

SMUG1 (m): 293T Lysate: sc-123667

BACKGROUND

The base excision repair (BER) pathway removes incorrect bases (uracil) or damaged bases (3-methyladenine) from chromatin. Each BER enzyme system addresses a specific type of base damage. Uracil-DNA glycosylases UNG2 and SMUG1 (single-strand selective monofunctional uracil DNA glycosylase) remove uracil from both double- and single-stranded DNA in nucleosomes (chromatin core particle). The uracil-excising enzyme family shares structural and functional conservation with minimal sequence conservation. The human SMUG1 gene maps to chromosome 12q13.13.

REFERENCES

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9. Di Noia, J.M., Rada, C. and Neuberger, M.S. 2006. SMUG1 is able to excise uracil from immunoglobulin genes: insight into mutation versus repair. *EMBO J.* 25: 585-595.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: Smug1 (mouse) mapping to 15 F3.

PRODUCT

SMUG1 (m): 293T Lysate represents a lysate of mouse SMUG1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

SMUG1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive SMUG1 antibodies. Recommended use: 10-20 µl per lane.

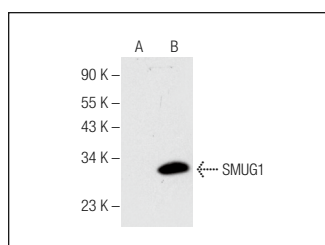
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

SMUG1 (D-2): sc-377370 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse SMUG1 expression in SMUG1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

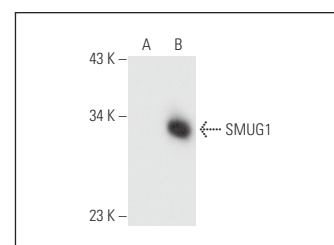
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



SMUG1 (D-2): sc-377370. Western blot analysis of SMUG1 expression in non-transfected: sc-117752 (A) and mouse SMUG1 transfected: sc-123667 (B) 293T whole cell lysates.



SMUG1 (H-11): sc-271580. Western blot analysis of SMUG1 expression in non-transfected: sc-117752 (A) and mouse SMUG1 transfected: sc-123667 (B) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.