

PRODUCT INFORMATION

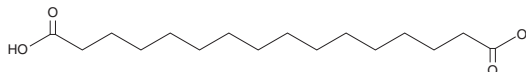


Hexadecanedioic Acid

Item No. 36000

CAS Registry No.: 505-54-4
Synonyms: FA 16:1;O2, HDA, NSC 15164,
Thapsic Acid, 1,16-Hexadecadioic Acid,
1,16-Hexadecanedioic Acid,
 α,ω -Hexadecanedioic Acid

MF: $C_{16}H_{30}O_4$
FW: 286.4
Purity: $\geq 95\%$
Supplied as: A solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



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

Laboratory Procedures

Hexadecanedioic acid is supplied as a solid. A stock solution may be made by dissolving the hexadecanedioic acid in the solvent of choice, which should be purged with an inert gas. Hexadecanedioic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of hexadecanedioic acid in DMSO and DMF is approximately 12 and 16 mg/ml, respectively. Hexadecanedioic acid is slightly soluble in ethanol.

Description

Hexadecanedioic acid is a dicarboxylic fatty acid that has been found in the suberin component of silver birch (*B. pendula*) outer bark and soil.^{1,2} It stimulates mitochondrial respiration and decreases the production of reactive oxygen species (ROS) induced by rotenone (Item No. 13995) in isolated rat liver mitochondria when used at concentrations of 100 and 40 μM , respectively.³

References

1. Karnaouri, A., Lange, H., Crestini, C., *et al.* Chemoenzymatic fractionation and characterization of pretreated birch outer bark. *ACS Sustainable Chem. Eng.* **4(10)**, 5289-5302 (2016).
2. Hamer, U., Rumpel, C., and Dignac, M.-F. Cutin and suberin biomarkers as tracers for the turnover of shoot and root derived organic matter along a chronosequence of Ecuadorian pasture soils. *Eur. J. Soil Sci.* **63(6)**, 808-819 (2012).
3. Sememova, A.A., V.N., S., Pavlova, S.I., *et al.* ω -Hydroxypalmitic and α,ω -hexadecanedioic acids as activators of free respiration and inhibitors of H_2O_2 generation in liver mitochondria. *Biochem. Moscow Suppl. Ser. A* **14(1)**, 24-33 (2020).

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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