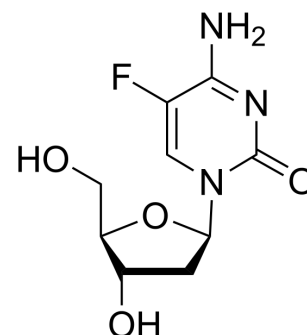


## 5-Fluoro-2'-deoxytidine

Cat. No.:	HY-116217
CAS No.:	10356-76-0
Molecular Formula:	C <sub>9</sub> H <sub>12</sub> FN <sub>3</sub> O <sub>4</sub>
Molecular Weight:	245.21
Target:	DNA Methyltransferase
Pathway:	Epigenetics
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (203.91 mM; Need ultrasonic)				
	H <sub>2</sub> O : 16.67 mg/mL (67.98 mM; Need ultrasonic)				
	Preparing Stock Solutions	Mass	1 mg	5 mg	10 mg
		Solvent			
		Concentration			
	1 mM	4.0781 mL	20.3907 mL	40.7814 mL	
	5 mM	0.8156 mL	4.0781 mL	8.1563 mL	
	10 mM	0.4078 mL	2.0391 mL	4.0781 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (10.20 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (10.20 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (10.20 mM); Clear solution				

### BIOLOGICAL ACTIVITY

Description	5-Fluoro-2'-deoxycytidine, a fluoropyrimidine nucleoside analogue, is a DNA methyltransferase (DNMT) inhibitor. 5-Fluoro-2'-deoxycytidine is a tumor-selective proagent of the potent thymidylate synthase inhibitor 5-fluoro-2'-dUMP <sup>[1][2]</sup> .
IC <sub>50</sub> & Target	DNA methyltransferase (DNMT) <sup>[1]</sup>

### REFERENCES

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[1]. Beumer JH, et, al. Pharmacokinetics, metabolism, and oral bioavailability of the DNA methyltransferase inhibitor 5-fluoro-2'-deoxycytidine in mice. Clin Cancer Res. 2006 Dec 15;12(24):7483-91.

[2]. Osterman DG, et, al. 5-Fluorocytosine in DNA is a mechanism-based inhibitor of HhaI methylase. Biochemistry. 1988 Jul 12;27(14):5204-10.

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

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