

Rabbit Rad2/FEN1 Polyclonal Antibody | anti-Rad2/FEN1 antibody

Phospho-Rad2/FEN1 (Ser187) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329951	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%)	ELISA, Western Blot

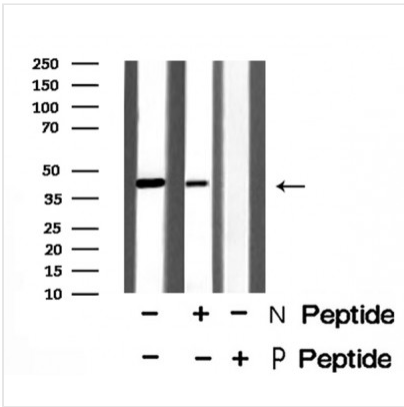
PRODUCT SYNONYMS

Rad2/FEN1; Polyclonal Antibody; Phospho-Rad2/FEN1 (Ser187) Antibody; 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; anti-Rad2/FEN1 antibody

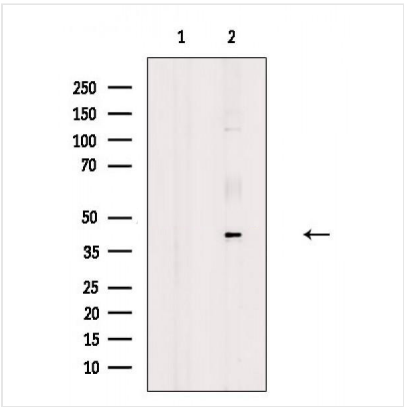
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-Rad2/FEN1 (Ser187) Antibody detects endogenous levels of Rad2/FEN1 only when phosphorylated at Ser187.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-Rad2/FEN1 antibody	ELISA (Peptide ELISA), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Rad2/FEN1 around the phosphorylation site of Ser187.
Conjugation	Unconjugated
Fragment	Fab fragment
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.
Subunit Structure	Three molecules of FEN1 bind to one PCNA trimer with each molecule binding to one PCNA monomer. PCNA stimulates the nuclease activity without altering cleavage specificity. The C-terminal domain binds EP300; can bind simultaneously to both PCNA and EP300. Interacts with PCNA; can bind simultaneously to both PCNA and EP300. Interacts with DDX11; this interaction is direct and increases flap endonuclease activity of FEN1. Interacts with WDR4; regulating its endonuclease activity.
Similarity	Belongs to the XPG/RAD2 endonuclease family. FEN1 subfamily.
Subcellular Location	Nucleus>Nucleolus. Nucleus>Nucleoplasm. Note: Resides mostly in the nucleoli and relocalizes to the nucleoplasm upon DNA damage. Mitochondrion.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)
Western blot analysis of Rad2/FEN1 (Phospho-Ser187) using K562 whole cell lysates. -/+ means absence or presence of N peptide (non-phospho peptide) and P peptide (phospho peptide).



WB (Western Blot)
Western blot analysis of extracts from A549 cells, using Phospho-Rad2/FEN1 (Ser187) Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-Rad2/FEN1 antibody	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/aprimidinic (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.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4758356
NCBI GeneID	2237
NCBI Accession #	NP_004102.1
NCBI GenBank Nucleotide #	NM_004111.5
UniProt Accession #	P39748; AAB32522
Molecular Weight	42,593 Da
NCBI Official Full Name	flap endonuclease 1
NCBI Official Synonym Full Names	flap structure-specific endonuclease 1
NCBI Official Symbol	FEN1
NCBI Official Synonym Symbols	MF1; RAD2; FEN-1
NCBI Protein Information	flap endonuclease 1; DNase IV; maturation factor 1; maturation factor-1
UniProt Protein Name	Flap endonuclease 1
UniProt Gene Name	FEN1
UniProt Synonym Gene Names	RAD2; FEN-1; MF1; hFEN-1
UniProt Entry Name	FEN1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/rad2-fen1-antibody-peptide-elisa-western-blot-elisa/329951>