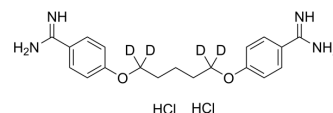


Pentamidine-d₄ dihydrochloride

Cat. No.:	HY-B0537AS
CAS No.:	1276197-32-0
Molecular Formula:	C ₁₉ H ₂₂ D ₄ Cl ₂ N ₄ O ₂
Molecular Weight:	417.37
Target:	Fungal; Bacterial; Parasite; Phosphatase; Antibiotic; Isotope-Labeled Compounds
Pathway:	Anti-infection; Metabolic Enzyme/Protease; Others
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description	Pentamidine-d ₄ (dihydrochloride) is the deuterium labeled Pentamidine dihydrochloride. Pentamidine dihydrochloride (MP-601205 dihydrochloride) is an antimicrobial agent and interferes with DNA biosynthetics. Pentamidine dihydrochloride inhibits parasite <i>Leishmania infantum</i> with an IC ₅₀ of 2.5 μM. Pentamidine dihydrochloride is a potent and selective protein tyrosine phosphatases (PTPases) and phosphatase of regenerating liver (PRL) inhibitor. Pentamidine dihydrochloride has the potential for Gambian trypanosomiasis, antimony-resistant leishmaniasis, and <i>Pneumocystis carinii</i> pneumonia treatment. Antitumor and antibacterial activities ^{[1][2][3][4]} .
IC₅₀ & Target	Trypanosoma
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

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- [4]. Nguewa, P.A., et al., Pentamidine is an antiparasitic and apoptotic drug that selectively modifies ubiquitin. *Chem Biodivers*, 2005. 2(10): p. 1387-400.
- [5]. Sands M, et al. Pentamidine: a review. *Rev Infect Dis*. 1985 Sep-Oct;7(5):625-34.

Caution: Product has not been fully validated for medical applications. For research use only.

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