

UHRF1 (28): sc-136264

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

- Hopfner, R., et al. 2000. ICBP90, a novel human CCAAT binding protein, involved in the regulation of topoisomerase II α expression. *Cancer Res.* 60: 121-128.
- 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.
- 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.
- 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/>
- 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.
- Jeanblanc, M., et al. 2005. The retinoblastoma gene and its product are targeted by ICBP90: a key mechanism in the G₁/S transition during the cell cycle. *Oncogene* 24: 7337-7345.
- Bostick, M., et al. 2007. UHRF1 plays a role in maintaining DNA methylation in mammalian cells. *Science* 317: 1760-1764.
- Unoki, M., et al. 2008. A concern regarding the current confusion with the human homolog of mouse Np95, ICBP90/UHRF1. *Radiat. Res.* 169: 240-244.

STORAGE

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

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: UHRF1 (human) mapping to 19p13.3.

SOURCE

UHRF1 (28) is a mouse monoclonal antibody raised against amino acids 199-298 of UHRF1 of human origin.

PRODUCT

Each vial contains 50 μ g IgG_{2a} in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol, and 0.04% stabilizer protein.

APPLICATIONS

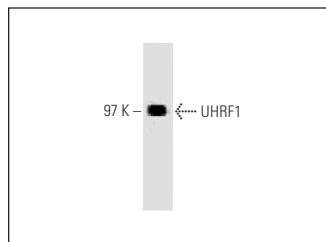
UHRF1 (28) is recommended for detection of UHRF1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

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

Molecular Weight of UHRF1: 90 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MDA-MB-231 cell lysate: sc-2232 or HeLa nuclear extract: sc-2120.

DATA



UHRF1 (28): sc-136264. Western blot analysis of UHRF1 expression in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

- Abu-Alainin, W., et al. 2016. UHRF1 regulation of the Keap1-Nrf2 pathway in pancreatic cancer contributes to oncogenesis. *J. Pathol.* 238: 423-433.

RESEARCH USE

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



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.