Stearoyl-CoA Desaturase (SCD)

Stearoyl-CoA desaturase (SCD) is an integral membrane protein of the endoplasmic reticulum (ER) that catalyzes the formation of monounsaturated fatty acids from saturated fatty acids. Recent studies suggest that SCD is a key regulator of energy metabolism and has implications in dislipidemia and obesity. It is responsible for forming a double bond in Stearoyl-CoA. This is how the monounsaturated fatty acid oleic acid is produced from the saturated fatty acid stearic acid. Stearoyl-CoA desaturase 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.
# Stearoyl-CoA Desaturase (SCD) Inhibitors

## A939572
**Cat. No.:** HY-50709

A939572 is a potent, and orally bioavailable stearyl-CoA desaturase1 (SCD1) inhibitor with IC\(_{50}\) values of <4 nM and 37 nM for mSCD1 and hSCD1, respectively.

- **Purity:** 99.98%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 2 mg, 5 mg, 10 mg, 50 mg

## CAY10566
**Cat. No.:** HY-15823

CAY10566 is a potent, orally bioavailable and selective stearyl-CoA desaturase1 (SCD1) inhibitor with IC\(_{50}\)s of 4.5 and 26 nM in mouse and human enzymatic assays, respectively.

- **Purity:** 99.42%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 25 mg

## CVT-12012
**Cat. No.:** HY-11034

CVT-12012 is a potent and orally bioavailable stearyl-coA desaturase inhibitor, with IC\(_{50}\)$ values of 38 nM, 6.1 nM for rat microsomal and human HEPG2, respectively.

- **Purity:** 98.97%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

## GSK1940029
**Cat. No.:** HY-19762

GSK1940029 (SCD inhibitor 1) is a stearyl-coa desaturase (SCD) inhibitor extracted from patent WO/2009060053 A1, compound example 16.

- **Purity:** 99.78%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

## Elemicin
**Cat. No.:** HY-N6807

Elemicin is a alkenylbenzene widely distributed in many herbs and spices. Elemicin inhibits Stearoyl-CoA Desaturase 1 (SCD1) by metabolic activation. Elemicin is one of the main components in aromatic food and has antimicrobial, antioxidant, and antiviral activities.

- **Purity:** 98.39%
- **Clinical Data:** No Development Reported
- **Size:** 5 mg

## GSK1940029
**Cat. No.:** HY-19762

GSK1940029 (SCD inhibitor 1) is a stearyl-coa desaturase (SCD) inhibitor extracted from patent WO/2009060053 A1, compound example 16.

- **Purity:** 99.78%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

## MK-8245
**Cat. No.:** HY-13070

MK-8245 is a potent, liver-targeted stearyl-CoA desaturase (SCD) inhibitor, with IC\(_{50}\)s of 1 nM for human SCD1 and 3 nM for both rat SCD1 and mouse SCD1, with antidiabetic and antidyslipidemic efficacy.

- **Purity:** 99.82%
- **Clinical Data:** Phase 2
- **Size:** 10 mM × 1 mL, 2 mg, 5 mg, 10 mg, 50 mg, 100 mg

## MK-8245 Trifluoroacetate
**Cat. No.:** HY-13077

MK-8245 trifluoroacetate is a liver-targeting inhibitor of stearoyl-CoA desaturase (SCD) with IC\(_{50}\) of 1 nM for human SCD1 and 3 nM for both rat SCD1 and mouse SCD1, with anti-diabetic and anti-dyslipidemic efficacy.

- **Purity:** 98.09%
- **Clinical Data:** Phase 2
- **Size:** 2 mg

## PluriSIn 1
**Cat. No.:** HY-15700

PluriSIn 1 (NSC 14613) is an inhibitor of stearyl-coa desaturase (SCD), and is a pluripotent cell-specific inhibitor.

- **Purity:** 99.64%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 10 mg, 50 mg

## SCD1 inhibitor-1
**Cat. No.:** HY-112812

SCD1 inhibitor-1 is a potent and liver-selective stearyl-CoA desaturase-1 (SCD1) inhibitor.

- **Purity:** 99.42%
- **Clinical Data:** No Development Reported
- **Size:** 5 mg, 10 mg, 50 mg, 100 mg

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