

AOH1996

Chemical Properties

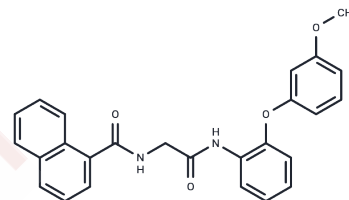
CAS No. : 2089314-64-5

Formula: C₂₆H₂₂N₂O₄

Molecular Weight: 426.46

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	AOH1996 belongs to small molecule inhibitors and is a PCNA ligand targeting transcription-replication conflicts, with oral activity, metabolic stability, and tumor selectivity. This compound induces transcription-dependent DNA double-strand breaks and apoptosis, and is used for antitumor therapy.
Targets(IC50)	Apoptosis,DNA
In vitro	Methods: Seven AML cell lines and primary CD34+CD38- leukemic stem cells (LSC) were treated with AOH1996 at concentrations of 0.5-1 μ M for 24 hours, and cell proliferation, apoptosis, and colony formation assays were performed. Results: AOH1996 dose-dependently inhibited proliferation and colony formation of AML cells and LSC, induced apoptosis, and had no significant effect on normal CD34+CD38- hematopoietic stem cells.[1]
In vivo	Methods: Human primary AML cells were transplanted into Es1(ko)SCID mice, and 7 days later, AOH1996 (100 mg/kg) was administered by oral gavage twice daily for 3 weeks. Results: AOH1996 significantly reduced leukemia burden in peripheral blood and spleen, and extended median survival from 35 days to 50 days; secondary transplantation confirmed reduced LSC burden, with survival extended from 30 days to 42 days.[1]

Solubility Information

Solubility	DMSO: 250 mg/mL (586.22 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3449 mL	11.7244 mL	23.4489 mL
5 mM	0.469 mL	2.3449 mL	4.6898 mL
10 mM	0.2345 mL	1.1724 mL	2.3449 mL
50 mM	0.0469 mL	0.2345 mL	0.469 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

Kang, HyunJun et al. AOH1996 targets mitochondrial dynamics and metabolism in leukemic stem cells via mitochondrial PCNA inhibition. *Experimental hematology & oncology* vol. 13,1 123. 28 Dec. 2024

Gu L, et al. Small molecule targeting of transcription-replication conflict for selective chemotherapy. *Cell Chem Biol.* 2023;S2451-9456(23)00221-0.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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