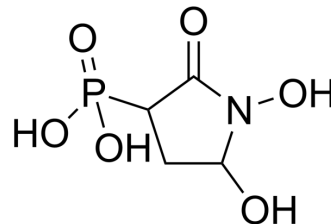


SF2312

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:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	SF2312, a natural phosphonate antibiotic (Antibiotic), is a highly potent Enolase inhibitor with IC ₅₀ s 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	<p>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].</p> <p>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].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Paul G Leonard, et al. SF2312 is a natural phosphonate inhibitor of enolase. Nat Chem Biol. 2016 Dec;12(12):1053-1058.

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

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