

EHHADH (C-15): sc-99386

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

- Chen, G.L., et al. 1991. Import of human bifunctional enzyme into peroxisomes of human hepatoma cells *in vitro*. *Biochem. Biophys. Res. Commun.* 178: 1084-1091.
- 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.
- 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 PPAR α ligand metabolism. *J. Biol. Chem.* 274: 15775-15780.
- DeWan, A.T., et al. 2001. A genome scan for renal function among hypertensives: the HyperGEN study. *Am. J. Hum. Genet.* 68: 136-144.

CHROMOSOMAL LOCATION

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

SOURCE

EHHADH (C-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of EHHADH of human origin.

PRODUCT

Each vial contains 100 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-99386 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

EHHADH (C-15) 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 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).

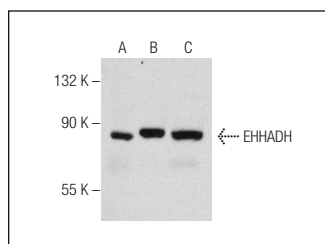
EHHADH (C-15) is also recommended for detection of EHHADH in additional species, including equine, canine and bovine.

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.

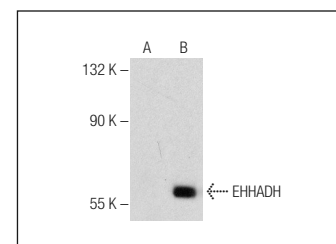
Molecular Weight of EHHADH: 79 kDa.

Positive Controls: EHHADH (m): 293T Lysate: sc-119960, human kidney extract: sc-363764 or mouse kidney extract: sc-2255.

DATA



EHHADH (C-15): sc-99386. Western blot analysis of EHHADH expression in mouse kidney (A), human liver (B) and human kidney (C) tissue extracts.



EHHADH (C-15): sc-99386. Western blot analysis of EHHADH expression in non-transfected: sc-117752 (A) and mouse EHHADH transfected: sc-119960 (B) 293T whole cell lysates.

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 **EHHADH (D-2): sc-393123**, our highly recommended monoclonal alternative to EHHADH (C-15).