

MD-224

Chemical Properties

CAS No. : 2136247-12-4

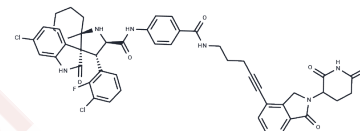
Formula: C₄₈H₄₃Cl₂FN₆O₆

Molecular Weight: 889.8

Storage: Store at low temperature, Keep away from direct sunlight

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	MD-224 is a highly potent and efficacious MDM2 degrader based on the proteolysis targeting chimera (PROTAC) concept, and as a new class of anticancer agent.
Targets(IC50)	Mdm2, E1/E2/E3 Enzyme, PROTACs, MDM-2/p53
In vitro	MD-224 effectively induces rapid degradation of MDM2 at concentrations <1 nM in human leukemia cells. It achieves an IC ₅₀ value of 1.5 nM in inhibition of growth of RS4; 11 cells and also low nanomolar IC ₅₀ values in a panel of leukemia cell lines.
In vivo	MD-224 achieves complete and durable tumor regression in vivo in the RS4; 11 xenograft tumor model in mice at well-tolerated dose schedules.

Solubility Information

Solubility	DMSO: 150 mg/mL (168.58 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: < 10 mg/mL (11.24 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Saline: < 10 mg/mL (11.24 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% (20% SBE-β-CD in Saline): < 10 mg/mL (11.24 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Corn oil: 10 mg/mL (11.24 mM), Solution. <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	1.1238 mL	5.6192 mL	11.2385 mL
5 mM	0.2248 mL	1.1238 mL	2.2477 mL
10 mM	0.1124 mL	0.5619 mL	1.1238 mL
50 mM	0.0225 mL	0.1124 mL	0.2248 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

Li Y, et al. Discovery of MD-224 as a First-in-Class, Highly Potent, and Efficacious Proteolysis Targeting Chimera Murine Double Minute 2 Degradable Capable of Achieving Complete and Durable Tumor Regression. *J Med Chem.* 2019 Jan 24;62(2):448-466

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