

Product Information

Octanoic acid

Catalog Number **C2875**

Storage at Room Temperature

CAS RN 0124-07-2

Synonyms: Caprylic acid, C₈ acid

Product Description

Molecular Formula: C₈H₁₆O₂

Formula Weight: 144.21

Octanoic acid, commonly known as caprylic acid, is a straight-chain fatty acid found in various vegetable and animal sources, such as coconut oil, palm nut oil, and butter fat.

Caprylic acid has been shown to disrupt the sodium inward current in differentiated neuroglioma cells, while not affecting the ionic outward current.¹ The effect of caprylic acid on the plasma membrane ATPase activity of one strain of *Saccharomyces cerevisiae* has been investigated.² The effects of various fatty acids, including caprylic acid, on insulin secretion from rat and human islets of Langerhans have been studied.³

Protocols for antibody purification that use caprylic acid have been reported.^{4,5} A procedure for DNA extraction that uses caprylic acid has been published.⁶

It is an intermediate in the manufacture of perfume esters and of dyes.⁷

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

This product is miscible with chloroform (0.1 ml/ml, 10% v/v), yielding a clear, colorless solution. Caprylic acid can also be diluted with ether, alcohol, petroleum ether, and glacial acetic acid.⁷

Storage/Stability

Store the product at room temperature. Representative lots have remained within specifications for at least four years.

References

1. Lamas, J.A., et al., Caprylic acid, a medium chain saturated fatty acid, inhibits the sodium inward current in neuroglioma (NG108-15) cells. *Neurosci. Lett.*, **198(3)**, 181-184 (1995).
2. Viegas, C.A., and Sa-Correia, I., Activation of plasma membrane ATPase of *Saccharomyces cerevisiae* by octanoic acid. *J. Gen. Microbiol.*, **137(Pt 3)**, 645-651 (1991).
3. Gravena, C., et al., Acute effects of fatty acids on insulin secretion from rat and human islets of Langerhans. *J. Endocrinol.*, **173(1)**, 73-80 (2002).
4. *Antibodies: A Laboratory Manual*, Harlow, E. and Lane, D., Cold Spring Harbor Laboratory Press (Cold Spring Harbor, NY: 1988), p. 300.
5. Temponi, M., et al., Purification of murine IgG monoclonal antibodies by precipitation with caprylic acid: comparison with other methods of purification. *Hybridoma*, **8(1)**, 85-95 (1989).
6. Planelles, D. et al., A new, fast, and simple DNA extraction method for HLA and VNTR genotyping by PCR amplification. *J. Clin. Lab. Anal.*, **10(3)**, 125-128 (1996).
7. *The Merck Index*, 12th ed., Entry# 1808.
8. *Molecular Cloning: A Laboratory Manual*, 3rd ed., Sambrook, J. F., et al., Cold Spring Harbor Laboratory Press (Cold Spring Harbor, NY: 2001), pp. 6.26-6.27, A8.12-A8.16.

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