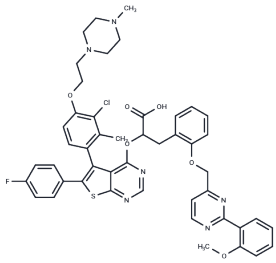
Data Sheet (Cat.No.T12629L)

TargetMol

MIK665

Chemical Properties



CAS No. : 1799631-75-6

Formula: C47H44ClFN6O6S

Molecular Weight: 875.41

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	MIK665 (S-64315) is a small-molecule inhibitor and a myeloid cell leukemia sequence 1 (MCL1) inhibitor (IC50 = 1.81 nM) with high selectivity and cell permeability. Used in experimental research, this compound exhibits antitumor activity in hematologic malignancies such as acute myeloid leukemia.
Targets(IC50)	Bcl-2 Family
In vitro	**Methods**: In AML cells including U937, MV4-11, MOLM-13, and OCI-AML3, 7-AAD/Annexin V staining, Western blot (PARP, caspase-3), and Median Dose-Effect analysis were performed, with cells treated with 1-10 nM MIK665 combined with 2 μM SKI-606 for 24 h. **Results**: MIK665 and SKI-606 synergistically induced apoptosis, manifested by increased cleavage of PARP and caspase-3, and formation of γH2AX.[1] **Methods**: In MDS-L, SKM-1, and primary MDS cells, MTS assay and Caspase-Glo 3/7 detection were used, with 50 nM MIK665 alone or combined with GNA treatment for 24-48 h. **Results**: MIK665 alone mildly inhibited proliferation and increased caspase 3/7 activity; when combined with GNA, it significantly enhanced anti-proliferative and pro-apoptotic effects, and synergistically upregulated Fas expression.[2]
Cell Research	MIK665 suppresses H929 cells (IC50: 250 nM).

Solubility Information

Solubility	DMSO: 250 mg/mL (285.58 mM),Sonication is recommended. H2O: Insoluble,insoluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (5.71 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	1.1423 mL	5.7116 mL	11.4232 mL
5 mM	0.2285 mL	1.1423 mL	2.2846 mL
10 mM	0.1142 mL	0.5712 mL	1.1423 mL
50 mM	0.0228 mL	0.1142 mL	0.2285 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

Hu, Xiaoyan et al. Src inhibition potentiates MCL-1 antagonist activity in acute myeloid leukemia. Signal transduction and targeted therapy vol. 10,1 50. 10 Feb. 2025.

Li Y, Lee H H, Jiang V C, et al.Potentiation of apoptosis in drug-resistant mantle cell lymphoma cells by MCL-1 inhibitor involves downregulation of inhibitor of apoptosis proteins.Cell Death & Disease.2023, 14(11): 714.

Zhong, Cheng et al. The tubulin polymerization inhibitor gambogenic acid induces myelodysplastic syndrome cell apoptosis through upregulation of Fas expression mediated by the NF-κB signaling pathway. Cancer biology & therapy vol. 25,1 (2024): 2427374.

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