SANTA CRUZ BIOTECHNOLOGY, INC.

BDH1 (C-14): sc-99280

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

BDH1 (3-hydroxybutyrate dehydrogenase, type 1), also known as BDH or SDR9C1, is a 343 amino acid protein that localizes to the mitochondrial matrix and belongs to the short-chain dehydrogenases/reductases (SDR) family. Existing as a homotetramer, BDH1 functions to catalyze the NAD^+-dependent interconversion of R-3-hydroxybutanoate and acetoacetate, a reaction that is allosterically activated by phosphatidylcholine. As both R-3-hydroxybutanoate and acetoacetate are two major ketone bodies produced during fatty acid catabolism, BDH1 plays an important role in the metabolic degradation of fatty acids. The gene encoding BDH1 maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

CHROMOSOMAL LOCATION

Genetic locus: BDH1 (human) mapping to 3q29; Bdh1 (mouse) mapping to 16 B2.

SOURCE

BDH1 (C-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of BDH1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99280 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

BDH1 (C-14) is recommended for detection of BDH1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

BDH1 (C-14) is also recommended for detection of BDH1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for BDH1 siRNA (h): sc-78262, BDH1 siRNA (m): sc-141681, BDH1 shRNA Plasmid (h): sc-78262-SH, BDH1 shRNA Plasmid (m): sc-141681-SH, BDH1 shRNA (h) Lentiviral Particles: sc-78262-V and BDH1 shRNA (m) Lentiviral Particles: sc-141681-V.

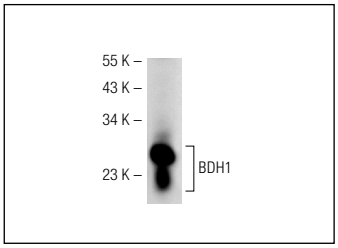
Molecular Weight of BDH1: 38/33 kDa.

Positive Controls: mouse heart extract: sc-2254 or RAW 264.7 whole cell lysate: sc-2211.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



BDH1 (C-14): sc-99280. Western blot analysis of BDH1 expression in mouse heart tissue extract.

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.