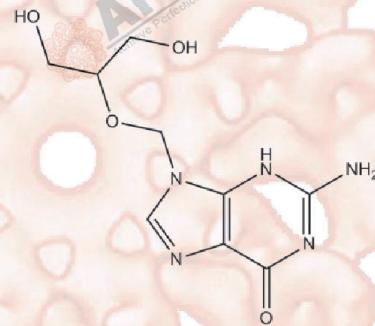


Product Data Sheet

Ganciclovir

Cat. No.:	B2097
CAS No.:	82410-32-0
Formula:	C9H13N5O4
M.Wt:	255.23
Synonyms:	
Target:	Microbiology & Virology
Pathway:	HSV
Storage:	Store at -20°C



Solvent & Solubility

insoluble in ETOH; ≥25.6 mg/mL in H2O with gentle warming; ≥25.51 mg/mL in DMSO

In Vitro	Preparing Stock Solutions	Mass		1mg	5mg	10mg			
		Solvent							
		Concentration							
		1 mM		3.9180 mL	19.5902 mL	39.1803 mL			
		5 mM		0.7836 mL	3.9180 mL	7.8361 mL			
		10 mM		0.3918 mL	1.9590 mL	3.9180 mL			

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Antiviral drug for CMV infections
IC ₅₀ & Target	
In Vitro	Cell Viability Assay
	Cell Line: BV-2 mouse microglial cells
	Preparation method: The solubility of this compound in DMSO is > 10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20 °C for several months.
	Reacting conditions: 0 ~ 1250 µM; 24 hrs

In Vivo	Applications:	In BV-2 mouse microglial cells, Ganciclovir inhibited cell proliferation in a dose-dependent manner in the absence of HSVtk, without causing significant cell death at the indicated concentrations. It was implied that Ganciclovir targeted activated microglia at least in part via a mechanism independent of endogenous thymidine kinase (tk).
	Animal experiment	
	Animal models:	C57BL/6 mice
	Dosage form:	25 or 100 mg/kg; i.p.
	Applications:	In C57BL/6 mice, Ganciclovir inhibited the proliferation of microglia induced by experimental autoimmune encephalomyelitis (EAE). Ganciclovir attenuated neuroinflammation in a dose-dependent manner without significantly restraining the peripheral immune response. In addition, it was found that Ganciclovir accumulated in the brains of EAE mice but not those of naive mice to exert localized effects.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Ding Z, Mathur V, Ho PP, James ML, Lucin KM, Hoehne A, Alabsi H, Gambhir SS, Steinman L, Luo J, Wyss-Coray T. Antiviral drug ganciclovir is a potent inhibitor of microglial proliferation and neuroinflammation. *J Exp Med.* 2014 Feb 10; 211(2):189-98.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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