



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

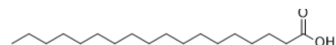
mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Stearic acid

Cat. No.:	HY-B2219		
CAS No.:	57-11-4		
Molecular Formula:	C ₁₈ H ₃₆ O ₂		
Molecular Weight:	284.48		
Target:	Endogenous Metabolite; Apoptosis		
Pathway:	Metabolic Enzyme/Protease; Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 25 mg/mL (87.88 mM; Need ultrasonic)
 DMSO : ≥ 14.29 mg/mL (50.23 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.5152 mL	17.5759 mL	35.1519 mL
	5 mM	0.7030 mL	3.5152 mL	7.0304 mL
	10 mM	0.3515 mL	1.7576 mL	3.5152 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: 2.08 mg/mL (7.31 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: 2.08 mg/mL (7.31 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.08 mg/mL (7.31 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Stearic acid is a long-chain dietary saturated fatty acid that can significantly reduce visceral fat by inducing apoptosis of preadipocytes. Stearic acid can be used in the study of cardiovascular and metabolic diseases^[1].

IC₅₀ & Target

Microbial Metabolite Human Endogenous Metabolite

In Vitro	<p>Stearic acid (50 μM; 48 h) increases apoptosis of 3T3L1 preadipocytes, decreases the expression of cIAP2 and Bcl2, and increases the expression of Bax^[1].</p> <p>Stearic acid (0-200 μM; 48 h) shows a dose-dependent cytotoxicity to 3T3L1 preadipocytes starting at 35 μM and reaching a maximum at 100 μM, and increases caspase-3 activity in preadipocytes after 48 h of treatment^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
In Vivo	<p>Stearic acid (17% stearic acid/3% safflower oil diet, ad libitum; 18 weeks and 3 days) reduces bone mineral density, abdominal fat content, and serum glucose concentration, and increases serum monocyte chemoattractant protein-1 levels in female athymic mice^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

CUSTOMER VALIDATION

- Bioact Mater. 2024 Mar, 33, 85-99.
- Cell Death Dis. 2020 Sep 15;11(9):756.
- Cell Death Dis. 2019 May 28;10(6):416.
- Free Radic Biol Med. 2023 Mar 28;S0891-5849(23)00133-8.
- Mol Nutr Food Res. 2022 Nov 25;e2200429.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Shen MC et al. Dietary stearic acid leads to a reduction of visceral adipose tissue in athymic nude mice. PLoS One. 2014 Sep 15;9(9):e104083.

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