

SCD Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP5530b**Specification**

SCD Antibody (C-term) Blocking peptide - Product Information

Primary Accession [O00767](#)
Other Accession [NP_005054.3](#)

SCD Antibody (C-term) Blocking peptide - Additional Information

Gene ID 6319

Other Names

Acyl-CoA desaturase, Delta(9)-desaturase, Delta-9 desaturase, Fatty acid desaturase, Stearoyl-CoA desaturase, SCD

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.

SCD Antibody (C-term) Blocking peptide - Protein Information

Name SCD

Function

Stearoyl-CoA desaturase that utilizes O(2) and electrons from reduced cytochrome b5 to introduce the first double bond into saturated fatty acyl-CoA substrates (PubMed:15907797, PubMed:18765284). Catalyzes the insertion of a cis double bond at the delta-9 position into fatty acyl-CoA substrates including palmitoyl-CoA and stearoyl-CoA (PubMed:15907797, PubMed:18765284). Gives rise to a mixture of 16:1 and 18:1 unsaturated fatty acids (PubMed:15610069). Plays an important role in lipid biosynthesis. Plays an important role in regulating the expression of genes that are involved in lipogenesis and in regulating mitochondrial fatty acid oxidation (By similarity). Plays an important role in body energy homeostasis (By similarity). Contributes to the biosynthesis of membrane phospholipids, cholesterol esters and triglycerides (By similarity).

Cellular Location

Endoplasmic reticulum membrane; Multi-pass membrane protein

{ECO:0000269|PubMed:18765284, ECO:0000305}

Tissue Location

Detected in fetal liver, lung and brain. Highly expressed in adult adipose tissue, and at lower levels in adult brain and lung.

SCD Antibody (C-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

SCD Antibody (C-term) Blocking peptide - Images**SCD Antibody (C-term) Blocking peptide - Background**

Stearoyl-CoA desaturase (SCD; EC 1.14.99.5) is an iron-containing enzyme that catalyzes a rate-limiting step in the synthesis of unsaturated fatty acids. The principal product of SCD is oleic acid, which is formed by desaturation of stearic acid. The ratio of stearic acid to oleic acid has been implicated in the regulation of cell growth and differentiation through effects on cell membrane fluidity and signal transduction. Four SCD isoforms, Scd1 through Scd4, have been identified in mouse. In contrast, only 2 SCD isoforms, SCD1 and SCD5 (MIM 608370), have been identified in human. SCD1 shares about 85% amino acid identity with all 4 mouse SCD isoforms, as well as with rat Scd1 and Scd2. In contrast, SCD5 shares limited homology with the rodent SCDs and appears to be unique to primates (Zhang et al. (1999) [PubMed 10229681]; Wang et al., 2005 [PubMed 15907797]).

SCD Antibody (C-term) Blocking peptide - References

Collins, J.M., et al. J. Biol. Chem. 285(9):6044-6052(2010) Peter, A., et al. Diabetes 58(8):1757-1765(2009) Carmel, J.F., et al. J. Cell. Biochem. 106(4):608-617(2009) Zhou, Y.E., et al. Metab. Clin. Exp. 58(2):158-166(2009)