NDUFV1 (14.8): sc-100566

BACKGROUND
Complex 1 (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 inter-membrane space to create an electrochemical proton gradient, a driving force for ATP synthesis. Complex 1 is an extremely complicated, multi-protein, L-shaped complex composed of 45 different subunits located within the mitochondrial inner membrane. NDUFV1 (NADH dehydrogenase ubiquinone flavoprotein 1), also known as UQOR1 or CI-51kD, is a 464 amino acid core subunit protein of complex 1 that is essential for the electron transport chain. The peripheral membrane protein, NDUFV1, contains a highly conserved NADH-binding site and is localized to the matrix side of the inner membrane. Defects in the gene encoding NDUFV1 can cause complex 1 deficiency in humans, which can lead to Leigh syndrome (LS), a severe neurological disorder characterized by lesions in the subcortical brain region.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: NDUFV1 (human) mapping to 11q13.2.

SOURCE
NDUFV1 (14.8) is a mouse monoclonal antibody raised against recombinant NDUFV1 of human origin.

DATA
Molecular Weight of NDUFV1: 51 kDa.
Positive Controls: A-431 whole cell lysate: sc-2201 or human liver extract: sc-363766.

APPLICATIONS
NDUFV1 (14.8) is recommended for detection of NDUFV1 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGø BP-HRP: sc-516102 or m-IgGø BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-61214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

SELECT PRODUCT CITATIONS

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.