

## Datasheet

### SCD polyclonal antibody

**Catalog Number:** PAB15510

**Regulation Status:** For research use only (RUO)

**Product Description:** Rabbit polyclonal antibody raised against synthetic peptide of SCD.

**Immunogen:** A synthetic peptide corresponding to amino acids 50-100 of human SCD.

**Host:** Rabbit

**Reactivity:** Human

**Applications:** ICC, IF, WB-Ti

(See our web site product page for detailed applications information)

**Protocols:** See our web site at

<http://www.abnova.com/support/protocols.asp> or product page for detailed protocols

**Specificity:** This antibody is useful for Western blot analysis where a band can be seen at ~41 KDa.

**Form:** Liquid

**Recommend Usage:** Immunocytochemistry (1:50)

Immunofluorescence (1:50)

Western Blot (2 ug/mL)

The optimal working dilution should be determined by the end user.

**Storage Buffer:** In PBS (30% glycerol, 0.1% sodium azide)

**Storage Instruction:** Store at 4°C for short term. For long term storage store at -20°C.

Aliquot to avoid repeated freezing and thawing.

**Entrez GeneID:** 6319

**Gene Symbol:** SCD

**Gene Alias:** FADS5, MSTP008, SCD1

**Gene Summary:** 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]).[supplied by OMIM]

#### References:

1. Role of the PI3-kinase/mTor pathway in the regulation of the stearoyl CoA desaturase (SCD1) gene expression by insulin in liver. Mauvoisin D, Rocque G, Arfa O, Radenne A, Boissier P, Mounier C. J Cell Commun Signal. 2007 Sep;1(2):113-25. Epub 2007 Oct 6.
2. Critical role of stearoyl-CoA desaturase-1 (SCD1) in the onset of diet-induced hepatic insulin resistance. Gutierrez-Juarez R, Pocai A, Mulas C, Ono H, Bhanot S, Monia BP, Rossetti L. J Clin Invest. 2006 Jun;116(6):1686-95.