

DCAKD (K-14): sc-164155

BACKGROUND

Coenzyme A (CoA) is an essential cofactor used in numerous biochemical pathways. It plays a critical role in the synthesis and oxidation of fatty acids and is vital to the citric acid cycle. The biosynthesis pathway of CoA from pantothenic acid (also known as vitamin B5) is essential and universal in prokaryotes and eukaryotes. In humans, the final steps of the biosynthesis pathway are carried out by the bifunctional enzyme COASY. The sequence of these enzymes are highly conserved between different bacterial species. The phosphopantetheine adenylyltransferase and dephospho-coenzyme A kinase activities of COASY are evolutionarily conserved activities. DCAKD (dephospho-CoA kinase domain containing protein) is a 231 amino acid protein that consists of a dephospho-CoA kinase domain and an ATP nucleotide binding motif. Localizing to mitochondria and the cytosol, DCAKD belongs to the coaE family which suggests that it may play a role in the biosynthesis of CoA.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DCAKD (human) mapping to 17q21.31; Dcakd (mouse) mapping to 11 E1.

SOURCE

DCAKD (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DCAKD of human origin.

STORAGE

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

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-164155 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DCAKD (K-14) is recommended for detection of DCAKD 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).

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

Suitable for use as control antibody for DCAKD siRNA (h): sc-93599, DCAKD siRNA (m): sc-142889, DCAKD shRNA Plasmid (h): sc-93599-SH, DCAKD shRNA Plasmid (m): sc-142889-SH, DCAKD shRNA (h) Lentiviral Particles: sc-93599-V and DCAKD shRNA (m) Lentiviral Particles: sc-142889-V.

Molecular Weight of DCAKD: 27 kDa.

Positive Controls: 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) 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.

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.