Recombinant human SMUG1 protein

Catalog Number: ATGP1848

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-270aa

UniProt No.
Q53HV7

NCBI Accession No.
NP_055126

Alternative Names
Single-strand-selective monofunctional uracil-DNA glycosylase, FDG, HMuDG, uNG3

PRODUCT SPECIFICATION

Molecular Weight
32.3 kDa (293aa) confirmed by MALDI-TOF

Concentration
0.5mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.2M NaCl, 30% glycerol, 1mM DTT

Purity
> 95% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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. Recombinant human SMuG1 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

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Amino acid Sequence

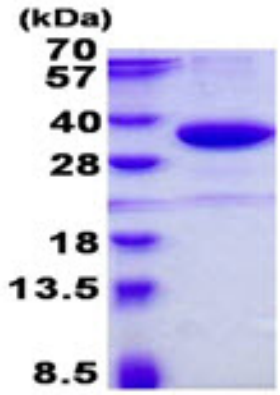
MGSSHHHHHH SSGLVPRGSH MGSMPQAFLL GSIHEPAGAL MEPQPCPGSL AESFLEEELR LNAELSQLQF SEPVGIIYNP VEYAWEPHRN YVTRYCQGPK EVLFLGMNPG PFGMAQTGVP FGEVSMVRDW LGIVGPVLTP PQEHPKRPVL GLECPQSEVS GARFWGFFRN LCGQPEVFFH HCFVHNLCPL LFLAPSGRNL TPAELPAKQR EQLLGICDAA LCRQVQLLGV RLVVGVGRLA EQRARRALAG LMPEVQVEGL LHPSPRNPQA NKGWEAVAKE RLNELGLLPL LLK

General References

Masaoka A., et al. (2003) Biochemistry. 42:5003-5012
Boorstein R.J., et al. (2001) J. Biol. Chem. 276:41991-41997

DATA

SDS-PAGE



15% SDS-PAGE (3ug)

3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.