

NDUFB3 (G-12): sc-168726

BACKGROUND

Complex 1 (also known as NADH dehydrogenase) of the electron transport chain (respiratory chain) is an enzymatic complex that catalyzes the transfer of electrons from NADH to ubiquinone. Free energy from the reaction is conserved in the transfer of protons into the intermembrane space to create an electrochemical proton gradient, a driving force for ATP synthesis. Complex 1 is a complicated, multi-protein, L-shaped complex composed of at least 45 different subunits and located in the mitochondrial inner membrane. NDUFB3 (NADH dehydrogenase (ubiquinone) 1 β subcomplex subunit 3), also known as B12, is a 98 amino acid hydrophobic protein belonging to the Complex I NDUFB3 subunit family. Ubiquitously expressed, NDUFB3 localizes to the matrix side of the inner membrane of the mitochondrion and functions as an accessory subunit of Complex I.

REFERENCES

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6. Sparks, L.M., et al. 2005. A high-fat diet coordinately downregulates genes required for mitochondrial oxidative phosphorylation in skeletal muscle. *Diabetes* 54: 1926-1933.
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CHROMOSOMAL LOCATION

Genetic locus: NDUFB3 (human) mapping to 2q33.1; Ndufb3 (mouse) mapping to 1 C1.3.

SOURCE

NDUFB3 (G-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NDUFB3 of human origin.

RESEARCH USE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-168726 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NDUFB3 (G-12) is recommended for detection of NDUFB3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with other NDUFB family members.

Suitable for use as control antibody for NDUFB3 siRNA (h): sc-94549, NDUFB3 siRNA (m): sc-149880, NDUFB3 shRNA Plasmid (h): sc-94549-SH, NDUFB3 shRNA Plasmid (m): sc-149880-SH, NDUFB3 shRNA (h) Lentiviral Particles: sc-94549-V and NDUFB3 shRNA (m) Lentiviral Particles: sc-149880-V.

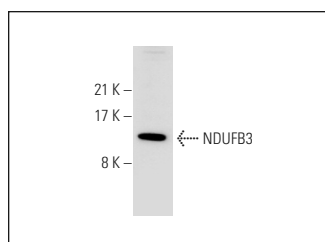
Molecular Weight of NDUFB3: 12 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or human heart extract: sc-363763.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



NDUFB3 (G-12): sc-168726. Western blot analysis of NDUFB3 expression in human heart tissue extract.

STORAGE

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