

SCD5 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13043c**Specification**

SCD5 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	Q86SK9
Other Accession	Q2KIA4 , NP_001032671.2 , NP_079182.2
Reactivity	Human
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	147-175

SCD5 Antibody (Center) - Additional Information**Gene ID** 79966**Other Names**

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

Target/Specificity

This SCD5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 147-175 amino acids from the Central region of human SCD5.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SCD5 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

SCD5 Antibody (Center) - 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

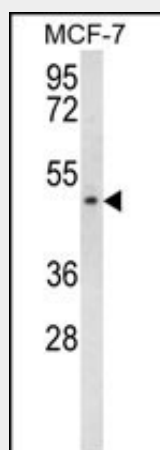
Detected in fetal brain, and at lower levels in fetal kidney. Detected in adult brain and pancreas, and at lower levels in kidney and lung. Expressed in spiral ganglion cells and the organ of Corti of fetal cochlea (PubMed:31972369).

SCD5 Antibody (Center) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SCD5 Antibody (Center) - Images



SCD5 Antibody (Center) (Cat. #AP13043c) western blot analysis in MCF-7 cell line lysates (35ug/lane). This demonstrates the SCD5 antibody detected the SCD5 protein (arrow).

SCD5 Antibody (Center) - 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 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. 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) - 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)