

Product Data Sheet

Product Name: Cytidine-d2

Cat. No.: GC49526

Chemical Properties

Cas. No. 40632-25-5

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

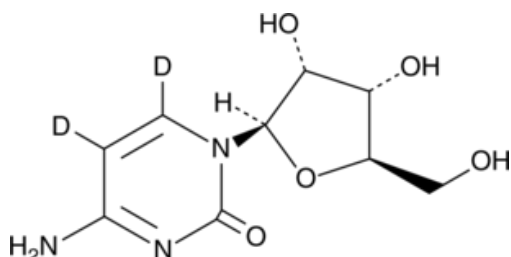
Formula C₉H₁₁D₂N₃O₅ M.Wt 245.2

Solubility H₂O : ≥ 50 mg/mL (203.89 mM); Storage -20°C
DMSO : 50 mg/mL (203.89 mM;
Need ultrasonic)

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

Cytidine-d₂ is intended for use as an internal standard for the quantification of cytidine by GC- or LC-MS. Cytidine is a pyrimidine nucleoside composed of ribose and a cytosine base.¹ It forms complementary base pairs with the purine nucleoside guanosine in DNA and RNA. Cytidine is a precursor of uridine and can also be phosphorylated by uridine-cytidine kinase to form cytidine 5'-monophosphate.^{2,1} It rescues inhibition of proliferation induced by knockdown of CTP synthase 1 in T cells when used at a concentration of 200 μM.³

1. Berg, J.M., Tymoczko, J.L., and Stryer, L. Nucleotide biosynthesis Biochemistry (2002) 2. Chabner, B.A., Johns, D.G., Coleman, C.N., et al. Purification and properties of cytidine deaminase from normal

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

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and leukemic granulocytesJ. Clin. Invest.53(3)922-931(1974) 3.Martin, E., Palmic, N., Sanquer, S., et al.CTP synthase 1 deficiency in humans reveals its central role in lymphocyte proliferationNature510(7504)288-292(2014)

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