

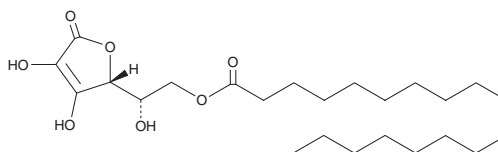
PRODUCT INFORMATION



L-Ascorbic Acid 6-stearate

Item No. 39142

CAS Registry No.: 10605-09-1
Formal Name: 6-octadecanoate L-ascorbic acid
Synonyms: L-Ascorbyl-6-stearate,
6-O-Stearoyl-L-Ascorbic Acid
MF: $C_{24}H_{42}O_7$
FW: 442.6
Purity: $\geq 95\%$
UV/Vis.: $\lambda_{\max}$: 246 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥ 4 years
Item Origin: Synthetic



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

Laboratory Procedures

L-Ascorbic acid 6-stearate is supplied as a solid. A stock solution may be made by dissolving the L-ascorbic acid 6-stearate in the solvent of choice, which should be purged with an inert gas. L-Ascorbic acid 6-stearate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of L-ascorbic acid 6-stearate in ethanol is approximately 5 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Description

L-Ascorbic acid 6-stearate is a derivative of L-ascorbic acid (Item No. 14656) and stearic acid (Item No. 10011298) that has been found in *K. coccinea* and has antioxidant and anticancer activities.¹⁻³ It scavenges DPPH (Item No. 14805) in a cell-free assay ($\text{IC}_{50} = 3.31 \mu\text{g/ml}$).³ Lipid nanoparticles (LNPs) encapsulating L-ascorbic acid 6-stearate induce apoptosis in HL-60 promyeloblasts when used at a concentration of $190 \mu\text{M}$.¹ Formulations containing L-ascorbic acid 6-stearate have been used in cosmetics and personal care products.

References

1. Frungillo, L., Martins, D., Teixeira, S., et al. Targeted antitumoral dehydrocrotonin nanoparticles with L-ascorbic acid 6-stearate. *J. Pharm. Sci.* **98**(12), 4796-4807 (2009).
2. Shinomiya, K., Li, H., and Kitanaka, S. Countercurrent chromatographic separation of lipophilic ascorbic acid derivatives and extract from *Kadsura coccinea* using hydrophobic organic-aqueous two-phase solvent systems. *J. Liq. Chromatogr. Relat. Technol.* **32**(16), 2361-2371 (2009).
3. Kharrat, N., Aissa, I., Sghaier, M., et al. Lipophilization of ascorbic acid: A monolayer study and biological and antileishmanial activities. *J. Agric. Food Chem.* **62**(37), 9118-9127 (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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 09/25/2023

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM