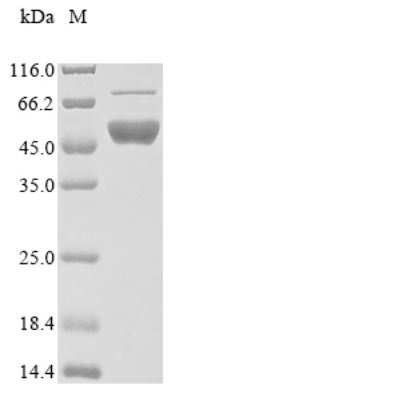
Recombinant Human Flap endonuclease 1 (FEN1)

Product Code	CSB-EP008585HU
Abbreviation	Recombinant Human FEN1 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P39748
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Proteins
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MGIQGLAKLIADVAPSAIRENDIKSYFGRKVAIDASMSIYQFLIAVRQGGDVLQN EEGETTSHLMGMFYRTIRMMENGIKPVYVFDGKPPQLKSGELAKRSERRAEA EKQLQQAQAAGAEQEVEKFTKRLVKVTKQHNDECKHLLSLMGIPYLDAPSEAE ASCAALVKAGKVYAAATEDMDCLTFGSPVLMRHLTASEAKKLPIQEFHLSRILQ ELGLNQEQFVDLCILLGSDYCESIRGIGPKRAVDLIQKHKSIEEIVRRLDPNKYP VPENWLHKEAHQLFLEPEVLDPESVELKWSEPNEEELIKFMCGEKQFSEERIR SGVKRLSKSRQGSTQGRLDDFFKVTGSLSSAKRKEPEPKGSTKKKAKTGAAG KFKRGK
Research Area	Epigenetics and Nuclear Signaling
Source	E.coli
Target Names	FEN1
Protein Names	Recommended name: Flap endonuclease 1 Short name= FEN-1 EC= 3.1.-.- Alternative name(s): DNase IV Flap structure-specific endonuclease 1 Maturation factor 1 Short name= MF1 Short name= hFEN-1
Expression Region	1-380aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged and C-terminal Myc-tagged
Mol. Weight	50.0 kDa
Protein Length	Full Length
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The region for expressing recombinant Human FEN1 contains amino acids 1-380. This FEN1 protein is expected to have a theoretical molecular weight of 50.0 kDa. Expression of this FEN1 protein is conducted in e.coli. The FEN1 gene fragment has been modified by fusing the N-terminal 10xHis tag and C-terminal Myc tag, providing convenience in detecting and purifying the recombinant FEN1 protein during the following stages.

Flap endonuclease 1 (FEN1) is a multifunctional endonuclease involved in DNA replication and repair processes. In humans, FEN1 plays a crucial role in processing DNA intermediates during Okazaki fragment maturation, long-patch base excision repair, and nucleotide excision repair. As a structure-specific nuclease, FEN1 cleaves 5' flaps, flap structures that arise during DNA synthesis. This activity is vital for maintaining genomic stability and integrity. FEN1 also participates in DNA damage response pathways, contributing to the repair of various lesions. Dysregulation of FEN1 has been associated with genomic instability and is implicated in cancer development. Understanding FEN1's functions is essential for unraveling DNA repair mechanisms and potential therapeutic targets for cancer treatment.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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