

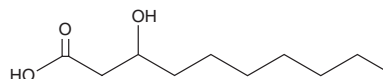
PRODUCT INFORMATION



3-hydroxy Decanoic Acid

Item No. 24613

CAS Registry No.: 14292-26-3
Formal Name: 3-hydroxy-decanoic acid
Synonyms: 3-hydroxy Capric Acid, (±)-3-hydroxy Decanoic Acid, β-hydroxy Decanoic Acid, FA 10:0;O
MF: $C_{10}H_{20}O_3$
FW: 188.3
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

3-hydroxy Decanoic acid is supplied as a solid. A stock solution may be made by dissolving the 3-hydroxy decanoic acid in the solvent of choice. 3-hydroxy Decanoic acid is soluble in organic solvents such as ethanol, methanol, and chloroform, which should be purged with an inert gas.

Description

3-hydroxy Decanoic acid is a hydroxy fatty acid and the predominant monomer in methyl-branched poly(3-hydroxyalkanoate) (PHA) polymers produced by *P. putida* CA-3.¹ It is present in LPS from the *H. pylori* strain SS1 and in the lipid A component of clinical isolates of *P. aeruginosa* isolated from patients with cystic fibrosis but not the environment or patients with other conditions.^{2,3} 3-hydroxy Decanoic acid inhibits mitotic progression of *O. virens* pollens via impairment of plasma membrane function.⁴ It also induces a reversible shape change of the membrane crenation in human erythrocytes.

References

1. O'Connor, S., Szejewski, E., Nikodinovic-Runic, J., et al. The anti-cancer activity of a cationic anti-microbial peptide derived from monomers of polyhydroxyalkanoate. *Biomaterials* **34**(11), 2710-2718 (2013).
2. Leker, K., Lozano-Pope, I., Bandyopadhyay, K., et al. Comparison of lipopolysaccharides composition of two different strains of *Helicobacter pylori*. *BMC Microbiol.* **17**(1), 226 (2017).
3. Ernst, R.K., Moskowitz, S.M., Emerson, J.C., et al. Unique lipid A modifications in *Pseudomonas aeruginosa* isolated from the airways of patients with cystic fibrosis. *J. Infect. Dis.* **196**(7), 1088-1092 (2007).
4. Kanaho, Y., Sato, T., Fuji, T., et al. Shape-transforming action of myrmicacin (3-hydroxydecanoic acid) and some related compounds on the membrane of intact human erythrocytes. *Chem. Pharm. Bull. (Tokyo)* **29**(10), 3063-3066 (1981).

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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