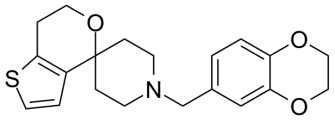
GSK2200150A

Cat. No.:	HY-112091
CAS No.:	1443138-53-1
Molecular Formula:	$C_{20}H_{23}NO_3S$
Molecular Weight:	357.47
Target:	Bacterial
Pathway:	Anti-infection
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 : 65 mg/mL (181.83 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.7974 mL	13.9872 mL	27.9744 mL
5 mM	0.5595 mL	2.7974 mL	5.5949 mL
10 mM	0.2797 mL	1.3987 mL	2.7974 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.17 mg/mL (6.07 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.17 mg/mL (6.07 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.17 mg/mL (6.07 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

GSK2200150A, identified by high-throughput screening (HTS) campaign, is an anti-tuberculosis (TB) agent.

IC_{50} & Target

MIC: 0.38 μM (M.tuberculosis strain H37Rv)[1]

In Vitro

GSK2200150A is a novel antimycobacterial agent against Mycobacterium tuberculosis.The activities of GSK2200150A containing the spirocycle core are determined against the virulent M.tuberculosis strain (H37Rv) with MIC of 0.38 μM[1].

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

PROTOCOL

Cell Assay

GSK2200150A is tested for activity at either single concentration (100 μM) or serially diluted in 10 μL of purified H_2O in triplicate in 96 well microtiter plates. M. tuberculosis H37Rv is grown in complete Middlebrook 7H9 media containing albumin, dextrose and catalase (ADC), 20% Tween 80 and 50% glycerol. A bacterial suspension (90 μL) at $OD_{600\ nm}$ of 0.001 is added to the wells and incubated for 7 days. Resazurin (10 μL; 0.05%(w/v)) is then added, incubated for 24 h at 37°C, and fluorescence measured at 590 nm using a FLUOstar Omega microplate reader. After subtraction of background fluorescence from all wells, the percentage mycobacterial survival is determined by comparing the fluorescence of wells containing compounds compared to control wells not treated with compound[1].

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

REFERENCES

[1]. Badiola KA, et al. Efficient Synthesis and Anti-Tubercular Activity of a Series of Spirocycles: An Exercise in OpenScience. PLoS One. 2014 Dec 10;9(12):e111782.

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