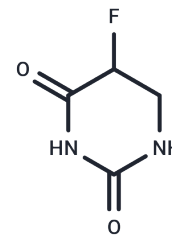


## 5,6-dihydro-5-Fluorouracil

## Chemical Properties

CAS No. :	696-06-0
Formula:	C <sub>4</sub> H <sub>5</sub> FN <sub>2</sub> O <sub>2</sub>
Molecular Weight:	132.09
Storage:	Store at low temperature Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	5,6-dihydro-5-Fluorouracil (5-FUH2) is an inactive metabolite of 5-FU and can be used for the study of organismal metabolism.
Targets(IC50)	Nucleoside Antimetabolite/Analog,Others
In vitro	The combination of 5,6-dihydro-5-Fluorouracil (5-Fu) and NSC 123127 (Dox) demonstrates synergistic anticancer efficacy. The IC <sub>50</sub> values for 5-Fu/Dox-DNM against human breast cancer (MDA-MB-231) cells are 0.25 µg/mL, with cytotoxicity increasing by 11.2-fold and 6.1-fold for Dox-DNM and 5-Fu-DNM, respectively [4]. In NFBD1-inhibited NPC cells treated with 5,6-dihydro-5-Fluorouracil (5-FU) and CDDP, lentivirus-mediated short hairpin RNA depletion of NFBD1 expression in NPC CNE1 cell line enhances sensitivity. Knockdown of NFBD1 significantly induces apoptosis in CNE1 cells treated with CDDP or 5,6-dihydro-5-Fluorouracil [2].
In vivo	Administered at a dose of 23 mg/kg three times a week for 14 days, 5,6-dihydro-5-Fluorouracil(5-FU) induces gastrointestinal transit acceleration associated with acute intestinal inflammation starting on the third day of treatment. This may lead to sustained changes in the enteric nervous system (ENS) observed beyond the 7th day, and the 14-day treatment results in delayed gastrointestinal transit and colonic motility disorders [1].

## Solubility Information

Solubility	DMSO: 43 mg/mL (325.54 mM),Sonication is recommended. PBS (pH 7.2): 8 mg/mL (60.56 mM),Sonication is recommended. Ethanol: 0.8 mg/mL (6.06 mM),Sonication is recommended. DMF: 60 mg/mL (454.24 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	--

### Preparing Stock Solutions

---

	1mg	5mg	10mg
1 mM	7.5706 mL	37.853 mL	75.706 mL
5 mM	1.5141 mL	7.5706 mL	15.1412 mL
10 mM	0.7571 mL	3.7853 mL	7.5706 mL
50 mM	0.1514 mL	0.7571 mL	1.5141 mL

---

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

McQuade RM, et al. Gastrointestinal dysfunction and enteric neurotoxicity following treatment with anticancer chemotherapeutic agent 5-fluorouracil. *Neurogastroenterol Motil.* 2016 Jun 28.

Zeng Q, et al. Knockdown of NFBD1/MDC1 enhances chemosensitivity to NSC 119875 or 5-fluorouracil in nasopharyngeal carcinoma CNE1 cells. *Mol Cell Biochem.* 2016 Jul;418(1-2):137-46.

Jones DH, et al. Ten-Year and Beyond Follow-up After Treatment With Highly Purified Liquid-Injectable Silicone for HIV-Associated Facial Lipoatrophy: A Report of 164 Patients. *Dermatol Surg.* 2019 Jul;45(7):941-948.

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.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481