



# Recombinant Rat Flap endonuclease 1 (Fen1)

<b>Product Code</b>	CSB-MP719883RA
<b>Abbreviation</b>	Fen1
<b>Storage</b>	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.
<b>Uniprot No.</b>	Q5XIP6
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Rattus norvegicus (Rat)
<b>Purity</b>	>85% (SDS-PAGE)
<b>Sequence</b>	<p>           MGIQGLAKLI ADVAPSAIRE NDIKSYFGRK VAIDASMSIY QFLIAVRQGG            DVLQNEEGET TSHLMGMFYR TIRMMENGIK PVYIFDGKPP QLKSGELAKR            SERRAEAEKQ LQQAQEAGAE EEEVEKFTKRL VKVTKQHNDK CKHLLSLMGI            PYLDAPSEAE ASCAALAKAG KVYAAATEDM DCLTFGSPVL MRHLTASEAK            KLPIQEFHLS RVLQELGLNQ EQFVDLCILL GSDYCESVRG IGPKRAVDLI            QKHKSIEEIV RRLDPSKYPV PENWLHKEAR QLFLEPEVLD PESVELKWSE            PNEEELVKFM CGEKQFSEER IRSGVKRLNK SRQGSTQGRL DDFKVTGSL            SSAKRKEPEP KGPAAKKAKT GGAGKFRRGK         </p>
<b>Source</b>	Mammalian cell
<b>Target Names</b>	Fen1
<b>Protein Names</b>	Recommended name: Flap endonuclease 1 Short name= FEN-1 EC= 3.1.-.- Alternative name(s): Flap structure-specific endonuclease 1
<b>Expression Region</b>	1-380
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	full length protein
<b>Target Details</b>	This protein 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 This protein. Therefore, secondary structure can deter the protective function of this protein, leading to site-specific trinucleotide expansions.
<b>Reconstitution</b>	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.

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