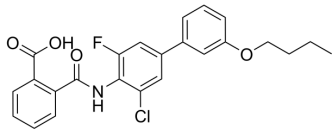
DHODH-IN-23

Cat. No.:	HY-153112
CAS No.:	1346705-53-0
Molecular Formula:	$C_{24}H_{21}ClFNO_4$
Molecular Weight:	441.88
Target:	Dihydroorotate Dehydrogenase
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (282.88 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2631 mL	11.3153 mL	22.6306 mL
	5 mM	0.4526 mL	2.2631 mL	4.5261 mL
	10 mM	0.2263 mL	1.1315 mL	2.2631 mL

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

BIOLOGICAL ACTIVITY

Description

DHODH-IN-23 (Compound A) is an orally active DHODH inhibitor that can be used for the research of cancer[1].

In Vitro

DHODH-IN-23 (Compound A; 72 h) inhibits acute myeloid leukemia cells proliferation[1].
DHODH-IN-23 (0.1-3 μM; 72 h) induces CDllb expression in THP-1 cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	U937, HL-60, THP-1, KG-1 and MV411
Concentration:	
Incubation Time:	72 h
Result:	Inhibited cell growth with GI_{50}s of 2.4, 2.5, 2.5, 3.5 and 7.6 μM against U937, THP-1, MV411 HL-60 and KG-1, respectively.

RT-PCR[1]

Cell Line:	THP-1 cells
Concentration:	72 h
Incubation Time:	0.1, 1 and 3 μM
Result:	Induced CDllb mRNA expression.

In Vivo

DHODH-IN-23 (Compound A; 30 mg/kg; oral; twice daily for 21 days) shows antitumor activity in MV411 mouse xenograft model[1].

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

Animal Model:	MV411 mouse xenograft model[1]
Dosage:	30 mg/kg
Administration:	Oral administration, twice daily for 21 days
Result:	Demonstrated significant anti-tumor activity both as a single agent and in combination with Cytarabine (HY-13605) at 20 mg/kg with tumor growth inhibitions of 37 and 73% respectively.

REFERENCES

[1]. Srikant Viswanadha, et al. Compositions comprising a dhodh inhibitor for the treatment of acute myeloid leukemia. Patent WO2021079273A1.

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