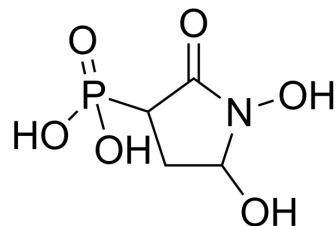


SF2312

Cat. No.:	HY-117778		
CAS No.:	107729-45-3		
Molecular Formula:	C ₄ H ₈ NO ₆ P		
Molecular Weight:	197.08		
Target:	Enolase; Antibiotic; Bacterial		
Pathway:	Metabolic Enzyme/Protease; Anti-infection		
Storage:	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 125 mg/mL (634.26 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	5.0741 mL	25.3704 mL	50.7408 mL
	5 mM	1.0148 mL	5.0741 mL	10.1482 mL
	10 mM	0.5074 mL	2.5370 mL	5.0741 mL

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

BIOLOGICAL ACTIVITY

Description

SF2312, a natural phosphonate antibiotic (Antibiotic), is a highly potent Enolase inhibitor with IC₅₀s of 37.9 nM and 42.5 nM for human recombinant ENO1 and ENO2, respectively. SF2312 is active against bacteria under anaerobic conditions^[1].

In Vitro

SF2312 is selectively toxic to ENO1-deleted glioma cells. SF2312 inhibits the proliferation (2 weeks treatment course) of the ENO1-deleted D423 glioma cell line in the low μM range whilst isogenically ENO1-rescued D423 cells, ectopically re-expressing ENO1 only shows inhibition of proliferation at concentrations of SF2312 above 200 μM. SF2312 (10 μM) dose-dependently reduces the conversion of U-¹³C glucose to ¹³C lactate in a manner selective for ENO1-deleted over ENO1-rescued or otherwise ENO1-intact glioma cells^[1].

SF2312 is produced by the actinomycete Micromonospora and is active against a range of bacteria, with strong activity against Salmonella and Staphylococcus, weak activity against E. coli, and no activity against fungi^[1].

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

REFERENCES

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

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