



FEN-1 mouse mAb

Catalog No	YP-Ab-01103
Isotype	IgG
Reactivity	Human;Mouse;Rat;Monkey;Hamster
Applications	WB;ICC
Gene Name	fen1
Protein Name	
Immunogen	Purified recombinant human FEN-1 protein fragments expressed in E.coli.
Specificity	This antibody detects endogenous levels of FEN-1 and does not cross-react with related proteins.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse
Purification	The antibody was affinity-purified from mouse ascites by affinity-chromatography using epitope-specific immunogen.
Dilution	wb dilution 1:1000 icc dilution 1:400
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	DNase IV;FEN-1;FEN1;FEN1_HUMAN;Flap endonuclease 1;Flap structure specific endonuclease 1;Flap structure-specific endonuclease 1;hFEN-1;hFEN1;Maturation factor 1;MF1;Rad2.
Observed Band	45kD
Cell Pathway	[Isoform 1]: Nucleus, nucleolus. Nucleus, nucleoplasm. Resides mostly in the nucleoli and relocalizes to the nucleoplasm upon DNA damage.; [Isoform FENMIT]: Mitochondrion .
Tissue Specificity	Breast,Leukemic T-cell,Lung,
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.,



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 AP¹ 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

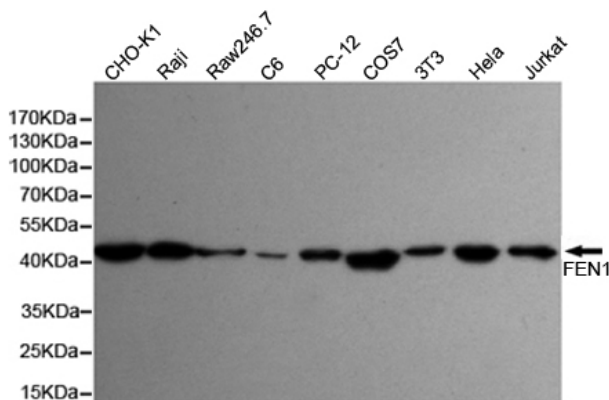
matters needing attention

Avoid repeated freezing and thawing!

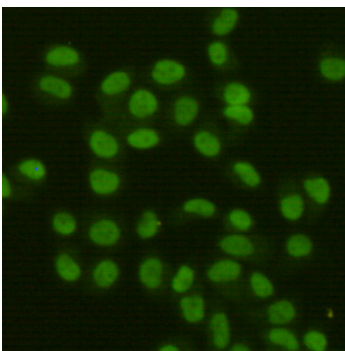
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western blot detection of FEN-1 in HeLa, Jurkat, 3T3, COS7, PC-12, C6, Raw264.7, Raji and CHO-K1 cell lysates using FEN-1 mouse mAb (1:1000 diluted). Predicted band size: 45KDa. Observed band size: 45KDa.



Immunocytochemistry staining of HeLa cells fixed with 4% Paraformaldehyde and using FEN-1 mouse mAb (dilution 1:400).