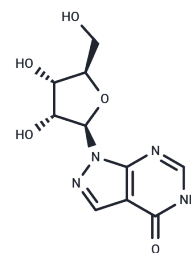


Allopurinol riboside

Chemical Properties

CAS No. :	16220-07-8
Formula:	C ₁₀ H ₁₂ N ₄ O ₅
Molecular Weight:	268.23
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Allopurinol riboside is a metabolite of allopurinol with potency against parasites. Allopurinol riboside competitively inhibits the action of purine nucleoside phosphorylase on inosine with a K_i of 277 μ M.
Targets(IC ₅₀)	Endogenous Metabolite,Parasite,Drug Metabolite
In vitro	Allopurinol riboside is effective against parasites including leishmaniasis and American trypanosomiasis. Allopurinol riboside is selectively toxic because it is not metabolized by the corresponding enzymes in humans[1]. Humoral immunity is not suppressed by Allopurinol riboside. Lymphocyte blastogenesis induced by PHA and Con A is significantly suppressed by Allopurinol riboside in a concentration-dependent manner [2].
In vivo	Low levels of Allopurinol riboside in plasma are attributable to incomplete absorption and rapid renal clearance. Probenecid reduces the renal clearance of allopurinol riboside, extends the half-life of allopurinol riboside in plasma, and triples the levels of allopurinol riboside in plasma[3]. Allopurinol riboside peaks in plasma 1.6 hours after administration, has an elimination half-life of 3 h, and has steady-state concentrations in the therapeutic range[4].

Solubility Information

Solubility	DMSO: 95 mg/mL (354.17 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	3.7281 mL	18.6407 mL	37.2814 mL
5 mM	0.7456 mL	3.7281 mL	7.4563 mL
10 mM	0.3728 mL	1.8641 mL	3.7281 mL
50 mM	0.0746 mL	0.3728 mL	0.7456 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.

Reference

Pacher P, et al. Therapeutic effects of xanthine oxidase inhibitors: renaissance half a century after the discovery of allopurinol. *Pharmacol Rev.* 2006 Mar;58(1):87-114.

Nishida Y, et al. Inhibition of purine nucleoside phosphorylase activity and of T-cell function with allopurinol-ribose. *Agents Actions.* 1979 Dec;9(5-6):549-52.

Were JB, et al. Effects of probenecid on the pharmacokinetics of allopurinol riboside. *Antimicrob Agents Chemother.* 1993 May;37(5):1193-6.

Shapiro TA, et al. Pharmacokinetics and metabolism of allopurinol riboside. *Clin Pharmacol Ther.* 1991 May;49(5):506-14.

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