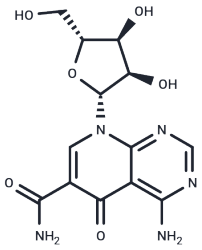
Data Sheet (Cat.No.T8969)

TargetMol

API-1

Chemical Properties



CAS No. : 36707-00-3

Formula: C13H15N5O6

Molecular Weight: 337.29

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	API-1 (NSC-177223) is a potent inhibitor of Akt. It induces GSK3-dependent, β-TrCP- and FBXW7-mediated Mcl-1 degradation, resulting in induction of apoptosis .
Targets(IC50)	Apoptosis,Akt,Caspase,PARP
In vitro	API-1 rapidly and potently reduced the levels of Mcl-1 primarily in API-1-senstive lung cancer cell lines.?Ectopic expression of Mcl-1 protected cells from induction of apoptosis by API-1.?API-1 treatment decreased the half-life of Mcl-1, whereas inhibition of the proteasome with MG132 rescued Mcl-1 reduction induced by API-1.?API-1 decreased Mcl-1 levels accompanied with a rapid increase in Mcl-1 phosphorylation (S159/T163).? Moreover, inhibition of GSK3 inhibited Mcl-1 phosphorylation and reduction induced by API-1 and antagonized the effect of API-1 on induction of apoptosis.

Solubility Information

Solubility	DMSO: 22.5 mg/mL (66.71 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 (5.93 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9648 mL	14.824 mL	29.6481 mL
5 mM	0.593 mL	2.9648 mL	5.9296 mL
10 mM	0.2965 mL	1.4824 mL	2.9648 mL
50 mM	0.0593 mL	0.2965 mL	0.593 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

Ren H , Koo J , Guan B , et al. The E3 ubiquitin ligases β-TrCP and FBXW7 cooperatively mediates GSK3-dependent Mcl-1 degradation induced by the Akt inhibitor API-1, resulting in apoptosis[J]. Molecular Cancer, 2013, 12(1):146-146.