
Product Data Sheet

Product Name: 3-Hydroxycapric acid

Cat. No.: GC33383

Chemical Properties

Cas. No. 14292-26-3

SMILES CCCCCCCC(O)CC(O)=OFormula $C_{10}H_{20}O_3$

M.Wt 188.26

Solubility Chloroform: Soluble, Ethanol: Soluble, Methanol: Soluble

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available sizes: ship with RT, or blue ice upon request.

Structure **Background**

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. [Matreya, LLC. Catalog No. 1727]

1. O'Connor, S., Szwej, 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*

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

isolated from the airways of patients with cystic fibrosis]. 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)

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA