SANTA CRUZ BIOTECHNOLOGY, INC.

EHHADH (K-16): sc-99388

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

Peroxisomes play an important role in the oxidation of fatty acids via β-oxidation, which is carried out by two distinct pathways; the L-hydroxy-specific classical β-oxidation for very long straight-chain fatty acids and the D-hydroxy-specific β-oxidation for branched-chain fatty acids. A defect in either pathway can result in elevated serum levels of fatty-acids, leading to severe mental retardation and early death. As an L-hydroxy-specific enzyme, EHHADH (enoyl-CoA-hydratase:3-hydroxyacyl-CoA dehydrogenase), also known as Peroxisomal L-bifunctional enzyme, is a 723 amino acid protein has an essential tripeptide sequence on its carboxyl-terminus that is required for peroxisomal transport. EHHADH-null mice only exhibit a blunted peroxisome proliferative response when challenged with a peroxisome proliferator. Since there were no observed changes in lipid metabolism, this evidence suggests that enoyl-CoAs were diverted to the D-hydroxy-specific β-oxidation system for metabolism.

REFERENCES

1. Chen, G.L., eta l. 1991. Import of human bifunctional enzyme into peroxisomes of human hepatoma cells *in vitro*. Biochem. Biophys. Res. Commun. 178: 1084-1091.
2. Hoefler, G., et al. 1994. cDNA cloning of the human peroxisomal enoyl-CoA hydratase: 3-hydroxyacyl-CoA dehydrogenase bifunctional enzyme and localization to chromosome 3q26.3-3q28: a free left Alu Arm is inserted in the 3' noncoding region. Genomics 19: 60-67.
3. Qi, C., et al. 1999. Absence of spontaneous peroxisome proliferation in enoyl-CoA Hydratase/L-3-hydroxyacyl-CoA dehydrogenase-deficient mouse liver. Further support for the role of fatty acyl CoA oxidase in PPARα ligand metabolism. J. Biol. Chem. 274: 15775-15780.

CHROMOSOMAL LOCATION

Genetic locus: EHHADH (human) mapping to 3q27.2; Ehhadh (mouse) mapping to 16 B1.

SOURCE

EHHADH (K-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of EHHADH 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-99388 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

EHHADH (K-16) is recommended for detection of EHHADH 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

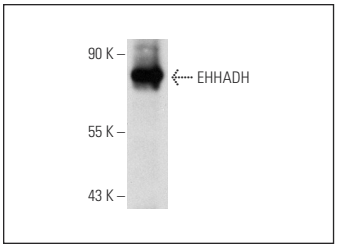
EHHADH (K-16) is also recommended for detection of EHHADH in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for EHHADH siRNA (h): sc-78261, EHHADH siRNA (m): sc-144604, EHHADH shRNA Plasmid (h): sc-78261-SH, EHHADH shRNA Plasmid (m): sc-144604-SH, EHHADH shRNA (h) Lentiviral Particles: sc-78261-V and EHHADH shRNA (m) Lentiviral Particles: sc-144604-V.

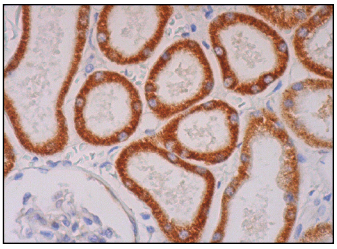
Molecular Weight of EHHADH: 79 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Caki-1 cell lysate: sc-2224 or mouse kidney extract: sc-2255.

DATA



EHHADH (K-16): sc-99388. Western blot analysis of EHHADH expression in mouse kidney tissue extract.



EHHADH (K-16): sc-99388. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.

RESEARCH USE

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