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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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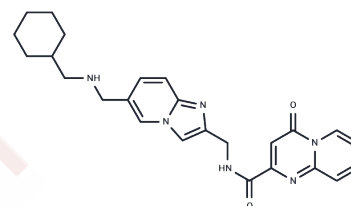
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STM2457

Chemical Properties

CAS No. :	2499663-01-1
Formula:	C ₂₅ H ₂₈ N ₆ O ₂
Molecular Weight:	444.53
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	STM2457 is an inhibitor of the RNA methyltransferase METTL3 (IC ₅₀ =16.9 nM) with selective and oral activity. STM2457 can be used in acute myeloid leukemia (AML) studies.
Targets(IC ₅₀)	Apoptosis,Others
In vitro	<p>METHODS: Eight human acute myeloid leukemia cells AML were treated with STM2457 (0-100 μM) for 72 h. Cell proliferation was detected using CellTiter 96 AQueous Non-Radioactive Cell Proliferation Assay.</p> <p>RESULTS: STM2457-treated AML cell lines showed a significant reduction in growth after treatment in a concentration-dependent manner, with IC₅₀s ranging from 0.6-10.3 μM. [1]</p> <p>METHODS: Human lung cancer cells A549 and H1975 were treated with STM2457 (1-5 μM) for 3-6 days and apoptosis was detected using Flow Cytometry.</p> <p>RESULTS: STM2457 induced apoptosis in A549 and H1975 cells. [2]</p>
In vivo	<p>METHODS: To assay anti-tumor activity in vivo, STM2457 (50 mg/kg) was administered intraperitoneally to NSG mice bearing xenografts derived from human AML patients once daily for twelve to fourteen days.</p> <p>RESULTS: Daily treatment with STM2457 resulted in impaired implantation and AML amplification in vivo and significantly prolonged mouse lifespan. [1]</p> <p>METHODS: To investigate the role of METTL3 in the pathogenesis of systemic lupus erythematosus (SLE), STM2457 (30 mg/kg) was administered intraperitoneally to a cGVHD lupus mouse model once every three days for ten weeks.</p> <p>RESULTS: METTL3 inhibition increased antibody production and exacerbated the lupus-like phenotype in cGVHD mice. METTL3 inhibition is involved in the pathogenesis of SLE by participating in the imbalance between CD4+ T cell activation and effector T cell differentiation. [3]</p>

Solubility Information

Solubility	DMSO: 47.61 mg/mL (107.12 mM),Sonication is recommended. 10% DMSO+30% PEG300+5% Tween 80+55% ddH ₂ O: 4.76 mg/mL (10.71 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2496 mL	11.2478 mL	22.4957 mL
5 mM	0.4499 mL	2.2496 mL	4.4991 mL
10 mM	0.225 mL	1.1248 mL	2.2496 mL
50 mM	0.045 mL	0.225 mL	0.4499 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.

Reference

Xu Q C, Tien Y C, Shi Y H, et al. METTL3 promotes intrahepatic cholangiocarcinoma progression by regulating IFIT2 expression in an m6A-YTHDF2-dependent manner. *Oncogene*. 2022: 1-12.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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