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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

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.

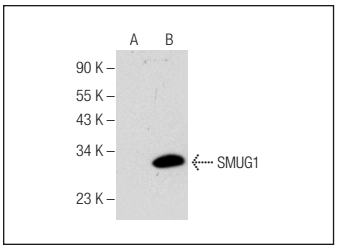
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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).

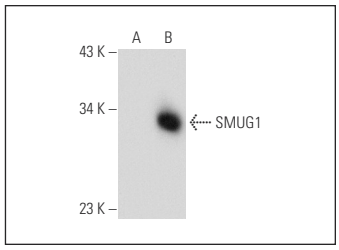
RECOMMENDED SUPPORT REAGENTS

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.