5-Fluoroorotic acid

Catalog No.C14518 Batch:C1451803

Product Datasheet

Technical Data

Formula	$C_5H_3FN_2O_4$					
Molecular Weight	174.09	**CAS No.**	703-95-7			
Solubility (25°C)*	In vitro	DMSO	35 mg/mL (201.04 mM)			
		Water	Insoluble			
		Ethanol	Insoluble			
	In vivo (Add solvents to the product individually and in order)	Oral Administration	Homogeneous suspension	CMC-NA	≥5mg/ml	Taking the 1 mL working solution as an example, add 5 mg of this product to 1 ml of CMC-Na solution, mix evenly to obtain a homogeneous suspension with a final concentration of 5 mg/ml.

* <1 mg/ml means slightly soluble or insoluble.
* Please note that Capsid Bio tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.
* Room temperature shipping (Stability testing shows this product can be shipped at 2-8°C for storage purposes.)

Preparing Stock Solutions

Concentration \ Volume / Mass	1 mg	5 mg	10 mg
1 mM	5.7442 mL	28.7208 mL	57.4416 mL
5 mM	1.1488 mL	5.7442 mL	11.4883 mL
10 mM	0.5744 mL	2.8721 mL	5.7442 mL
50 mM	0.1149 mL	0.5744 mL	1.1488 mL

Biological Activity

Description	5-Fluoroorotic acid (5-FOA, 5-Fluoroorotate, NSC 31712) is a selective agent in yeast molecular genetics. This compound possesses a well-expressed anticandidal effect close to that of 5-fluorocytosine, as well as moderate antidermatophytal effects.
In vitro	5-Fluoroorotic acid (5-FOA) is an extremely useful reagent for the selection of Ura- cells amid a population of Ura+ cells. The selection is effective in transformation and recombination studies where loss of URA3+ is desired. A new plasmid shuffling procedure based on the 5-FOA^R selection permits the recovery of conditional lethal mutations in cloned genes that encode vital functions.[1]

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  Yeast cells
- **Concentrations**
  1 mg/ml, 500 μg/ml
- **Incubation Time**
  4-7 days
- **Method**
  Yeast cells are generally pregrown in liquid YPD medium or on YPD plates prior to selection on 5-Fluoroorotic acid. As many as 10^7 cells may be plated on a single, 50 mm Petri dish containing this compound medium. Resistant colonies will grow up within 4-7 days at 30°. The most useful concentration of the drug is generally 1 mg/ml of this chemical, but in the interest of economy it is possible to use as little as 500 μg/ml of this compound. When lower concentrations of this chemical are used, however, background growth of the Ura+ cells is considerably greater. This background growth is less of a problem when Ura- derivatives occur at a high frequency (e.g., when a URA3+ marker is located between the elements of a direct duplication). In some instances it may be desirable to use a rich medium such as YPD as opposed to the minimal medmm normally used with this compound selection.

References

https://pubmed.ncbi.nlm.nih.gov/3323810/ https://pubmed.ncbi.nlm.nih.gov/3586772/

RETURN POLICY

Capsid Bio's Unconditional Return Policy ensures a smooth online shopping experience for our customers. If you are in any way unsatisfied with your purchase, you may return any item(s) within 7 days of receiving it. In the event of product quality issues, either protocol related or product related problems, you may return any item(s) within 365 days from the original purchase date. Please follow the instructions below when returning products.

SHIPPING & STORAGE

Capsid Bio products are transported at room temperature. If you receive the product at room temperature, please rest assured, the Capsid Bio Quality Inspection Department has conducted experiments to verify that the normal temperature placement of one month will not affect the biological activity of powder products. After collecting, please store the product according to the requirements described in the datasheet. Most Capsid Bio products are stable under the recommended conditions.

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EU Headquarters
Gajeva ulica 28, HR-10000 Zagreb, Croatia

US Headquarters
12222 Merit Dr STE 130 Dallas, Texas, 75251

UK Headquarters
121 ABILITY HOUSE, BROOKER ROAD, EN9 1JH, ESSEX

Orders: Sales@capsidbio.com
Enquiries: info@capsidbio.com
www.capsidbio.com