

ACAD-11 (B-12): sc-514027

BACKGROUND

The Acyl-CoA dehydrogenase (ACAD) family of enzymes are involved in the catabolism of fatty acids and amino acids and they provide a major source of energy for the heart and skeletal muscle. ACAD-11 (acyl-Coenzyme A dehydrogenase family member 11) is a 780 amino acid member of the ACAD family that is expressed as three alternatively spliced isoforms and is encoded by a gene that maps to chromosome 3. Chromosome 3 is made up of about 214 million bases encoding over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Key tumor suppressing genes on chromosome 3 include those that encode the apoptosis mediator RASSF1, the cell migration regulator HYAL1 and the angiogenesis suppressor SEMA3B. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

REFERENCES

- Müller, S., et al. 2000. Molecular cytogenetic dissection of human chromosomes 3 and 21 evolution. *Proc. Natl. Acad. Sci. USA* 97: 206-211.
- Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. *Mol. Biol.* 37: 194-211.

CHROMOSOMAL LOCATION

Genetic locus: ACAD11 (human) mapping to 3q22.1; Acad11 (mouse) mapping to 9 F1.

SOURCE

ACAD-11 (B-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 120-140 within an internal region of ACAD-11 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ACAD-11 (B-12) is available conjugated to agarose (sc-514027 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514027 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514027 PE), fluorescein (sc-514027 FITC), Alexa Fluor® 488 (sc-514027 AF488), Alexa Fluor® 546 (sc-514027 AF546), Alexa Fluor® 594 (sc-514027 AF594) or Alexa Fluor® 647 (sc-514027 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514027 AF680) or Alexa Fluor® 790 (sc-514027 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514027 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

ACAD-11 (B-12) is recommended for detection of ACAD-11 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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-11 siRNA (h): sc-78066, ACAD-11 siRNA (m): sc-140791, ACAD-11 shRNA Plasmid (h): sc-78066-SH, ACAD-11 shRNA Plasmid (m): sc-140791-SH, ACAD-11 shRNA (h) Lentiviral Particles: sc-78066-V and ACAD-11 shRNA (m) Lentiviral Particles: sc-140791-V.

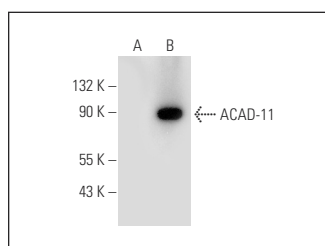
Molecular Weight of ACAD-11: 87 kDa.

Positive Controls: ACAD-11 (m): 293T Lysate: sc-118181 or human heart extract: sc-363763.

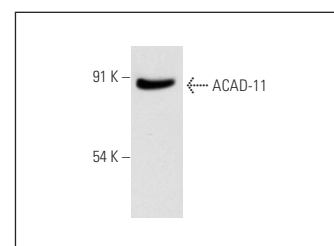
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ACAD-11 (B-12): sc-514027. Western blot analysis of ACAD-11 expression in non-transfected: sc-117752 (A) and mouse ACAD-11 transfected: sc-118181 (B) 293T whole cell lysates.



ACAD-11 (B-12): sc-514027. Western blot analysis of ACAD-11 expression in human heart tissue extract.

SELECT PRODUCT CITATIONS

- Neufeld-Cohen, A., et al. 2016. Circadian control of oscillations in mitochondrial rate-limiting enzymes and nutrient utilization by PERIOD proteins. *Proc. Natl. Acad. Sci. USA* 113: E1673-E1682.
- Schrader, T.A., et al. 2017. Detection and immunolabeling of peroxisomal proteins. *Methods Mol. Biol.* 1595: 113-130.

RESEARCH USE

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