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Product Information

5-Fluorocytosine

Product Number **F 7129**
Storage Temperature 2-8 °C

Product Description

Molecular Formula: $C_4H_4FN_3O$

Molecular Weight: 129.1

CAS Number: 2022-85-7

λ_{max} : 285 nm

Extinction coefficient: $E^{mM} = 8.91$ (in 0.1 M HCl)¹

Synonym: Flucytosine²

This product is used as an antifungal agent.² It has also been used as a selection agent for plastids in transgenic plants. The bacterial enzyme cytosine deaminase has been used as a negative selection marker system. Cells that express cytosine deaminase convert 5-fluorocytosine to the toxic compound 5-fluorouracil, and transformed seedlings can thus be identified using medium containing 5-fluorocytosine.

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

The overall solubility in water at 25 °C is 1.5 g/100 ml.³ This product is soluble in a formic acid:water mixture (1:1 v/v)(50 mg/ml). It is also soluble in 0.1 N HCL (7 µg/ml). This product is also slightly soluble in alcohol and practically insoluble in chloroform and ether.² The product should be protected from light.

References

1. Duschinsky R, et al., The synthesis of 5-fluoropyrimidines. J. Am. Chem. Soc., **79**, 4559 (1957).
2. Martindale The Extra Pharmacopoeia, 30th ed., Reynolds, J. E. F., ed., The Pharmaceutical Press (London, England: 1993), p. 322.
3. The Merck Index, 11th Ed., Entry# 4056.

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