

SMUG1 Human

Description: SMUG1 Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 293 amino acids (1-270) and having a molecular mass of 32.3kDa. SMUG1 is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

Catalog #: ENPS-681

For research use only.

Synonyms: Single-strand selective monofunctional uracil DNA glycosylase, SMUG1, FDG, UNG3, HMUDG.

Source: E.coli.

Physical Appearance: Sterile Filtered colorless solution.

Amino Acid Sequence: MGSSHHHHHH SSGLVPRGSH MGSMPQAFLL GSIHEPAGAL
MEPQPCPGSL AESFLEEELR LNAELSQLQF SEPVGIIYNP VEYAWEPHRN YVTRYCQGPK
EVLFLGMNPG PFGMAQTGVP FGEVSMVRDW LGIVGPVLTP PQEHPKRPVL GLECPQSEVS
GARFWGFFRN LCGQPEVFFH HCFVHNLCLPL LFLAPSGRNL TPAELPAKQR EQLLGICDAA
LCRQVQLLGV RL

Purity: Greater than 95% as determined by SDS-PAGE.

Formulation:

The SMUG1 solution (0.5mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.2M NaCl, 30% glycerol and 1mM DTT.

Stability:

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Introduction:

Single-strand-selective monofunctional uracil-DNA glycosylase (SMUG1) is an enzyme responsible for recognizing base lesions in the genome and initiating base excision DNA repair. SMUG1 participates in base excision repair by removing uracil from single- and double-stranded DNA. SMUG1 serves as a monofunctional DNA glycosylase specific for uracil (U) residues in DNA and has inclination for single-stranded DNA substrates. SMUG1 activity is greater against mismatches (U/G) than against matches (U/A).

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