

KSC-34

Chemical Properties

CAS No. : 2226201-97-2

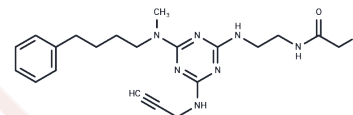
Formula: C₂₁H₂₈ClN₇O

Molecular Weight: 429.95

Store under nitrogen

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	KSC-34 is a covalent modifier of protein disulfide isomerase A1 (PDIA1).KSC-34 is a selective inhibitor targeting the a-site of PDIA1.It inhibits PDIA1 reductase activity in a time-dependent manner and is used to study diseases caused by abnormalities in amyloid.128-63-63-5
Targets(IC50)	Others
In vitro	KSC-34 displays time-dependent inhibition of PDIA1 reductase activity in vitro with a kinact/ KI of $9.66 \times 10^3 \text{ M}^{-1} \text{ s}^{-1}$ and is selective for PDIA1 over other members of the PDI family, and other cellular cysteine-containing proteins[1].

Solubility Information

Solubility	DMSO: 80 mg/mL (186.07 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: 3.3 mg/mL (7.68 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	2.3259 mL	11.6293 mL	23.2585 mL
5 mM	0.4652 mL	2.3259 mL	4.6517 mL
10 mM	0.2326 mL	1.1629 mL	2.3259 mL
50 mM	0.0465 mL	0.2326 mL	0.4652 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

Cole KS, et al. Characterization of an A-Site Selective Protein Disulfide Isomerase A1 Inhibitor. *Biochemistry*. 2018 Apr 3;57(13):2035-2043.

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