Sutezolid

Cat. No.: HY-10392

CAS No.: 168828-58-8

Molecular Formula: $C_{16}H_{20}FN_3O_3S$

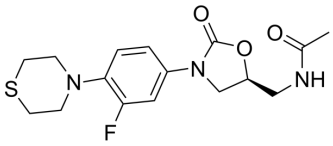
Molecular Weight: 353.41

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 : 50 mg/mL (141.48 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8296 mL	14.1479 mL	28.2957 mL
	5 mM	0.5659 mL	2.8296 mL	5.6591 mL
	10 mM	0.2830 mL	1.4148 mL	2.8296 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: ≥ 2.5 mg/mL (7.07 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.07 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.07 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Sutezolid (PNU-100480), an orally active oxazolidinone antimicrobial agent, acts by inhibiting bacterial protein synthesis. Sutezolid has potent activity against mycobacteria, and is used for the research of drug-resistant tuberculosis[1][2].

IC_{50} & Target

Oxazolidinone

In Vitro

Sutezolid (PNU-100480) exhibits excellent in vitro activity against multiple clinical isolates of Mycobacterium avium complex (MIC's=0.5-4 μg/mL)[1].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Sutezolid (PNU-100480) is a thiomorpholinyl analog of linezolid with superior efficacy against M. tuberculosis in the hollow-fiber, mouse, and whole-blood models[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Antimicrob Agents Chemother. 2023 Mar 15;e0165522.
- Antimicrob Agents Chemother. 2021 Jan 25;AAC.01445-20.
- Dis Model Mech. 2021 Oct 13;dmm.049145.
- J Pharm Biomed Anal. 2019 May 30;169:196-207.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Barbachyn MR, et al. Identification of a novel oxazolidinone (U-100480) with potent antimycobacterial activity. J Med Chem. 1996;39(3):680-685.

[2]. Nicole Salazar-Austin, et al. Sutezolid. In Kucers the Use of Antibiotics: A Clinical Review of Antibacterial, Antifungal, Antiparasitic, and Antiviral Drugs, Seventh Edition (pp. 2559-2563). CRC Press.

[3]. Zhu T, et al. Population pharmacokinetic/pharmacodynamic analysis of the bactericidal activities of sutezolid (PNU-100480) and its major metabolite against intracellular Mycobacterium tuberculosis in ex vivo whole-blood cultures of patients with pulmonary tuberculosis. Antimicrob Agents Chemother. 2014;58(6):3306-3311.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA