

# MCCB (N-18): sc-50740



The Power to Question

## BACKGROUND

Methylcrotonyl-CoA carboxylase beta chain, or MCCB, is the non-biotin containing subunit of the MCC enzyme. The deduced 563-amino acid polypeptide contains an N-terminal mitochondrial targeting sequence. MCCB is a putative dodecamer composed of six biotin-containing  $\alpha$  subunits and six  $\beta$  subunits. MCCB plays a role in leucine catabolism, and catalyzes the conversion of 3-methylcrotonyl-CoA to 3-methylglutaconyl-CoA, using ATP as an energy source. Defects in the MCCC2 gene which encodes MCCB causes 3-methylcrotonylglycinuria type II (MCGII), a recessive disease characterized by muscular hypotonia and atrophy, probably of spinal origin. The MCCC2 gene maps to chromosome 5q13.2.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: MCCC2 (human) mapping to 5q13.2; Mccc2 (mouse) mapping to 13 D1.

## SOURCE

MCCB (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MCCB of human origin.

## 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-50740 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MCCB (N-18) is recommended for detection of MCCB 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).

MCCB (N-18) is also recommended for detection of MCCB in additional species, including canine and porcine.

Suitable for use as control antibody for MCCB siRNA (h): sc-60998, MCCB siRNA (m): sc-60999, MCCB shRNA Plasmid (h): sc-60998-SH, MCCB shRNA Plasmid (m): sc-60999-SH, MCCB shRNA (h) Lentiviral Particles: sc-60998-V and MCCB shRNA (m) Lentiviral Particles: sc-60999-V.

Molecular Weight of MCCB: 61 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](http://www.scbt.com) or our catalog for detailed protocols and support products.