

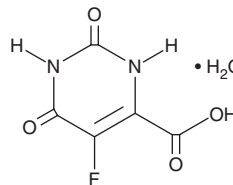
PRODUCT INFORMATION



5-fluoro Orotic Acid (hydrate)

Item No. 17318

CAS Registry No.: 220141-70-8
Formal Name: 5-fluoro-1,2,3,6-tetrahydro-2,6-dioxo-4-pyrimidinecarboxylic acid, monohydrate
Synonyms: 5-FOA, 5-fluoro OA
MF: C₅H₃FN₂O₄ • H₂O
FW: 192.1
Purity: ≥95%
UV/Vis.: λ_{max}: 288 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

5-fluoro Orotic acid (5-FOA) (hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the 5-FOA (hydrate) in the solvent of choice, which should be purged with an inert gas. 5-FOA (hydrate) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of 5-FOA (hydrate) in these solvents is approximately 10 and 5 mg/ml, respectively.

5-FOA (hydrate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 5-FOA (hydrate) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 5-FOA (hydrate) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

5-FOA is used to detect *URA3* gene expression in yeast molecular genetic constructs.¹ Yeast with an active *URA3* gene, which encodes orotidine-5'-monophosphate decarboxylase, converts 5-FOA to fluorodeoxyuridine, which is toxic to cells. Resistant strains of yeast that carry a mutation in the *URA3* gene grow in the presence of 5-FOA if the media is supplemented with uracil.

Reference

1. Winston, F., Chaleff, D.T., Valent, B., *et al.* Mutations affecting Ty-mediated expression of the *HIS4* gene of *Saccharomyces cerevisiae*. *Genetics* **107**(2), 179-197 (1984).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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