

ACAD-10 (G-17): sc-161304

BACKGROUND

The Acyl-CoA dehydrogenase (ACAD) family of enzymes are involved in the catabolism of fatty acids and amino acids. They provide a major source of energy for the heart and skeletal muscle. ACAD-10 (acyl-Coenzyme A dehydrogenase family member 10) is a 1,059 amino acid member of the ACAD family that is expressed as 4 alternatively spliced isoforms and is widely expressed with highest expression in liver, kidney, pancreas and spleen. The gene encoding ACAD-10 maps to chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

REFERENCES

- Allen, T.L., Brothman, A.R., Carey, J.C. and Chance, P.F. 1996. Cytogenetic and molecular analysis in trisomy 12p. *Am. J. Med. Genet.* 63: 250-256.
- Roe, C.R., Cederbaum, S.D., Roe, D.S., Mardach, R., Galindo, A. and Sweetman, L. 1998. Isolated isobutyryl-CoA dehydrogenase deficiency: an unrecognized defect in human valine metabolism. *Mol. Genet. Metab.* 65: 264-271.
- Gilbert, F. and Kauff, N. 2000. Disease genes and chromosomes: disease maps of the human genome. *Chromosome 12. Genet. Test.* 4: 319-333.
- Montgomery, K.T., Lee, E., Miller, A., Lau, S., Shim, C., Decker, J., Chiu, D., Emerling, S., Sekhon, M., Kim, R., Lenz, J., Han, J., Ioshikhes, I., Renault, B., Marondel, I., Yoon, S.J., Song, K., Murty, V.V., Scherer, S., et al. 2001. A high-resolution map of human chromosome 12. *Nature* 409: 945-946.
- Battaille, K.P., Nguyen, T.V., Vockley, J. and Kim, J.J. 2004. Structures of isobutyryl-CoA dehydrogenase and enzyme-product complex: comparison with isovaleryl- and short-chain acyl-CoA dehydrogenases. *J. Biol. Chem.* 279: 16526-16534.

CHROMOSOMAL LOCATION

Genetic locus: ACAD10 (human) mapping to 12q24.12; Acad10 (mouse) mapping to 5 F.

SOURCE

ACAD-10 (G-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ACAD-10 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-161304 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

ACAD-10 (G-17) is recommended for detection of ACAD-10 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).

Suitable for use as control antibody for ACAD-10 siRNA (h): sc-95938, ACAD-10 siRNA (m): sc-140790, ACAD-10 shRNA Plasmid (h): sc-95938-SH, ACAD-10 shRNA Plasmid (m): sc-140790-SH, ACAD-10 shRNA (h) Lentiviral Particles: sc-95938-V and ACAD-10 shRNA (m) Lentiviral Particles: sc-140790-V.

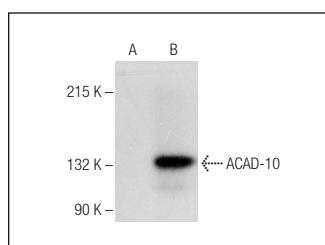
Molecular Weight of ACAD-10: 119/100/56/32 kDa.

Positive Controls: human ACAD-10 transfected HEK293T whole cell lysate.

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



ACAD-10 (G-17): sc-161304. Western blot analysis of ACAD-10 expression in non-transfected (A) and human ACAD-10 transfected (B) HEK293T whole cell lysates.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **ACAD-10 (F-11): sc-393248**, our highly recommended monoclonal alternative to ACAD-10 (G-17).