Fozivudine tidoxil

Cat. No.: HY-126781

CAS No.: 141790-23-0

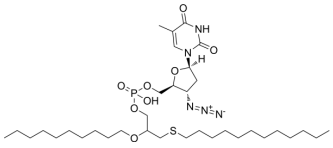
Molecular Formula: $C_{35}H_{64}N_5O_8PS$

Molecular Weight: 745.95

Target: HIV; DNA/RNA Synthesis

Pathway: Anti-infection; Cell Cycle/DNA Damage

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Fozivudine tidoxil (BM-211290) is an orally active thioether lipid-zidovudine (ZDV) conjugate with anti-HIV activity. Fozivudine tidoxil, a member of the NRTI family of agent, is incorporated into the newly synthesized strand of DNA during intracellular viral replication and irreversibly binds viral RT which disrupts viral reverse-transcription[1][2]. Fozivudine tidoxil is a click chemistry reagent, it contains an Azide group and can undergo copper-catalyzed azide-alkyne cycloaddition reaction (CuAAc) with molecules containing Alkyne groups. Strain-promoted alkyne-azide cycloaddition (SPAAC) can also occur with molecules containing DBCO or BCN groups.
IC_{50} & Target	HIV
In Vitro	Fozivudine tidoxil (BM-211290) is a member of the nucleoside analogue reverse transcriptase inhibitor (NRTI) family[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Fozivudine tidoxil (BM-211290; 45 mg/kg; PO; twice daily; one day before FIV challenge for a total of six weeks) is effective at lowering plasma- and cell-associated viremia at two weeks post-FIV infection[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Specific pathogen-free cats at 6 months of age[1]
Dosage:	45 mg/kg
Administration:	PO; twice daily; one day before FIV challenge for a total of six weeks
Result:	Effective at lowering plasma- and cell-associated viremia at two weeks post-feline immunodeficiency virus (FIV) infection with a trend toward lower plasma- and cell-associated viremia at four and six weeks post-infection (PI).

REFERENCES

[1]. Michelle M Miller, et al. Administration of Fozivudine Tidoxil as a Single-Agent Therapeutic During Acute Feline Immunodeficiency Virus Infection Does Not Alter Chronic Infection. Viruses. 2012 Jun;4(6):954-62.

[2]. P M Girard, et al. Phase II Placebo-Controlled Trial of Fozivudine Tidoxil for HIV Infection: Pharmacokinetics, Tolerability, and Efficacy. J Acquir Immune Defic Syndr. 2000 Mar 1;23(3):227-35.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA