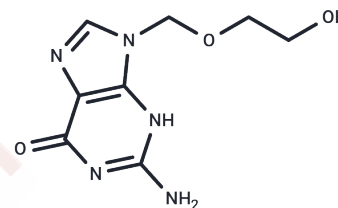


## Acyclovir

## Chemical Properties

CAS No. :	59277-89-3
Formula:	C <sub>8</sub> H <sub>11</sub> N <sub>5</sub> O <sub>3</sub>
Molecular Weight:	225.2
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	Acyclovir (Aciclovir) is a synthetic analog of the purine nucleoside, guanosine, with potent antiviral activity against herpes simplex viruses type 1 and 2, varicella-zoster virus and other viruses of the herpesvirus family.
Targets(IC50)	Apoptosis, Antibacterial, Antibiotic, HSV, DNA/RNA Synthesis
In vitro	Acyclovir sensitivity of herpes simplex virus isolates is determined in a plaque-reduction assay in Vero cells. IC50 Values are consistently 2-3 fold lower in B2 compared with the H strain of Vero cells. HSV Type 2 strains are 2-10-fold less sensitive than Type 1 strains [2].
In vivo	low-dose oral acyclovir may be effective in the prevention of HSV infection during OKT3 treatment of seropositive patients. Continuation of acyclovir prophylaxis for two to four weeks following the conclusion of OKT3 therapy may prevent occurrence of delayed infections[3].
Kinase Assay	Total AMPK activity is measured using the method of Dagher et al. AMPK activity is quantified in the resuspended pellet as incorporation of <sup>32</sup> P from [ $\gamma$ - <sup>32</sup> P]ATP (10 GBq/mmol) into a synthetic peptide with the specific target sequence for AMPK, the SAMS peptide. Radioactivity is measured using a liquid scintillation counter. Protein content in the solution containing the resuspended (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> pellet is determined using the Bradford method.

## Solubility Information

Solubility	DMSO: 42.92 mg/mL (190.59 mM), Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (8.88 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	4.4405 mL	22.2025 mL	44.405 mL
5 mM	0.8881 mL	4.4405 mL	8.881 mL
10 mM	0.444 mL	2.2202 mL	4.4405 mL
50 mM	0.0888 mL	0.444 mL	0.8881 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

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