

# MCART1/2 (N-19): sc-85048

## BACKGROUND

Mitochondria are the primary generators of ATP, which is the cellular chemical source of energy. Defects in the mitochondria mainly manifest as neurological disorders, such as Leber's hereditary optic neuropathy, Kearns-Sayre syndrome and mitochondrial encephalopathy lactic acidosis (MELA). Mitochondria are composed of regions that carry out specialized functions and are as follows: outer membrane, inner membrane space, inner membrane, cristae and matrix. Inner membrane mitochondrial proteins are responsible for the transport of metabolites across the mitochondrial membrane and therefore maintain optimal concentrations of solutes within the organelle. MCARTs (mitochondrial carrier triple repeat protein) are mitochondrial multipass inner membrane proteins that contain three solcar repeats, which are typical of substrate carrier proteins involved in energy transfer.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: SLC25A51 (human) mapping to 9p13.2, SLC25A52 (human) mapping to 18q12.1.

## SOURCE

MCART1/2 (N-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of MCART2 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 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85048 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MCART1/2 (N-19) is recommended for detection of MCART1 and MCART2 of 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).

MCART1/2 (N-19) is also recommended for detection of MCART1 and MCART2 in additional species, including canine.

Molecular Weight of MCART1/2: 33 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.