

# MFT (N-16): sc-98009

## BACKGROUND

Folate is an essential vitamin that must be obtained from food intake through intestinal absorption in mammals. Folate and reduced folic acid derivatives bind to the folate receptor (FR) family, which mediates the endocytosis of 5-methyltetrahydrofolate into the cell. MFT (mitochondrial folate transporter/carrier), also known as Solute carrier family 25 member 32 (SLC25A32), is a 315 amino acid multi-pass membrane protein that regulates the influx of folate into the mitochondria. MFT also functions to complement glycine auxotrophy. Mutations in the gene encoding MFT may be involved in certain cases of multiple acyl-CoA dehydrogenase deficiency (MADD), in which there is no mutation in EFTA or EFTB genes. MADD is a autosomal recessively inherited disorder in which fatty acid, amino acid and choline metabolism is disrupted, leading to a clinical manifestation of hypoglycemia, hypotonia, hepatomegaly, metabolic acidosis and dysplastic kidneys.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: SLC25A32 (human) mapping to 8q22.3; Slc25a32 (mouse) mapping to 15 B3.1.

## SOURCE

MFT (N-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of MFT of human origin.

## 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-98009 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MFT (N-16) is recommended for detection of MFT 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).

MFT (N-16) is also recommended for detection of MFT in additional species, including equine.

Suitable for use as control antibody for MFT siRNA (h): sc-77512, MFT siRNA (m): sc-149413, MFT shRNA Plasmid (h): sc-77512-SH, MFT shRNA Plasmid (m): sc-149413-SH, MFT shRNA (h) Lentiviral Particles: sc-77512-V and MFT shRNA (m) Lentiviral Particles: sc-149413-V.

Molecular Weight of MFT: 35 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

## 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.

## 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.

## PROTOCOLS

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