

## Product datasheet for **TP301785M**

### **FEN1 (NM\_004111) Human Recombinant Protein**

#### Product data:

**Product Type:** Recombinant Proteins

**Description:** Recombinant protein of human flap structure-specific endonuclease 1 (FEN1), 100 µg

**Species:** Human

**Expression Host:** HEK293T

**Expression cDNA Clone or AA Sequence:** >RC201785 protein sequence  
**Red**=Cloning site **Green**=Tags(s)

MGIQGLAKLIADVAPSAIRENDIKSYFGRKVAIDASMSIYQFLIAVRQGGDVLQNEEGETTSHLMGMFYR  
TIRMMENGIKPVYVFDGKPPQLKSGELAKRSERRAEAEKQLQQAQAAGAEQEVEKFTKRLVKVTKQHND  
CKHLLSLMGIPYLDAPSEAEASCAALVKAGKVYAAATEDMDCLTFGSPVLMRHLTASEAKKLPQEFHLS  
RILQELGLNQEQFVDLCILLGSDYCESIRGIGPKRAVDLIQKHKSIEEIVRRDPNKYPVPENWLHKEAH  
QLFLEPEVLDPESVELKWSEPNEEELIKFMCGEKQFSEERIRSGVKRLSKSRQGSTQGRLLDDFFKVTGSL  
SSAKRKEPEPKGSTKKAKTGAAGKFKRGK

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Tag:** C-Myc/DDK

**Predicted MW:** 42.4 kDa

**Concentration:** >0.05 µg/µL as determined by microplate BCA method

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

**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

**Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.

**Note:** For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.

**Storage:** Store at -80°C.

**Stability:** Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

**RefSeq:** [NP\\_004102](#)

**Locus ID:** 2237



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UniProt ID: [P39748](#), [Q6FHX6](#)

RefSeq Size: 2308

Cytogenetics: 11q12.2

RefSeq ORF: 1140

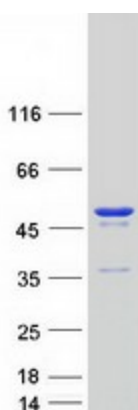
Synonyms: FEN-1; MF1; RAD2

**Summary:** 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. [provided by RefSeq, Jul 2008]

**Protein Families:** Druggable Genome, Stem cell - Pluripotency

**Protein Pathways:** Base excision repair, DNA replication, Non-homologous end-joining

### Product images:



Coomassie blue staining of purified FEN1 protein (Cat# [TP301785]). The protein was produced from HEK293T cells transfected with FEN1 cDNA clone (Cat# [RC201785]) using MegaTran 2.0 (Cat# [TT210002]).