

NDUFC1 (S-14): sc-104442

BACKGROUND

NDUFC1 (NADH-ubiquinone oxidoreductase 1 subunit C1), also designated Complex I-KFYI, is one of 45 subunits comprising complex I of the oxidative phosphorylation electron transport chain. The multi-subunit NADH:ubiquinone oxidoreductase (complex I) is the first enzyme complex in the electron transport chain of the mitochondria. Complex I deficiency is the most common respiratory chain defect, resulting in various combinations of cardiac, hepatic and renal disorders. Through use of chaotropic agents, complex I can be separated into three different fractions: a flavoprotein fraction, a hydrophobic protein (HP) fraction and an iron-sulfur protein (IP) fraction. NDUFC1 is a 76 amino acid protein whose role in Complex I has yet to be defined.

REFERENCES

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4. Karahan, O.I., et al. 2005. Ultrasound evaluation of peritoneal catheter tunnel in catheter related infections in CAPD. *Int. Urol. Nephrol.* 37: 363-366.
5. Martin, M.A., et al. 2005. Leigh syndrome associated with mitochondrial complex I deficiency due to a novel mutation in the NDUFS1 gene. *Arch. Neurol.* 62: 659-661.
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8. Fleming, D., et al. 2006. A ubiquinone oxidoreductase (complex I). *J. Mol. Microbiol. Biotechnol.* 10: 208-222.
9. Gostimskaya, I.S., et al. 2006. Topography and chemical reactivity of the active-inactive transition-sensitive SH-group in the mitochondrial NADH:ubiquinone oxidoreductase (Complex I). *Biochim. Biophys. Acta* 1757: 1155-1161.

CHROMOSOMAL LOCATION

Genetic locus: NDUFC1 (human) mapping to 4q31.1; Ndufc1 (mouse) mapping to 3 C.

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.

SOURCE

NDUFC1 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NDUFC1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-104442 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NDUFC1 (S-14) is recommended for detection of NDUFC1 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).

Suitable for use as control antibody for NDUFC1 siRNA (h): sc-89153, NDUFC1 siRNA (m): sc-106289, NDUFC1 shRNA Plasmid (h): sc-89153-SH, NDUFC1 shRNA Plasmid (m): sc-106289-SH, NDUFC1 shRNA (h) Lentiviral Particles: sc-89153-V and NDUFC1 shRNA (m) Lentiviral Particles: sc-106289-V.

Molecular Weight of NDUFC1: 9 kDa.

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.

PROTOCOLS

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