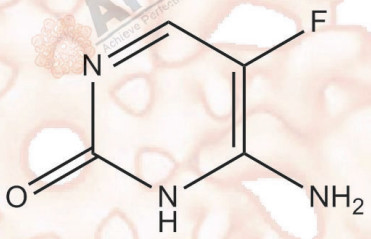
Product Data Sheet

Flucytosine

Cat. No.: A8433
CAS No.: 2022-85-7
Formula: C4H4FN3O
M.Wt: 129.09
Synonyms:
Target: Microbiology & Virology
Pathway: Antibiotic
Storage: Store at -20°C



Solvent & Solubility

In Vitro

insoluble in EtOH; ⩾18.8 mg/mL in H2O; ⩾6.4 mg/mL in DMSO

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	7.7465 mL	38.7327 mL	77.4653 mL
5 mM	1.5493 mL	7.7465 mL	15.4931 mL
10 mM	0.7747 mL	3.8733 mL	7.7465 mL

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

Biological Activity

Shortsummary	Antifungal drug
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	P. aeruginosa Strains
Preparation method:	The solubility of this compound in DMSO is >6.4mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	1, 4, 11, 33 and 100 μM; 14 h

	Applications:	In P. aeruginosa strains, 5-Flucytosine (5-FC) inhibited pyoverdine synthesis and pvdE transcription. In a P. aeruginosa PAO1 fur mutant, 5-Flucytosine also inhibited pyoverdine production, suggesting that 5-FC could repress iron uptake genes through a Fur-independent mechanism. 5-Flucytosine down-regulated the expression of toxA and prpL genes, which was consistent with the strongly reduced ToxA and PrpL levels in culture supernatants, two major virulence factors of P. aeruginosa.
In Vivo	**Animal experiment**	
	Animal models:	mouse model of pulmonary infection; mice infected with an isogenic pvdS mutant
	Dosage form:	30 mg/kg per day; i.p.
	Applications:	In a mouse model of pulmonary infection with P. aeruginosa, 5-FC almost completely protected mice from the P. aeruginosa lethal challenge. All mice infected with the pvdS mutant survived the challenge, suggesting the importance of PvdS as a major pathogenicity determinant in P. aeruginosa pulmonary infection. 5-FC also reduced lesions and inflammation in bronchi and pulmonary parenchyma.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1] Imperi F1, Massai F, Facchini M, et al. Repurposing the antimycotic drug flucytosine for suppression of Pseudomonas aeruginosa pathogenicity. Proc Natl Acad Sci U S A. 2013 Apr 30;110(18):7458-63.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for

long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

APExBIO Technology
www.apexbt.com
7505 Fannin street, Suite 410, Houston, TX 77054.
Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com