

Product Data Sheet

Product Name: C6 Urea Ceramide

Cat. No.: GC45616

Chemical Properties

Cas. No. 486991-52-0

SMILES CCCCCCCCCCCC/C=C/[C@@H](O)[C@@H](NC(NCCCCC)=O)CO

Formula C₂₅H₅₀N₂O₃

M.Wt 426.7

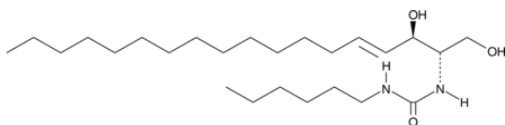
Solubility DMF: 0.5mg/mL

Storage Store at -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

C6 urea ceramide is an inhibitor of neutral ceramidase.¹ It increases total ceramide levels in wild-type mouse embryonic fibroblasts (MEFs) and in HT-29 colon cancer cells but not in MEFs lacking neutral ceramidase. It inhibits proliferation of, and induces apoptosis and autophagy in HT-29, but not non-cancerous RIE-1, cells when used at concentrations of 5 and 10 μM. C6 urea ceramide decreases total β-catenin, increases phosphorylated β-catenin, and induces colocalization of β-catenin with the 20S proteasome in HT-29 and HCT116, but not RIE-1, cells. It reduces tumor growth and increases C16, C18, C20, and C24 ceramide levels in tumor tissue in an HT-29 mouse xenograft model when administered at doses of 1.25, 2.5, and 5 mg/kg for five days.

[1. García-Barros, M., Coant, N., Kawamori, T., et al. Role of neutral ceramidase in colon cancer. FASEB J. 30(12), 4159-4171 (2016).

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

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