

# CROT (V-15): sc-162717

## BACKGROUND

CROT (carnitine O-octanoyltransferase), also called COT (carnitine octanoyltransferase), is a member of the carnitine/choline acetyltransferase protein family, which also includes CAT, CPTI, CPTI-M and CPTII. Carnitine/choline acetyltransferase family members are essential for the  $\beta$ -oxidation of fatty acids. CROT localizes to peroxisomes and is highly expressed in liver, kidney and proximal intestinal epithelium. CROT plays a role in lipid metabolism, catalyzing the reversible conversion of acyl-CoAs to their corresponding carnitine esters—a crucial step in facilitating the transport of fatty acids out of peroxisomes to mitochondria, where they can be further degraded. With a preference for straight and branched medium-chain acyl-CoAs (C6-C10 chain length), CROT plays an important role in energy metabolism in eukaryotes. In addition, CROT activity can be inhibited by malonyl-CoA.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: CROT (human) mapping to 7q21.12; Crot (mouse) mapping to 5 A1.

## RESEARCH USE

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

## SOURCE

CROT (V-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CROT 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-162717 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CROT (V-15) is recommended for detection of CROT 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).

CROT (V-15) is also recommended for detection of CROT in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CROT siRNA (h): sc-89588, CROT siRNA (m): sc-142579, CROT shRNA Plasmid (h): sc-89588-SH, CROT shRNA Plasmid (m): sc-142579-SH, CROT shRNA (h) Lentiviral Particles: sc-89588-V and CROT shRNA (m) Lentiviral Particles: sc-142579-V.

Molecular Weight of CROT: 70 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## 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.

## PROTOCOLS

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