SANTA CRUZ BIOTECHNOLOGY, INC.

UVRAG (2E8): sc-293268

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

UVRAG (UV radiation resistance-associated gene), also known as p63 or DHTX, is a 699 amino acid cytoplasmic protein. UVRAG has been shown to activate the BECN1/PI 3-kinase complex, which promotes autophagy. Autophagy is the degradation of cellular proteins in the lysosomes, and when this pathway is suppressed, cell growth is deregulated. Mutations in the gene encoding UVRAG have been associated with colon cancer, suggesting that UVRAG is also involved in suppressing the proliferation and tumorigenicity of human colon cancer cells. UVRAG has been found to complement the ultraviolet sensitivity of xeroderma pigmentosum group C cells. Ubiquitously expressed, UVRAG is found at highest levels in kidney, lung, liver and brain. UVRAG contains one C2 domain, which is thought to be involved in calcium-dependent phospholipid binding.

REFERENCES

1. Teitz, T., et al. 1990. Isolation by polymerase chain reaction of a cDNA whose product partially complements the ultraviolet sensitivity of xeroderma pigmentosum group C cells. Gene 87: 295-298.
2. Perelman, B., et al. 1997. Molecular cloning of a novel human gene encoding a 63-kDa protein and its sublocalization within the 11q13 locus. Genomics 41: 397-405.

CHROMOSOMAL LOCATION

Genetic locus: UVRAG (human) mapping to 11q13.5; Uvrag (mouse) mapping to 7 E2.

SOURCE

UVRAG (2E8) is a mouse monoclonal antibody raised against amino acids 601-699 of UVRAG of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

UVRAG (2E8) is recommended for detection of UVRAG of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 UVRAG siRNA (h): sc-76883, UVRAG siRNA (m): sc-76884, UVRAG shRNA Plasmid (h): sc-76883-SH, UVRAG shRNA Plasmid (m): sc-76884-SH, UVRAG shRNA (h) Lentiviral Particles: sc-76883-V and UVRAG shRNA (m) Lentiviral Particles: sc-76884-V.

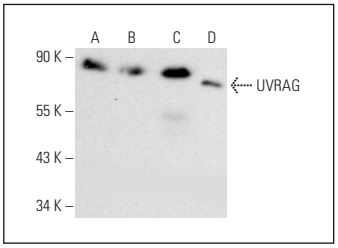
Molecular Weight of UVRAG: 63 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, Ramos cell lysate: sc-2216 or Raji whole cell lysate: sc-364236.

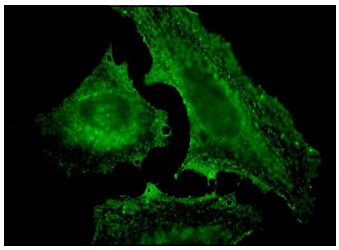
RECOMMENDED SUPPORT REAGENTS

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



UVRAG (2E8): sc-293268. Western blot analysis of UVRAG expression in MCF7 (**A**), Ramos (**B**), Raji (**C**) and RAT2 (**D**) whole cell lysates.



UVRAG (2E8): sc-293268. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Mohamud, Y., et al. 2020. Coxsackievirus infection induces a non-canonical autophagy independent of the ULK and PI3K complexes. Sci. Rep. 10: 19068.
2. Wang, Z.X., et al. 2021. Quercetin induces p53-independent cancer cell death via TFEB-mediated lysosome activation and Ros-dependent ferroptosis. Br. J. Pharmacol. 178: 1133-1148.
3. Ishtayeh, H., et al. 2023. Oculopharyngeal muscular dystrophy mutations link the RNA-binding protein HNRNPQ to autophagosome biogenesis. Aging Cell 22: e13949.

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.

PROTOCOLS

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