

TDI-11055

## Chemical Properties

CAS No. :

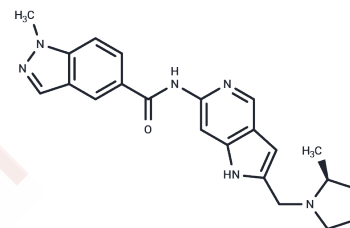
Formula: C<sub>22</sub>H<sub>24</sub>N<sub>6</sub>O

Molecular Weight: 388.47

Store at low temperature

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	TDI-11055 is an orally available inhibitor of chromatin reader 11-19 leukemia (ENL) that works by blocking the interaction of its YEATS domain with acylated histones. TDI-11055 can be used to study acute myeloid leukemia (AML).
Targets(IC50)	Endogenous Metabolite
In vitro	Time-resolved fluorescence energy transfer (TR-FRET) assays were used to measure the inhibitory effects of TDI-11055 on the interactions between different YEATS domains and acylated histone peptides. TDI-11055 retained potency and selectivity for the YEATS domains of ENL (IC <sub>50</sub> = 0.05 μmol/L) and AF9 (IC <sub>50</sub> = 0.07 μmol/L) but showed no inhibition of the YEATS domains of GAS41 and YEATS2. [2]
In vivo	Mouse xenograft model using MV4;11 cells subcutaneously implanted into BALB/c nude mice. After tumors reached approximately 300 to 400 mm <sup>3</sup> , treatment with TDI-11055 [100 or 200 mg/kg, per os (p.o.), b.i.d.] or vehicle was initiated and continued for 8 consecutive days. Dosing with TDI-11055 twice daily resulted in significant inhibition of tumor growth over 8 days of treatment with no overt effect on body weight. Gene expression analysis of tumors at the end of treatment revealed a substantial reduction in the expression of key ENL target genes (HOXA9, MYC, MEIS1, and MYB) in tumors in the TDI-11055--treated group compared with vehicle controls. [2]

## Solubility Information

Solubility	DMSO: 80 mg/mL (205.94 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (8.49 mM),Sonication is recommended. <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

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	1mg	5mg	10mg
1 mM	2.5742 mL	12.871 mL	25.742 mL
5 mM	0.5148 mL	2.5742 mL	5.1484 mL
10 mM	0.2574 mL	1.2871 mL	2.5742 mL
50 mM	0.0515 mL	0.2574 mL	0.5148 mL

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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

Michino M, et al. Lead Optimization of Small Molecule ENL YEATS Inhibitors to Enable In Vivo Studies: Discovery of TDI-11055. ACS Med Chem Lett. 2024 Mar 12;15(4):524-532.

Liu Y, et al. Small-Molecule Inhibition of the Acyl-Lysine Reader ENL as a Strategy against Acute Myeloid Leukemia. Cancer Discov. 2022 Nov 2;12(11):2684-2709.

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