

1-Docosanol

Cat. No.:	HY-B0222		
CAS No.:	661-19-8		
Molecular Formula:	C ₂₂ H ₄₆ O		
Molecular Weight:	327		
Target:	HSV		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 50 mg/mL (152.91 mM; Need ultrasonic)
 DMSO : < 1 mg/mL (insoluble or slightly soluble)
 H₂O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.0581 mL	15.2905 mL	30.5810 mL
	5 mM	0.6116 mL	3.0581 mL	6.1162 mL
	10 mM	0.3058 mL	1.5291 mL	3.0581 mL

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

In Vivo

1. Add each solvent one by one: 10% EtOH >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (7.65 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

1-Docosanol (Behenyl alcohol) is a saturated fatty alcohol with reported inhibitory activity against lipid-enveloped viruses, including herpes simplex virus (HSV)^{[1][2]}.

In Vitro

1-Docosanol (0-5 mg/mL, 24 h) inhibits replication of wild-type and Acyclovir (HY-17422)-resistant HSV in Vero cells^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

1-Docosanol (0-1000 mg/kg, oral gavage, 26 weeks) shows no adverse effects in rats^[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Iglesias G, et al. The toxicity of behenyl alcohol. I. Genotoxicity and subchronic toxicity in rats and dogs. Regul Toxicol Pharmacol. 2002 Aug;36(1):69-79.
- [2]. Katz DH, et al. Antiviral activity of 1-docosanol, an inhibitor of lipid-enveloped viruses including herpes simplex. Proc Natl Acad Sci U S A. 1991 Dec 1;88(23):10825-9.
- [3]. Sacks SL, et al. Clinical efficacy of topical docosanol 10% cream for herpes simplex labialis: A multicenter, randomized, placebo-controlled trial. J Am Acad Dermatol. 2001 Aug;45(2):222-30.
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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