

ME1 (C-14): sc-168571

BACKGROUND

ME1 (malic enzyme 1), also known as NADP-ME, MES or HUMNDME, is a 572 amino acid cytoplasmic protein that belongs to the malic enzyme family. Expressed ubiquitously with highest expression in liver and white adipose tissue, ME1 functions as an NADP-dependent enzyme that catalyzes the conversion of S-Malate and NADP to pyruvate, carbon dioxide and NADPH (a reducing agent that participates in fatty acid biosynthesis). Through its ability to catalyze the reversible oxidative decarboxylation of malate, ME1 links the citric acid and glycolytic cycles. ME1 exists as a homotetramer that uses divalent metal cations, such as magnesium or manganese, as cofactors. The expression of ME1 is regulated by both thyroid hormone levels and the amount of carbohydrates in the diet, indicating that ME1 may play an important role as a housekeeping protein within the cell.

CHROMOSOMAL LOCATION

Genetic locus: ME1 (human) mapping to 6q14.2; Me1 (mouse) mapping to 9 E3.1.

SOURCE

ME1 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ME1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-168571 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ME1 (C-14) is recommended for detection of ME1 of mouse, rat and 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)], 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); non cross-reactive with ME3.

ME1 (C-14) is also recommended for detection of ME1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ME1 siRNA (h): sc-95470, ME1 siRNA (m): sc-149342, ME1 shRNA Plasmid (h): sc-95470-SH, ME1 shRNA Plasmid (m): sc-149342-SH, ME1 shRNA (h) Lentiviral Particles: sc-95470-V and ME1 shRNA (m) Lentiviral Particles: sc-149342-V.

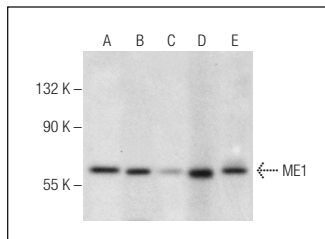
Molecular Weight of ME1: 64 kDa.

Positive Controls: human stomach extract: sc-3637807, HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



ME1 (C-14): sc-168571. Western blot analysis of ME1 expression in HeLa (A) and MCF7 (B) whole cell lysates and human adipose (C), mouse liver (D) and human stomach (E) tissue extracts.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **ME1 (C-6): sc-365891** or **ME1 (99.1): sc-100569**, our highly recommended monoclonal alternatives to ME1 (C-14).