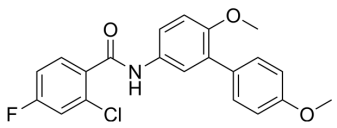
DG70

Cat. No.:	HY-111086
CAS No.:	930470-97-6
Molecular Formula:	$C_{21}H_{17}ClFNO_3$
Molecular Weight:	385.82
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Pure form -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (129.59 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5919 mL	12.9594 mL	25.9188 mL
	5 mM	0.5184 mL	2.5919 mL	5.1838 mL
	10 mM	0.2592 mL	1.2959 mL	2.5919 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.25 mg/mL (3.24 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DG70 (GSK1733953A), a biphenyl amide, is a respiration inhibitor in Mycobacterium tuberculosis, inhibits MenG activity with an IC_{50} value of 2.6 ± 0.6 μM. DG70 inhibits the catalytic methylation of Mycobacterium tuberculosis demethylmenaquinone methyltransferase enzymes. DG70 can be used for Tuberculosis (TB) research[1][2][3].

IC_{50} & Target

IC50: 2.6 ± 0.6 μM (MenG)[1]

REFERENCES

[1]. Pujari V, et al. Mycobacterial MenG: Partial Purification, Characterization, and Inhibition. ACS Infect Dis. 2022 Dec 9;8(12):2430-2440.

[2]. Adewumi AT, et al. Thompson loop: opportunities for antitubercular drug design by targeting the weak spot in demethylmenaquinone methyltransferase protein. RSC

Adv. 2020 Jun 19;10(39):23466-23483.

[3]. Sukheja P, et al. A Novel Small-Molecule Inhibitor of the Mycobacterium tuberculosis Demethylmenaquinone Methyltransferase MenG Is Bactericidal to Both Growing and Nutritionally Deprived Persister Cells. mBio. 2017 Feb 14;8(1):e02022-16.

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