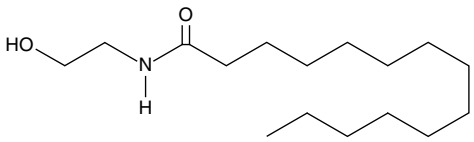
Product Information

Myristoyl Ethanolamide

Item No. 9001742

CAS Registry No.: 142-58-5
Formal Name: N-(2-hydroxyethyl)-tetradecanamide
Synonyms: AM3165, Comperlan MM, Schercomid MME
MF: $C_{16}H_{33}NO_2$
FW: 271.4
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

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

Myristoyl ethanolamide is supplied as a crystalline solid. A stock solution may be made by dissolving the myristoyl ethanolamide in the solvent of choice. Myristoyl ethanolamide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of myristoyl ethanolamide in these solvents is approximately 1, 10, and 20 mg/ml, respectively.

Myristoyl ethanolamide is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Myristoyl ethanolamide is a member of the family of fatty N-acyl ethanolamines collectively called endocannabinoids.[1-3] Myristic acid is typically detected at low levels in rat cerebrospinal fluid, however the specific role and relative importance of its ethanolamine metabolite have not been yet determined.[4]

References

1. Bachur, N.R. and Udenfriend, S. Microsomal synthesis of fatty acid amides. *J. Biol. Chem.* **241**, 1308-1313 (1966).
2. Doetsch, P.W., Zastawny, T.H., Martin, A.M., *et al.* Monomeric base damage products from adenine, guanine, and thymine induced by exposure of DNA to ultraviolet radiation. *Biochemistry* **34**, 737-742 (1995).
3. Saghatelian, A., Trauger, S.A., Want, E.J., *et al.* Assignment of endogenous substrates to enzymes by global metabolite profiling. *Biochemistry* **43**, 14332-14339 (2004).
4. Buczynski, M.W., Svensson, C.I., Dumlao, D.S., *et al.* Inflammatory hyperalgesia induces essential bioactive lipid production in the spinal cord. *J. Neurochem.* **114**, 981-993 (2010).

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