

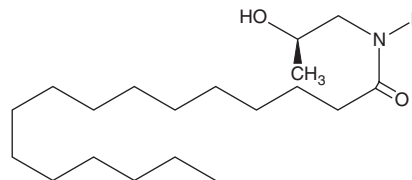
PRODUCT INFORMATION



R-Palmitoyl-(2-methyl) Ethanolamide

Item No. 90357

CAS Registry No.: 179951-56-5
Formal Name: N-(2R-hydroxypropyl)-hexadecanamide
Synonym: RP-2ME
MF: C₁₉H₃₉NO₂
FW: 313.5
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

R-Palmitoyl-(2-methyl) ethanolamide (RP-2ME) is supplied as a crystalline solid. A stock solution may be made by dissolving the RP-2ME in the solvent of choice, which should be purged with an inert gas. RP-2ME is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of RP-2ME in these solvents is approximately 25, 4, and 10 mg/ml, respectively.

RP-2ME is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, RP-2ME should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. RP-2ME has a solubility of approximately 10 µg/ml in a 1:10 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

RP-2ME is a metabolically stable analog of the anti-inflammatory endogenous cannabinoid (CB), palmitoyl ethanolamide (PEA). PEA is an endogenous CB 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 RP-2ME is a synthetic analog of PEA which incorporates an (R)-methyl group vicinal to the alcohol on the ethanolamine moiety. RP-2ME inhibits FAAH-mediated hydrolysis of AEA by 54% at a concentration of 100 µM.³ It also has weak CB receptor affinity, in that 100 µM inhibits agonist binding (1 nM CP 55,940 or WIN 55,212-2) only 26% and 15.5% at the human CB₁ and CB₂ receptors, respectively.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(5)**, 709-714 (1958).
3. Jonsson, K.-O., Vandevoorde, S., Lambert, D.M., *et al.* Effects of homologues and analogues of palmitoylethanolamide upon the inactivation of the endocannabinoid anandamide. *Br. J. Pharmacol.* **133(8)**, 1263-1275 (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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