

# PPC-DC (T-12): sc-132045

## BACKGROUND

Phosphopantothencysteine decarboxylase (PPC-DC) is a 204 amino acid protein that plays a role in the biosynthesis of coenzyme A (CoA) from pantothenate (vitamin B). CoA is an essential cofactor in all living organisms and is involved in several key biochemical pathways, including the tricarboxylic acid cycle and fatty acid metabolism. Altered CoA levels are associated with aberrant mitosis and meiosis in flies and the neurodegenerative hallervorden-spatz syndrome in humans. The biosynthesis of CoA from pantothenate requires several steps: the phosphorylation of pantothenate, the conversion of 4'-phosphopantothenate to 4'-phosphopantetheine, the adenylation by phosphopantetheine adenylyltransferase to form dephospho-CoA and the phosphorylation by dephospho-CoA kinase to form CoA. PPC-DC plays a direct role in this pathway by converting 4'-phosphopantothenate into 4'-phosphopantetheine. Potentially forming a homotrimer, PPC-DC has two named isoforms produced by alternative splicing.

## REFERENCES

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## RESEARCH USE

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

## CHROMOSOMAL LOCATION

Genetic locus: PPCDC (human) mapping to 15q24.2; Ppcdc (mouse) mapping to 9 B.

## SOURCE

PPC-DC (T-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PPC-DC 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-132045 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PPC-DC (T-12) is recommended for detection of PPC-DC isoforms 1 and 2 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).

PPC-DC (T-12) is also recommended for detection of PPC-DC isoforms 1 and 2 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for PPC-DC siRNA (h): sc-90137, PPC-DC siRNA (m): sc-152407, PPC-DC shRNA Plasmid (h): sc-90137-SH, PPC-DC shRNA Plasmid (m): sc-152407-SH, PPC-DC shRNA (h) Lentiviral Particles: sc-90137-V and PPC-DC shRNA (m) Lentiviral Particles: sc-152407-V.

Molecular Weight of PPC-DC: 22 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 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.