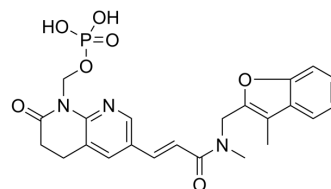


Afabicin

Cat. No.:	HY-109000		
CAS No.:	1518800-35-5		
Molecular Formula:	C ₂₃ H ₂₄ N ₃ O ₇ P		
Molecular Weight:	485.43		
Target:	Bacterial		
Pathway:	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

H₂O : 3.85 mg/mL (7.93 mM; ultrasonic and warming and adjust pH to 10 with NaOH and heat to 60°C)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
1 mM		2.0600 mL	10.3001 mL	20.6003 mL
5 mM		0.4120 mL	2.0600 mL	4.1201 mL
10 mM		---	---	---

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

BIOLOGICAL ACTIVITY

Description

Afabicin (Debio 1450) is the proagent of Debio1452, specifically targeting staphylococci without significant activity against other Gram-positive or Gram-negative species. Debio1452 is an inhibitor FabI, an enzyme critical to fatty acid biosynthesis in staphylococci.

IC₅₀ & Target

FabI, Bacteria^[1]

In Vitro

Afabicin (Debio1450) is the prodrug of Debio1452, specifically targeting staphylococci without significant activity against other Gram-positive or Gram-negative species. Debio1452 inhibits FabI, an enzyme critical to fatty acid biosynthesis in staphylococci. Debio1452 is highly active against staphylococci isolates, with MIC₅₀ and MIC₉₀ values of 0.015 µg/mL and 0.12 µg/mL, respectively. Debio1452 also inhibits *S. aureus*, with MICs of ≤0.12 µg/mL and MIC₅₀ and MIC₉₀ values of 0.004 µg/mL and 0.008 µg/mL, respectively^[1].

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

REFERENCES

[1]. Flamm RK, et al. Activity of Debio1452, a FabI inhibitor with potent activity against Staphylococcus aureus and coagulase-negative Staphylococcus spp., including multidrug-resistant strains. Antimicrob Agents Chemother. 2015 May;59(5):2583-7.

Caution: Product has not been fully validated for medical applications. For research use only.

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