Data Sheet (Cat.No.TN6751)

TargetMol

1-HEXACOSANOL

Chemical Properties

CAS No. : 506-52-5

Formula: C26H54O

Molecular Weight: 382.71

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Hexacosanol activates AMPK and hepatic autophagy and inhibits SREBP2, resulting in hypocholesterolemic activities and improvement of hepatic steatosis.
Targets(IC50)	NPC1L1,AMPK
In vivo	Plasma, hepatic cholesterol concentrations and hepatic steatosis were significantly reduced in high-fat-fed mice orally administered with hexacosanol (0.7 mg/kg body weight/day) for 8 weeks compared to those of vehicle-fed control mice (-15 and -40%, respectively)[1]. Diabetes was induced in 8-week-old male Sprague-Dawley rats by administering an intraperitoneal injection of streptozotocin (50 mg/kg). The rats were divided into four groups and maintained for 8 weeks: control rats, diabetic rats without treatment with N-hexacosanol, and diabetic rats treated with N-hexacosanol (2 mg/kg and 8 mg/kg i.p. every day). Although N-hexacosanol failed to modify the diabetic status, increases in serum creatinine as well as in kidney weight were significantly reduced. The malonaldehyde and transforming growth factor beta-1 (TGF-beta1) concentrations as well as the protein kinase C (PKC) activities in the diabetic kidney were significantly higher than those of the control, which were decreased by treatment with N-hexacosanol. Histological examinations revealed that N-hexacosanol significantly ameliorated diabetic-induced tubulointerstitial pathological changes[2].

Solubility Information

Solubility	DMSO: Insoluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6129 mL	13.0647 mL	26.1294 mL
5 mM	0.5226 mL	2.6129 mL	5.2259 mL
10 mM	0.2613 mL	1.3065 mL	2.6129 mL
50 mM	0.0523 mL	0.2613 mL	0.5226 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Lee JH, Jia Y, Thach TT, Han Y, Kim B, Wu C, Kim Y, Seo WD, Lee SJ. Hexacosanol reduces plasma and hepatic cholesterol by activation of AMP-activated protein kinase and suppression of sterol regulatory element-binding protein-2 in HepG2 and C57BL/6J mice. Nutr Res. 2017 Jul;43:89-99.

Saito M, Kinoshita Y, Satoh I, Shinbori C, Kono T, Hanada T, Uemasu J, Suzuki H, Yamada M, Satoh K. N-hexacosanol ameliorates streptozotocin-induced diabetic rat nephropathy. Eur J Pharmacol. 2006 Aug 21;544(1-3):132-7.