

N4-Hydroxycytidine (25 mg)

Catalogue No.:	PE-1846-25
Description:	Pharmacology: N4-Hydroxycytidine was originally identified as a mutagen effecting AT to GC base-pair transitions (1). It has also been found to have antiviral properties against a broad range of viruses including hepatitis C (2), norovirus (3), Ebola virus (4), influenza and respiratory syncytial viruses (5) and coronaviruses (6). Active molecule in the antiviral pro-drug clinical candidate EIDD-28017. PubChem CID: 197020. Product is sold for research use only. Not for human therapeutic use or for medicinal purposes. InChI InChI=1S/C9H13N3O6/c13-3-4-6(14)7(15)8(18-4)12-2-1-5(11-17)10-9(12)16/h1-2,4,6-8,13-15,17H,3H2,(H,10,11,16)/t4-,6-,7-,8-/m1/s1 InChI Key XCUIIINAJCDIPM-XVFCMESISA-N Canonical SMILES <chem>C1=CN(C(=O)N=C1NO)C2C(C(C(O2)CO)O)O</chem> Isomeric SMILES <chem>C1=CN(C(=O)N=C1NO)[C@H]2[C@@H]([C@@H]([C@H](O2)CO)O)O</chem>
Batch No.:	See product label.
Unit size:	25 mg
Other Names:	β-D-N4-hydroxycytidine; NHC; CAS 3258-02-4
Molecular Weight:	259.2 g/mol. Molecular Formula: C9H13N3O6
Compound Name:	1-[(2R,3R,4S,5R)-3,4-Dihydroxy-5-(hydroxymethyl)oxolan-2-yl]-4-(hydroxyamino)pyrimidin-2-one
Purity:	>98% (HPLC); NMR (Conforms)
Biol. activity:	Beta-d-N4-hydroxycytidine (NHC) is a nucleoside analogue that has antipestivirus and antihepacivirus activities; inhibits the production of cytopathic BVDV RNA with EC90 of 5.4 μM, also has an EC50 of 5 μM for replicon RNA reduction in Huh7 cells; also is a novel inhibitor of CHIKV (Chikungunya virus), inhibits venezuelan equine encephalitis virus (VEEV) with EC50 of
Applications:	Biochemical inhibition.
Appearance:	Dry, white powder.
Reconstitution:	Soluble in DMSO or slightly in water. May be dissolved in DMSO up to 25 mg/mL; water (15 mg/mL).
Storage:	Store desiccated as supplied at -20C for up to 2 years. Store solutions at -20C for up to 1 month. Prevent multiple freeze-thaw cycles.

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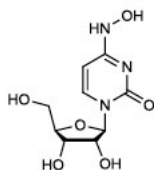
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Expiry Date: See storage conditions.

General References:

1. C Janion and BW Glickman Mutat. Res. 1980 72:43
2. LJ Stuyver et al. Antimicrob. Agents Chemother. 2003 47:244
3. VP Costantini et al. Antivir. Ther. 2012 1:981
4. O Reynard et al. Viruses 2015 7:6233
5. J-J Yoon et al. Antimicrob. Agents Chemother. 2018 62:e00766-18
6. K Pyrc et al. Antimicrob. Agents Chemother. 2006 50:2000
7. M Toots et al. Sci. Transl. Med. 2019 11:eaax5866
8. Stuyver LJ, et al. Antimicrob Agents Chemother. 2003 Jan;47(1):244-54.
9. Barnard DL, et al. Antivir Chem Chemother. 2004 Jan;15(1):15-22.
10. Urakova N, et al. J Virol. 2017 Nov 22. pii: JVI.01965-17.
11. Ehteshami M, et al. Antimicrob Agents Chemother. 2017 Mar 24;61(4). pii: e02395-16.

MSDS: Please refer to our online product listing for current protocol/MSDS versions.



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