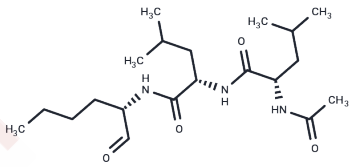
Data Sheet (Cat.No.T6583)

TargetMol

MG-101

Chemical Properties



CAS No. : 110044-82-1

Formula: C20H37N3O4

Molecular Weight: 383.53

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	MG-101 (Calpain inhibitor I) is a cell-permeable and potent inhibitor of cysteine proteases including calpains and lysosomal cathepsins.
Targets(IC50)	Apoptosis,Proteasome,Cysteine Protease
In vitro	AI-10-49 displays specific growth inhibition of inv(16)-positive cell line ME-1. AI-10-49 selectively binds to CBFβ-SMMHC, disrupts its binding to RUNX1, and restores RUNX1 transcriptional activity. [1]

Solubility Information

Solubility	Ethanol: 76 mg/mL (198.16 mM),Sonication is recommended. DMSO: 81.67 mg/mL (212.94 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 8.17 mg/mL (21.3 mM),Suspension. 10% DMSO+90% Saline: < 8.17 mg/mL (21.3 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *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	2.6074 mL	13.0368 mL	26.0736 mL
5 mM	0.5215 mL	2.6074 mL	5.2147 mL
10 mM	0.2607 mL	1.3037 mL	2.6074 mL
50 mM	0.0521 mL	0.2607 mL	0.5215 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

Hiwasa T, et al. Carcinogenesis. 1990, 11(1), 75-80.
Inoue S, et al. J Biol Chem. 1991, 266(20), 13311-13317.