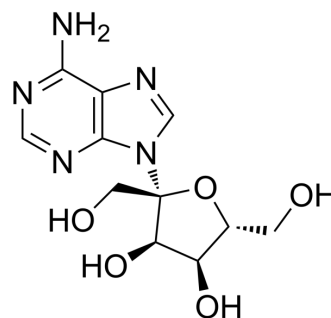


Psicofuranine

Cat. No.:	HY-119819	
CAS No.:	1874-54-0	
Molecular Formula:	C ₁₁ H ₁₅ N ₅ O ₅	
Molecular Weight:	297.27	
Target:	Bacterial; Parasite; Antibiotic	
Pathway:	Anti-infection	
Storage:	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (168.20 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.3639 mL	16.8197 mL	33.6395 mL
	5 mM	0.6728 mL	3.3639 mL	6.7279 mL
	10 mM	0.3364 mL	1.6820 mL	3.3639 mL

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

BIOLOGICAL ACTIVITY

Description

Psicofuranine a nucleoside antibiotic and has the inhibition of xanthosine 5'-phosphate aminase. Psicofuranine also specifically inhibits GMP synthase, and interrupts parasite growth. Psicofuranine exhibits a dose-dependent inhibition of *P. falciparum* growth^{[1][2]}.

IC₅₀ & Target

Plasmodium

In Vitro

Psicofuranine specifically inhibits bacterial GMP synthase as demonstrated by isolation of Psicofuranine-resistant *Escherichia coli* mutants with mutations in the gene encoding GMP synthase and inhibition of bacterial growth. Psicofuranine exhibits a dose-dependent inhibition of *P. falciparum* growth with an IC₅₀ of 0.3 mM. The Psicofuranine inhibitory concentration is similar to that of *E. coli*^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. cConkey GA. Plasmodium falciparum: isolation and characterisation of a gene encoding protozoan GMP synthase. *Exp Parasitol.* 2000 Jan;94(1):23-32.

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

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