

NDUFA6 (C-18): sc-86755

BACKGROUND

NDUFA6 (NADH dehydrogenase (ubiquinone) 1 α subcomplex, 6), also known as LYRM6 (LYR motif-containing protein 6), NADHB14 or B14, is a 128 amino acid protein that localizes to the matrix side of the mitochondrial membrane and belongs to the complex I LYR family. Existing as a subunit of the multi-protein membrane respiratory chain NADH dehydrogenase complex (Complex I), NDUFA6 functions as an accessory protein that facilitates the transfer of electrons from NADH to the respiratory chain. The gene encoding NDUFA6 maps to human chromosome 22, which houses over 500 genes and is the second smallest human chromosome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, Neurofibromatosis type 2, autism and schizophrenia.

REFERENCES

1. Ton, C., et al. 1997. Identification and primary structure of five human NADH-ubiquinone oxidoreductase subunits. *Biochem. Biophys. Res. Commun.* 241: 589-594.
2. Dunbar, D.R., et al. 1997. *In situ* hybridisation mapping of genomic clones for five human respiratory chain complex I genes. *Cytogenet. Cell Genet.* 78: 21-24.
3. Loeffen, J.L., et al. 1998. cDNA of eight nuclear encoded subunits of NADH:ubiquinone oxidoreductase: human complex I cDNA characterization completed. *Biochem. Biophys. Res. Commun.* 253: 415-422.
4. Emahazion, T. and Brookes, A.J. 1998. Mapping of the NDUFA2, NDUFA6, NDUFA7, NDUFB8, and NDUF8S electron transport chain genes by intron based radiation hybrid mapping. *Cytogenet. Cell Genet.* 82: 114.

CHROMOSOMAL LOCATION

Genetic locus: NDUFA6 (human) mapping to 22q13.2; Ndufa6 (mouse) mapping to 15 E1.

SOURCE

NDUFA6 (C-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of NDUFA6 of human origin.

PRODUCT

Each vial contains 100 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-86755 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

NDUFA6 (C-18) is recommended for detection of NDUFA6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 NDUFA family members.

NDUFA6 (C-18) is also recommended for detection of NDUFA6 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for NDUFA6 siRNA (h): sc-75889, NDUFA6 siRNA (m): sc-149873, NDUFA6 shRNA Plasmid (h): sc-75889-SH, NDUFA6 shRNA Plasmid (m): sc-149873-SH, NDUFA6 shRNA (h) Lentiviral Particles: sc-75889-V and NDUFA6 shRNA (m) Lentiviral Particles: sc-149873-V.

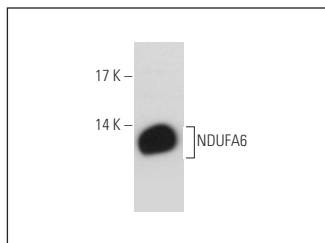
Molecular Weight of NDUFA6: 15 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

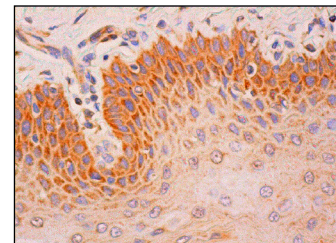
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



NDUFA6 (C-18): sc-86755. Western blot analysis of NDUFA6 expression in 293T whole cell lysate.



NDUFA6 (C-18): sc-86755. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

1. 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.