SANTA CRUZ BIOTECHNOLOGY, INC.

NDUFB9 (D-7): sc-398869

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NDUFB9 (NADH dehydrogenase (ubiquinone) 1 β subcomplex, 9), also known as LYRM3 or B22, is a 179 amino acid protein that belongs to the complex I LYR family. Localized to the inner mitochondrial membrane, as well as to the matrix side of the peripheral membrane, NDUFB9 functions as an accessory subunit of the multi-subunit mitochondrial membrane respiratory chain NADH dehydrogenase complex I. Complex I plays an important role in the transfer of electrons from NADH to the respiratory chain, a process that is essential for cellular respiration. The gene encoding NDUFB9 maps to human chromosome 8, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that map to chromosome 8.

REFERENCES

1. Gu, J.Z., et al. 1996. The human B22 subunit of the NADH-ubiquinone oxidoreductase maps to the region of chromosome 8 involved in branchio-oto-renal syndrome. Genomics 35: 6-10.
2. 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.

CHROMOSOMAL LOCATION

Genetic locus: NDUFB9 (human) mapping to 8q24.13; Ndufb9 (mouse) mapping to 15 D1.

SOURCE

NDUFB9 (D-7) is a mouse monoclonal antibody raised against amino acids 1-179 representing full length NDUFB9 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NDUFB9 (D-7) is available conjugated to agarose (sc-398869 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398869 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398869 PE), fluorescein (sc-398869 FITC), Alexa Fluor® 488 (sc-398869 AF488), Alexa Fluor® 546 (sc-398869 AF546), Alexa Fluor® 594 (sc-398869 AF594) or Alexa Fluor® 647 (sc-398869 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398869 AF680) or Alexa Fluor® 790 (sc-398869 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

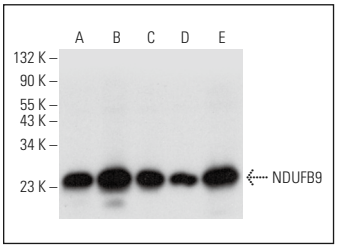
NDUFB9 (D-7) is recommended for detection of NDUFB9 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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 NDUFB9 siRNA (h): sc-77614, NDUFB9 siRNA (m): sc-149886, NDUFB9 shRNA Plasmid (h): sc-77614-SH, NDUFB9 shRNA Plasmid (m): sc-149886-SH, NDUFB9 shRNA (h) Lentiviral Particles: sc-77614-V and NDUFB9 shRNA (m) Lentiviral Particles: sc-149886-V.

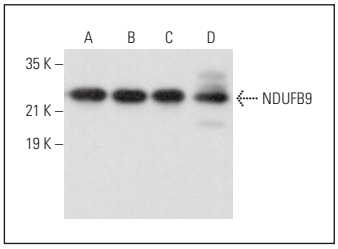
Molecular Weight of NDUFB9: 22 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, A549 cell lysate: sc-2413 or BJAB whole cell lysate: sc-2207.

DATA



NDUFB9 (D-7): sc-398869. Western blot analysis of NDUFB9 expression in Ramos (**A**), BJAB (**B**), Jurkat (**C**) and A549 (**D**) whole cell lysates and human liver tissue extract (**E**).



NDUFB9 (D-7): sc-398869. Western blot analysis of NDUFB9 expression in Raji (**A**), NAMALWA (**B**), IMR-32 (**C**) and SP2/0 (**D**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Ji, W., et al. 2014. Expulsion of micronuclei containing amplified genes contributes to a decrease in double minute chromosomes from malignant tumor cells. Int. J. Cancer 134: 1279-1288.
2. Beauchemin, M., et al. 2020. Exploring mechanisms of increased cardiovascular disease risk with antipsychotic medications: risperidone alters the cardiac proteomic signature in mice. Pharmacol. Res. 152: 104589.
3. Gomez-Deza, J., et al. 2023. Local production of reactive oxygen species drives vincristine-induced axon degeneration. Cell Death Dis. 14: 807.

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.