

FEN1 Antibody (aa1-380, clone 4E7) Mouse Monoclonal Antibody

Catalog # ALS11857

## Specification

# FEN1 Antibody (aa1-380, clone 4E7) - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW IHC <u>P39748</u> Human Mouse Monoclonal 43kDa KDa

### FEN1 Antibody (aa1-380, clone 4E7) - Additional Information

Gene ID 2237

Other Names Flap endonuclease 1 {ECO:0000255|HAMAP-Rule:MF\_03140}, FEN-1 {ECO:0000255|HAMAP-Rule:MF\_03140}, 3.1.-.- {ECO:0000255|HAMAP-Rule:MF\_03140}, DNase IV, Flap structure-specific endonuclease 1 {ECO:0000255|HAMAP-Rule:MF\_03140}, Maturation factor 1, MF1, hFEN-1, FEN1 {ECO:0000255|HAMAP-Rule:MF\_03140}, RAD2

**Target/Specificity** Recombinant human FEN-1 protein encoding amino acids 1-380 purified E. coli.

**Reconstitution & Storage** Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

**Precautions** FEN1 Antibody (aa1-380, clone 4E7) is for research use only and not for use in diagnostic or therapeutic procedures.

### FEN1 Antibody (aa1-380, clone 4E7) - 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

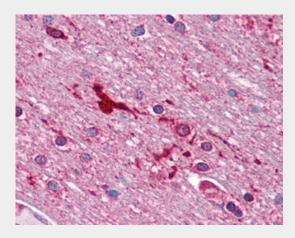
Volume 50 μl

#### FEN1 Antibody (aa1-380, clone 4E7) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

FEN1 Antibody (aa1-380, clone 4E7) - Images



Anti-FEN1 antibody IHC of human brain, cortex.

#### FEN1 Antibody (aa1-380, clone 4E7) - 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 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.

#### FEN1 Antibody (aa1-380, clone 4E7) - References

Murray J.M., et al.Mol. Cell. Biol. 14:4878-4888(1994). 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).