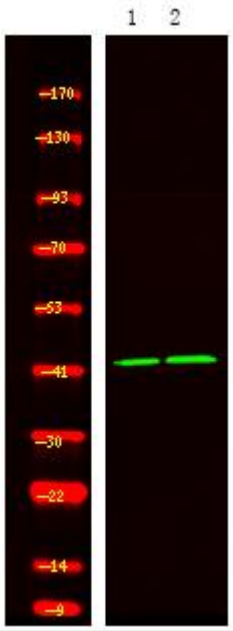
# Rad2/FEN1 (Phospho-Ser187) mouse mAb

| | |
|---|---|
| **Catalog No** | BYmab-10504 |
| **Isotype** | IgG |
| **Reactivity** | Human; Mouse;Rat |
| **Applications** | WB |
| **Gene Name** | FEN1 RAD2 |
| **Protein Name** | Rad2/FEN1 (Phospho-Ser187) |
| **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, and 0.160% sodium azide. |
| **Source** | Monoclonal, Mouse,IgG |
| **Purification** | The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen. |
| **Dilution** | WB 1:500-2000 |
| **Concentration** | 1 mg/ml |
| **Purity** | ≥90% |
| **Storage Stability** | -20°C/1 year |
| **Synonyms** | Flap endonuclease 1 (FEN-1) (EC 3.1.-.-) (DNase IV) (Flap structure-specific endonuclease 1) (Maturation factor 1) (MF1) (hFEN-1) |
| **Observed Band** | 42kD |
| **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 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 |
| **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 analysis of various cells using Rad2/FEN1 (Phospho-Ser187) mouse mAb