

# **Trifluridine**

# **Product Description**

**Catalog #:** E73384, 100mg E73385, 500mg

AX7MN0, 1ml 10mM in DMSO.

Name: Trifluridine

Syn: Trifluorothymidine; 5-Trifluorothymidine; TFT

CAS: 70-00-8

**MW:** 296.20

**Formula :**  $C_{10}H_{11}F_3N_5O_5$ 

**Properties :** Soluble : in DMSO :  $\geq$  100 mg/mL (337.61 mM)

Purity: 99.96%

**Storage:** Powder: -20°C (long term; possible at +4°C (2 years)

In solvent: -80°C (6 months) -20°C (1 month)

HN F F HO OH

For Research Use Only

### Introduction

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. IC50 & Targets: DNA Synthesis (thymidylate synthase)

### In Vitro

Solubility: DMSO: >100 mg/mL (337.61 mM)

Preparation: 1 mM = 1 mg in 3.3761 mL

## In Vivo

### Preparation:

1. 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

2. Add each solvent one by one: 10% DMSO 90% (20% SBE- $\beta$ -CD in saline) Solubility:  $\geq$  2.5 mg/mL (8.44 mM); Clear solution

3. Add each solvent one by one: 10% DMSO 90% corn oil

Solubility: ≥ 2.5 mg/mL (8.44 mM); Clear solution

# **InterBioTech**

## FT-E73384

#### **References**

- [1]. Suzuki N, et al. Mode of action of trifluorothymidine (TFT) against DNA replication and repair enzymes. Int J Oncol. 2011 Jul;39(1):263-70.
- [2]. Suzuki N, et al. Trifluorothymidine exhibits potent antitumor activity via the induction of DNA double-strand breaks. Exp Ther Med. 2011 May;2(3):393-397.
- [3]. Temmink OH, et al. Irinotecan-induced cytotoxicity to colon cancer cells in vitro is stimulated by pre-incubation withtrifluorothymidine. Eur J Cancer. 2007 Jan;43(1):175-83.
- [4]. Okayama T, et al. Involvement of concentrative nucleoside transporter 1 in intestinal absorption of trifluorothymidine, a novel antitumor nucleoside, in rats. J Pharmacol Exp Ther. 2012 Feb;340(2):457-62.More references: J Mol Med (Berl). 2019 Aug;97(8):1183-1193.

### **Related products**

HIV agonists and inhibitors

## **Ordering information**

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