SANTA CRUZ BIOTECHNOLOGY, INC.

BCKDK (T-15): sc-163735

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

BCKDK (branched chain ketoacid dehydrogenase kinase), also known as BCKDHKIN, is a 412 amino acid mitochondrial matrix protein that exists as a monomer and contains one histidine kinase domain. Expressed ubiquitously, BCKDK catalyzes the ATP-dependent phosphorylation and subsequent inactivation of the branched-chain α-ketoacid dehydrogenase (BCKD) complex, a regulatory enzyme complex that plays a crucial role in the catabolic pathways of valine, leucine and isoleucine. Specifically, the BCKD complex functions as the second enzyme in branched-chain amino acid (BCAA) catabolism, effectively catalyzing the irreversible oxidative decarboxylation of BCAAs. Due to the ability of BCKDK to regulate the activity of the BCKD complex, BCKDK plays an essential role in the catabolic pathways of branched-chain amino acid metabolism.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: BCKDK (human) mapping to 16p11.2; Bckdk (mouse) mapping to 7 F3.

SOURCE

BCKDK (T-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of BCKDK 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-163735 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BCKDK (T-15) is recommended for detection of BCKDK 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).

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

Suitable for use as control antibody for BCKDK siRNA (h): sc-93313, BCKDK siRNA (m): sc-141669, BCKDK shRNA Plasmid (h): sc-93313-SH, BCKDK shRNA Plasmid (m): sc-141669-SH, BCKDK shRNA (h) Lentiviral Particles: sc-93313-V and BCKDK shRNA (m) Lentiviral Particles: sc-141669-V.

Molecular Weight of BCKDK: 46 kDa.

Positive Controls: human fetal brain tissue extract.

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.