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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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SANTA CRUZ BIOTECHNOLOGY, INC.

NDUFS6 (B-5): sc-518214

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NDUFC1 (NADH-ubiquinone oxidoreductase iron-sulfur protein 6), also designated Complex I-13kD-A, 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. NDUFS6 is a 124 amino acid protein that belongs to the iron-sulfur protein fraction. Mutations in the NDUFS6 gene may contribute to the deleterious effects of Complex I deficiency.

REFERENCES

1. Chow, W., et al. 1991. Determination of the cDNA sequence for the human mitochondrial 75-kDa Fe-S protein of NADH-coenzyme Q reductase. Eur. J. Biochem. 201: 547-550.
2. Duncan, A.M., et al. 1992. Localization of the human 75-kDal Fe-S protein of NADH-coenzyme Q reductase gene (NDUFS1) to 2q33—q34. Cytogenet. Cell Genet. 60: 212-213.
3. Kirby, D.M., et al. 2004. NDUFS6 mutations are a novel cause of lethal neonatal mitochondrial complex I deficiency. J. Clin. Invest. 114: 837-845.
4. Stojanovski, D., et al. 2004. Levels of human Fis1 at the mitochondrial outer membrane regulate mitochondrial morphology. J. Cell Sci. 117: 1201-1210.
5. Karahan, O.I., et al. 2005. Ultrasound evaluation of peritoneal catheter tunnel in catheter related infections in CAPD. Int. Urol. Nephrol. 37: 363-366.
6. 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.

CHROMOSOMAL LOCATION

Genetic locus: NDUFS6 (human) mapping to 5p15.33.

SOURCE

NDUFS6 (B-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 42-64 of NDUFS6 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NDUFS6 (B-5) is available conjugated to agarose (sc-518214 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-518214 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518214 PE), fluorescein (sc-518214 FITC), Alexa Fluor® 488 (sc-518214 AF488), Alexa Fluor® 546 (sc-518214 AF546), Alexa Fluor® 594 (sc-518214 AF594) or Alexa Fluor® 647 (sc-518214 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518214 AF680) or Alexa Fluor® 790 (sc-518214 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

NDUFS6 (B-5) is recommended for detection of NDUFS6 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NDUFS6 siRNA (h): sc-91874, NDUFS6 shRNA Plasmid (h): sc-91874-SH and NDUFS6 shRNA (h) Lentiviral Particles: sc-91874-V.

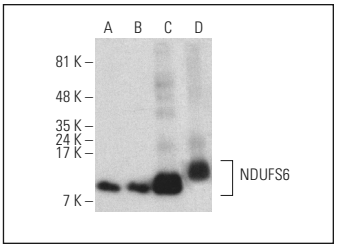
Molecular Weight of NDUFS6: 13 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, MCF7 whole cell lysate: sc-2206 or human skeletal muscle extract: sc-363776.

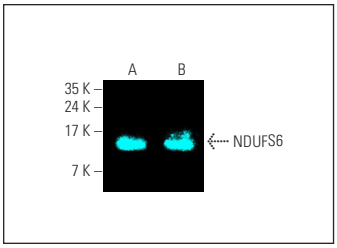
RECOMMENDED SUPPORT REAGENTS

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



NDUFS6 (B-5): sc-518214. Western blot analysis of NDUFS6 expression in Hep G2 (**A**) and MCF7 (**B**) whole cell lysates and human skeletal muscle (**C**) and human skin (**D**) tissue extracts. Detection reagent used: m-IgG_1 BP-HRP: sc-525408.



NDUFS6 (B-5): sc-518214. Fluorescent western blot analysis of NDUFS6 expression in Hep G2 (**A**) and MCF7 (**B**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG_1 BP-CFL 647: sc-533664.

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.