D-Sedoheptulose 7-phosphate

MedChemExpress

Cat. No.:	HY-113206		
CAS No.:	2646-35-7		
Molecular Formula:	C ₇ H ₁₅ O ₁₀ P		
Molecular Weight:	290.16		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month

HO H OH O HO H OH O'H O OH OH OH

BIOLOGICAL ACTIVITY		
BIOEOGICAE ACTIVITY		
Description	D-Sedoheptulose 7-phosphate is a common precursor for the heptoses of septacidin (group III) and hygromycin B (group IV). D-Sedoheptulose 7-phosphate can be converted to NDP-heptoses through similar biosynthetic pathways in those compounds ^[1] .	
IC ₅₀ & Target	Human Endogenous Metabolite	
In Vitro	Sedoheptulose 7-phosphate can be converted to ADP-l-glycero-β-d-manno-heptose by SepB, SepL, and SepC, it involves in ADP-sugar in microbial natural product biosynthesis ^[1] . SepB is an S-7-P isomerase, SepL involves in the biosynthesis of heptoses of the core region of E. coli LPS, and they catalyze a four-reaction relay converting S-7-P into ADP-d-glycero-β-d-manno-heptose ^[1] . Septacidin and its analogs are potential anticancer and pain-relief agents ^[1] . Hygromycin B is an anthelmintic agent practically used in swine and poultry farming ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

REFERENCES

[1]. Tang W, et al. d-Sedoheptulose-7-phosphate is a common precursor for the heptoses of septacidin and hygromycin B.Proc Natl Acad Sci U S A. 2018 Mar 13;115(11):2818-2823.

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

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