

NDUFV2 (FL-249): sc-68887

BACKGROUND

Located in the mitochondrial inner membrane, mitochondrial complex I is the first and largest enzyme in the electron transport chain of oxidative phosphorylation. By oxidizing NADH that is produced in the Krebs cycle, this complex utilizes the two electrons to reduce ubiquinone to ubiquinol, thereby initiating the passage of electrons to successive complexes and ultimately leading to the reduction of oxygen to water. Mitochondrial complex I consists of over 40 subunits and is of considerable clinical interest since defects in any one of the subunits can lead to various myopathies and neuropathies. As a subunit of mitochondrial complex I, NDUFV2 (NADH dehydrogenase [ubiquinone] flavoprotein 2), also designated NADH-ubiquinone oxidoreductase 24 kDa subunit, is a 249 amino acid protein that is believed to be required for catalytic activity. Several studies suggest that polymorphisms of the gene encoding NDUFV2 may be a genetic risk factor for bipolar disorder and schizophrenia.

CHROMOSOMAL LOCATION

Genetic locus: NDUFV2 (human) mapping to 18p11.22; Ndufv2 (mouse) mapping to 17 E1.1.

SOURCE

NDUFV2 (FL-249) is a rabbit polyclonal antibody raised against amino acids 1-249 representing full length NDUFV2 of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

NDUFV2 (FL-249) is recommended for detection of NDUFV2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

NDUFV2 (FL-249) is also recommended for detection of NDUFV2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for NDUFV2 siRNA (h): sc-106292, NDUFV2 siRNA (m): sc-149892, NDUFV2 shRNA Plasmid (h): sc-106292-SH, NDUFV2 shRNA Plasmid (m): sc-149892-SH, NDUFV2 shRNA (h) Lentiviral Particles: sc-106292-V and NDUFV2 shRNA (m) Lentiviral Particles: sc-149892-V.

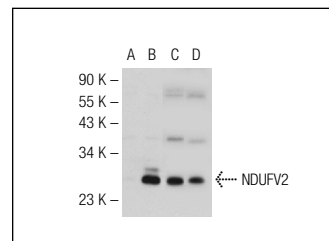
Molecular Weight of NDUFV2: 24 kDa.

Positive Controls: NDUFV2 (m): 293T Lysate: sc-121985, Ramos cell lysate: sc-2216 or NDUFV2 (h): 293T Lysate: sc-117341.

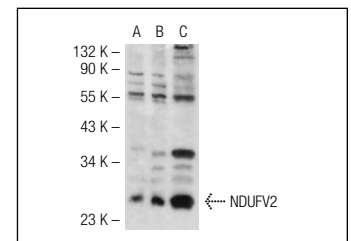
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NDUFV2 (FL-249): sc-68887. Western blot analysis of NDUFV2 expression in non-transfected 293T: sc-117752 (A), human NDUFV2 transfected 293T: sc-117341 (B), HeLa (C) and NIH/3T3 (D) whole cell lysates.



NDUFV2 (FL-249): sc-68887. Western blot analysis of NDUFV2 expression in non-transfected 293T: sc-117752 (A), mouse NDUFV2 transfected 293T: sc-121985 (B) and Ramos (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- García-Ruiz, I., et al. 2013. Pioglitazone leads to an inactivation and disassembly of complex I of the mitochondrial respiratory chain. BMC Biol. 11: 88.

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.


 MONOS
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Try **NDUFV2 (F-5): sc-271620** or **NDUFV2 (B-11): sc-515589**, our highly recommended monoclonal alternatives to NDUFV2 (FL-249).