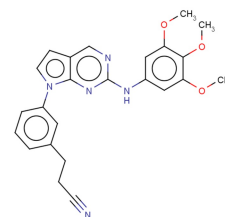


Casein Kinase II Inhibitor IV

Chemical Properties

CAS No.:	863598-09-8
Formula:	C ₂₄ H ₂₃ N ₅ O ₃
Molecular Weight:	429.47
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	Casein Kinase II Inhibitor IV is an inducer of epidermal keratinocyte differentiation.
Targets(IC ₅₀)	Casein Kinase: None
In vitro	Treatment of human epidermal keratinocytes (NHEKs) with Casein Kinase II Inhibitor IV leads to an increase in the early differentiation markers keratins 1 and 10 at 48 h. Increased levels of IVL and TGM are observed in cells treated with Casein Kinase II Inhibitor IV at 72 h and persisted at 96 h. In addition, treated with Casein Kinase II Inhibitor IV expresses loricrin, a terminal differentiation marker, at later time points. Similar results are observed by messenger RNA (mRNA) expression analysis of NHEKs treated with Casein Kinase II Inhibitor IV. At early time points (12 and 24 h), treatment with Casein Kinase II Inhibitor IV leads to the upregulation of keratinocyte early differentiation marker genes, including keratin 1 (5.4-fold) and keratin 10 (5.4-fold). Terminal differentiation marker genes, including IVL (1.8-fold), TGM 1 (4.8-fold), loricrin (3.3-fold), and filaggrin (5.6-fold), are upregulated at late time points (36 and 48 h).

Solubility Information

Solubility	DMSO: 30 mg/mL (69.85 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.328 mL	11.642 mL	23.285 mL
5 mM	0.466 mL	2.328 mL	4.657 mL
10 mM	0.233 mL	1.164 mL	2.328 mL
50 mM	0.047 mL	0.233 mL	0.466 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Hong J, et al. Identification and characterization of small-molecule inducers of epidermal keratinocyte differentiation. ACS Chem Biol. 2007 Mar 20;2(3):171-5.

Inhibitors · Natural Compounds · Compound Libraries

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