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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Cytarabine-d_2

Cat. No.: HY-13605S

CAS No.: 40632-26-6

Molecular Formula: $C_9H_{11}D_2N_3O_5$

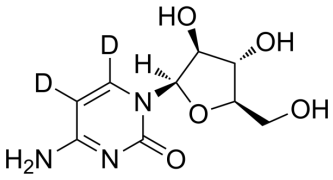
Molecular Weight: 245.23

Target: Apoptosis; Nucleoside Antimetabolite/Analog; HSV; DNA/RNA Synthesis; Autophagy; Endogenous Metabolite

Pathway: Apoptosis; Cell Cycle/DNA Damage; Anti-infection; Autophagy; 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

H_2O : ≥ 50 mg/mL (203.89 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.0778 mL	20.3890 mL	40.7780 mL
5 mM	0.8156 mL	4.0778 mL	8.1556 mL
10 mM	0.4078 mL	2.0389 mL	4.0778 mL

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

BIOLOGICAL ACTIVITY

Description

Cytarabine-d_2 is the deuterium labeled Cytarabine. Cytarabine, a nucleoside analog, causes S phase cell cycle arrest and inhibits DNA polymerase. Cytarabine inhibits DNA synthesis with an IC50 of 16 nM. Cytarabine has antiviral effects against HSV[1][2].

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Gruffaz M, Zhou S, Vasan K, et al. Repurposing Cytarabine for Treating Primary Effusion Lymphoma by Targeting Kaposi's Sarcoma-Associated Herpesvirus Latent and Lytic Replications. mBio. 2018;9(3):e00756-18. Published 2018 May 8.

[3]. Tobias, S.C. and R.F. Borch, Synthesis and biological evaluation of a cytarabine phosphoramidate prodrug. Mol Pharm, 2004. 1(2): p. 112-6.

[4]. Yamauchi, H., et al., Involvement of p53 in 1-beta-D-arabinofuranosylcytosine-induced trophoblastic cell apoptosis and impaired proliferation in rat placenta. Biol Reprod, 2004. 70(6): p. 1762-7.

[5]. Richel, D.J., et al., Comparison of the antileukaemic activity of 5 aza-2-deoxycytidine and arabinofuranosyl-cytosine in rats with myelocytic leukaemia. Br J Cancer, 1988. 58(6): p. 730-3.

[6]. Renis HE. Antiviral activity of cytarabine in herpesvirus-infected rats. Antimicrob Agents Chemother. 1973 Oct;4(4):439-44.

[7]. Shepshelovich D, et al. Pharmacodynamics of cytarabine induced leucopenia: a retrospective cohort study. Br J Clin Pharmacol. 2015 Apr;79(4):685-91.

[8]. Besirli, C.G., et al. Cytosine arabinoside rapidly activates Bax-dependent apoptosis and a delayed Bax-independent death pathway in sympathetic neurons. Cell Death Differ, 2003. 10(9): p. 1045-58.

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