Palmitoyl Ethanolamide

CAS Registry No.: 544-31-0
Formal Name: N-(2-hydroxyethyl)-hexadecanamide
Synonyms: Palmidrol, PEA
MF: C_{18}H_{37}NO_2
FW: 299.5
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid

Laboratory Procedures

For long term storage, we suggest that palmitoyl ethanolamide (PEA) be stored as supplied at -20°C. It should be stable for at least two years.

PEA is supplied as a crystalline solid. A stock solution may be made by dissolving the PEA in the solvent of choice. PEA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of PEA in these solvents is approximately 2, 5, and 10 mg/ml, respectively.

PEA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PEA should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. PEA 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.

PEA is an endocannabinoid which has been shown to significantly elevate cAMP in cells expressing CB₂ receptors. However, its affinity for CB₂ receptors is low, at about 10 µM. CB₁ receptors have no appreciable affinity for PEA.¹

Reference


Related Products

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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