

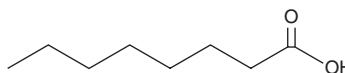
PRODUCT INFORMATION



Octanoic Acid

Item No. 33674

CAS Registry No.: 124-07-2
Synonyms: Caprylic Acid, C8:0, FA 8:0
MF: $C_8H_{16}O_2$
FW: 144.2
Purity: $\geq 99\%$
Supplied as: A liquid
Storage: $-20^\circ C$
Stability: ≥ 2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Octanoic acid is supplied as a liquid. A stock solution may be made by dissolving the octanoic acid in the solvent of choice, which should be purged with an inert gas. Octanoic acid is soluble in chloroform, ethanol, and ethyl ether.

Description

Octanoic acid is a medium-chain saturated fatty acid. It has been found in Teleme cheeses made from goat, ovine, or bovine milk.¹ Octanoic acid is active against the bacteria *S. mutans*, *S. gordonii*, *F. nucleatum*, and *P. gingivalis* ($IC_{80s} = <125, <125, 1,403, \text{ and } 2,294 \mu M$, respectively).² Levels of octanoic acid are increased in the plasma of patients with medium-chain acyl-CoA dehydrogenase (MCAD) deficiency, an inborn error of fatty acid metabolism characterized by hypoketotic hypoglycemia, medium-chain dicarboxylic aciduria, and intolerance to fasting.^{3,4}

References

1. Mallatou, H., Pappa, E., Massouras, T., *et al.* Changes in free fatty acids during ripening of Teleme cheese made with ewes', goats', cows' or a mixture of ewes' and goats' milk. *Int. Dairy J.* **13(1-3)**, 211-219 (2003).
2. Hyang, C.B., Alimova, Y., Myers, T.M., *et al.* Short- and medium-chain fatty acids exhibit antimicrobial activity for oral microorganisms. *Arch. Oral Biol.* **56(7)**, 650-654 (2011).
3. Onkenhout, W., Venizelos, V., van der Poel, P.F.H., *et al.* Identification and quantification of intermediates of unsaturated fatty acid metabolism in plasma of patients with fatty acid oxidation disorders. *Clin. Chem.* **41(10)**, 1467-1474 (1995).
4. Rinaldo, P., O'Shea, J.J., Coates, P.M., *et al.* Medium-chain acyl-CoA dehydrogenase deficiency. Diagnosis by stable-isotope dilution measurement of urinary n-hexanoylglycine and 3-phenylpropionylglycine. *N. Engl. J. Med.* **319(20)**, 1308-1313 (1988).

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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