

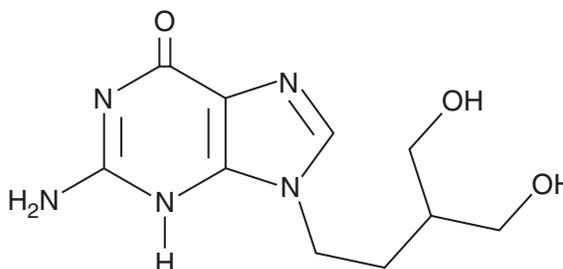
# PRODUCT INFORMATION



## Penciclovir

Item No. 22918

**CAS Registry No.:** 39809-25-1  
**Formal Name:** 2-amino-1,9-dihydro-9-[4-hydroxy-3-(hydroxymethyl)butyl]-6H-purin-6-one  
**Synonym:** BRL 39123  
**MF:** C<sub>10</sub>H<sub>15</sub>N<sub>5</sub>O<sub>3</sub>  
**FW:** 253.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 256 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Penciclovir is supplied as a crystalline solid. A stock solution may be made by dissolving the penciclovir in the solvent of choice. Penciclovir is soluble in the organic solvent DMSO, which should be purged with an inert gas, at a concentration of approximately 0.33 mg/ml.

### Description

Penciclovir is a guanosine analog with antiviral activity.<sup>1</sup> It has activity against multiple laboratory and clinical isolate strains of herpes simplex virus 1 (HSV-1), HSV-2, and varicella zoster virus (VZV) in a plaque reduction assay (IC<sub>50</sub>s = 0.4-3.1 μg/ml). Penciclovir inhibits HSV-1 and HSV-2 replication (IC<sub>99</sub>s = 0.4 and 0.7 μg/ml, respectively) and DNA synthesis (IC<sub>50</sub> = 0.04 μg/ml) in MRC-5 cells.<sup>1,2</sup> *In vivo*, topical and systemic administration of penciclovir reduces the severity of skin lesions caused by HSV-1 in guinea pigs and mice.<sup>3</sup> It also prevents development of HSV-2-induced genital lesions in guinea pigs infected intravaginally.

### References

1. Boyd, M.R., Bacon, T.H., Sutton, D., *et al.* Antiherpesvirus activity of 9-(4-hydroxy-3-hydroxy-methylbut-1-yl)guanine (BRL 39123) in cell culture. *Antimicrob. Agents and Chemother.* **31(8)**, 1238-1242 (1987).
2. Hodge, R.A., and Perkins, R.M. Mode of action of 9-(4-hydroxy-3-hydroxymethylbut-1-yl)guanine (BRL 39123) against herpes simplex virus in MRC-5 cells. *Antimicrob. Agents and Chemother.* **33(2)**, 223-229 (1989).
3. Boyd, M.R., Bacon, T.H., and Sutton, D. Antiherpesvirus activity of 9-(4-hydroxy-3-hydroxymethylbut-1-yl) guanine (BRL 39123) in animals. *Antimicrob. Agents Chemother.* **32(3)**, 358-363 (1988).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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