

NDUFB11 (C-12): sc-131632

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 (NADH dehydrogenase (ubiquinone) 1 β 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

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3. Janssen, R.J., et al. 2006. Mitochondrial complex I: structure, function and pathology. *J. Inherit. Metab. Dis.* 29: 499-515.
4. Petruzzella, V., et al. 2007. The NDUFB11 gene is not a modifier in Leber hereditary optic neuropathy. *Biochem. Bio-phys. Res. Commun.* 355: 181-187.
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7. De Rasmio, D., et al. 2008. cAMP-dependent protein kinase regulates the mitochondrial import of the nuclear encoded NDUF4 subunit of complex I. *Cell. Signal.* 20: 989-997.

CHROMOSOMAL LOCATION

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

SOURCE

NDUFB11 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of NDUFB11 of human origin.

STORAGE

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

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-131632 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NDUFB11 (C-12) is recommended for detection of NDUFB11 isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

NDUFB11 (C-12) is also recommended for detection of NDUFB11 isoforms 1 and 2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NDUFB11 siRNA (h): sc-90885, NDUFB11 siRNA (m): sc-149878, NDUFB11 shRNA Plasmid (h): sc-90885-SH, NDUFB11 shRNA Plasmid (m): sc-149878-SH, NDUFB11 shRNA (h) Lentiviral Particles: sc-90885-V and NDUFB11 shRNA (m) Lentiviral Particles: sc-149878-V.

Molecular Weight of phosphorylated NDUFB11: 18 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

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) 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.