

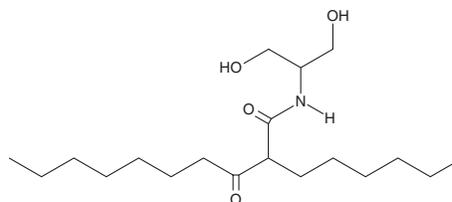
# PRODUCT INFORMATION



## K6PC-5

Item No. 34070

**CAS Registry No.:** 756875-51-1  
**Formal Name:** 2-hexyl-N-[2-hydroxy-1-(hydroxymethyl)ethyl]-3-oxo-decanamide  
**MF:** C<sub>19</sub>H<sub>37</sub>NO<sub>4</sub>  
**FW:** 343.5  
**Purity:** ≥98%  
**Supplied as:** A 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

K6PC-5 is supplied as a solid. A stock solution may be made by dissolving the K6PC-5 in the solvent of choice, which should be purged with an inert gas. K6PC-5 is soluble in the organic solvent DMSO at a concentration of approximately 30 mg/ml.

### Description

K6PC-5 is a sphingosine kinase 1 (SPHK1) activator.<sup>1-3</sup> It activates SPHK1 in F9-12 teratocarcinoma cell lysates and isolated murine blood in a concentration-dependent manner.<sup>1</sup> K6PC-5 (25 and 50 μM) induces calcium oscillations in HaCaT keratinocytes. It inhibits cell death induced by oxygen-glucose deprivation/reoxygenation in SH-SY5Y neuroblastoma cells when used at a concentration of 10 μM.<sup>2</sup> Topical administration of K6PC-5 (1%) increases stratum corneum integrity and corneodesmosome density in a mouse model of photoaging induced by long-term exposure to ultraviolet A (UVA) and UVB radiation.<sup>3</sup>

### References

1. Hong, J.H., Youm, J.K., Kwon, M.J., *et al.* K6PC-5, a direct activator of sphingosine kinase 1, promotes epidermal differentiation through intracellular Ca<sup>2+</sup> signaling. *J. Invest. Dermatol.* **128(9)**, 2166-2178 (2008).
2. Liu, H., Zhang, Z., Xu, M., *et al.* K6PC-5 activates SphK1-Nrf2 signaling to protect neuronal cells from oxygen glucose deprivation/re-oxygenation. *Cell Physiol. Biochem.* **51(4)**, 1908-1920 (2018).
3. Park, H.-y., Youm, J.-K., Kwon, M.J., *et al.* K6PC-5, a novel sphingosine kinase activator, improves long-term ultraviolet light-exposed aged murine skin. *Exp. Dermatol.* **17(1)**, 829-836 (2008).

#### 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, 11/04/2022

#### 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