

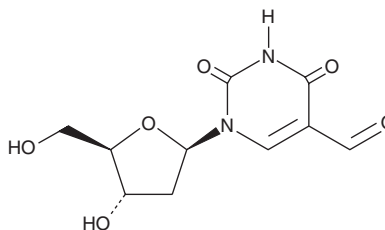
PRODUCT INFORMATION



5-Formyl-2'-deoxyuridine

Item No. 40306

CAS Registry No.: 4494-26-2
Formal Name: α -oxo-thymidine
Synonyms: NSC 148297, fdUrd
MF: $C_{10}H_{12}N_2O_6$
FW: 256.2
Purity: $\geq 95\%$
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

5-Formyl-2'-deoxyuridine is supplied as a solid. A stock solution may be made by dissolving the 5-formyl-2'-deoxyuridine in the solvent of choice, which should be purged with an inert gas. 5-Formyl-2'-deoxyuridine is sparingly soluble (1-10 mg/ml) in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 5-formyl-2'-deoxyuridine can be prepared by directly dissolving the solid in aqueous buffers. 5-Formyl-2'-deoxyuridine is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

5-Formyl-2'-deoxyuridine is a nucleoside derivative.¹ It inhibits the proliferation of BHK-21 cells and Ehrlich ascites tumor cells (IC_{50} s = 4 and 6 μM , respectively). 5-Formyl-2'-doxyuridine (1 mM) reduces virus yield in pseudorabies-infected BHK-21 cells. It is also a product of oxidative DNA damage *in vitro*.²

References

1. Langen, P., Waschke, S.R., Waschke, K., *et al.* 5-Formyl-2'-deoxyuridine: Cytostatic and antiviral properties and possible modes of action. *Acta Biol. Med. Ger.* **35(12)**, 1625-1633 (1976).
2. Kasai, H., Kawasaki, Y., and Kawai, K. Pyrimidine ring-opened product from oxidative DNA damage of 5-formyl-2'-deoxyuridine. *Chem. Res. Toxicol.* **32(4)**, 737-744 (2019).

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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