

# FEN-1 Antibody

Purified Mouse Monoclonal Antibody (Mab)

Catalog # AP52836

## Product Information

Application	WB, IP
Primary Accession	<a href="#">P39748</a>
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	42593

## Additional Information

Gene ID	2237
Other Names	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.
Dilution	WB~~1:1000 IP~~1:500
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

## Protein Information

Name	FEN1 {ECO:0000255 HAMAP-Rule:MF_03140}
Synonyms	RAD2
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 structures 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 Location

[Isoform 1]: Nucleus, nucleolus. Nucleus, nucleoplasm. Note=Resides mostly in the nucleoli and relocalizes to the nucleoplasm upon DNA damage

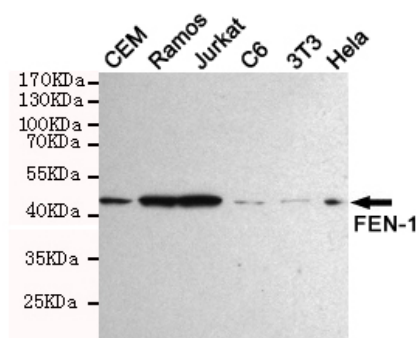
## Background

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 structures 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.

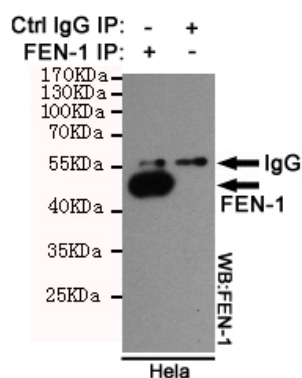
## References

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Hiraoka L.R.,et al.Genomics 25:220-225(1995).  
Taylor T.D.,et al.Nature 440:497-500(2006).  
Robins P.,et al.J. Biol. Chem. 269:28535-28538(1994).  
Shen B.,et al.J. Biol. Chem. 271:9173-9176(1996).

## 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: 45KDa. Observed band size: 45KDa.



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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.