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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

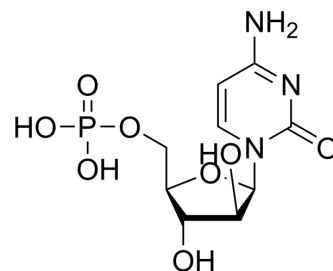
mail@szabo-scandic.com

www.szabo-scandic.com

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Cytarabine 5'-monophosphate

Cat. No.:	HY-W344074
CAS No.:	7075-11-8
Molecular Formula:	C ₉ H ₁₄ N ₃ O ₈ P
Molecular Weight:	323.2
Target:	DNA/RNA Synthesis; Drug Metabolite
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Cytarabine 5'-monophosphate is a metabolite of the nucleoside analog Cytarabine (HY-13605), catalyzed by deoxycytidine kinase. Cytarabine 5'-monophosphate is incorporated into DNA by DNA polymerase α , which reduces the rate of DNA synthesis. At a concentration of 15 mM, Cytarabine 5'-monophosphate inhibits nuclear and mitochondrial DNA replication in *Saccharomyces cerevisiae* (*S. cerevisiae*). Additionally, Cytarabine 5'-monophosphate (3.5-75.1 mg/kg) improves survival in leukemia mice (L1210 mice). Cytarabine 5'-monophosphate can be used in cancer research^[1].

REFERENCES

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- [2]. Huang S, et al. Development and application of a rapid and sensitive liquid chromatography-mass spectrometry method for simultaneous analysis of cytarabine, cytarabine monophosphate, cytarabine diphosphate and cytarabine triphosphate in the cytosol and nucleus. *J Pharm Biomed Anal.* 2022 Mar 20;211:114582.
- [3]. Perrino FW, et al. Incorporation of cytosine arabinoside monophosphate into DNA at internucleotide linkages by human DNA polymerase alpha. *J Biol Chem.* 1992 Nov 15;267(32):23043-51.
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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