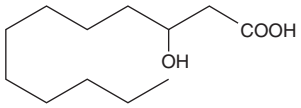
PRODUCT INFORMATION

3-hydroxy Lauric Acid

Item No. 24642

CAS Registry No.: 1883-13-2
Formal Name: 3-hydroxy-dodecanoic acid
Synonyms: (±)-3-hydroxy Dodecanoic Acid, (±)-β-hydroxy Dodecanoic Acid, FA 12:0;O, (±)-β-hydroxy Lauric Acid
MF: $C_{12}H_{24}O_3$
FW: 216.3
Purity: ≥98%
UV/Vis.: λ_{max}: 212 nm
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 Lauric acid is supplied as a solid. A stock solution may be made by dissolving the 3-hydroxy lauric acid in the solvent of choice. 3-hydroxy Lauric acid is soluble in organic solvents such as methanol and ethanol, which should be purged with an inert gas.

Description

3-hydroxy Lauric acid is a hydroxylated fatty acid that is found in bacteria as well as *Pseudosuberites* and *D. calyx* sea sponges.[1-4] It has antifungal activity against a panel of seven fungi (MICs = 10-50 µg/ml).[3] 3-hydroxy Lauric acid acts as a partial agonist of GPR84 receptors *in vitro* (EC_{50} = 5.24 µM).[5]

References

1. Kim, M.C., Pak, S.H., Rim, S.G., *et al.* *Luteolibacter arcticus* sp. nov., isolated from high Arctic tundra soil, and emended description of the genus *Luteolibacter*. *Int. J. Syst. Evol. Microbiol.* **65(Pt. 6)**, 1922-1928 (2015).
2. Panda, S., Bandyopadhyay, P.K., and Chatterjee, S.N. Characterization of *Pseudomonas aeruginosa* PB112 (JN996498) isolated from infected *Labeo bata* (Hamilton) by 16S rRNA gene sequence analysis and fatty acid methyl ester (FAME) analysis. *African J. Biotechnol.* **12(4)**, 400-405 (2013).
3. He, R., Wakimoto, T., Egami, Y., *et al.* Heterologously expressed β-hydroxyl fatty acids from a metagenomic library of a marine sponge. *Bioorg. Med. Chem. Lett.* **22(24)**, 7322-7325 (2012).
4. Barnathan, G., Kornprobst, J.-M., Doumenq, P., *et al.* Sponge fatty acids, 5. Characterization of complete series of 2-hydroxy long-chain fatty acids in phospholipids of two Senegalese marine sponges from the family suberitidae: *Pseudosuberites* sp. and *Suberites massa*. *J. Nat. Prod.* **56(12)**, 2104-2113 (2004).
5. Kaspersen, M.H., Jenkins, L., Dunlop, J., *et al.* Succinct synthesis of saturated hydroxy fatty acids and *in vitro* evaluation of all hydroxylauric acids on FFA1, FFA4, and GPR84. *Med. Chem. Commun.* **8(6)**, 1360-1365 (2017).

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