

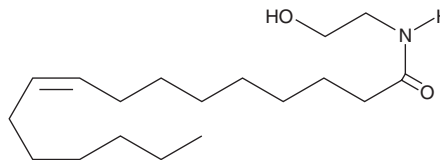
PRODUCT INFORMATION



Palmitoleoyl Ethanolamide

Item No. 10965

CAS Registry No.: 94421-67-7
Formal Name: N-(2-hydroxyethyl)-9Z-hexadecenamide
Synonym: POEA
MF: C₁₈H₃₅NO₂
FW: 297.5
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Palmitoleoyl ethanolamide (POEA) is supplied as a crystalline solid. A stock solution may be made by dissolving the POEA in the solvent of choice, which should be purged with an inert gas. POEA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of POEA in these solvents is approximately 100 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of POEA can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of POEA in PBS (pH 7.2) is approximately 0.1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

N-acylethanolamines (NAEs) are lipid-derived signaling compounds. For example, arachidonoyl ethanolamide is an endogenous cannabinoid (CB) that activates the CB₁ and CB₂ receptors. Palmitoleoyl ethanolamide (POEA) is an NAE that is produced endogenously from palmitoleic acid.¹ Unlike arachidonoyl ethanolamide and palmitoyl ethanolamide, POEA does not have antinociceptive effects, as assessed in the formalin-evoked pain model.²

References

1. Lucanic, M., Held, J.M., Vantipalli, M.C., *et al.* N-acylethanolamine signalling mediates the effect of diet on lifespan in *Caenorhabditis elegans*. *Nature* **473**(7346), 226-9 (2011).
2. Calignano, A., LaRana, G., and Piomelli, D. Antinociceptive activity of the endogenous fatty acid amide, palmitylethanolamide. *Eur. J. Pharmacol.* **419**(2-3), 191-198 (2001).

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.

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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