

Recombinant Human FEN1 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. FEN1-4497H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	FEN1 MS Standard C13 and N15-labeled recombinant protein (NP_004102) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	The protein encoded by this gene removes 5' overhanging flaps in DNA repair and processes the 5' ends of Okazaki fragments in lagging strand DNA synthesis. Direct physical interaction between this protein and AP endonuclease 1 during long-patch base excision repair provides coordinated loading of the proteins onto the substrate, thus passing the substrate from one enzyme to another. The protein is a member of the XPG/RAD2 endonuclease family and is one of ten proteins essential for cell-free DNA replication. DNA secondary structure can inhibit flap processing at certain trinucleotide repeats in a length-dependent manner by concealing the 5' end of the flap that is necessary for both binding and cleavage by the protein encoded by this gene. Therefore, secondary structure can deter the protective function of this protein, leading to site-specific trinucleotide expansions.
Molecular Mass	42.6 kDa
AA Sequence	MGIQGLAKLIADVAPSAIRENDIKSYFGRKVAIDASMSIYQFLIAVRQGGDVLQNEEGE TTSHLMGMFYRTIRMMENGIKPVYVFDGKPPQLKSGELAKRSERRAEAEKQLQQAQ

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AAGAEQEVEKFTKRLVKVTKQHNDCKHLLSLMGIPYLDAPSEAEASCAALVKAGKV
 YAAATEDMDCLTFGSPVLMRHLTASEAKKLP IQEFHLSRILQELGLNQE QFVDLCILL
 GSDYCESIRGIGPKRAVDLIQKHKSIEEIVRRLDPNKYPVPENWLHKEAHQLFLEPEV
 LDPEVELKWSEPNEEELIKFMCGEKQFSEERIRSGVKRLSKSRQGSTQGRLLDDFF
 KVTGSLSSAKRKEPEPKGSTKKKAKTGAAGKFKRGKTRTRPLEQKLISEEDLAANDI
 LDYKDDDDKV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name FEN1 flap structure-specific endonuclease 1 [Homo sapiens (human)]

Official Symbol FEN1

Synonyms FEN1; flap structure-specific endonuclease 1; RAD2; flap endonuclease 1; DNase IV; FEN 1; maturation factor 1; MF1; maturation factor-1; FEN-1;

Gene ID 2237

mRNA Refseq NM_004111

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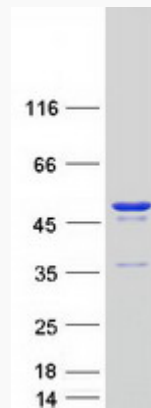
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Protein Refseq NP_004102

MIM 600393

UniProt ID P39748

SDS-PAGE



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