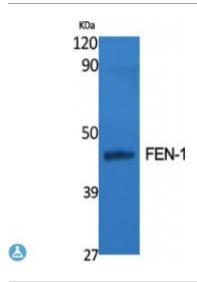


Anti-FEN-1 antibody



Description Rabbit polyclonal to FEN-1.

Model STJ93054

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, IF, IHC, WB

Immunogen Synthesized peptide derived from human FEN-1

Immunogen Region 60-140 aa, Internal

Gene ID <u>2237</u>

Gene Symbol FEN1

Dilution range WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:20000

Specificity FEN-1 Polyclonal Antibody detects endogenous levels of FEN-1 protein.

Purification The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Flap endonuclease 1 FEN-1 DNase IV Flap structure-specific endonuclease 1

Maturation factor 1 MF1 hFEN-1

Molecular Weight 42 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:3650OMIM:600393</u>

Alternative Names Flap endonuclease 1 FEN-1 DNase IV Flap structure-specific endonuclease 1

Maturation factor 1 MF1 hFEN-1

Function Structure-specific nuclease with 5'-flap endonuclease and 5'-3' exonuclease

activities involved in DNA replication and repair. During DNA replication, cleaves the 5'-overhanging flap structure that is generated by displacement synthesis when DNA polymerase encounters the 5'-end of a downstream Okazaki fragment. It enters the flap from the 5'-end and then tracks to cleave the flap base, leaving a nick for ligation. Also involved in the long patch base

excision repair (LP-BER) pathway, by cleaving within the

apurinic/apyrimidinic (AP) site-terminated flap. Acts as a genome

stabilization factor that prevents flaps from equilibrating into structurs that lead to duplications and deletions. Also possesses 5'-3' exonuclease activity on nicked or gapped double-stranded DNA, and exhibits RNase H activity. Also involved in replication and repair of rDNA and in repairing mitochondrial

DNA.

Cellular Localization Isoform 1: Nucleus, nucleolus. Nucleus, nucleoplasm. Resides mostly in the

nucleoli and relocalizes to the nucleoplasm upon DNA damage.. Isoform

FENMIT: Mitochondrion

Post-translational 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. Phosphorylation upon DNA damage induces relocalization to the nuclear plasma. Phosphorylation at Ser-187 by CDK2 occurs during late S-phase and results in dissociation from PCNA.

Methylation at Arg-192 by PRMT5 impedes Ser-187 phosphorylation and

increases interaction with PCNA.

St John's Laboratory Ltd

Modifications

F +44 (0)207 681 2580

T +44 (0)208 223 3081

W http://www.stjohnslabs.com/ E info@stjohnslabs.com