

Certificate of Analysis

www.tocris.com

Product Name: Acyclovir

Catalog No.: 2513

Batch No.: 2

CAS Number: 59277-89-3

EC Number: 261-685-1

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₈H₁₁N₅O₃·½H₂O

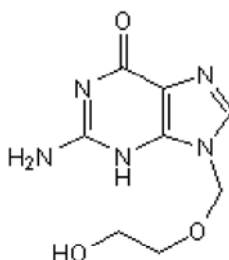
Batch Molecular Weight: 234.22

Physical Appearance: White 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	41.03	5.16	29.9
Found	40.89	5.16	29.98

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956

Product Name: Acyclovir

Catalog No.: 2513

Batch No.: 2

CAS Number: 59277-89-3

EC Number: 261-685-1

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

Description:

Acyclovir is an 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:

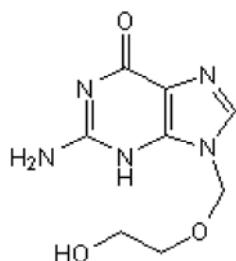
Batch Molecular Formula: C₈H₁₁N₅O₃·½H₂O

Batch Molecular Weight: 234.22

Physical Appearance: White 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:

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.

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

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel:+1 612 379 2956