

## Recombinant Human SMUG1 293 Cell Lysate

**Cat. No.** SMUG1-1648HCL    **Lot. No.** (See product label)

### SPECIFICATION

#### Product Overview

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species</b>             | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Source</b>              | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Description</b>         | Antigen standard for single-strand-selective monofunctional uracil-DNA glycosylase 1 (SMUG1) is a lysate prepared from HEK293T cells transiently transfected with a TrueORF gene-carrying pCMV plasmid and then lysed in RIPA Buffer. Protein concentration was determined using a colorimetric assay. The antigen control carries a C-terminal Myc/DDK tag for detection.                                                                            |
| <b>Components</b>          | This product includes 3 vials: 1 vial of gene-specific cell lysate, 1 vial of control vector cell lysate, and 1 vial of loading buffer. Each lysate vial contains 0.1 mg lysate in 0.1 ml (1 mg/ml) of RIPA Buffer (50 mM Tris-HCl pH7.5, 250 mM NaCl, 5 mM EDTA, 50 mM NaF, 1% NP40). The loading buffer vial contains 0.5 ml 2X SDS Loading Buffer (125 mM Tris-Cl, pH6.8, 10% glycerol, 4% SDS, 0.002% Bromophenol blue, 5% beta-mercaptoethanol). |
| <b>Size</b>                | 0.1 mg                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Storage Instruction</b> | Store at -80°C. Minimize freeze-thaw cycles. After addition of 2X SDS Loading Buffer, the lysates can be stored at -20°C. Product is guaranteed 6 months from the date of shipment.                                                                                                                                                                                                                                                                   |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

**Applications** ELISA, WB, IP. WB: Mix equal volume of lysates with 2X SDS Loading Buffer. Boil the mixture for 10 min before loading (for membrane protein lysates, incubate the mixture at room temperature for 30 min). Load 5 ug lysate per lane.

## GENE INFORMATION

|                            |                                                                                                                                                                                                                                                          |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | SMUG1 single-strand-selective monofunctional uracil-DNA glycosylase 1 [ Homo sapiens ]                                                                                                                                                                   |
| <b>Official Symbol</b>     | SMUG1                                                                                                                                                                                                                                                    |
| <b>Synonyms</b>            | SMUG1; single-strand-selective monofunctional uracil-DNA glycosylase 1; single-strand selective monofunctional uracil DNA glycosylase; FDG; HMUDG; UNG3; MGC104370;                                                                                      |
| <b>Gene ID</b>             | 23583                                                                                                                                                                                                                                                    |
| <b>mRNA Refseq</b>         | NM_001243787                                                                                                                                                                                                                                             |
| <b>Protein Refseq</b>      | NP_001230716                                                                                                                                                                                                                                             |
| <b>MIM</b>                 | 607753                                                                                                                                                                                                                                                   |
| <b>UniProt ID</b>          | Q53HV7                                                                                                                                                                                                                                                   |
| <b>Chromosome Location</b> | 12q13.11-q13.3                                                                                                                                                                                                                                           |
| <b>Pathway</b>             | 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 |

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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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