SANTA CRUZ BIOTECHNOLOGY, INC.

UVRAG (E-19): sc-82116



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

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- 3. Ionov, Y., et al. 2004. Manipulation of nonsense mediated decay identifies gene mutations in colon cancer cells with microsatellite instability. Oncogene 23: 639-645.
- 4. Liang, C., et al. 2006. Autophagic and tumour suppressor activity of a novel Beclin1-binding protein UVRAG. Nat. Cell Biol. 8: 688-699.
- 5. Liang, C., et al. 2007. UVRAG: a new player in autophagy and tumor cell growth. Autophagy 3: 69-71.
- 6. Kim, M.S., et al. 2008. Frameshift mutation of UVRAG, an autophagyrelated gene, in gastric carcinomas with microsatellite instability. Hum. Pathol. 39: 1059-1063.
- 7. Noble, C.G., et al. 2008. Bcl-x1 and UVRAG cause a monomer-dimer switch in Beclin1. J. Biol. Chem. 283: 26274-26282.
- 8. Liang, C., et al. 2008. Beclin1-binding UVRAG targets the class C Vps complex to coordinate autophagosome maturation and endocytic trafficking. Nat. Cell Biol. 10: 776-787.

CHROMOSOMAL LOCATION

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

SOURCE

UVRAG (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of UVRAG of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-82116 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

UVRAG (E-19) 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), 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).

UVRAG (E-19) is also recommended for detection of UVRAG in additional species, including equine, canine and bovine.

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.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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

MONOS Try UVRAG (2E8): sc-293268, our highly recommended Satisfation monoclonal aternative to UVRAG (E-19). Guaranteed