

# NDUFAF3 (Q-15): sc-99317

## BACKGROUND

NDUFAF3 (NADH dehydrogenase [ubiquinone] 1  $\alpha$  subcomplex assembly factor 3), also known as 2P1 or E3-3, is a 184 amino acid protein that localizes to the nucleus and mitochondrial inner membrane. Existing as two alternatively spliced isoforms, NDUFAF3 is important in the assembly of the mitochondrial NADH:ubiquinone oxidoreductase complex (complex I). The gene encoding NDUFAF3 maps to human chromosome 3p21.31. Defects in the gene are the cause of mitochondrial complex I deficiency (MT-C1D), a mitochondrial respiratory chain disorder that can be lethal in neonates and may lead to neurodegenerative disorders in adults. Chromosome 3 houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

## REFERENCES

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- Muzny, D.M., et al. 2006. The DNA sequence, annotation and analysis of human chromosome 3. *Nature* 440: 1194-1198.
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## CHROMOSOMAL LOCATION

Genetic locus: NDUFAF3 (human) mapping to 3p21.31; Ndufaf3 (mouse) mapping to 9 F2.

## SOURCE

NDUFAF3 (Q-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NDUFAF3 of human origin.

## STORAGE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99317 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

NDUFAF3 (Q-15) is recommended for detection of NDUFAF3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

NDUFAF3 (Q-15) is also recommended for detection of NDUFAF3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NDUFAF3 siRNA (h): sc-77956, NDUFAF3 siRNA (m): sc-108962, NDUFAF3 shRNA Plasmid (h): sc-77956-SH, NDUFAF3 shRNA Plasmid (m): sc-108962-SH, NDUFAF3 shRNA (h) Lentiviral Particles: sc-77956-V and NDUFAF3 shRNA (m) Lentiviral Particles: sc-108962-V.

Molecular Weight of NDUFAF3 isoforms: 20/14 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.