

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

SCD5 Antibody (Center) Blocking peptide - Product InformationPrimary 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 integral membrane protein of the endoplasmic reticulum that catalyzes the formation of monounsaturated fatty acids from saturated fatty acids. SCD may be a key regulator of energy metabolism with a role in obesity and dyslipidemia. 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. 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 (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)