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

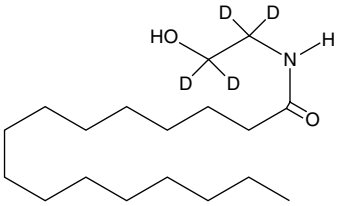
linkedin.com/company/szaboscandic

Product Information

Palmitoyl Ethanolamide-d_4

Item No. 9000551

CAS Registry No.: 946524-34-1
Formal Name: N-(2-hydroxyethyl-1,1,2,2-d_4)-hexadecanamide
Synonyms: Palmidrol-d_4, PEA-hydroxyethyl-1,1,2,2-d_4
MF: $C_{18}H_{33}D_4NO_2$
FW: 303.5
Chemical Purity: ≥95%
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_4); ≤1% d_0
Stability: ≥1 years at -20°C
Supplied as: A solution in ethanol



Laboratory Procedures

Palmitoyl ethanolamide-d_4 (PEA-d_4) contains four deuterium atoms at the hydroxyethyl 1, 1', 2, and 2' positions. It is intended for use as an internal standard for the quantification of PEA by GC- or LC-mass spectrometry (MS). For long term storage, we suggest that PEA-d_4 be stored as supplied at -20°C. It should be stable for at least one year.

PEA-d_4 is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of PEA-d_4 in DMSO is approximately 5 mg/ml and approximately 10 mg/ml in DMF.

PEA-d_4 is used as an internal standard for the quantification of PEA by stable isotope dilution 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).

Palmitoyl ethanolamide (PEA) is an endogenous cannabinoid found in brain, liver, and other mammalian tissues.[1] PEA has also been isolated from egg yolk, and found to have anti-anaphylactic and anti-inflammatory activity *in vitro*.[2] PEA is an endocannabinoid which has been shown to significantly elevate cAMP in cells expressing CB_2 receptors. However, its affinity for CB_2 receptors is relatively low, at about 10 µM. CB_1 receptors have no appreciable affinity for PEA.[3]

References

1. Bachur, N.R., Masek, K., Melmon, K.L., *et al.* Fatty acid amides of ethanolamine in mammalian tissues. *J. Biol. Chem.* **240**, 1019-1024 (1965).
2. Ganley, O.H., Graessle, O.E., Robinson, H.J., *et al.* Anti-inflammatory activity of compounds obtained from egg yolk, peanut oil, and soybean lecithin. *J. Lab. Clin. Med.* **51**, 709-714 (1958).
3. Devane, W.A., Hanus, L., Breuer, A., *et al.* Isolation and structure of a brain constituent that binds to the cannabinoid receptor. *Science* **258**, 1946-1949 (1992).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/9000551

Cayman Chemical

Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com