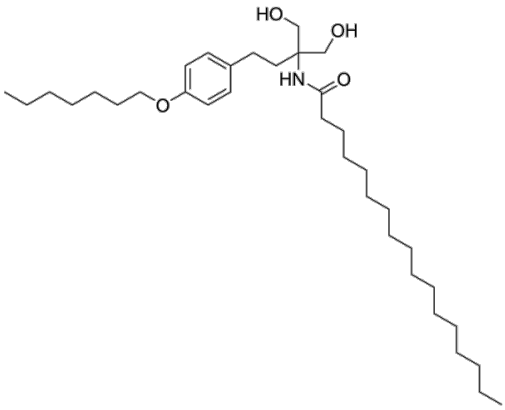
Product Data Sheet

Product Name: ST1060
Cat. No.: GC79557

Chemical Properties

Cas. No.	1402702-76-4		
Formula	$C_{35}H_{63}NO_4$	M.Wt	561.88
Solubility	DMSO: 100 mg/mL (177.97 mM; Need ultrasonic)	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

Product Data Sheet

ST1060 is a Ceramide synthase 2 (CerS2) inhibitor. ST1060 reduces the levels of long-chain dihydroceramide (dhCer) produced by CerS2 catalysis, with IC 5 0 values of 63.6 μM and 61.3 μM for C24:0 and C24:1, respectively. ST1060 is applicable to the research of ceramide metabolism disorders and cervical cancer [1].

In Vitro, ST1060 (preincubated for 10 min, reacted for 30 min) inhibits the synthesis of long-chain dihydroceramides (C24:0-dhCer, C24:1-dhCer) by targeting CerS2 in the microsomal fraction of HCT-116 cells, with IC_{50} values of 63.6 μM and 61.3 μM, respectively [1]. ST1060 (25 μM; pre-incubated for 10 minutes, reacted for 30 minutes) specifically inhibits CerS2 activity in lysates of HCT-116 cells overexpressing CerS2, as evidenced by a significant reduction in the production of C24:0 and C24:1-dhCer[1]. ST1060 (30 μM) significantly reduces the levels of long-chain dihydroceramides (C24:0-dhCer, C24:1-dhCer) in HeLa cervical cancer cells, confirming its targeted action on CerS2[1]. ST1060 (10-70 μM; 48 h) inhibits C14:0-ceramide synthesis in HeLa cervical cancer cells in a concentration-dependent manner, with an IC_{50} of 45.1 μM after 48 h of treatment, while increasing the level of long-chain ceramides[1]. ST1060 (0-80 μM; 48 h) increases the cell viability of HCT-116 colon cancer cells and induces their proliferation in a concentration-dependent manner following 48 h of treatment[1].

References:

[1]. Schiffmann S, et al. Inhibitors of specific ceramide synthases. Biochimie. 2012 Feb;94(2):558-65.

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

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