SANTA CRUZ BIOTECHNOLOGY, INC.

AADACL1 (T-14): sc-99749

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The assembly of very-low-density lipoproteins (VLDLs) in the secretory apparatus of the hepatocyte relies on the mobilization of triacylglycerol (TAG) from the cytosolic pool by lipolysis and re-esterification. However, some of the re-esterified TAG products are returned to the cytosolic pool in the liver, which protects vulnerable body tissues from excess lipotoxic non-esterified fatty acids in the plasma. Some of the lipases involved in this process include arylacetamide deacetylase (AADAC) and its related proteins AADACL1 and AADACL2. AADAC, a single pass type II membrane protein of the endoplasmic reticulum, is expressed in hepatocytes, intestinal mucosal cells, pancreas and adrenal gland. It plays an important role in the metabolic activation of arylamine substrates to ultimate carcinogens. AADACL1 hydrolyzes the metabolic intermediate 2-acetyl monoalkylglycerol, and its inactivation results in disruption of ether lipid metabolism in cancer cells and impaired cell migration and tumor growth.

REFERENCES

1. Probst, M.R., et al. 1991. Purification and characterization of a human liver arylacetamide deacetylase. Biochem. Biophys. Res. Commun. 177: 453-459.
2. Probst, M.R., et al. 1994. Human liver arylacetamide deacetylase. Molecular cloning of a novel esterase involved in the metabolic activation of arylamine carcinogens with high sequence similarity to hormone-sensitive lipase. J. Biol. Chem. 269: 21650-21656.
3. Yamazaki, K., et al. 1997. Radiation hybrid mapping of human arylacetamide deacetylase (AADAC) locus to chromosome 3. Genomics 44: 248-250.

CHROMOSOMAL LOCATION

Genetic locus: NCEH1 (human) mapping to 3q26.31; Nceh1 (mouse) mapping to 3 A3.

SOURCE

AADACL1 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AADACL1 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-99749 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

AADACL1 (T-14) is recommended for detection of AADACL1 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).

AADACL1 (T-14) is also recommended for detection of AADACL1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for AADACL1 siRNA (h): sc-78428, AADACL1 siRNA (m): sc-140728, AADACL1 shRNA Plasmid (h): sc-78428-SH, AADACL1 shRNA Plasmid (m): sc-140728-SH, AADACL1 shRNA (h) Lentiviral Particles: sc-78428-V and AADACL1 shRNA (m) Lentiviral Particles: sc-140728-V.

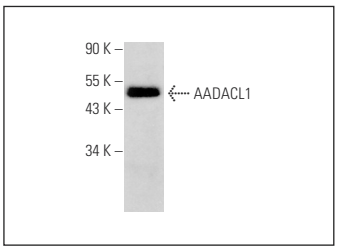
Molecular Weight of AADACL1: 46 kDa.

Positive Controls: mouse kidney extract: sc-2255.

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



AADACL1 (T-14): sc-99749. Western blot analysis of AADACL1 expression in mouse kidney tissue extract.

RESEARCH USE

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