10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ACADVL Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP6597a

Specification

ACADVL Antibody (N-term) Blocking Peptide - Product Information

Primary Accession P49748

ACADVL Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 37

Other Names
Very long-chain specific acyl-CoA dehydrogenase, mitochondrial, VLCAD, ACADVL, VLCAD

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6597a was selected from the N-term region of human ACADVL. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ACADVL Antibody (N-term) Blocking Peptide - Protein Information

Name ACADVL (HGNC:92)

Function
Very long-chain specific acyl-CoA dehydrogenase is one of the acyl-CoA dehydrogenases that catalyze the first step of mitochondrial fatty acid beta-oxidation, an aerobic process breaking down fatty acids into acetyl-CoA and allowing the production of energy from fats (PubMed:7668252, PubMed:9461620, PubMed:18227065, PubMed:9839948, PubMed:9599005). The first step of fatty acid beta-oxidation consists in the removal of one hydrogen from C-2 and C-3 of the straight-chain fatty acyl-CoA thioester, resulting in the formation of trans-2-enoyl- CoA (PubMed:7668252, PubMed:9461620,

PubMed:18227065, PubMed:9839948). Among the different mitochondrial acyl-CoA dehydrogenases, very long- chain specific acyl-CoA dehydrogenase acts specifically on acyl-CoAs with saturated 12 to 24 carbons long primary chains (PubMed:21237683, PubMed:9839948).

Cellular Location
Mitochondrion inner membrane; Peripheral membrane protein

Tissue Location
Predominantly expressed in heart and skeletal muscle (at protein level). Also detected in kidney and liver (at protein level).

ACADVL Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

ACADVL Antibody (N-term) Blocking Peptide - Images

ACADVL Antibody (N-term) Blocking Peptide - Background

ACADVL is targeted to the inner mitochondrial membrane where it catalyzes the first step of the mitochondrial fatty acid beta-oxidation pathway. This acyl-Coenzyme A dehydrogenase is specific to long-chain and very-long-chain fatty acids. A deficiency in its gene product reduces myocardial fatty acid beta-oxidation and is associated with cardiomyopathy.

ACADVL Antibody (N-term) Blocking Peptide - References

Gobin-Limballe,S., Am. J. Hum. Genet. 81 (6), 1133-1143 (2007)Zia,A., J. Inherit. Metab. Dis. 30 (5), 817 (2007)