SANTA CRUZ BIOTECHNOLOGY, INC.

UHRF1 (G-3): sc-365392

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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.

CHROMOSOMAL LOCATION

Genetic locus: UHRF1 (human) mapping to 19p13.3; Uhrf1 (mouse) mapping to 17 D.

SOURCE

UHRF1 (G-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 239-262 within an internal region of UHRF1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365392 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

UHRF1 (G-3) is recommended for detection of UHRF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for UHRF1 siRNA (h): sc-76805, UHRF1 siRNA (m): sc-155976, UHRF1 shRNA Plasmid (h): sc-76805-SH, UHRF1 shRNA Plasmid (m): sc-155976-SH, UHRF1 shRNA (h) Lentiviral Particles: sc-76805-V and UHRF1 shRNA (m) Lentiviral Particles: sc-155976-V.

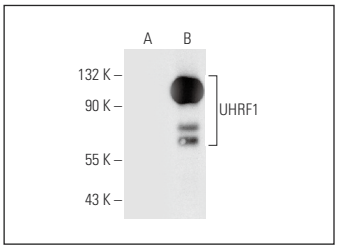
Molecular Weight of UHRF1: 90 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, MDA-MB-231 cell lysate: sc-2232 or UHRF1 (m): 293T Lysate: sc-124463.

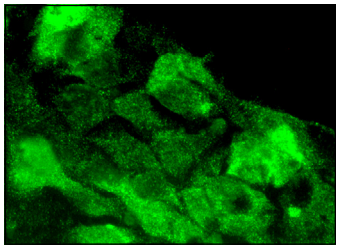
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



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.



UHRF1 (G-3): sc-365392. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Wang, H., et al. 2018. Long noncoding RNA UPAT promoted cell proliferation via increasing UHRF1 expression in non-small cell lung cancer. Oncol. Lett. 16: 1491-1498.

CONJUGATES

See **UHRF1 (H-8): sc-373750** for UHRF1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.