NDUFB3 (G-9): sc-398174

**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) 1β 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**


**CHROMOSOMAL LOCATION**

Genetic locus: NDUFB3 (human) mapping to 2q33.1; Ndub3 (mouse) mapping to 1 G1.3.

**SOURCE**

NDUFB3 (G-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 9-28 near the N-terminus of NDUFB3 of human origin.

**PRODUCT**

Each vial contains 200 μg IgG1 kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398174 P, [100 μg peptide in 0.5 ml PBS containing <0.1% sodium azide and 0.2% stabilizer protein].

**APPLICATIONS**

NDUFB3 (G-9) is recommended for detection of NDUFB3 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 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: human heart extract: sc-363763, mouse postnatal heart tissue extract or rat heart extract: sc-2393.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG HRP: sc-516102 or m-IgG 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).

**DATA**

NDUFB3 (G-9): sc-398174. Western blot analysis of NDUFB3 expression in mouse postnatal heart (A) and rat heart (B) tissue extracts.

**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.