

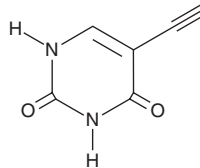
PRODUCT INFORMATION



Eniluracil

Item No. 34251

CAS Registry No.: 59989-18-3
Formal Name: 5-ethynyl-2,4(1H,3H)-pyrimidinedione
Synonyms: 776C85, 5-Ethynyluracil, NSC 687296
MF: C₆H₄N₂O₂
FW: 136.1
Purity: ≥98%
UV/Vis.: λ_{max}: 225, 285 nm
Supplied as: A 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

Eniluracil is supplied as a solid. A stock solution may be made by dissolving the eniluracil in the solvent of choice, which should be purged with an inert gas. Eniluracil is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of eniluracil in these solvents is approximately 25 and 10 mg/ml, respectively.

Eniluracil is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, eniluracil should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Eniluracil has a solubility of approximately 0.12 mg/ml in a 1:7 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Eniluracil is an irreversible inhibitor of dihydropyrimidine dehydrogenase (DPD; K_i = 1.6 μM), the rate-determining enzyme in the catabolism of pyrimidines, including 5-fluorouracil (Item No. 14416).^{1,2} It inhibits liver DPD and elevates plasma pyrimidine levels in rats (ED₅₀s = 1.8 and 10 μg/kg, respectively).² Eniluracil (2 mg/kg) potentiates the antitumor effects of 5-fluorouracil in MC-38 murine colon carcinoma and MOPC 315 murine myeloma models.

References

1. Porter, D.J., Chestnut, W.G., Merrill, B.M., *et al.* Mechanism-based inactivation of dihydropyrimidine dehydrogenase by 5-ethynyluracil. *J. Biol. Chem.* **267**(8), 5236-5242 (1992).
2. Baccanari, D.P., Davis, S.T., Knick, V.C., *et al.* 5-Ethynyluracil (776C85): A potent modulator of the pharmacokinetics and antitumor efficacy of 5-fluorouracil. *Proc. Nat. Acad. Sci. USA* **90**(23), 11064-11068 (1993).

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.

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