SANTA CRUZ BIOTECHNOLOGY, INC.

UQCRC2 (G-4): sc-390161

BACKGROUND

Cytochrome c is a well characterized, mobile electron transport protein that is essential to energy conversion in all aerobic organisms. Cytochrome b associates with cytochrome c subunit 1 and the Rieske protein to form complex III (also designated cytochrome bc1 complex), which is involved in cellular respiration. Ubiquinol cytochrome c reductase (UQCRFS1), also referred to as Rieske iron-sulfur protein, represents an important subunit of complex III of the mitochondrial respiratory chain that transfers electrons from ubiquinol to cytochrome c. The UQCRFS1 complex is made up of three respiratory subunits (cytochrome b, cytochrome c1, Rieske protein), two core proteins, and six low-molecular weight proteins. Ubiquinol cytochrome-c reductase complex core protein 2 (UQCRC2) represents one of the core proteins of UQCRFS1, and it is required for the assembly of the complex.

REFERENCES

1. Duncan, A.M., et al. 1993. Assignment of the gene for the core protein II (UQCRC2) subunit of the mitochondrial cytochrome bc1 complex to human chromosome 16p12. Genomics 18: 455-456.
2. Jarvela, I.E., et al. 1995. Physical map of the region containing the gene for Batten disease (CLN3). Am. J. Med. Genet. 57: 316-319.
3. Hu, W.H., et al. 2002. Identification and characterization of a novel Nogo-interacting mitochondrial protein (NIMP). J. Neurochem. 81: 36-45.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 191327. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Wen, J.J., et al. 2004. Oxidative modification of mitochondrial respiratory complexes in response to the stress of *Trypanosoma cruzi* infection. Free Radic. Biol. Med. 37: 2072-2081.
6. Sjoblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. Science 314: 268-274.
7. Cheng, X.R., et al. 2007. The effects of Liuwei Dihuang decoction on the gene expression in the hippocampus of senescence-accelerated mouse. Fitoterapia 78: 175-181.

CHROMOSOMAL LOCATION

Genetic locus: UQCRC2 (human) mapping to 16p12.2; Uqcrc2 (mouse) mapping to 7 F2.

SOURCE

UQCRC2 (G-4) is a mouse monoclonal antibody raised against amino acids 319-453 mapping at the C-terminus of UQCRC2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} 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.

APPLICATIONS

UQCRC2 (G-4) is recommended for detection of UQCRC2 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 UQCRC2 siRNA (h): sc-72021, UQCRC2 siRNA (m): sc-72022, UQCRC2 shRNA Plasmid (h): sc-72021-SH, UQCRC2 shRNA Plasmid (m): sc-72022-SH, UQCRC2 shRNA (h) Lentiviral Particles: sc-72021-V and UQCRC2 shRNA (m) Lentiviral Particles: sc-72022-V.

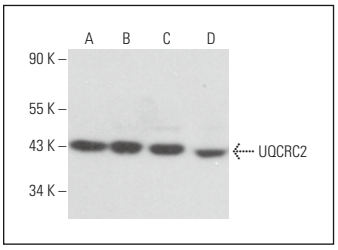
Molecular Weight of UQCRC2: 48 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Jurkat whole cell lysate: sc-2204 or Ramos cell lysate: sc-2216.

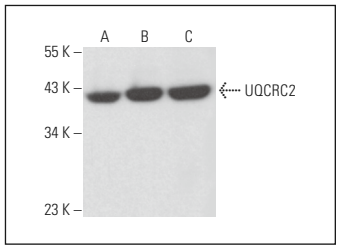
RECOMMENDED SUPPORT REAGENTS

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



UQCRC2 (G-4): sc-390161. Western blot analysis of UQCRC2 expression in Jurkat (**A**), Ramos (**B**), Hep G2 (**C**) and RAW 264.7 (**D**) whole cell lysates.



UQCRC2 (G-4): sc-390161. Western blot analysis of UQCRC2 expression in A-10 (**A**) and KNRK (**B**) whole cell lysates and mouse liver tissue extract (**C**).

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.