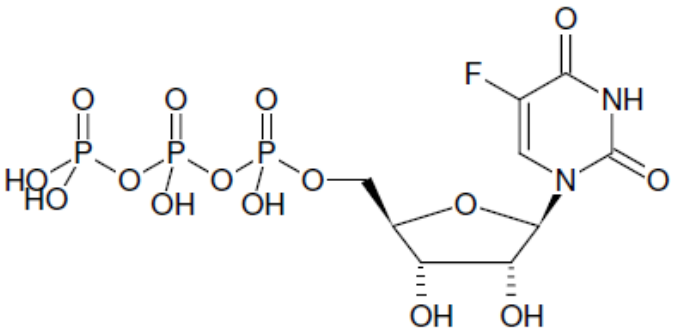
5-Fluoro-UTP

Cat#: orb64970 (Datasheet)

5-Fluoro-UTP
(5F-UTP)
5-Fluoro-uridine-5'-triphosphate, Sodium salt



Structural formula of 5-Fluoro-UTP

For research use only!

Shipping: shipped on gel packs
Storage Conditions: store at -20 °C
Short term exposure (up to 1 week cumulative) to ambient temperature possible.
Shelf Life: 12 months after date of delivery
Molecular Formula: C9H14N2O15P3F (free acid)
Molecular Weight: 502.13 g/mol (free acid)
Exact Mass: 501.96 g/mol (free acid)
CAS#: 3828-96-4
Purity: ≥ 95 % (HPLC)
Form: solution in water
Color: colorless to slightly yellow
Concentration: 100 mM - 110 mM
pH: 7.5 ±0.5
Spectroscopic Properties: λmax 267 nm, ε 10.0 L mmol-1 cm-1 (Tris-HCl pH 7.5)

Applications:
Inhibition of viral application[1]
Mutagenic activity[1]
Conformational studies (NMR-NOE) of HIV-2 TAR-RNA[2]
Use as NMR-label (F)[2]
X-ray of viral RNA polymerase[3]

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Selected References:

[1] Agudo *et al.* (2008) Molecular Characterization of a Dual Inhibitory and Mutagenic Activity of 5-Fluorouridine Triphosphate on Viral RNA Synthesis. Implications for Lethal Mutagenesis. *J. Mol. Biol.* **382**:652.

[2] Hennig *et al.* (2007) Synthesis of 5-fluoropyrimidine nucleotides as sensitive NMR probes of RNA structure. *J. Am. Chem. Soc.* **129**:14911.

[3] Ferrer-Orta *et al.* (2007) Sequential structures provide insights into the fidelity of RNA replication. *PNAS USA* **104**:9463.

Gilles Labesse *et al.* (2011) Structural and functional characterization of the Mycobacterium tuberculosis uridine monophosphate kinase: insights into the allosteric regulation. *Nucleic Acids Res.* **39 (8)**:3458. Gilles *et al.* (2007) Regulatory Mechanisms Differ in UMP Kinases from Gram-negative and Gram-positive Bacteria. *J. Biol. Chem.* **282 (10)**:7242.

Au *et al.* (1982) Reversed-phase ion-pair high-performance liquid-chromatographic assay of 5-fluorouracil, 5'-deoxy-5- fluorouridine, their nucleosides, monophosphate, diphosphate, and triphosphate nucleotides with a mixture of quaternary ammonium-ions. *J. Chromatogr.* **228**:245.

Glazer *et al.* (1980) The effect of 5-fluorouridine 5'-triphosphate on RNA transcribed in isolated-nuclei invitro. *Mol. Pharmacol.* **17 (2)**:279.

Anukarahanonta *et al.* (1979) Enhancement of 5-fluorouridine action in hepatoma-cells by galactosamine-induced uridine triphosphate deficiency. *H-S Z. Physiol. Chem.* **360 (3)**:225.