

Product Name: Acyclovir

Catalog No.: 2513

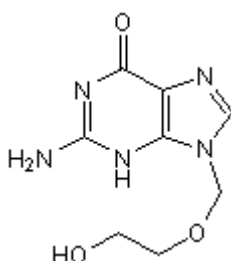
Batch No.: 1

CAS Number: 59277-89-3

IUPAC Name: 2-Amino-1,9-dihydro-9-[(2-hydroxyethoxy)methyl]-6*H*-purin-6-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₈H₁₁N₅O₃·³/₄H₂O
Batch Molecular Weight: 238.72
Physical Appearance: White crystalline solid
Solubility: 1eq. HCl to 50 mM
 DMSO to 20 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows >99.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	40.25	5.28	29.34
Found	40.34	5.19	29.57

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Antiviral agent, active against herpes simplex viruses HSV-1 and HSV-2 (EC₅₀ values are 0.85 and 0.86 μM respectively). Interferes with viral DNA polymerization through competitive inhibition with guanosine triphosphate. Induces apoptosis in cells transfected with HSV-TK (suicidal gene therapy).

Physical and Chemical Properties:

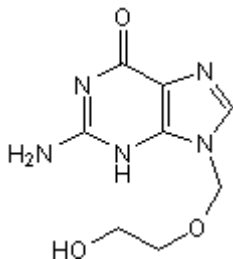
Batch Molecular Formula: C₈H₁₁N₅O₃·¾H₂O

Batch Molecular Weight: 238.72

Physical Appearance: White crystalline solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

1eq. HCl to 50 mM

DMSO to 20 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Elion et al (1977) Selectivity of action of an antiherpetic agent, 9-(2-hydroxyethoxymethyl)guanine. Proc.Natl.Acad.Sci.USA. **74** 5716.

Hayashi et al (2006) The role of a HSV thymidine kinase stimulating substance, scopadulciol, in improving the efficacy of cancer gene therapy. J.Gene.Med. **8** 1056. PMID: 16779868.

Suzuki et al (2006) Synergistic antiviral activity of acyclovir and vidarabine against herpes simplex virus types 1 and 2 and varicella-zoster virus. Antiviral Res. **72** 157. PMID: 16797734.

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