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

SCD5 Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP13043c

Specification

SCD5 Antibody (Center) Blocking peptide - Product Information

Primary Accession Q86SK9

SCD5 Antibody (Center) Blocking peptide - Additional Information

Gene ID 79966

Other Names
Stearoyl-CoA desaturase 5, Acyl-CoA-desaturase 4, HSCD5, Stearoyl-CoA 9-desaturase, SCD5, ACOD4, SCD4

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.

SCD5 Antibody (Center) Blocking peptide - Protein Information

Name SCD5

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. 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:15610069, PubMed:15907797, PubMed:22745828). Gives rise to a mixture of 16:1 and 18:1 unsaturated fatty acids (PubMed:15610069, PubMed:15907797). Involved in neuronal cell proliferation and differentiation through down-regulation of EGFR/AKT/MAPK and Wnt signaling pathways (PubMed:22745828).

Cellular Location
Endoplasmic reticulum membrane; Multi-pass membrane protein

Tissue Location

Detected in fetal brain, and at lower levels in fetal kidney. Detected in adult brain and pancreas, and at lower levels in kidney and lung. Expressed in spiral ganglion cells and the organ of Corti of fetal cochlea (PubMed:31972369).

SCD5 Antibody (Center) Blocking peptide - Protocols

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

- Blocking Peptides

SCD5 Antibody (Center) Blocking peptide - Images

SCD5 Antibody (Center) Blocking peptide - Background

Stearoyl-CoA desaturase (SCD; EC 1.14.99.5) is an integralmembrane protein of the endoplasmic reticulum that catalyzes theformation of monounsaturated fatty acids from saturated fattyacids. SCD may be a key regulator of energy metabolism with a rolein obesity and dislipidemia. Four SCD isoforms, Scd1 through Scd4,have been identified in mouse. In contrast, only 2 SCD isoforms,SCD1 (MIM 604031) and SCD5, have been identified in human. SCD1shares about 85% amino acid identity with all 4 mouse SCD isoforms,as well as with rat Scd1 and Scd2. In contrast, SCD5 shares limitedhomology with the rodent SCDs and appears to be unique to primates(Wang et al., 2005 [PubMed 15907797]).

SCD5 Antibody (Center) Blocking peptide - References

Bailey, S.D., et al. Diabetes Care (2010) In press :Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)Lengi, A.J., et al. Lipids 42(6):499-508(2007)