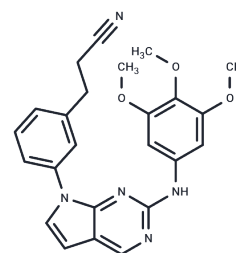


Casein Kinase II Inhibitor IV

Chemical Properties

CAS No. : 863598-09-8
 Formula: C₂₄H₂₃N₅O₃
 Molecular Weight: 429.47
 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	Casein Kinase II Inhibitor IV is an inducer of epidermal keratinocyte differentiation.
Targets(IC50)	Casein Kinase
In vitro	Treatment with Casein Kinase II Inhibitor IV on human epidermal keratinocytes (NHEKs) enhances early differentiation markers, keratins 1 and 10, at 48 hours, while increasing levels of IVL and TGM at 72 hours, sustained through 96 hours. This inhibitor also prompts the expression of loricrin, a terminal differentiation marker, at subsequent time points. Correspondingly, mRNA expression analysis confirms upregulation of early differentiation marker genes, specifically keratin 1 and keratin 10 by 5.4-fold at 12 and 24 hours. Late-differentiation marker genes, including IVL (1.8-fold), TGM 1 (4.8-fold), loricrin (3.3-fold), and filaggrin (5.6-fold), exhibit increased expression at 36 and 48 hours in NHEKs treated with Casein Kinase II Inhibitor IV.

Solubility Information

Solubility	DMSO: 70 mg/mL (162.99 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.66 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3285 mL	11.6423 mL	23.2845 mL
5 mM	0.4657 mL	2.3285 mL	4.6569 mL
10 mM	0.2328 mL	1.1642 mL	2.3285 mL
50 mM	0.0466 mL	0.2328 mL	0.4657 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

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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481