



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) 

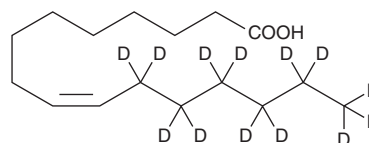
PRODUCT INFORMATION



Palmitoleic Acid-d₁₃

Item No. 27714

Formal Name: (Z)-hexadec-9-enoic-11,11,12,12,13,13,14,14,15,15,16,16,16-d₁₃ acid
Synonyms: (9Z)-Hexadecenoic Acid-d₁₃, C16:1(9Z)-d₁₃, C16:1 n-7-d₁₃, cis-Palmitoleic Acid-d₁₃
MF: C₁₆H₁₇D₁₃O₂
FW: 267.5
Chemical Purity: ≥98% (Palmitoleic Acid)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₁₃); ≤1% d₀
Supplied as: An oil
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Palmitoleic acid-d₁₃ is intended for use as an internal standard for the quantification of palmitoleic acid (Item Nos. 10009871 | 21911) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Palmitoleic acid-d₁₃ is supplied as an oil. A stock solution may be made by dissolving the palmitoleic acid-d₁₃ in the solvent of choice, which should be purged with an inert gas. Palmitoleic acid-d₁₃ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of palmitoleic acid-d₁₃ in these solvents is approximately 50 mg/ml in ethanol and approximately 30 mg/ml in DMSO and DMF.

Description

Palmitoleic acid is an ω-7 monounsaturated fatty acid that has been found in macadamia and sea buckthorn oils.^{1,2} It increases basal and insulin-stimulated glucose uptake and glucose transporter 4 (Glut4) protein levels in 3T3-L1 adipocytes when used at a concentration of 200 μM.³ *Ex vivo*, palmitoleic acid (300 mg/kg per day) increases glucose uptake and aerobic and anaerobic glycolysis and reduces *de novo* fatty acid synthesis and activity of the lipogenic enzymes ATP citrate lyase (ACL) and glucose-6-phosphate dehydrogenase (G6PDH) in isolated murine adipocytes. Dietary administration of palmitoleic acid (300 mg/kg) reduces high-fat diet-induced insulin resistance and liver inflammation in mice.⁴

References

1. Yang, B. and Kallio, H.P. *J. Agric. Food Chem.* **49(4)**, 1939-1947 (2001).
2. Fard, A.M., Turner, A.G., and Willett, G.D. *Aus. J. Chem.* **56(5)**, 499-508 (2003).
3. Bolsoni-Lopes, A., Festuccia, W.T., Chimin, P., et al. *Lipids Health Dis.* **13(199)**, 1-10 (2014).
4. Souza, C.O., Teixeira, A.A.S., Lima, E.A., et al. *Mediators Inflamm.* **2014(582197)**, 1-12 (2014).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 05/26/2020

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM