Zidovudine
Item No. 15492

CAS Registry No.: 30516-87-1
Formal Name: 3'-azido-3'-deoxy-thymidine
Synonyms: Azidothymidine, AZT, NSC 602670, Retrovir, ZDV
MF: C10H13N5O4
FW: 267.3
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λmax 209, 266 nm

Laboratory Procedures

For long term storage, we suggest that zidovudine be stored as supplied at -20°C. It should be stable for at least two years.

Zidovudine is supplied as a crystalline solid. A stock solution may be made by dissolving the zidovudine in the solvent of choice. Zidovudine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of zidovudine in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of zidovudine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of zidovudine in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Zidovudine is a nucleoside reverse transcriptase inhibitor that, following triphosphorylation by thymidine kinase, potently blocks replication of HIV (EC50 = 3 nM) with low cytotoxicity (CC50 > 5 μM).1-4 It is commonly used in combination therapy to slow the replication of HIV in vivo.5

References


Related Products

For a list of related products please visit: www.caymanchem.com/catalog/15492

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SafETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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