

Zidovudine

Catalog Number :3058716

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Synonyms: Azidothymidine, AZT, 3' Azido 2',3' Dideoxythymidine, Retrovir, Zidovudinum

Chemical Name: 1-[(2R,4S,5S)-4-azido-5-(hydroxymethyl)oxolan-2-yl]-5-methylpyrimidine-2,4-dione

Molecular Formula: C₁₀H₁₃N₅O₄

Molecular Weight: 267.3

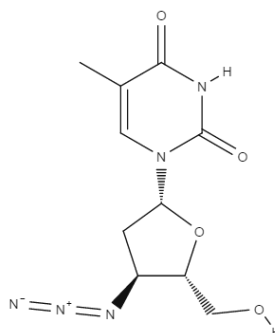
CAS Number: 30516-87-1

Purity: ≥98%

Applications: FA

Formulation: Crystalline solid

Storage: Product should be kept at -20°C.



Description

Zidovudine (Azidothymidine or AZT) is a thymidine analogue that selectively inhibits HIV's reverse transcriptase. It is reported to be inhibit DNA polymerase used by human cells in high doses. Zidovudine can also be used to decrease CRISPR-mediated homology-directed repair efficiency.

Preparation & Storage

Soluble in organic solvents such as ethanol or DMSO. DMSO up to 30mg/ml.

References

1. Blum, M. R., Liao, S. H., Good, S. S., De Miranda, P. (1988). Pharmacokinetics and bioavailability of zidovudine in humans.; *The American journal of medicine*,;85(2A), 189-194.
2. Yu, C., Liu, Y., Ma, T., Liu, K., Xu, S., Zhang, Y., ... Qi, L. S. (2015). Small molecules enhance CRISPR genome editing in pluripotent stem cells.; *Cell stem cell*,;16(2), 142-147.
3. de la Fuente-Núñez, C., Lu, T. K. (2017). CRISPR-Cas9 technology: applications in genome engineering, development of sequence-specific antimicrobials, and future prospects.; *Integrative Biology*.
4. Fischl, M. A., Richman, D. D., Grieco, M. H., Gottlieb, M. S., Volberding, P. A., Laskin, O. L., ... Jackson, G. G. (1987). The efficacy of azidothymidine (AZT) in the treatment of patients with AIDS and AIDS-related complex.; *New England Journal of Medicine*,;317(4), 185-191.