

Product Data Sheet

Product Name: Uridine-d2

Cat. No.: GC49528

Chemical Properties

Cas. No. 40632-21-1

SMILES O[C@H]1[C@@](N2C(NC(C([2H])=C2[2H])=O)=O)([H])O[C@@H]([C@H]1O)CO

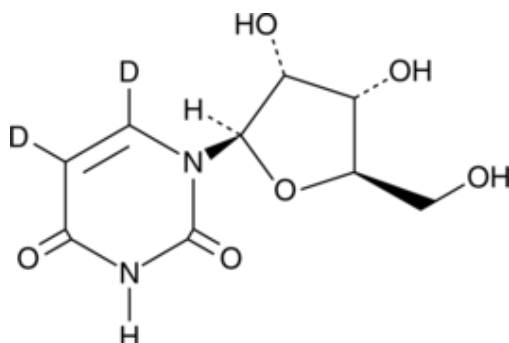
Formula C₉H₁₀D₂N₂O₆ M.Wt 246.2

Solubility DMF: 16 mg/ml, DMSO: 10 mg/ml, PBS (pH 7.2): 5 mg/ml Storage -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Uridine-d₂ is intended for use as an internal standard for the quantification of uridine by GC- or LC-MS. Uridine is a pyrimidine nucleoside composed of uracil and ribose.¹ It forms complementary base pairs with adenosine in RNA.² Uridine can be catabolized to uracil via uridine phosphorylase, and it can be phosphorylated to uridine-5'-monophosphate by uridine-cytidine kinase (UCK).^{1,3} It is replaced with thymidine in DNA.⁴

1. Yamamoto, T., Koyama, H., Kurajoh, M., et al. Biochemistry of uridine in plasma Clin. Chim. Acta 412(19-20) 1712-1724 (2011) 2. Zinshteyn, B., and Nishikura, K. Adenosine-to-inosine RNA

Caution: Product has not been fully validated for medical applications. For research use only.

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editingWiley Interdiscip. Rev. Syst. Biol. Med.1(2)202-209(2009) 3.Van Rompay, A.R., Norda, A., Lindén, K., et al.Phosphorylation of uridine and cytidine nucleoside analogs by two human uridine-cytidine kinasesMol. Pharmacol.59(5)1181-1186(2001) 4.Knoop, V.When you can't trust the DNA: RNA editing changes transcript sequencesCell. Mol. Life Sci.68(4)567-586(2011)

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