

ARG54167 anti-FEN1 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes FEN1
Tested Reactivity	Hu, Ms, Rat, Hm, Mk
Tested Application	ICC/IF, WB
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Target Name	FEN1
Species	Human
Immunogen	Purified recombinant human FEN-1 protein fragments expressed in E.coli.
Conjugation	Un-conjugated
Alternate Names	hFEN-1; Maturation factor 1; Flap endonuclease 1; DNase IV; EC 3.1.-.-; FEN-1; MF1; Flap structure-specific endonuclease 1; RAD2

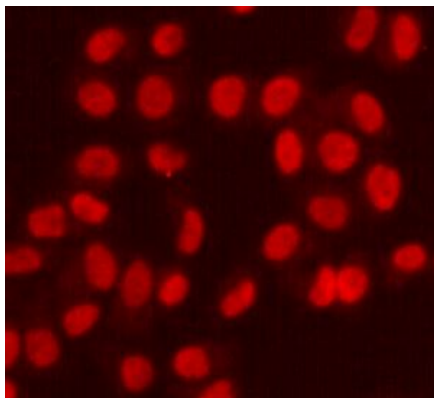
Application Instructions

Application table	Application	Dilution
	ICC/IF	1:400
	WB	1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	45 kDa	

Properties

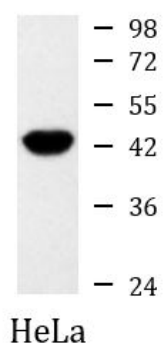
Form	Liquid
Purification	Affinity purified
Buffer	PBS (pH 7.4), 0.02% Sodium azide and 50% Glycerol
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Concentration	1.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Database links	GeneID: 2237 Human GeneID: 84490 Rat Swiss-port # P39748 Human Swiss-port # Q5XIP6 Rat
Gene Symbol	FEN1
Gene Full Name	flap structure-specific endonuclease 1
Background	<p>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.</p>
Function	<p>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. [UniProt]</p>
Research Area	Gene Regulation antibody
Calculated Mw	43 kDa
PTM	<p>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.</p> <p>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.</p> <p>Methylation at Arg-192 by PRMT5 impedes Ser-187 phosphorylation and increases interaction with PCNA.</p>
Cellular Localization	<p>Isoform 1: Nucleus > nucleolus. Nucleus > nucleoplasm. Note: Resides mostly in the nucleoli and relocalizes to the nucleoplasm upon DNA damage. Isoform FENMIT: Mitochondrion.</p>



ARG54167 anti-FEN1 antibody ICC/IF image

Immunofluorescence: HeLa cells fixed with 4% Paraformaldehyde and stained with ARG54167 anti-FEN1 antibody at 1:400 dilution.



ARG54167 anti-FEN1 antibody WB image

Western blot: HeLa cell lysate stained with ARG54167 anti-FEN1 antibody at 1:1000 dilution.