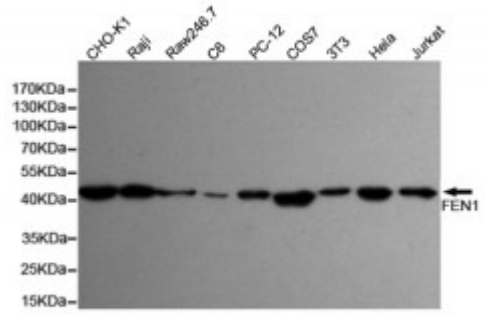
# Anti-FEN-1 antibody

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| **Description** | Mouse monoclonal to FEN-1. |

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| **Model** | STJ99235 |
| **Host** | Mouse |
| **Reactivity** | Hamster, Human, Mouse, Rat, Simian |
| **Applications** | ELISA, WB |
| **Immunogen** | Purified recombinant human FEN-1 protein fragments expressed in E.coli. |
| **Gene ID** | 2237 |
| **Gene Symbol** | FEN1 |
| **Dilution range** | WB 1:500-2000ELISA 1:10000-20000 |
| **Specificity** | This antibody detects endogenous levels of FEN-1 and does not cross-react with related proteins. |
| **Purification** | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |
| **Clone ID** | 7H8-F4-C11 |
| **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** | 45kDa |
| **Clonality** | Monoclonal |
| **Conjugation** | Unconjugated |

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| **Isotype** | IgG1 |
| **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** | HGNC:3650OMIM:600393 |
| **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 Modifications** | 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. |