Store at -20°C

Beta-d-N4-Hydroxycytidine

#81178

5 mg

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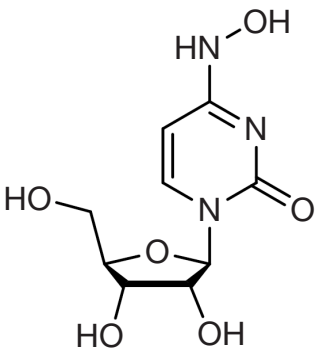
New 05/20

For Research Use Only. Not For Use In Diagnostic Procedures.

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 IC_{50} value of 0.1 µM and an IC_{90} value of 6 µM in SARS-CoV infected Vero cells (5,6).

Molecular Formula: $C_9H_{13}N_3O_6$



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 -20ºC, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20ºC 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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Applications: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide **Species Cross-Reactivity:** **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—Horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.