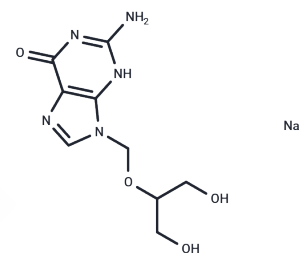


Ganciclovir sodium

Chemical Properties

CAS No. :	107910-75-8
Formula:	C ₉ H ₁₃ N ₅ NaO ₄
Molecular Weight:	278.22
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Ganciclovir sodium (Cytovene IV sodium) is the sodium salt of Ganciclovir with antiviral activity, especially against cytomegalovirus (CMV) and herpes simplex virus type 1 (HSV-1).
Targets(IC50)	Nucleoside Antimetabolite/Analog,Antibiotic,Antifection,HSV,Virus Protease
In vitro	Ganciclovir showed activity against feline herpesvirus type-1 (FHV-1, IC50 = 5.2 microM) [1].
In vivo	In adult rats, the intracochlear diffusion of ganciclovir was shown to achieve the same concentration as in blood. In gestating mice, transplacental diffusion was observed, with a fetal-to-maternal blood ratio of 0.5. In newborn mice, the plasma concentration profile of ganciclovir showed a peak at 2 h followed by a gradual decrease. In adult mice, the concentration peaked at 1 h, but became undetectable by 2 h after injection. Counts of white blood cells, red blood cells and platelets decreased significantly in ganciclovir-treated newborn mice[3].

Solubility Information

Solubility	H ₂ O: 5 mg/mL (17.97 mM),Sonication is recommended. DMSO: 3.24 mg/mL (11.65 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 0.32 mg/mL (1.15 mM),Solution. PBS: 5 mg/mL (17.97 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5943 mL	17.9714 mL	35.9428 mL
5 mM	0.7189 mL	3.5943 mL	7.1886 mL
10 mM	0.3594 mL	1.7971 mL	3.5943 mL
50 mM	0.0719 mL	0.3594 mL	0.7189 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

- Maggs DJ, Clarke HE. In vitro efficacy of ganciclovir, cidofovir, penciclovir, foscarnet, idoxuridine, and acyclovir against feline herpesvirus type-1. *Am J Vet Res.* 2004 Apr;65(4):399-403.
- Hobden JA, et al. In vitro synergism of trifluorothymidine and ganciclovir against HSV-1. *Invest Ophthalmol Vis Sci.* 2011 Feb 11;52(2):830-3.
- Boujemla I, et al. Pharmacokinetics and tissue diffusion of ganciclovir in mice and rats. *Antiviral Res.* 2016 Aug; 132:111-5.

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