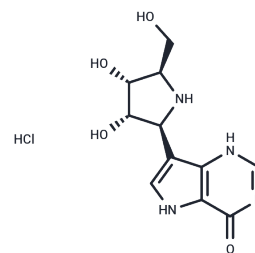


Forodesine hydrochloride

Chemical Properties

CAS No. :	284490-13-7
Formula:	C ₁₁ H ₁₅ ClN ₄ O ₄
Molecular Weight:	302.71
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Forodesine hydrochloride (BCX-1777 hydrochloride), a potent inhibitor of human lymphocyte proliferation, effectively induces apoptosis in leukemic cells by elevating dGTP levels. This compound is an orally active, highly potent purine nucleoside phosphorylase (PNP) inhibitor, demonstrating IC ₅₀ values between 0.48 to 1.57 nM across human, mouse, rat, monkey, and dog PNP.
Targets(IC ₅₀)	Apoptosis,Nucleoside Antimetabolite/Analog,Others
In vitro	Forodesine (BCX-1777), in the presence of 2'-deoxyguanosine (dGuo, 3-10 μM), inhibits human lymphocyte proliferation activated by various agents such as interleukin-2 (IL-2), mixed lymphocyte reaction (MLR) and phytohemagglutinin (PHA) (IC ₅₀ values <?0.1-0.38 μM).Forodesine (10-30?μM; 24 and 48 hours; RPMI-8226, MOLT-4 and 5T33MM cells) treatment is partially inhibition of proliferation. Forodesine (10-30?μM; 24 and 48 hours; RPMI-8226, MOLT-4 and 5T33MM cells) has no effect on the MM cells at 24 hours, while it could reduce the percentage of living cells in the MOLT-4 cells with 40%.
In vivo	In the hu-PBL-SCID mouse model, Forodesine (BCX-1777) demonstrates efficacy in extending lifespan by two-fold or greater. This compound exhibits outstanding oral bioavailability (63%) in mice. When administered at a single dose of 10 mg/kg, it significantly increases dGuo levels to around 5 μM.

Solubility Information

Solubility	DMSO: 16.67 mg/mL (55.07 mM),Sonication is recommended. H ₂ O: 16.67 mg/mL (55.07 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3035 mL	16.5175 mL	33.0349 mL
5 mM	0.6607 mL	3.3035 mL	6.607 mL
10 mM	0.3303 mL	1.6517 mL	3.3035 mL
50 mM	0.0661 mL	0.3303 mL	0.6607 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Bieghs L, et al. The effects of forodesine in murine and human multiple myeloma cells. *Adv Hematol.* 2010;2010: 131895.

Bantia S, et al. Purine nucleoside phosphorylase inhibitor BCX-1777 (Immucillin-H)--a novel potent and orally active immunosuppressive agent. *Int Immunopharmacol.* 2001 Jun;1(6):1199-210.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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