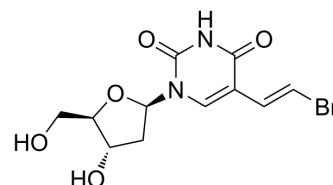


Brivudine

Cat. No.:	HY-13578		
CAS No.:	69304-47-8		
Molecular Formula:	C ₁₁ H ₁₃ BrN ₂ O ₅		
Molecular Weight:	333.14		
Target:	CMV		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	1 year
		-20°C	6 months



SOLVENT & SOLUBILITY

In Vitro	DMSO : 200 mg/mL (600.35 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.0017 mL	15.0087 mL	30.0174 mL
		5 mM	0.6003 mL	3.0017 mL	6.0035 mL
10 mM		0.3002 mL	1.5009 mL	3.0017 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 10 mg/mL (30.02 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 10 mg/mL (30.02 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 10 mg/mL (30.02 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Brivudine is a thymidine analogue with antiviral activity, indicated for the early treatment of acute herpes zoster.
In Vitro	Brivudine is an analog of thymidine, and is incorporated into the viral DNA. It blocks the action of DNA polymerases, thus inhibiting viral replication. It has a stronger antiviral effect against the varicella-zoster virus compared with reference compounds such as aciclovir or penciclovir ^[1] . It has high, selective activity against varicella zoster virus (VZV), inhibiting VZV replication, possibly through competitive inhibition of viral DNA polymerase, or by acting as an alternative substrate to deoxythymidine triphosphate, causing viral DNA strand breakage ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

At a dose of 125 mg once daily, brivudine has proved to be superior to aciclovir with respect to reducing the period of new blister production, and has shortened the duration of post-herpetic neuralgia^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- EMBO Mol Med. 2022 Nov 2;e16194.

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REFERENCES

[1]. Rabasseda X, et al. Brivudine: a herpes virostatic with rapid antiviral activity and once-daily dosing. *Drugs Today (Barc)*. 2003 May;39(5):359-71.

[2]. Kearn SJ, et al. Brivudin (bromovinyl deoxyuridine). *Drugs*. 2004;64(18):2091-7; discussion 2098-9.

Caution: Product has not been fully validated for medical applications. For research use only.

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