abcam

Product datasheet

Anti-FEN1 antibody [EPR4459(2)] ab133311

Recombinant RabMAb

2 References 4 Images

Overview

Product name	Anti-FEN1 antibody [EPR4459(2)]
Description	Rabbit monoclonal [EPR4459(2)] to FEN1
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P **Unsuitable for:** Flow Cyt,ICC/IF or IP
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide within Human FEN1 aa 100-200. The exact sequence is proprietary.
Positive control	Jurkat and HeLa cell lysates; Human breast and endometrial adenocarcinoma tissues
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.2 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR4459(2)

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab133311 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/10000. Predicted molecular weight: 43 kDa.
IHC-P		1/500 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Application notes Is unsuitable for Flow Cyt,ICC/IF or IP.

Target

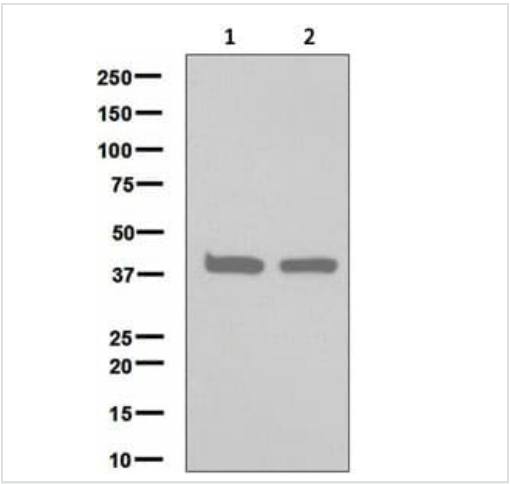
Function Structure-specific nuclease with 5'-flap endonuclease and 5'-3' exonuclease activities involved in DNA replication and repair. During DNA replication, cleaves the 5'-overhanging flap structure that is generated by displacement synthesis when DNA polymerase encounters the 5'-end of a downstream 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 structurs 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.

Sequence similarities Belongs to the XPG/RAD2 endonuclease family. FEN1 subfamily.

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.

Cellular localization Nucleus > nucleolus. Nucleus > nucleoplasm. Mitochondrion. Resides mostly in the nucleoli and relocalizes to the nucleoplasm upon DNA damage.

Images



Western blot - Anti-FEN1 antibody [EPR4459(2)] (ab133311)

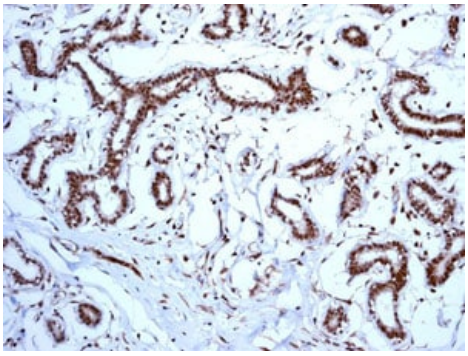
All lanes : Anti-FEN1 antibody [EPR4459(2)] (ab133311) at 1/1000 dilution

Lane 1 : Jurkat cell lysate
Lane 2 : HeLa cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

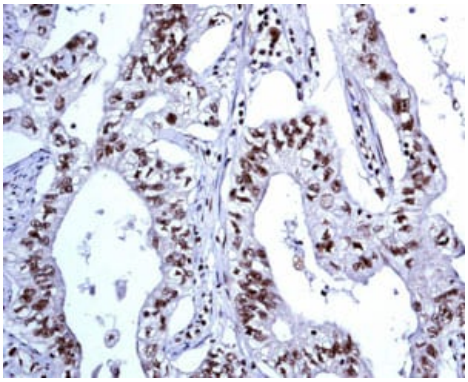
Predicted band size: 43 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FEN1 antibody [EPR4459(2)] (ab133311)

Immunohistochemical analysis of paraffin-embedded Human breast tissue labelled with ab133311 at 1/500 dilution.

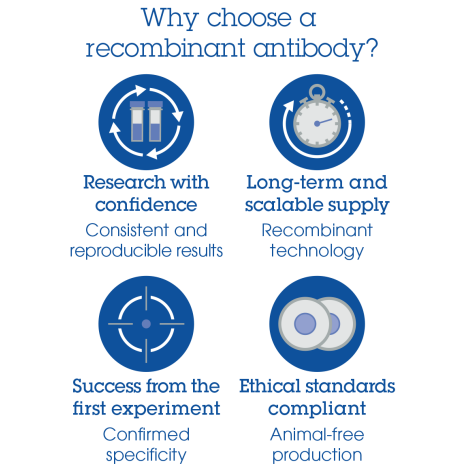
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FEN1 antibody [EPR4459(2)] (ab133311)

Immunohistochemical analysis of paraffin-embedded Human endometrial adenocarcinoma tissue labelled with ab133311 at 1/500 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Anti-FEN1 antibody [EPR4459(2)] (ab133311)

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