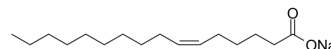


Sapienic acid sodium

Cat. No.:	HY-130187A
CAS No.:	217477-25-3
Molecular Formula:	C ₁₆ H ₂₉ NaO ₂
Molecular Weight:	276.39
Target:	Bacterial
Pathway:	Anti-infection
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	Ethanol : 33.33 mg/mL (120.59 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	3.6181 mL	18.0904 mL	36.1808 mL
				5 mM	0.7236 mL	3.6181 mL	7.2362 mL
				10 mM	0.3618 mL	1.8090 mL	3.6181 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (9.05 mM); Clear solution						
	2. Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (9.05 mM); Clear solution						
	3. Add each solvent one by one: 10% EtOH >> 90% corn oil Solubility: ≥ 2.5 mg/mL (9.05 mM); Clear solution						

BIOLOGICAL ACTIVITY

Description	Sapienic acid sodium is a fatty acid commonly found on the skin and in mucosa. Sapienic acid sodium has variable antimicrobial activities against Gram-positive and Gram-negative bacteria found on the skin and in the oral cavity. Sapienic acid sodium is active against <i>Streptococcus sanguinis</i> , <i>Streptococcus mitis</i> and <i>Fusobacterium nucleatum</i> with MBC values of 31.3 µg/mL, 375.0 µg/mL and 93.8 µg/mL, respectively ^[1] .
IC ₅₀ & Target	MBC: 31.3 µg/mL (<i>Streptococcus sanguinis</i>), 375.0 µg/mL (<i>Streptococcus mitis</i>) and 93.8 µg/mL (<i>Fusobacterium nucleatum</i>) [1]
In Vitro	Sapienic acid (minimum bactericidal concentrations (MBCs) range, 31.3 to 375.0 µg/mL) is active against <i>Streptococcus</i>

sanguinis, Streptococcus mitis, and Fusobacterium nucleatum but not active against Escherichia coli, Staphylococcus aureus, S. marcescens, P. aeruginosa, Corynebacterium bovis, Corynebacterium striatum, and Corynebacterium jeikeium (MBC > 500 µg/mL). Kinetic assays show that killing of S. sanguinis and S. mitis with sapienic acid is gradual and occurred within 24 h^[1].

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

REFERENCES

[1]. Fischer CL, et al. Antibacterial activity of sphingoid bases and fatty acids against Gram-positive and Gram-negative bacteria. Antimicrob Agents Chemother. 2012 Mar;56(3):1157-61.

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