BACKGROUND

Complex I (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 I is a complicated, multi-protein, L-shaped complex composed of at least 45 different subunits and located in the mitochondrial inner membrane. NDUFB11 (NDH dehydrogenase ubiquinone 1) subcomplex subunit 11), also known as ESSS, Np15, Np17.3 (neuronal protein 17.3) or p17.3, is a hydrophobic transmembrane protein belonging to the Complex I NDUFB11 subunit family. Ubiquitously expressed, NDUFB11 localizes to the inner membrane of the mitochondrion and functions as an accessory subunit of Complex I. The cAMP-dependent phosphorylation of NDUFB11 is important for the regulation of Complex I activity.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: NDUFB11 (human) mapping to Xp11.23; Ndufb11 (mouse) mapping to X A1.3.

SOURCE

NDUFB11 (E-2) is a mouse monoclonal antibody raised against amino acids 1-151 representing full length NDUFB11 of mouse origin.

PRODUCT

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

APPLICATIONS

NDUFB11 (E-2) is recommended for detection of NDUFB11 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).

Molecular Weight of phosphorylated NDUFB11: 18 kDa.

Positive Controls: c4 whole cell lysate: sc-364186, Hep G2 cell lysate: sc-2227 or NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGk BP-HRP: sc-516102 or m-IgGk BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516241 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-IgGk BP-FITC: sc-516140 or m-IgGk BP-PE: sc-516141 (dilution range 1:50-1:200) with UltraCruz® Hard-set Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA

![Western blot analysis of NDUFB11 expression in Hep G2 (A), IMR-32 (B), SW480 (C), 35 (D) and PC-12 (E) whole cell lysates.](image1)

![Western blot analysis of NDUFB11 expression in c4(A) and NIH/3T3 (B) whole cell lysates.](image2)

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.