Human SCD-1 Alexa Fluor® 488-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7550G
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SCD-1 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human SCD-5 and recombinant mouse SCD-1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human SCD-1 Ala141-Gly221 Accession # O00767
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Knockout Validated	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

SCD-1 (Stearoyl-CoA desaturase 1; also Acyl-CoA desaturase, fatty acid desaturase, and Delta-9 desaturase) is a 37-40 kDa member of the fatty acid desaturase family of enzymes. It is an ER-embedded protein that is expressed by multiple cell types, including adipocytes, hepatocytes, macrophages, endothelial and sebaceous gland cells. SCD-1 catalyzes the formation of monounsaturated fatty acids from saturated fatty acids. It does so by generating a double bond between the C9 and C10 carbons of dietary and/or endogenously synthesized fatty acids. This creates either palmitoleic or oleic acid, two fatty acids that are optimally suited for either storage or inclusion into phospholipids. It also removes a potential source of inflammation, as saturated fatty acids are known to activate TLRs with the subsequent onset of inflammation. Human SCD-1 is a 4-transmembrane (TM), 359 amino acid (aa) protein. It contains a 71 aa cytoplasmic N-terminus, followed by two TM segments (aa 72-119) and an extended cytoplasmic region (aa 120-216) that possesses three utilized Ser/Thr phosphorylation sites, two additional TM segments (aa 217-273), and a C-terminal cytoplasmic tail (aa 274-359) that contains most of the catalytic region. There is one potential isoform variant that shows a 13 aa substitution for aa 295-359. Over aa 141-221, human SCD-1 shares 95% aa sequence identity with mouse SCD-1.

PRODUCT SPECIFIC NOTICES

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