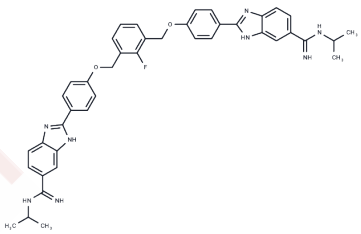
Data Sheet (Cat.No.T9707)

TargetMol

DB2313

Chemical Properties



CAS No. : 2170606-74-1

Formula: C42H41FN8O2

Molecular Weight: 708.83

Storage: Store at low temperature
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	DB2313 (Carboximidamide) is a potent transcription factor PU.1 inhibitor, IC50=14 nM. DB2313 disrupts the interaction of PU.1 with target gene promoters. DB2313 induces apoptosis of acute myeloid leukemia (AML) cells, and has anticancer effects
Targets(IC50)	Apoptosis
In vitro	DB2313 reduces PU.1 binding to the promoters of E2f1, Junb, and Csf1r in acute myeloid leukemia (AML) cells, significantly impairing their proliferation, particularly in PU.1 URE-/- AML cells where it shows an IC50 of 7.1 μM with minimal impact on normal hematopoietic cells at comparable doses. This treatment also increases apoptosis by 3.5 times in PU.1 URE-/- AML murine cells and notably diminishes their clonogenic survival across successive replatings, culminating in a total loss of clonogenic capacity from the fourth replating onwards[1].
In vivo	DB2313 (17 mg/kg; i.p.; three times per week for 3 weeks) treatment reduces leukemia progression and enhances survival in mice.

Solubility Information

Solubility	DMSO: 3.53 mg/mL (4.98 mM),Sonication and heating to 70°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (1.41 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	1.4108 mL	7.0539 mL	14.1078 mL
5 mM	0.2822 mL	1.4108 mL	2.8216 mL
10 mM	0.1411 mL	0.7054 mL	1.4108 mL
50 mM	0.0282 mL	0.1411 mL	0.2822 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

Iléana Antony-Debré, et al. Pharmacological inhibition of the transcription factor PU.1 in leukemia. J Clin Invest. 2017 Dec 1;127(12):4297-4313.