

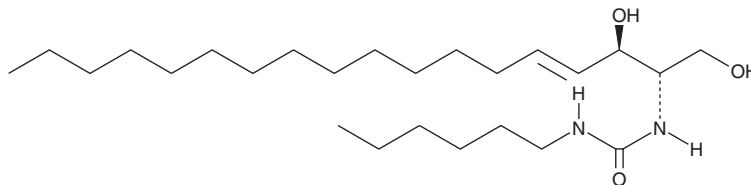
# PRODUCT INFORMATION



## C6 Urea Ceramide

Item No. 25491

**CAS Registry No.:** 486991-52-0  
**Formal Name:** N-hexyl-N'-[(1S,2R,3E)-2-hydroxy-1-(hydroxymethyl)-3-heptadecen-1-yl]-urea  
**Synonyms:** C6 Ceramide (d18:1/6:0) Urea, Cer(d18:1/6:0) Urea, D-erythro-Urea-C6-Ceramide  
**MF:** C<sub>25</sub>H<sub>50</sub>N<sub>2</sub>O<sub>3</sub>  
**FW:** 426.7  
**Purity:** ≥95%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

C6 urea ceramide is supplied as a crystalline solid. A stock solution may be made by dissolving the C6 urea ceramide in the solvent of choice, which should be purged with an inert gas. C6 urea ceramide is soluble in the organic solvent dimethyl formamide at a concentration of approximately 0.5 mg/ml.

### Description

C6 urea ceramide is an inhibitor of neutral ceramidase.<sup>1</sup> 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.

### Reference

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

**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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### 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