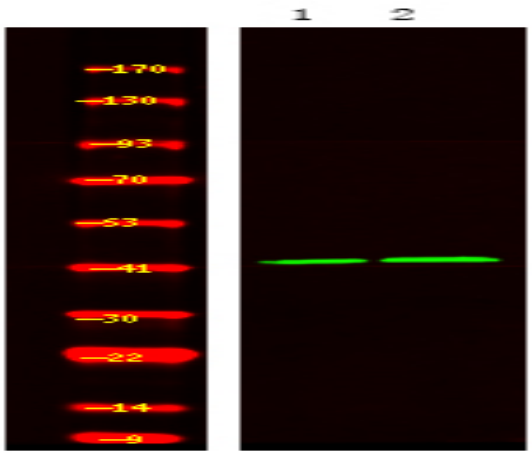
Background : The protein encoded by this gene removes 5' overhanging flaps in DNA repair and processes the 5' ends of Okazaki fragments in lagging strand DNA synthesis. Direct physical interaction between this protein and AP endonuclease 1 during long-patch base excision repair provides coordinated loading 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

Function : 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 niked 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.,

Subcellular Location : [Isoform 1]: Nucleus, nucleolus. Nucleus, nucleoplasm. Resides mostly in the nucleoli and relocalizes to the nucleoplasm upon DNA damage.; [Isoform FENMIT]: Mitochondrion .

Expression : Breast,Leukemic T-cell,Lung,

Products Images



Western Blot analysis of 1HeLa cell, 2 LPS 100ng/mL 30min treated ,using primary antibody at 1:1000 dilution. Secondary antibody(catalog#:RS23920) was diluted at 1:10000