SANTA CRUZ BIOTECHNOLOGY, INC.

# UHRF1 (G-2): sc-166898

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.

## CHROMOSOMAL LOCATION

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

## SOURCE

UHRF1 (G-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 279-343 within an internal region of UHRF1 of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_{2a}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## 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-2) is recommended for detection of UHRF1 of 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), immunohistochemistry (including paraffin-embedded sections) (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 shRNA Plasmid (h): sc-76805-SH and UHRF1 shRNA (h) Lentiviral Particles: sc-76805-V.

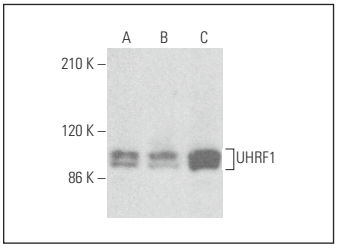
Molecular Weight of UHRF1: 90 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, MCF7 whole cell lysate: sc-2206 or MDA-MB-231 whole cell lysate: sc-2232.

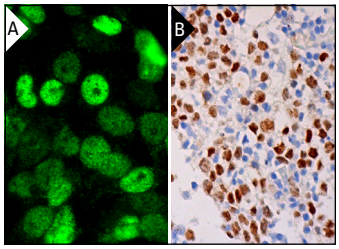
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA




UHRF1 (G-2): sc-166898. Western blot analysis of UHRF1 expression in MDA-MB-231 (**A**), MCF7 (**B**) and CCRF-CEM (**C**) whole cell lysates.




UHRF1 (G-2): sc-166898. Immunofluorescence stain-ing of formalin-fixed Hep G2 cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing nuclear staining of subset of cells in germinal and non-germinal centers (**B**).

## SELECT PRODUCT CITATIONS


1. Voruganti, S., et al. 2013. The anticancer drug AUY922 generates a proteomics fingerprint that is highly conserved among structurally diverse HSP 90 inhibitors. J. Proteome Res. 12: 3697-3706.
2. Wang, F., et al. 2017. Active site-targeted covalent irreversible inhibitors of USP7 impair the functions of Foxp3+ T-regulatory cells by promoting ubiquitination of Tip60. PLoS ONE 12: e0189744.
3. Pozhidaeva, A., et al. 2017. USP7-specific inhibitors target and modify the enzyme's active site via distinct chemical mechanisms. Cell Chem. Biol. 24: 1501-1512.
4. He, H., et al. 2018. UHRF1 depletion sensitizes retinoblastoma cells to chemotherapeutic drugs via downregulation of XRCC4. Cell Death Dis. 9: 164.
5. Kim, J.K., et al. 2020. UHRF1 downmodulation enhances antitumor effects of histone deacetylase inhibitors in retinoblastoma by augmenting oxidative stress-mediated apoptosis. Mol. Oncol. 14: 329-346.


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.