SANTA CRUZ BIOTECHNOLOGY, INC.

UHRF1 (m): 293T Lysate: sc-124463

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

UHRF1 (ubiquitin-like, containing PHD and RING finger domains, 1), also known as Np95 (nuclear zinc finger protein 95), ICBP90 (inverted CCAAT box-binding protein of 90 kDa) or RNF106, is a transcription and cell cycle regulator belonging to the RING-finger type E3 ubiquitin ligase subfamily. UHRF1 is expressed in bone marrow, thymus, heart, testis and lung, and contains one PHD-type zinc finger, a ubiquitin-like domain, two RING-type zinc fingers and one YDG/SRA domain. Localizing to the nucleus, UHRF1 is believed to function as an E3 ubiquitin-protein ligase that accepts a ubiquitin residue from an E2 ubiquitin-conjugating enzyme and immediately transfers that residue to a protein that is targeted for degradation. By mediating ubiquitination, UHRF1 plays an important role in cellular proliferation. In addition, UHRF1 directly interacts with Dnmt1 (a maintenance DNA methyltransferase) and is required for the stable association of Dnmt1 with chromatin. UHRF1 is overexpressed in cancer cells, suggesting a possible role in carcinogenesis.

REFERENCES

1. Hopfner, R., et al. 2000. ICBP90, a novel human CCAAT binding protein, involved in the regulation of topoisomerase IIα expression. Cancer Res. 60: 121-128.
2. Muto, M., et al. 2002. Targeted disruption of Np95 gene renders murine embryonic stem cells hypersensitive to DNA damaging agents and DNA replication blocks. J. Biol. Chem. 277: 34549-34555.
3. Bonapace, I.M., et al. 2002. Np95 is regulated by E1A during mitotic reactivation of terminally differentiated cells and is essential for S phase entry. J. Cell Biol. 157: 909-914.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607990. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Jenkins, Y., et al. 2005. Critical role of the ubiquitin ligase activity of UHRF1, a nuclear RING finger protein, in tumor cell growth. Mol. Biol. Cell 16: 5621-5629.
6. Jeanblanc, M., et al. 2005. The retinoblastoma gene and its product are targeted by ICBP90: a key mechanism in the G_1/S transition during the cell cycle. Oncogene 24: 7337-7345.

CHROMOSOMAL LOCATION

Genetic locus: Uhrf1 (mouse) mapping to 17 D.

PRODUCT

UHRF1 (m): 293T Lysate represents a lysate of mouse UHRF1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

RESEARCH USE

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

APPLICATIONS

UHRF1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive UHRF1 antibodies. Recommended use: 10-20 µl per lane.

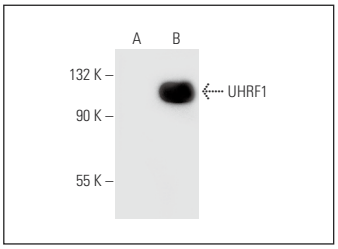
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

UHRF1 (C-9): sc-365391 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse UHRF1 expression in UHRF1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

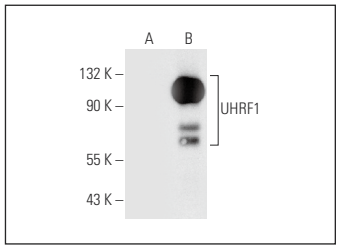
RECOMMENDED SUPPORT REAGENTS

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



UHRF1 (C-9): sc-365391. Western blot analysis of UHRF1 expression in non-transfected: sc-117752 (**A**) and mouse UHRF1 transfected: sc-124463 (**B**) 293T whole cell lysates.



UHRF1 (G-3): sc-365392. Western blot analysis of UHRF1 expression in non-transfected: sc-117752 (**A**) and mouse UHRF1 transfected: sc-124463 (**B**) 293T whole cell lysates.

PROTOCOLS

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