Recombinant Human FEN1, GST-tagged

Cat. No. FEN1-12841H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human FEN1 protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.
Species	Human
Source	E.coli
ProteinLength	1-380a.a.
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.
Storage	The protein is stored in PBS buffer at -20℃. Avoid repeated freezing and thawing cycles.
Storage Buffer	1M PBS (58mM Na2HPO4,17mM NaH2PO4, 68mM NaCl, pH8.) added with 100mM

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	GSH and 1% Triton X-100,15%glycerol.

GENE INFORMATION

Gene Name	FEN1 flap structure-specific endonuclease 1 [Homo sapiens]
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
Protein Refseq	NP_004102
MIM	600393
UniProt ID	P39748
Chromosome Location	11q12
Pathway	Base Excision Repair, organism-specific biosystem; Base excision repair, organism-specific biosystem; Base excision repair, conserved biosystem; Cell Cycle, organism-specific biosystem; Cell Cycle, Mitotic, organism-specific biosystem; Chromosome Maintenance, organism-specific biosystem; DNA Repair, organism-specific biosystem;
Function	5-3 exonuclease activity; 5-flap endonuclease activity; 5-flap endonuclease activity;

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	DNA binding; damaged DNA binding; double-stranded DNA binding; double-stranded DNA specific exodeoxyribonuclease activity; endonuclease activity; exonuclease activity; m

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