

Catalog # 10-4615 Zidovudine

CAS# 30516-87-1 Azidothymidine; AZT Lot # FBA4177

Zidovudine was the first clinically useful antiretroviral medicine.^{1,2} Newer antiretroviral medications have replaced it in the clinic. It selectively inhibits reverse transcriptase acting via the triphosphate metabolite. Zidovudine has recently been found to enhance CRISPR-mediated homology-directed repair (HDR) efficiency.³

- 1) Yarchoan et al. (1989), Clinical Pharmacology of 3-Azido-2',3'-Dideoxythymidine (Zidovudine) and Related Dideoxynucleosides; N.Engl.J.Med. **321** 726
- 2) D'Andrea et al. (2008), AZT: an old drug with new perspectives; Curr.Clin.Pharmacol. 3 20
- 3) Yu et al. (2015), Small molecules enhance CRISPR genome editing in pluripotent stem cells; Cell Stem Cell. 16 142

PHYSICAL DATA

Molecular Weight: 267.24 Molecular Formula: $C_{10}H_{13}N_5O_4$ Purity: >98% by HPLC NMR: (Conforms)

DMSO (>40 mg/mL) and water (>25 mg/mL with warming)

Physical Description: White solid

Solubility:

Storage and Stability: Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in

DMSO or water may be stored at -20°C for up to 3 months.

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