ATP synthase inhibitor 2

Cat. No.: HY-150983

CAS No.: 2814540-76-4

Molecular Formula: $C_{21}H_{22}N_2O_3S$

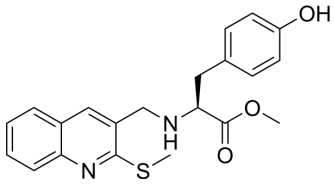
Molecular Weight: 382.48

Target: ATP Synthase; Bacterial

Pathway: Membrane Transporter/Ion Channel; Anti-infection

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 : 250 mg/mL (653.63 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.6145 mL	13.0726 mL	26.1452 mL
5 mM	0.5229 mL	2.6145 mL	5.2290 mL
10 mM	0.2615 mL	1.3073 mL	2.6145 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.44 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.44 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ATP synthase inhibitor 2 is a Pseudomonas aeruginosa (PA) ATP synthase inhibitor (IC_{50}=10 μg/mL). ATP synthase inhibitor 2 can inhibit Pseudomonas aeruginosa (PA) ATP synthesis activity completely at 128 μg/mL[1].

IC_{50} & Target

IC50: 10 μg/mL (Pseudomonas aeruginosa ATP synthase)[1]

In Vitro

ATP synthase inhibitor 2 (Compound 22) (0-256 μg/mL; 12-15 h) treatment inhibits ATP synthase but not shows whole cell antibiotic activity against Pseudomonas aeruginosa[1].

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

Cell Viability Assay[1]

Cell Line:	MSSA and WTPA
Concentration:	0-256 μg/mL
Incubation Time:	12-15 hours
Result:	Showed no activities against MSSA and WTPA (MICs>128 μg/mL and >256 μg/mL, respectively).

REFERENCES

[1]. John F. Ciprich, et al. Synthesis and Evaluation of Pseudomonas aeruginosa ATP Synthase Inhibitors. ACS Omega.

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