

Store at
-20°C
#81178**Beta-d-N4-Hydroxycytidine**

5 mg



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Background

Beta-d-N4-Hydroxycytidine, also known as EIDD-1931, is a nucleic acid base analog and a specific AT to GC mutagen formed by the treatment of nucleoside cytidine with hydroxylamine (1). Beta-d-N4-Hydroxycytidine acts as a competitive substrate for viral encoded RNA polymerase and has demonstrated broad *in vitro* antiviral activity, including Chikungunya virus, Ebola, and Hepatitis C (2-4). Beta-d-N4-Hydroxycytidine demonstrated an IC₅₀ value of 0.1 μM and an IC₉₀ value of 6 μM in SARS-CoV infected Vero cells (5,6).

Molecular Formula

C₉H₁₃N₃O₆

Molecular Weight

259.2 g/mol

Purity

>98%

CAS

3258-02-4

Solubility

Soluble in DMSO at 25 mg/ml or water at 15 mg/ml with slight warming.

Storage

Store lyophilized at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C and use within 3 months to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

Directions for Use

Beta-d-N4-Hydroxycytidine is supplied as a lyophilized powder. For a 15 mM stock, reconstitute 5 mg of powder in 1.28 ml of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

Background References

1. Janion, C. and Glickman, B.W. (1980) *Mutat Res* 72, 43-7.
2. Ehteshami, M. et al. (2017) *Antimicrob Agents Chemother* 61, e02395-16. doi: 10.1128/AAC.02395-16.
3. Reynard, O. et al. (2015) *Viruses* 7, 6233-40.
4. Stuyver, L.J. et al. (2003) *Antimicrob Agents Chemother* 47, 244-54.
5. Barnard, D.L. et al. (2006) *Antivir Chem Chemother* 17, 275-84.
6. Barnard, D.L. et al. (2004) *Antivir Chem Chemother* 15, 15-22.

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