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ProductInformation

Stearoyl Ethanolamide

Product Number **S 8439**
Storage Temperature –20 °C

CAS#: 111-57-9
Synonyms: Stearic Acid Ethanolamide; N-(2-hydroxyethyl) octadecanamide; Ceramid

Product Description
Molecular Formula: $C_{20}H_{41}NO_2$
Molecular Formula: 327.6

Stearoyl ethanolamide, an analog of anandamide (Product No. A 0580), belongs to the family of N-acyl ethanolamines (anandamides). Some members of this family, including stearoyl ethanolamide, may be possible endogenous ligands for brain cannabinoid receptors.[1] Stearoyl ethanolamide, ananadamide and other acyl ethanolamines were also found in non-neuronal macrophages and sea urchin ovaries (probably as a result of a phospholipase D-like enzyme digestion of the corresponding N-acyl phosphatidylethanolamine lipid) suggesting evidence of an endogenous cannabinoid system which may be conserved throughout evolution in different speces.[1-3]

Precautions and Disclaimer
This product is for laboratory use only.
Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions
Stock solutions can be prepared in ethanol or DMF. Solubility in either solvent is at least 2 mg/ml. Solutions in these solvents will be stable for at least six months at –20 °C. Dilutions of the stock solutions into aqueous buffers or isotonic saline solutions should be prepared immediately before usage.

Aqueous solutions free of organic solvent can be directly prepared by dissolving the crystalline compound in aqueous buffers. The solubility of Stearoyl Ethanolamide in PBS (pH 7.2) is at least 100 µg/ml. Aqueous solutions should not be stored for more than one day.[1]

References
1. Di Marzo, V. et al., Biosynthesis of anandamide and related acylethanolamides in mouse J774 macrophages and N18 neuroblastoma cells. Biochem. J., **316,** 977-984 (1996).
2. Bisogno, T. et al., Occurrence and metabolism of anandamide and related acyl-ethanolamides in ovaries of the sea urchin *Paracentrotus lividus.* Biochim. Biophys. Acta, **1345**, 338 (1997).
3. Salzet, M. et al., Comparative biology of the endocannabinoid system, Eur. J. Biochem., **267**, 1 (2000).

RLC/ARO 12/01