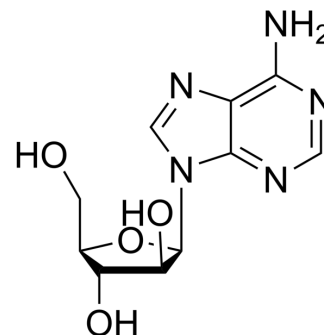


Vidarabine

Cat. No.:	HY-B0277		
CAS No.:	5536-17-4		
Molecular Formula:	C ₁₀ H ₁₃ N ₅ O ₄		
Molecular Weight:	267.24		
Target:	HSV; Nucleoside Antimetabolite/Analog; Antibiotic; Orthopoxvirus		
Pathway:	Anti-infection; Cell Cycle/DNA Damage		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (187.10 mM; Need ultrasonic)
 H₂O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.7420 mL	18.7098 mL	37.4195 mL
	5 mM	0.7484 mL	3.7420 mL	7.4839 mL
	10 mM	0.3742 mL	1.8710 mL	3.7420 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (9.35 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (9.35 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (9.35 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Vidarabine (Ara-A) an antiviral agent which is active against herpes simplex and varicella zoster viruses^{[1][2]}. Vidarabine has IC₅₀s of 9.3 µg/ml for HSV-1 and 11.3 µg/ml for HSV-2^[2]. Vidarabine also has anti-orthopoxvirus activity^[3].

IC₅₀ & Target

HSV-2	HSV-1
11.3 µg/mL (IC ₅₀)	9.3 µg/mL (IC ₅₀)

In Vitro

Vidarabine (Ara-A) is a nucleoside antibiotic isolated from *Streptomyces antibioticus*. It has some antineoplastic properties and has broad spectrum activity against DNA viruses in cell cultures and significant antiviral activity against infections caused by a variety of viruses such as the herpes viruses, the vaccinia VIRUS and varicella zoster virus^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cells. 2022, 11(20), 3187.
- J Cell Physiol. 2021 Jan 5.
- J Mol Med (Berl). 2019 Aug;97(8):1183-1193.
- Int J Biochem Cell Biol. 2022 Jun 23;106247.
- bioRxiv. 2020 Apr.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Donald F Smee, et al. A review of compounds exhibiting anti-orthopoxvirus activity in animal models. *Antiviral Res.* 2003 Jan;57(1-2):41-52.
- [2]. Whitley, R., et al., Vidarabine: a preliminary review of its pharmacological properties and therapeutic use. *Drugs*, 1980. 20(4): p. 267-82.
- [3]. Suzuki M, et al. Synergistic antiviral activity of acyclovir and vidarabine against herpes simplex virus types 1 and 2 and varicella-zoster virus. *Antiviral Res.* 2006;72(2):157-161.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA