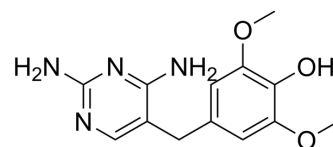


4'-DTMP

Cat. No.:	HY-W587663		
CAS No.:	21253-58-7		
Molecular Formula:	C ₁₃ H ₁₆ N ₄ O ₃		
Molecular Weight:	276.29		
Target:	Dihydrofolate reductase (DHFR)		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (180.97 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	3.6194 mL	18.0969 mL	36.1939 mL
5 mM	0.7239 mL	3.6194 mL	7.2388 mL
10 mM	0.3619 mL	1.8097 mL	3.6194 mL

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

BIOLOGICAL ACTIVITY

Description

4'-DTMP is a DHFR inhibitor with K_i of 5.1 nM (DHFR^{WT}) and 34.3 nM (DHFR^{L28R}), respectively. 4'-DTMP carries a polar modification that induces additional local interactions with the enzyme. In particular, the hairpin structure on the M20 ring is related to the internal communication of the DHFR. 4'-DTMP has potential inhibition of E.coli^[1].

IC₅₀ & Target

K_i: 5.1 nM (WT), 34.3 nM (L28R)^[1]

REFERENCES

[1]. Cetin E, et al. Kinetic Barrier to Enzyme Inhibition Is Manipulated by Dynamical Local Interactions in E. coli DHFR. J Chem Inf Model. 2023 Aug 14;63(15):4839-4849.

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

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