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Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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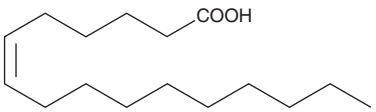
PRODUCT INFORMATION

cis-6-Hexadecenoic Acid

Item No. 9001845

CAS Registry No.: 17004-51-2
Formal Name: 6Z-hexadecenoic acid
Synonyms: C16:1(6Z), C16:1Δ6, C16:1ω10, Sapienic Acid
MF: $C_{16}H_{30}O_2$
FW: 254.4
Purity: ≥99%
Supplied as: A liquid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

cis-6-Hexadecenoic acid is supplied as a liquid. A stock solution may be made by dissolving the *cis*-6-hexadecenoic acid in the solvent of choice. *cis*-6-Hexadecenoic acid is soluble in organic solvents such as ethanol, methanol, chloroform, and ether, which should be purged with an inert gas.

Description

cis-6-Hexadecenoic acid is a monounsaturated fatty acid and is one of the primary fatty acids in human skin.[1] *cis*-6-Hexadecenoic acid levels are increased in isolated sebum from the face and back of patients with acne.[2] In contrast, levels are decreased in the non-lesional skin and isolated sebum of atopic dermatitis patients, which correlates with an increase in *S. aureus* in the sebum.[1] It is active against *S. aureus in vitro* when used at a concentration of 5 µg/ml at pH 5.5.[3] *cis*-6-Hexadecenoic acid disrupts membrane integrity, the proton motive force, increases membrane fluidity, and inhibits the electron transport chain in *S. aureus*.

References

1. Takigawa, H., Nakagawa, H., Kuzukawa, M., *et al.* Deficient production of hexadecenoic acid in the skin is associated in part with the vulnerability of atopic dermatitis patients to colonization by *Staphylococcus aureus*. *Dermatology* **211(3)**, 240-248 (2005).
2. Li, W.-H., Zhang, Q., Flach, C.R., *et al.* In vitro modeling of unsaturated free fatty acid-mediated tissue impairments seen in acne lesions. *Arch. Dermatol. Res.* **309(7)**, 529-540 (2017).
3. Cartron, M.L., England, S.R., Chiriac, A.I., *et al.* Bactericidal activity of the human skin fatty acid *cis*-6-hexadecanoic acid on *Staphylococcus aureus*. *Antimicrob. Agents Chemother.* **58(7)**, 3599-3609 (2014).

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.

WARRANTY AND LIMITATION OF REMEDY
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