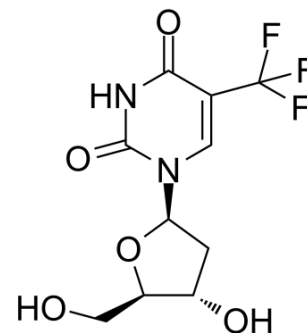


## Trifluridine

<b>Cat. No.:</b>	HY-A0061		
<b>CAS No.:</b>	70-00-8		
<b>Molecular Formula:</b>	C <sub>10</sub> H <sub>11</sub> F <sub>3</sub> N <sub>2</sub> O <sub>5</sub>		
<b>Molecular Weight:</b>	296.2		
<b>Target:</b>	Thymidylate Synthase; HSV; Nucleoside Antimetabolite/Analog		
<b>Pathway:</b>	Apoptosis; Anti-infection; Cell Cycle/DNA Damage		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 100 mg/mL (337.61 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.3761 mL	16.8805 mL	33.7610 mL
	5 mM	0.6752 mL	3.3761 mL	6.7522 mL
	10 mM	0.3376 mL	1.6880 mL	3.3761 mL

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

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
 Solubility: ≥ 2.5 mg/mL (8.44 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
 Solubility: ≥ 2.5 mg/mL (8.44 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 2.5 mg/mL (8.44 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Trifluridine (Trifluorothymidine; 5-Trifluorothymidine; TFT) is an irreversible thymidylate synthase inhibitor, and thereby suppresses DNA synthesis. Trifluridine is an antiviral drug for herpes simplex virus (HSV) infection.

#### IC<sub>50</sub> & Target

Thymidylate Synthase	Nucleoside Antimetabolite/Analog	HSV-1	HSV-2
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## CUSTOMER VALIDATION

- J Mol Med (Berl). 2019 Aug;97(8):1183-1193.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

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## REFERENCES

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  - [3]. Temmink OH, et al. Irinotecan-induced cytotoxicity to colon cancer cells in vitro is stimulated by pre-incubation with trifluorothymidine. *Eur J Cancer*. 2007 Jan;43(1):175-83.
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  - [5]. Novel trifluridine crystal form and preparation method thereof. CN105198946A.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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