Macozinone

Cat. No.: HY-12903

CAS No.: 1377239-83-2

Molecular Formula: $C_{20}H_{23}F_3N_4O_3S$

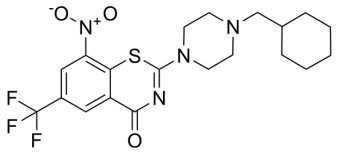
Molecular Weight: 456.48

Target: Bacterial; Antibiotic

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 : 6.4 mg/mL (14.02 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1907 mL	10.9534 mL	21.9068 mL
	5 mM	0.4381 mL	2.1907 mL	4.3814 mL
	10 mM	0.2191 mL	1.0953 mL	2.1907 mL

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

BIOLOGICAL ACTIVITY

Description

Macozinone (PBTZ169) is a bactericidal benzothiazinone and a potent DprE1 (decaprenylphosphoryl-β-d-ribose 2′-oxidase) inhibitor. Macozinone inhibits the essential flavoprotein DprE1 by forming a covalent bond with the active-site Cys387 residue. Macozinone has antituberculosis effect[1][2].

IC_{50} & Target

DprE1[1]

In Vitro

Macozinone (PBTZ169) is highly potent against M. tuberculosis in vitro, ex vivo, and in vivo[2].

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

CUSTOMER VALIDATION

- Antimicrob Agents Chemother. 2021 Jan 25;AAC.01445-20.

- Dis Model Mech. 2021 Oct 13;dmm.049145.
- J Pharm Biomed Anal. 2 June 2022, 114865.

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REFERENCES

[1]. [3] Makarov V et al. Towards a new combination therapy for tuberculosis with next generation benzothiazinones.EMBO Mol Med. 2014 Mar;6(3):372-83.

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