

Product Data Sheet

Product Name: Ascorbyl Tetraisopalmitate

Cat. No.: GC49783

Chemical Properties

Cas. No. 183476-82-6

SMILES CCCCCCCC(CCCCCCCCC)C(OC[C@H](OC(C(CCCCCCCCC)CCCCC)=O)[C@@]1([H])OC(C(OC(C(CCCCCCCCC)CCCCC)=O)=C1OC(C(CCCCCC)CCCCCCCC)=O)=O)=O

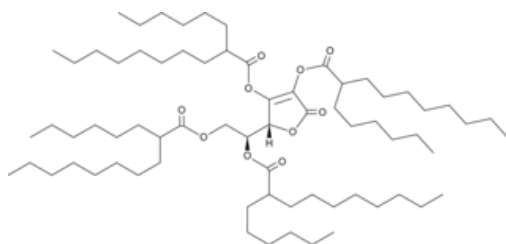
Formula C70H128O10 M.Wt 1129.8

Solubility DMF: 2 mg/ml, DMSO: insol, Ethanol: 10 mg/ml, PBS (pH 7.2): insol Storage -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Ascorbyl tetraisopalmitate is a lipophilic derivative of vitamin C.^{1,2} It protects against UVB-, hydrogen peroxide-, or *tert*-butyl hydroperoxide-induced decreases in cell viability in HaCaT keratinocytes when used at a concentration of 100 µM.¹ Ascorbyl tetraisopalmitate (20 µM) decreases IL-1α and prostaglandin E₂ production in unstimulated and UVB-stimulated HaCaT

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

keratinocytes. Topical application of ascorbyl tetraisopalmitate (1%) increases viable epidermis thickness, stratum corneum water content, and skin smoothness and decreases skin roughness in hairless mice.² Formulations containing ascorbyl tetraisopalmitate have been used in cosmetic products as skin-lightening agents.

1.Ochiai, Y., Kaburagi, S., Obayashi, K., et al.A new lipophilic pro-vitamin C, tetra-isopalmitoyl ascorbic acid (VC-IP), prevents UV-induced skin pigmentation through its anti-oxidative propertiesJ. Dermatol. Sci.44(1)37-44(2006) 2.Maia Campos, P.M.B.G., Gianeti, M.D., Camargo, F.B., Jr., et al.Application of tetra-isopalmitoyl ascorbic acid in cosmetic formulations: Stability studies and in vivo efficacyEur. J. Pharm. Biopharm.82(3)580-586(2012)

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA