

SCD1 Protein, Mouse (Cell-Free, His)

Cat. No.:	HY-P702429
Synonyms:	Acyl-CoA desaturase 1; Delta(9)-desaturase 1; Delta-9 desaturase 1; Fatty acid desaturase 1; Stearoyl-CoA desaturase 1
Species:	Mouse
Source:	E. coli Cell-free
Accession:	P13516 (M1-S355)
Gene ID:	20249
Molecular Weight:	43.9 kDa

PROPERTIES

AA Sequence	<pre> M P A H M L Q E I S S S Y T T T T T I T A P P S G N E R E K V K T V P L H L E E D I R P E M K E D I H D P T Y Q D E E G P P P K L E Y V W R N I I L M V L L H L G G L Y G I I L V P S C K L Y T C L F G I F Y Y M T S A L G I T A G A H R L W S H R T Y K A R L P L R I F L I I A N T M A F Q N D V Y E W A R D H R A H H K F S E T H A D P H N S R R G F F F S H V G W L L V R K H P A V K E K G G K L D M S D L K A E K L V M F Q R R Y Y K P G L L L M C F I L P T L V P W Y C W G E T F V N S L F V S T F L R Y T L V L N A T W L V N S A A H L Y G Y R P Y D K N I Q S R E N I L V S L G A V G E G F H N Y H H T F P F D Y S A S E Y R W H I N F T T F F I D C M A A L G L A Y D R K K V S K A T V L A R I K R T G D G S H K S S </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 µm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	SCD1 (Stearoyl-CoA desaturase 1) is a crucial enzyme utilizing O ₂ and electrons from reduced cytochrome b5 to catalyze the introduction of the first double bond into saturated fatty acyl-CoA substrates, including palmitoyl-CoA and stearoyl-CoA.
-------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

This process results in the production of a mixture of 16:1 and 18:1 unsaturated fatty acids, playing a pivotal role in lipid biosynthesis. SCD1 plays a key role in regulating the expression of genes involved in lipogenesis and mitochondrial fatty acid oxidation, contributing to the biosynthesis of membrane phospholipids, cholesterol esters, and triglycerides. Additionally, SCD1 is indispensable for normal development of sebaceous glands and the biosynthesis of Delta-9 unsaturated fatty acids in the Harderian gland. It is also required for the production of meibum, an oily substance crucial for preventing the drying of the cornea, emphasizing its diverse and essential roles in cellular processes and tissue development.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA