


## Product datasheet

### Anti-FEN1 antibody ab17994

★★★★☆ [2 Abreviews](#) [2 References](#) [3 Images](#)

#### Overview

<b>Product name</b>	Anti-FEN1 antibody
<b>Description</b>	Rabbit polyclonal to FEN1
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IP, WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Sheep, Horse, Cow, Pig, Chimpanzee, Gorilla, Chinese hamster, Orangutan, Bat 
<b>Immunogen</b>	Synthetic peptide representing human Flap Structure-specific Endonuclease I encoded within exon 2 (LocusLink ID 2237). The peptide is derived from a portion of FEN1 that begins a few residues downstream from the I-domain as defined in Swiss-Prot entry P39748.
<b>Positive control</b>	IP: HeLa whole cell lysate; WB: HeLa and HEK293T cells; IHC: human testicular seminoma tissue.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7 Preservative: 0.1% Sodium azide Constituents: 0.021% PBS, 1.764% Sodium citrate, 1.815% Tris
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab17994 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
IP		Use at 2-10 µg/mg of lysate.
WB	★☆☆☆☆ (1)	1/2000 - 1/10000. Detects a band of approximately 47 kDa (predicted molecular weight: 42 kDa).
IHC-P		1/200 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

## 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 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.

### Sequence similarities

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

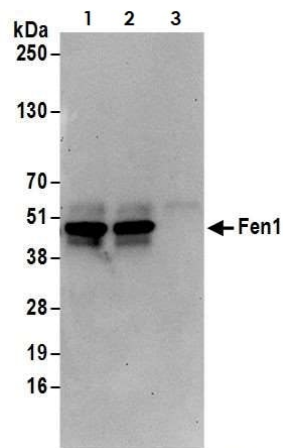
### Post-translational modifications

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



Immunoprecipitation - Anti-FEN1 antibody (ab17994)

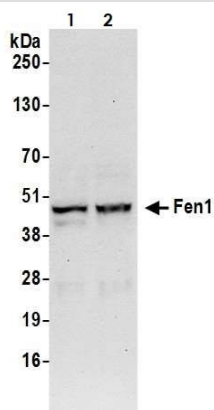
FEN1 was immunoprecipitated from HeLa whole cell lysate (1 mg per IP reaction, 20% loaded) with ab17994 at 6 µg per reaction. Western blot was performed on the immunoprecipitate using ab17994 at 1 µg/mL.

Lane 1: ab17994 IP in HeLa whole cell lysate.

Lane 2: ab17994 IP in HeLa whole cell lysate.

Lane 3: Control IgG in HeLa whole cell lysate.

Detection: Chemiluminescence with an exposure time of 30 seconds



Western blot - Anti-FEN1 antibody (ab17994)

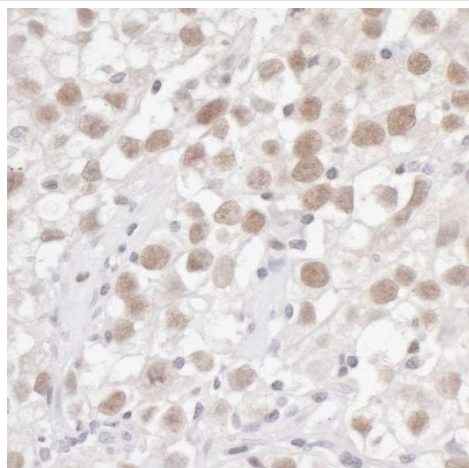
**All lanes :** Anti-FEN1 antibody (ab17994) at 0.1 µg/ml

**Lane 1 :** HeLa whole cell lysate

**Lane 2 :** HEK293T whole cell lysate

**Predicted band size:** 42 kDa

**Exposure time:** 30 seconds



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FEN1 antibody (ab17994)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human testicular seminoma tissue labelling FEN1 with **ab179944** at 1/1000 dilution. Heat mediated antigen retrieval performed with citrate buffer pH 6 before commencing with IHC staining protocol.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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