SANTA CRUZ BIOTECHNOLOGY, INC.

NDUFB6 (B-2): sc-515596

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NDUFB6 (NADH dehydrogenase [ubiquinone] 1 β subcomplex subunit 6), also known as CI-B17 (complex I-B17) or NADH-ubiquinone oxidoreductase B17 subunit, is a 128 amino acid single-pass membrane protein that localizes to the matrix side of the mitochondrial inner membrane. A member of the complex I NDUFB6 subunit family, NDUFB6 is encoded by a gene that maps to human chromosome 9p21.1 and mouse chromosome 4 A5. Human chromosome 9 houses over 900 genes and comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and familial dysautonomia, are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

REFERENCES

1. Smeitink, J., et al. 1998. Molecular characterization and mutational analysis of the human B17 subunit of the mitochondrial respiratory chain complex I. Hum. Genet. 103: 245-250.
2. Murray, J., et al. 2003. The subunit composition of the human NADH dehydrogenase obtained by rapid one-step immunopurification. J. Biol. Chem. 278: 13619-13622.
3. Zhuang, H., et al. 2006. Lupus-like disease and high interferon levels corresponding to trisomy of the type I interferon cluster on chromosome 9p. Arthritis Rheum. 54: 1573-1579.
4. Burmeister, T., et al. 2007. Atypical Bcr-Abl mRNA transcripts in adult acute lymphoblastic leukemia. Haematologica 92: 1699-1702.

CHROMOSOMAL LOCATION

Genetic locus: NDUFB6 (human) mapping to 9p21.1.

SOURCE

NDUFB6 (B-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 99-115 near the C-terminus of NDUFB6 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.

NDUFB6 (B-2) is available conjugated to agarose (sc-515596 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515596 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515596 PE), fluorescein (sc-515596 FITC), Alexa Fluor® 488 (sc-515596 AF488), Alexa Fluor® 546 (sc-515596 AF546), Alexa Fluor® 594 (sc-515596 AF594) or Alexa Fluor® 647 (sc-515596 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515596 AF680) or Alexa Fluor® 790 (sc-515596 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515596 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

NDUFB6 (B-2) is recommended for detection of NDUFB6 of 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 NDUFB6 siRNA (h): sc-92468, NDUFB6 shRNA Plasmid (h): sc-92468-SH and NDUFB6 shRNA (h) Lentiviral Particles: sc-92468-V.

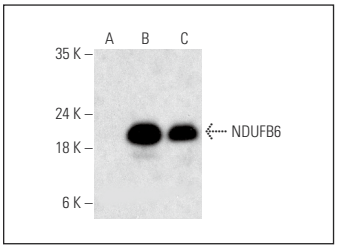
Molecular Weight of NDUFB6: 15 kDa.

Positive Controls: human heart extract: sc-363763, Caki-1 cell lysate: sc-2224 or NDUFB6 (h): 293T Lysate: sc-114395.

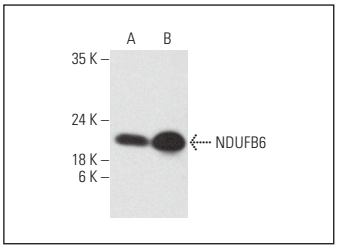
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



NDUFB6 (B-2): sc-515596. Western blot analysis of NDUFB6 expression in non-transfected 293T: sc-117752 (**A**) and human NDUFB6 transfected 293T: sc-114395 (**B**) whole cell lysates and human heart tissue extract (**C**).



NDUFB6 (B-2): sc-515596. Western blot analysis of NDUFB6 expression in Caki-1 whole cell lysate (**A**) and human kidney tissue extract (**B**).

SELECT PRODUCT CITATIONS

1. Albanesi, J., et al. 2020. Transcriptional and metabolic dissection of ATRA-induced granulocytic differentiation in NB4 acute promyelocytic leukemia cells. Cells 9: 2423.

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.