

Recombinant Human SMUG1, His-tagged

Cat. No. SMUG1-7066H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human SMUG1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
ProteinLength	1-270aa
Description	Single-strand-selective monofunctional uracil-DNA glycosylase, also known as SMUG1, is a enzyme responsible for recognizing base lesions in the genome and initiating base excision DNA repair. This protein acts as a monofunctional DNA glycosylase specific for uracil (U) residues in DNA and has a preference for single-stranded DNA substrates.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.2M NaCl,30% glycerol, 1mM DTT
Molecular Mass	32.3 kDa (293aa)
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSMPQAFLL GSIHEPAGAL MEPQPCPGSL AESFLEELR LNAELSQLQF SEPVGIIYNP VEYAWEPHRN YVTRYCQGP EVLFLGMNPG PFGMAQTGVP FGEVSMVRDW LGIVGPVLTP PQEHPKRPVL GLECPQSEVS GARFWGFFRN LCGQPEVFFH HCFVHNLCP LFLAPSGRNL TPAELPAKQR EQLLGICDAA LCRQVQLLG VRLVGVGRLA EQRARRALAG

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LMPEVQVEGL LHPSPRNPQA NKGWEAVAKE RLNELGLLPL LLK

Purity >95% by SDS - PAGE

Applications SDS-PAGE

Storage Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Concentration 1 mg/ml

GENE INFORMATION

Gene Name [SMUG1 single-strand-selective monofunctional uracil-DNA glycosylase 1 \[Homo sapiens \]](#)

Official Symbol SMUG1

Synonyms SMUG1; single-strand-selective monofunctional uracil-DNA glycosylase 1; single-strand selective monofunctional uracil DNA glycosylase; FDG; HMUDG; UNG3; MGC104370;

Gene ID [23583](#)

mRNA Refseq [NM_001243787](#)

Protein Refseq [NP_001230716](#)

MIM [607753](#)

UniProt ID [Q53HV7](#)

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Chromosome Location	12q13.11-q13.3
Pathway	Base Excision Repair, organism-specific biosystem; Base excision repair, organism-specific biosystem; Base excision repair, conserved biosystem; Base-Excision Repair, AP Site Formation, organism-specific biosystem; Base-free sugar-phosphate removal via the single-nucleotide replacement pathway, organism-specific biosystem; Cleavage of the damaged pyrimidine, organism-specific biosystem; DNA Repair, organism-specific biosystem;
Function	DNA N-glycosylase activity; DNA binding; hydrolase activity, acting on glycosyl bonds; protein binding; single-strand selective uracil DNA N-glycosylase activity; uracil DNA N-glycosylase activity;

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