**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**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

NDUFB3 (F-12) is a mouse monoclonal antibody raised against amino acids 1-98 representing full length NDUFB3 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

NDUFB3 (F-12) 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: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or human heart extract: sc-383763.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

**DATA**

NDUFB3 (F-12): sc-393351. Western blot analysis of NDUFB3 expression in HeLa (A) and A-431 (B) whole cell lysates and human heart (C), mouse lung (D) and human lung (E) tissue extracts.

NDUFB3 (F-12): sc-393351. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

**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.

SANTA CRUZ BIOTECHNOLOGY, INC.

NDUFB3 (F-12): sc-393351