PRODUCT INFORMATION



Sterculic Acid methyl ester

Item No. 26736

CAS Registry No.: 3220-60-8

Formal Name: 2-octyl-1-cyclopropene-1-

octanoic acid, methyl ester

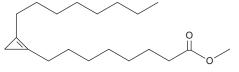
Synonyms: Methyl Sterculate, SFE 20:2

MF: $C_{20}H_{36}O_{2}$ FW: 308.5 **Purity:** ≥95%

Supplied as: A solution in hexane

Storage: -20°C Stability: ≥2 years

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



Laboratory Procedures

Sterculic Acid methyl ester is supplied as a solution in hexane. To change the solvent, simply evaporate the hexane under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as methanol, ethyl ether, and chloroform purged with an inert gas can be used.

Description

Sterculic acid methyl ester is an ester form of sterculic acid (Item No. 26735), which is an inhibitor of Δ^9 desaturase. Sterculic acid methyl ester (0.75 mM) inhibits the growth of, and is toxic to, the bacteria R. opacus.² It decreases the fatty acid content, increases the ratio of palmitate to other fatty acids, and decreases the levels of stearate and oleate in R. opacus when used at concentrations of 0.25 or 0.5 mM. Sterculic acid methyl ester (50 ppm) has a synergistic effect on increased tumor growth induced by aflatoxin Q₁ in rainbow trout.

References

- 1. Bichi, E., Toral, P.G., Hervás, G., et al. Inhibition of Δ^9 -desaturase activity with sterculic acid: Effect on the endogenous synthesis of cis-9 18:1 and cis-9, trans-11 18:2 in dairy sheep. J. Dairy Sci. 95(9), 5242-5252 (2012).
- 2. Wältermann, M. and Steinbüchel, A. In vitro effects of sterculic acid on lipid biosynthesis in Rhodococcus opacus strain PD630 and isolation of mutants defective in fatty acid desaturation. FEMS Microbiol. Lett. 190(1), 45-50 (2000).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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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