

Rabbit SBCAD/ACADSB Polyclonal Antibody | anti-ACADSB antibody

Anti-SBCAD/ACADSB Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125802	Rabbit	Human, Mouse, Rat, Monkey	Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Western Blot

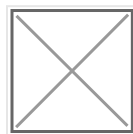
PRODUCT SYNONYMS

SBCAD/ACADSB; Polyclonal Antibody; Anti-SBCAD/ACADSB Antibody; ACADSB; Short/branched chain specific acyl-CoA dehydrogenase; mitochondrial; SBCAD; EC 1. 3. 8. 5; 2-methyl branched chain acyl-CoA dehydrogenase; 2-MEBCAD; 2-methylbutyryl-coenzyme A dehydrogenase; 2-methylbutyryl-CoA dehydrogenase; acyl-CoA dehydrogenase short/branched chain; anti-ACADSB antibody

PRODUCT SPECIFICATIONS

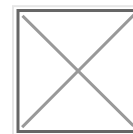
Host	Rabbit
Reactivity	Human, Mouse, Rat, Monkey
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for SBCAD/ACADSB detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Applicable Applications for anti-ACADSB antibody	FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Immunogen	A synthetic peptide corresponding to a sequence of human SBCAD/ACADSB (ASNIQLNTIAKHIDAEY).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



FCM/FACS (Flow Cytometry)

Figure 5. Flow Cytometry analysis of THP-1 cells using anti-SBCAD/ACADSB antibody (AAA125802). Overlay histogram showing THP-1 cells stained with AAA125802 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-SBCAD/ACADSB Antibody (AAA125802, 1μg/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



FCM/FACS (Flow Cytometry)

Figure 4. Flow Cytometry analysis of RH-35 cells using anti-SBCAD/ACADSB antibody (AAA125802). Overlay histogram showing RH-35 cells stained with AAA125802 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-SBCAD/ACADSB Antibody (AAA125802, 1μg/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



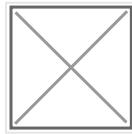
FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of RAW264. 7 cells using anti-SBCAD/ACADSB antibody (AAA125802). Overlay histogram showing RAW264. 7 cells stained with AAA125802 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-SBCAD/ACADSB Antibody (AAA125802, 1µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight[®]488 conjugated goat anti-rabbit IgG (5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IF (Immunofluorescence)

Figure 2. IF analysis of SBCAD/ACADSB using anti-SBCAD/ACADSB antibody (AAA125802). SBCAD/ACADSB was detected in immunocytochemical section of Mcf-7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5µg/mL rabbit anti-SBCAD/ACADSB Antibody (AAA125802) overnight at 4 degree C. DyLight[®]488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



WB (Western Blot)

Figure 1. Western blot analysis of SBCAD/ACADSB using anti-SBCAD/ACADSB antibody (AAA125802). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50µg of sample under reducing conditions. Lane 1: human A431 whole cell lysates Lane 2: human T47D whole cell lysates Lane 3: human A549 whole cell lysates Lane 4: monkey Cos-7 whole cell lysates Lane 5: rat liver tissue lysates Lane 6: mouse liver tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SBCAD/ACADSB antigen affinity purified polyclonal antibody (Catalog # AAA125802) at 0.5 µg/mL overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for SBCAD/ACADSB at approximately 40-44KD. The expected band size for SBCAD/ACADSB is at 47KD.

ADDITIONAL INFORMATION

Related Product Information for anti-ACADSB antibody	ACADSB is a human gene that encodes short/branched chain specific acyl-CoA dehydrogenase (SBCAD), an enzyme in the acyl CoA dehydrogenase family. Short/branched chain acyl-CoA dehydrogenase (ACADSB) is a member of the acyl-CoA dehydrogenase family of enzymes that catalyze the dehydrogenation of acyl-CoA derivatives in the metabolism of fatty acids or branch chained amino acids. Substrate specificity is the primary characteristic used to define members of this gene family. The ACADSB gene product has the greatest activity towards the short branched chain acyl-CoA derivative, (S)-2-methylbutyryl-CoA, but also reacts significantly with other 2-methyl branched chain substrates and with short straight chain acyl-CoAs. The cDNA encodes for a mitochondrial precursor protein which is cleaved upon mitochondrial import and predicted to yield a mature peptide of approximately 43.7-KDa.
References	1. Alfardan, J., Mohsen, A. -W., Copeland, S., Ellison, J., Keppen-Davis, L., Rohrbach, M., Powell, B. R., Gillis, J., Matern, D., Kant, J., Vockley, J. Characterization of new ACADSB gene sequence mutations and clinical implications in patients with 2-methylbutyrylglycinuria identified by newborn screening. <i>Molec. Genet. Metab.</i> 100: 333-338, 2010. 2. Andresen, B. S., Christensen, E., Corydon, T. J., Bross, P., Pilgaard, B., Wanders, R. J. A., Ruiter, J. P. N., Simonsen, H., Winter, V., Knudsen, I., Schroeder, L. D., Gregersen, N., Skovby, F. Isolated 2-methylbutyrylglycinuria caused by short/branched-chain acyl-CoA dehydrogenase deficiency: identification of a new enzyme defect, resolution of its molecular basis, and evidence for distinct acyl-CoA dehydrogenases in isoleucine and valine metabolism. <i>Am. J. Hum. Genet.</i> 67: 1095-1103, 2000. 3. Arden, K. C., Viars, C. S., Fu, K., Rozen, R. Localization of short/branched chain acyl-CoA dehydrogenase (ACADSB) to human chromosome 10. <i>Genomics</i> 25: 743-745, 1995.

NCBI AND UNIPROT INFORMATION

NCBI GI #	1168283
NCBI GeneID	36

UniProt Accession #	P45954 ; Q5SQN6 ; Q96CX7 ; B4DQ51
Molecular Weight	432
NCBI Official Full Name	Short/branched chain specific acyl-CoA dehydrogenase, mitochondrial
NCBI Official Synonym Full Names	acyl-CoA dehydrogenase, short/branched chain
NCBI Official Symbol	ACADSB
NCBI Official Synonym Symbols	ACAD7; SBCAD; 2-MEBCAD
NCBI Protein Information	short/branched chain specific acyl-CoA dehydrogenase, mitochondrial; 2-methylbutyryl-coenzyme A dehydrogenase; 2-methyl branched chain acyl-CoA dehydrogenase; acyl-Coenzyme A dehydrogenase, short/branched chain
UniProt Protein Name	Short/branched chain specific acyl-CoA dehydrogenase, mitochondrial
UniProt Gene Name	ACADSB
UniProt Synonym Gene Names	SBCAD; 2-MEBCAD; 2-methylbutyryl-CoA dehydrogenase
UniProt Entry Name	ACDSB_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/sbcad-acadsb-antibody-flow-cytometry-immunofluorescence-immunocytochemistry-western-blot-elisa/125802>