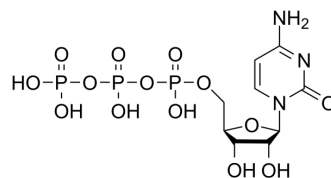


Cytidine-5'-triphosphate

Cat. No.:	HY-125818
CAS No.:	65-47-4
Molecular Formula:	C ₉ H ₁₆ N ₃ O ₁₄ P ₃
Molecular Weight:	483.16
Target:	DNA/RNA Synthesis; Nucleoside Antimetabolite/Analog; Endogenous Metabolite
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 83.33 mg/mL (172.47 mM; Need ultrasonic)					
	DMSO : < 1 mg/mL (ultrasonic;warming;heat to 80°C) (insoluble or slightly soluble)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		2.0697 mL	10.3485 mL	20.6971 mL
5 mM			0.4139 mL	2.0697 mL	4.1394 mL	
	10 mM		0.2070 mL	1.0349 mL	2.0697 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (206.97 mM); Clear solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	Cytidine 5'-triphosphate (Cytidine triphosphate; 5'-CTP) is a nucleoside triphosphate and serves as a building block for nucleotides and nucleic acids, lipid biosynthesis. Cytidine triphosphate synthase can catalyze the formation of cytidine 5'-triphosphate from uridine 5'-triphosphate (UTP). Cytidine 5'-triphosphate is an essential biomolecule in the de novo pyrimidine biosynthetic pathway in <i>T. gondii</i> ^[1] .
IC₅₀ & Target	Human Endogenous Metabolite

CUSTOMER VALIDATION

- Exp Hematol Oncol. 2023 Jan 12;12(1):6.

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- Anal Chim Acta. 18 October 2021, 339180.

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REFERENCES

[1]. Heidy Y Narvaez-Ortiz, et al. A CTP Synthase Undergoing Stage-Specific Spatial Expression Is Essential for the Survival of the Intracellular Parasite *Toxoplasma gondii*. *Front Cell Infect Microbiol*. 2018 Mar 22;8:83.

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

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