

Product Data Sheet

Product Name: K6PC-5
Cat. No.: GC49155

Chemical Properties

Cas. No. 756875-51-1

SMILES O=C(C(CCCCCC)C(CCCCCC)=O)NC(CO)CO

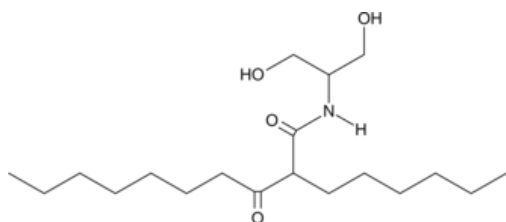
Formula C₁₉H₃₇NO₄ M.Wt 343.5

Solubility DMSO: 30 mg/ml Storage -20°C

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

Structure



Background

K6PC-5 is a sphingosine kinase 1 (SPHK1) activator.^{1,2,3} It activates SPHK1 in F9-12 teratocarcinoma cell lysates and isolated murine blood in a concentration-dependent manner.¹ 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.² 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.³

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 Ca²⁺ signaling. *J. Invest. Dermatol.* 128:2166-2178 (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-

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

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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 skinExp. Dermatol.17(1)829-836(2008)

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