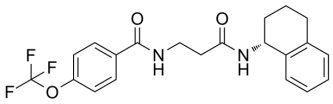
ML390

Cat. No.:	HY-100688
CAS No.:	2029049-79-2
Molecular Formula:	$C_{21}H_{21}F_3N_2O_3$
Molecular Weight:	406.4
Target:	Dihydroorotate Dehydrogenase
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 27 mg/mL (66.44 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.4606 mL	12.3032 mL	24.6063 mL
5 mM	0.4921 mL	2.4606 mL	4.9213 mL
10 mM	0.2461 mL	1.2303 mL	2.4606 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

ML390 is a potent dihydroorotate dehydrogenase (DHODH) inhibitor. ML390 is an inducer of myeloid differentiation and causes myeloid differentiation in murine (ER-HoxA9) and human (U937 and THP1) acute myeloid leukemia (AML) models[1][2][3].

In Vitro

ML390 is active with an ED_{50} of ~2 μM in murine and human AML cell lines. In vitro, treatment of Lys-GFP-ER-HoxA9 cells with ML390 for 48 hr inhibits DHODH activity, leading to the dramatic (>500-fold) accumulation of the upstream metabolite DHO and the depletion of uridine and other downstream metabolites[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Sykes DB et al. Discovering Small Molecules that Overcome Differentiation Arrest in Acute Myeloid Leukemia. National Center for Biotechnology Information (US); 2010-2013 Dec 15.

[2]. David B Sykes, et al. Inhibition of Dihydroorotate Dehydrogenase Overcomes Differentiation Blockade in Acute Myeloid Leukemia. Cell. 2016 Sep 22;167(1):171-186.e15.

[3]. Timothy A Lewis, et al. Development of ML390: A Human DHODH Inhibitor That Induces Differentiation in Acute Myeloid Leukemia. ACS Med Chem Lett. 2016 Sep 28;7(12):1112-1117.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA