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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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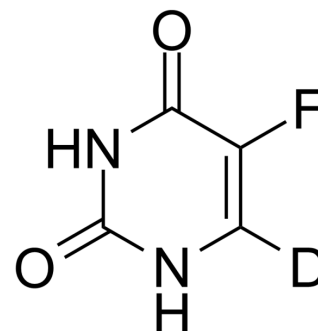
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5-Fluorouracil-d

Cat. No.:	HY-90006S		
CAS No.:	90344-84-6		
Molecular Formula:	C ₄ H ₂ DFN ₂ O ₂		
Molecular Weight:	131.08		
Target:	Apoptosis; Nucleoside Antimetabolite/Analog; HIV; Endogenous Metabolite		
Pathway:	Apoptosis; Cell Cycle/DNA Damage; Anti-infection; 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 (381.45 mM; Need ultrasonic and warming)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	7.6289 mL	38.1446 mL	76.2893 mL
	5 mM	1.5258 mL	7.6289 mL	15.2579 mL
	10 mM	0.7629 mL	3.8145 mL	7.6289 mL

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

BIOLOGICAL ACTIVITY

Description

5-Fluorouracil-d is the deuterium labeled 5-Fluorouracil. 5-Fluorouracil (5-FU) is an analogue of uracil and a potent antitumor agent. 5-Fluorouracil affects pyrimidine synthesis by inhibiting thymidylate synthetase thus depleting intracellular dTTP pools. 5-Fluorouracil induces apoptosis and can be used as a chemical sensitizer[1][2]. 5-Fluorouracil also inhibits HIV[3].

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

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- [3]. Pek Yee Lum, et al. Discovering modes of action for therapeutic compounds using a genome-wide screen of yeast heterozygotes. *Cell.* 2004 Jan 9;116(1):121-37.
- [4]. Yin L, et al. Antitumor effects of oncolytic herpes simplex virus type 2 against colorectal cancer in vitro and in vivo. *Ther Clin Risk Manag.* 2017 Feb 7;13:117-130.
- [5]. Snyder SM, et al. Initial Experience with Topical Fluorouracil for Treatment of HIV-Associated Anal Intraepithelial Neoplasia. *J Int Assoc Physicians AIDS Care (Chic).* 2011;10(2):83-88.
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- [7]. Han R, et al. Amphiphilic dendritic nanomicelle-mediated co-delivery of 5-fluorouracil and NSC 123127 for enhanced therapeutic efficacy. *J Drug Target.* 2016 Jun 29:1-28. [Epub ahead of print]
- [8]. Jones DH, et al. Ten-Year and Beyond Follow-up After Treatment With Highly Purified Liquid-Injectable Silicone for HIV-Associated Facial Lipotrophy: A Report of 164 Patients. *Dermatol Surg.* 2019 Jul;45(7):941-948.
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Caution: Product has not been fully validated for medical applications. For research use only.

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