

# NDUFAB1 (M-12): sc-109333

## BACKGROUND

NDUFAB1 (NADH dehydrogenase (ubiquinone) 1,  $\alpha/\beta$  subcomplex, 1), also known as SDAP, ACP (acyl carrier protein) or FASN2A, is one of about 45 subunits comprising complex I of the oxidative phosphorylation electron transport chain. Consisting of 156 amino acids and localizing to mitochondria, NDUFAB1 functions as an accessory subunit of the multi-protein mitochondrial membrane respiratory chain NADH dehydrogenase complex (known as 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. NDUFAB1 contains one acyl carrier domain and is encoded by a gene that maps to human chromosome 16p12.2 and mouse chromosome 7 F3.

## REFERENCES

- Runswick, M.J., et al. 1991. Presence of an acyl carrier protein in NADH:ubiquinone oxidoreductase from bovine heart mitochondria. *FEBS Lett.* 286: 121-124.
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- Emahazion, T., et al. 1998. Intron based radiation hybrid mapping of 15 complex I genes of the human electron transport chain. *Cytogenet. Cell Genet.* 82: 115-119.
- Smeitink, J. and van den Heuvel, L. 1999. Human mitochondrial complex I in health and disease. *Am. J. Hum. Genet.* 64: 1505-1510.
- Triepels, R., et al. 1999. The human nuclear-encoded acyl carrier subunit (NDUFAB1) of the mitochondrial complex I in human pathology. *J. Inher. Metab. Dis.* 22: 163-173.
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- Zhang, X., et al. 2008. Identification of a subunit of NADH-dehydrogenase as a p49/STRAP-binding protein. *BMC Cell Biol.* 9: 8.

## CHROMOSOMAL LOCATION

Genetic locus: *Ndufab1* (mouse) mapping to 7 F3.

## SOURCE

NDUFAB1 (M-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NDUFAB1 of mouse origin.

## STORAGE

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

## PROTOCOLS

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

## 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-109333 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

NDUFAB1 (M-12) is recommended for detection of NDUFAB1 of mouse and rat 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).

NDUFAB1 (M-12) is also recommended for detection of NDUFAB1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NDUFAB1 siRNA (m): sc-149876, NDUFAB1 shRNA Plasmid (m): sc-149876-SH and NDUFAB1 shRNA (m) Lentiviral Particles: sc-149876-V.

Molecular Weight of NDUFAB1: 17 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.