

## FEN-1 mouse mAb

|                              |  |
|------------------------------|--|
| <b>Catalog No :</b>          | YM1414   |
| <b>Reactivity :</b>          | Human;Mouse;Rat  |
| <b>Applications :</b>        | WB;IP  |
| <b>Target :</b>              | FEN-1  |
| <b>Fields :</b>              | >>DNA replication;>>Base excision repair;>>Non-homologous end-joining  |
| <b>Gene Name :</b>           | fen1   |
| <b>Human Gene Id :</b>       | 2237   |
| <b>Human Swiss Prot No :</b> | P39748   |
| <b>Mouse Swiss Prot No :</b> | P39749   |
| <b>Immunogen :</b>           | Purified recombinant human FEN-1 protein fragments expressed in E.coli.  |
| <b>Specificity :</b>         | This antibody detects endogenous levels of FEN-1 and does not cross-react with related proteins.                   |
| <b>Formulation :</b>         | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.  |
| <b>Source :</b>              | Monoclonal, Mouse  |
| <b>Dilution :</b>            | wb dilution 1:1000   |
| <b>Purification :</b>        | The antibody was affinity-purified from mouse ascites by affinity-chromatography using epitope-specific immunogen. |
| <b>Concentration :</b>       | 1 mg/ml  |
| <b>Storage Stability :</b>   | -15°C to -25°C/1 year(Do not lower than -25°C)   |
| <b>Observed Band :</b>       | 45kD   |

**Cell Pathway :** DNA replication;Base excision repair;Non-homologous end-joining;

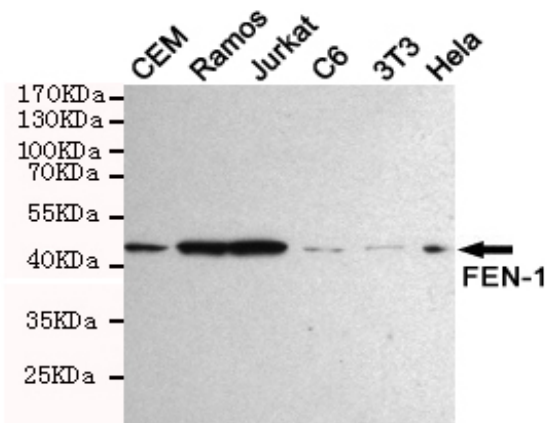
**Background :** The protein encoded by this gene removes 5' overhanging flaps in DNA repair and processes the 5' ends of Okazaki fragments in lagging strand DNA synthesis. Direct physical interaction between this protein and AP endonuclease 1 during long-patch base excision repair provides coordinated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

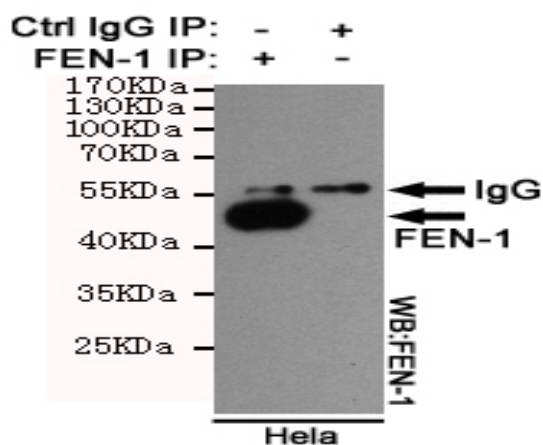
**Subcellular Location :** [Isoform 1]: Nucleus, nucleolus. Nucleus, nucleoplasm. Resides mostly in the nucleoli and relocalizes to the nucleoplasm upon DNA damage.; [Isoform FENMIT]: Mitochondrion .

**Expression :** Breast,Leukemic T-cell,Lung,

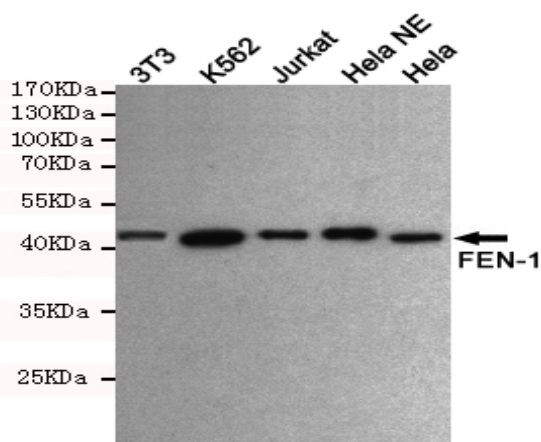
## Products Images



Western blot detection of FEN-1 in HeLa, Jurkat, 3T3, C6, CEM and Ramos cell lysates using FEN-1 mouse mAb (1:1000 diluted). Predicted band size: 45 kDa. Observed band size: 45 kDa.



Immunoprecipitation analysis of HeLa cell lysates using FEN-1 mouse mAb.



Western blot detection of FEN-1 in HeLa, HeLa NE, Jurkat, K562 and 3T3 cell lysates using FEN-1 mouse mAb (1:1000 diluted). Predicted band size: 45 kDa. Observed band size: 45 kDa.