SANTA CRUZ BIOTECHNOLOGY, INC.

ME3 (C-14): sc-168574

BACKGROUND

ME3 (malic enzyme 3), also known as NADP-ME (NADP-dependent malic enzyme, mitochondrial), is a 604 amino acid protein of the mitochondrial matrix that catalyzes the conversion of (S)-malate and $NADP^+$ to pyruvate, carbon dioxide and NADPH. A member of the malic enzymes family, ME3 utilizes manganese and magnesium as cofactors and is expressed in tissues that divide at a low rate. The gene encoding ME3 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ME3 (human) mapping to 11q14.2; Me3 (mouse) mapping to 7 E1.

SOURCE

ME3 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ME3 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-168574 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ME3 (C-14) is recommended for detection of ME3 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).

ME3 (C-14) is also recommended for detection of ME3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ME3 siRNA (h): sc-96553, ME3 siRNA (m): sc-149344, ME3 shRNA Plasmid (h): sc-96553-SH, ME3 shRNA Plasmid (m): sc-149344-SH, ME3 shRNA (h) Lentiviral Particles: sc-96553-V and ME3 shRNA (m) Lentiviral Particles: sc-149344-V.

Molecular Weight of ME3: 67 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.

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 or our catalog for detailed protocols and support products.