

HADHB (S-16): sc-55661

BACKGROUND

HADHB (trifunctional enzyme subunit β (mitochondrial), acetyl-CoA acyl-transferase) is a 474 amino acid protein encoded by the human gene HADHB. HADHB belongs to the thiolase family, which are ubiquitous enzymes that catalyze the reversible thiolytic cleavage of 3-ketoacyl-CoA into acyl-CoA and acetyl-CoA, a two-step reaction involving a covalent intermediate formed with a catalytic cysteine. HADHB is found in the mitochondrion as an octamer of four α (HADHA) and four β (HADHB) subunits. Defects in HADHB are a cause of trifunctional protein deficiency (TFP deficiency). The clinical manifestations are variable and include hypoglycemia, cardiomyopathy and sudden death. Phenotypes with mainly hepatic and neuromyopathic involvement can also be distinguished. Biochemically, TFP deficiency is defined by the loss of all three enzyme activities of the TFP complex.

CHROMOSOMAL LOCATION

Genetic locus: HADHB (human) mapping to 2p23.3; Hadhb (mouse) mapping to 5 B1.

SOURCE

HADHB (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HADHB of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55661 P, (100 μ g 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

HADHB (S-16) is recommended for detection of HADHB of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

HADHB (S-16) is also recommended for detection of HADHB in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for HADHB siRNA (h): sc-62435, HADHB siRNA (m): sc-62436, HADHB shRNA Plasmid (h): sc-62435-SH, HADHB shRNA Plasmid (m): sc-62436-SH, HADHB shRNA (h) Lentiviral Particles: sc-62435-V and HADHB shRNA (m) Lentiviral Particles: sc-62436-V.

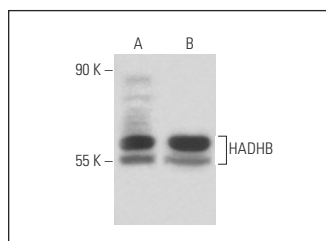
Molecular Weight of HADHB: 52 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or K-562 whole cell lysate: sc-2203.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



HADHB (S-16): sc-55661. Western blot analysis of HADHB expression in Jurkat (A) and Hep G2 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Schwab, K., et al. 2011. Dietary phytoestrogen supplementation induces sex differences in the myocardial protein pattern of mice: a comparative proteomics study. *Proteomics* 11: 3887-3904.
- Zhou, Z., et al. 2012. Estrogen receptor β interacts and colocalizes with HADHB in mitochondria. *Biochem. Biophys. Res. Commun.* 427: 305-308.
- Kao, Y.T., et al. 2015. Japanese encephalitis virus nonstructural protein NS5 interacts with mitochondrial trifunctional protein and impairs fatty acid β -oxidation. *PLoS Pathog.* 11: e1004750.

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.



Try **HADHB (E-1): sc-271495** or **HADHB (C-6): sc-271496**, our highly recommended monoclonal alternatives to HADHB (S-16).