

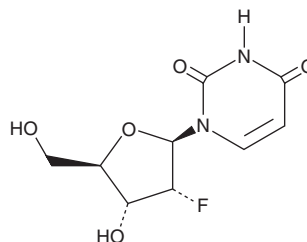
PRODUCT INFORMATION



2'-Fluoro-2'-deoxyuridine

Item No. 40302

CAS Registry No.: 784-71-4
Formal Name: 2'-deoxy-2'-fluoro-uridine
Synonym: 2'-FdU
MF: $C_9H_{11}FN_2O_5$
FW: 246.2
Purity: $\geq 98\%$
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

2'-Fluoro-2'-deoxyuridine (2'-FdU) is supplied as a solid. A stock solution may be made by dissolving the 2'-FdU in the solvent of choice, which should be purged with an inert gas. 2'-FdU 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 2'-FdU can be prepared by directly dissolving the solid in aqueous buffers. 2'-FdU is soluble (≥ 10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

2'-FdU is a derivative of the pyrimidine nucleoside uridine (Item No. 20300).¹ Hepatitis C polyU/UC RNA strands containing 2'-FdU, unlike unmodified polyU/UC strands, bind to retinoic acid-inducible gene I (RIG-I) but do not activate RIG-I signaling in a reporter assay using Huh7 cells. 2'-FdU also has been used as a starting material in the synthesis of respiratory syncytial virus (RSV) polymerase inhibitors.²

References

1. Durbin, A.F., Wang, C., Marcotrigiano, J., *et al.* RNAs containing modified nucleotides fail to trigger RIG-I conformational changes for innate immune signaling. *mBio* **7**(5), e00833 (2016).
2. Wang, G., Deval, J., Hong, J., *et al.* Discovery of 4'-chloromethyl-2'-deoxy-3',5'-di-O-isobutyryl-2'-fluorocytidine (ALS-8176), a first-in-class RSV polymerase inhibitor for treatment of human respiratory syncytial virus infection. *J. Med. Chem.* **58**(4), 1862-1878 (2015).

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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